XV. APPENDIX TABLE OF CONTENTS

The Appendix must include a complete Table of Contents, which includes the page number or attachment number, attachment title, and relevant selection criterion. A sample table of contents form is included below. Each attachment in the Appendix must be described in the narrative text of the relevant selection criterion, with a rationale for how its inclusion supports the narrative and the location of the attachment in the Appendix.

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This Memorandum of Understanding (MOU) is entered into by and between the **Missouri Department of Elementary and Secondary Education, State of Missouri (State)** and **_____ (Participating LEA).**

The purpose of this agreement is to establish a framework for collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of an approved Race to the Top (RT3) grant project.

I. SCOPE OF WORK

Exhibit I, the Preliminary Scope of Work, indicates the reforms that the Participating LEA is agreeing to implement.

II. ADMINISTRATION

A. PARTICIPATING LEA RESPONSIBILITIES

In assisting the State in implementing the tasks and activities described in the State's Race to the Top (RT3) application, the Participating LEA sub-grantee will:

1. Within 90 days of notification of an award for Missouri for RT3 funding, develop a detailed action plan (Final Scope of Work) pursuant to a collaborative with the State, Participating LEAs and their stakeholders and other relevant stakeholders to implement the reforms identified in Exhibit I and the programs and strategies identified under the "LEA Actions to Advance Reform" section of Exhibit I, *Missouri's Education Reform Plan*. *Missouri's Education Reform Plan* also outlines specific state-provided supports that will be available to each Participating LEA.
2. Actively participate in all relevant meetings, collaborative forums, or other practice-sharing events that are organized or sponsored by the State or by the U.S. Department of Education (USDOE);
3. Post to any website specified by the State or USDOE, in a timely manner, all non-proprietary products and lessons learned and developed using funds associated with the RT3 grant;
4. Participate, as requested, in any evaluations of this grant conducted by the State or USDOE;
5. Be responsive to State or USDOE requests for information, including on the status of the project, project implementation, outcomes, and any problems anticipated or encountered;
6. Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the RT3 grant period, and (d) other matters related to the RT3 grant and associated plans.
7. Implement the LEA plan as identified in Exhibit I of this agreement.

B. STATE RESPONSIBILITIES

In assisting Participating LEAs in implementing their tasks and activities described in the State's RT3 application, the State grantee will:

1. Work collaboratively with, and support the Participating LEA in carrying out the LEA Plan as identified in Exhibits I of this agreement;
2. Timely distribute the Participating LEA's portion of Race to the Top grant funds during the course of the project period and in accordance with the Final Scope of Work;
3. Provide feedback on the Participating LEA's status updates, annual reports, any interim reports, and project plans and products;
4. Identify sources of technical assistance for the project; and
5. Review state policies and practices to ensure that they will promote the goals of the Missouri plan and recommend and pursue improvements in these policies and practices as needed.

C. JOINT RESPONSIBILITIES

1. The State and the Participating LEA will each appoint a key contact person for the Race to the Top grant.
2. These key contacts from the State and the Participating LEA will maintain frequent communication to facilitate cooperation under this Agreement.
3. State and Participating LEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.
4. State and Participating LEA grant personnel will negotiate in good faith to continue to achieve the overall goals of the State's Race to the Top grant, even when the grant requires modifications that affect the Participating LEA, or when the LEA Plan requires modifications.

D. STATE RECOURSE FOR LEA NON-PERFORMANCE

If the State determines that the Participating LEA is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the State grantee will take appropriate enforcement action, which could include a collaborative process between the State and the LEA, or any of the enforcement measures that are detailed in 34 C.F.R. §80.43, including putting the LEA on reimbursement payment status, temporarily withholding funds, or disallowing costs.

III. ASSURANCES

The Participating LEA hereby certifies and represents that it:

1. Has all requisite power and authority to execute this MOU;
2. Is familiar with the State's Race to the Top grant application and is supportive of and committed to working on all of the State's Plan;
3. Agrees to be a Participating LEA and will implement the reforms indicated in Exhibits I if the State application is funded;
4. Will provide a Final Scope of Work to be attached to this MOU as Exhibit I only if the State's application is funded; will do so in a timely fashion but no later than 90 days after a grant is awarded; and will describe in Exhibit I the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures (LEA Plan) in a manner that is consistent with the Preliminary Scope of Work (Exhibit I) and with the State Plan; and
5. Will adhere to the terms and conditions of legally binding negotiated agreements with recognized employee groups.
6. Will comply with all of the terms of the Grant, the State's sub-grant, and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Program, and the applicable

provisions of Education Department General Administrative Regulations (EDGAR) found at 34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98, and 99).

IV. MODIFICATIONS

This Agreement may be amended only by written agreement signed by each of the parties involved, and in consultation with ED.

V. DURATION/TERMINATION

This Agreement shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

VI. SIGNATURES

LEA Superintendent (or equivalent authorized signatory) - required**:**

_____
Signature/Date

_____
Print Name/Title

President of Local School Board (or equivalent, if applicable)**:**

☐ **check if not applicable**

_____
Signature/Date

_____
Print Name/Title

Local Teachers' Union Leader (if applicable)**:**

☐ **check if not applicable**

_____
Signature/Date

_____
Print Name/Title

Authorized State Official - required**:**

By its signature below, the State hereby accepts the LEA as a Participating LEA.

_____
Signature/Date

_____
Print Name/Title

Please return the fully executed MOU by January 8th, 2010 no later than 4:00 pm to:
Barb LePage via email: barb.lepage@dese.mo.gov or fax to 573-751-1179

EXHIBIT I
Missouri Education Reform Plans – PRELIMINARY SCOPE OF WORK

State Actions	LEA Actions
B. Standards and Assessments	
1. Develop a model curriculum framework consisting of course descriptions, unit outlines, measureable objectives, benchmark assessments and scoring guides, suggested evidence-based instructional strategies, pacing guides, and a state online instruction support environment tied to the Common Core K-12 Standards in all areas.	1. Align district curriculum to updated state standards or implement the model curriculum. Actively involve teacher/educational leaders in curriculum improvement activities. Aggressively monitor implementation of the newly aligned district curriculum and/or the model curriculum.
2. Develop grade/subject specific professional development providing evidence and research-based support for the implementation of the model curriculum.	2. Focus local professional development resources and plans on the implementation of the new model curriculum, and evidence-and research based instructional practices.
3. Update Missouri high school graduation requirements to include dual credit, internship, and STEM opportunities.	3. Develop plan to expand the number of advanced course offerings and expand STEM opportunities with emphasis on those that foster hands-on and inquiry-based learning.
C. Data Systems to Support Instruction	
1. Promote and use the Missouri Comprehensive Data System to collect and maintain detailed, high quality student-and staff-level data linked to one another across entities and over time, providing a complete academic and performance history for each student in the P-20 system.	1. Participate in the state-wide student information system or develop and use the capacity to extract data from the district student information system for daily submissions to the Missouri Comprehensive Data System.
2. Promote and use the Missouri Comprehensive Data System to provide near real time data to be used with reporting and analysis tools by regional support centers to provide targeted, differentiated, and immediate support to schools based upon changing needs in performance by students and teachers in the P-20 system.	2. Access and use data from the Missouri Comprehensive Data System for evaluation of programs, evaluation of the effectiveness of instruction, and the performance of students. The system will support both in-depth and longitudinal analysis at the district leadership level, and user-friendly information at the school and classroom levels.
3. Collaborate with appropriate partners to increase bandwidth to schools and communities to support the Missouri Comprehensive Data System and the use of the system by students, parents, educators, communities, and researchers.	3. Leverage local, state, and grant funding to connect to the bandwidth necessary to support the use of the Missouri Comprehensive Data System.
4. Expand data analysis training to include data team certification in every school district by 2011 and in every school by 2012.	4. Send LEA teams to train and gain data team certification.
5. Provide incentives, including grants, to universities, colleges, school-based researchers and independent researchers to investigate narrowly defined questions focused on closing gaps in achievement.	5. Collaborate with the research community to use the Missouri Comprehensive Data System to close achievement gaps.
D. Great Teachers and Leaders	
1. Collaborate with all stakeholders, to revise the performance-based teacher and leader evaluation systems to include evidence of student learning garnered through objective measures such as standardized test results, local assessment data, student-level measures and instructional practices.	1. Work in collaboration with the state, design and implement revised performance-based teacher and leader evaluation system to include evidence of student learning garnered through objective measures such as standardized test results, local assessment data, student-level measures and instructional practices.
2. Use the Missouri Comprehensive Data System to provide a	2. Collaborate with regional service centers, teacher preparation

State Actions	LEA Actions
database that links student performance, teacher practices and leadership decisions.	programs, and/or other partners to develop and provide to educator training programs, teachers, and educational leaders professional development addressing the use of real-time data provided by the Missouri Comprehensive Data System reports to guide instructional practices, mentoring, and coaching.
3. Collaborate with LEAs to develop a system of compensation for effective teachers and to provide incentives for master teachers to assume additional responsibilities/ roles such as mentoring, coaching, modeling, etc.	3. Conduct annual evaluations to inform decisions around compensation, promotion, retention, remediation, removal.
4. Provide support and assistance in the development of a performance salary and contribution model that takes into account student performance and teacher/leadership contributions.	4. Develop a performance salary and contribution model.
5. Develop a process to ensure effective teachers and leaders are placed in high poverty/high minority schools.	5. Collaborate with the state, regional service centers, and partners to implement strategies to ensure the placement of effective teachers in high poverty/high minority schools and support additional teacher professional development for reaching diverse learning environments.
6. Develop in collaboration with institutions of higher education; incentives for teacher preparation programs to identify and recruit individuals into STEM related areas.	6. Provide data regarding hard-to-staff subjects and specialty areas and LEAs will provide projected staffing future staffing needs for hard-to-staff subjects and specialty areas.
7. Develop in collaboration with LEAs a model which identifies characteristics for "grow your own" teachers and principals in hard-to-staff subjects and specialty areas.	7. Partner with educator preparation programs to recruit and train teacher candidates from the local LEA to teach in hard-to-staff subjects and specialty areas, and to attract and retain teachers for the LEA.
8. The regional service centers will deliver technical assistance to building and district-level teachers and administrators regarding strategies correlated with increased student growth. The Missouri Comprehensive Data System will be used to evaluate the effectiveness of professional development.	8. LEAs in collaboration with the regional service centers, teacher preparation programs, and/or other partners will develop and provide to educator training programs, teachers, and educational leaders professional development addressing the use of real-time data provided by the Missouri Comprehensive Data System reports to guide instructional practices, mentoring, and coaching.
9. Develop incentives for other non-traditional teacher preparation programs including teacher residencies or similar.	9. Pursue a human capital approach to recruiting, hiring and providing professional development to staff.
10. Link student performance data to classroom teachers and to teacher training institutions.	10. Utilize state data on student performance, classroom teachers and teacher training institutions in personnel decisions.
E. Turning Around the Lowest-Achieving Schools	
1. Provide technical support to school leaders in implementing a turnaround process.	1. Unaccredited and Provisionally Accredited districts, and/or districts and LEAs with schools in the lowest-achieving 5% will implement one of the four school intervention models where appropriate in the LEA and/or required by regulation: a. Turnaround model b. Restart model c. School closure d. Transformation model (provided that an LEA with more than nine persistently lowest-achieving schools may not

State Actions	LEA Actions
	use the transformation model for more than 50 percent of its schools.) Accredited districts and districts and LEAs without buildings in the lowest achieving 5% will use data to identify an area or areas of needed improvement to eliminate achievement gaps.
2. Develop a Missouri Turnaround Model to train teachers and leaders in turning around the state's low performing districts, schools, and groups of students.	2. Work in partnerships with the regional service centers and other institutions providing training and support turn around low performing schools and groups of students.
3. Provide resources, strategies and support for the recruitment and retention of effective teachers and leaders for chronically low-achieving schools.	3. Collaborate with the regional service centers, other LEAs, and institutions of higher education to train, recruit and retain effective leaders for their chronically low-achieving schools.
4. Develop a model for a seamless, community-based system of support for children and families including education, health and social services.	4. Work collaboratively with those who specialize in providing social/emotional/health services to provide a seamless structure of support for all children.
5. Pursue changes in state law to improve existing charter authorization to ensure greater accountability, and deliberate and effective expansion of innovative models (including charter schools, charter-like schools and LEA autonomous schools).	5. Allow more flexibility for creation of innovative school models.

001-091

MISSOURI RACE TO THE TOP PARTICIPATING LEA MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into by and between the **Missouri Department of Elementary and Secondary Education, State of Missouri (State)** and Kirksville R-III School District **(Participating LEA).**

The purpose of this agreement is to establish a framework for collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of an approved Race to the Top (RT3) grant project.

I. SCOPE OF WORK

Exhibit I, the Preliminary Scope of Work, indicates the reforms that the Participating LEA is agreeing to implement.

II. ADMINISTRATION

A. PARTICIPATING LEA RESPONSIBILITIES

In assisting the State in implementing the tasks and activities described in the State's Race to the Top (RT3) application, the Participating LEA sub-grantee will:

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2. Actively participate in all relevant meetings, collaborative forums, or other practice-sharing events that are organized or sponsored by the State or by the U.S. Department of Education (USDOE);
3. Post to any website specified by the State or USDOE, in a timely manner, all non-proprietary products and lessons learned and developed using funds associated with the RT3 grant;
4. Participate, as requested, in any evaluations of this grant conducted by the State or USDOE;
5. Be responsive to State or USDOE requests for information, including on the status of the project, project implementation, outcomes, and any problems anticipated or encountered;
6. Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the RT3 grant period, and (d) other matters related to the RT3 grant and associated plans.
7. Implement the LEA plan as identified in Exhibit I of this agreement.

B. STATE RESPONSIBILITIES

In assisting Participating LEAs in implementing their tasks and activities described in the State's RT3 application, the State grantee will:

1. Work collaboratively with, and support the Participating LEA in carrying out the LEA Plan as identified in Exhibits I of this agreement;
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4. Identify sources of technical assistance for the project; and
5. Review state policies and practices to ensure that they will promote the goals of the Missouri plan and recommend and pursue improvements in these policies and practices as needed.

C. JOINT RESPONSIBILITIES

1. The State and the Participating LEA will each appoint a key contact person for the Race to the Top grant.
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D. STATE RECOURSE FOR LEA NON-PERFORMANCE

If the State determines that the Participating LEA is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the State grantee will take appropriate enforcement action, which could include a collaborative process between the State and the LEA, or any of the enforcement measures that are detailed in 34 C.F.R. §80.43, including putting the LEA on reimbursement payment status, temporarily withholding funds, or disallowing costs.

III. ASSURANCES

The Participating LEA hereby certifies and represents that it:

1. Has all requisite power and authority to execute this MOU;
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provisions of Education Department General Administrative Regulations (EDGAR) found at 34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98, and 99).

IV. MODIFICATIONS

This Agreement may be amended only by written agreement signed by each of the parties involved, and in consultation with ED.

V. DURATION/TERMINATION

This Agreement shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

VI. SIGNATURES

LEA Superintendent (or equivalent authorized signatory) - required:

Patrick Williams 1-5-10
Signature/Date

Patrick Williams, Superintendent of Schools
Print Name/Title

President of Local School Board (or equivalent, if applicable):

☐ **check if not applicable**

1-5-10
Signature/Date

Todd Wheeler, School Board President
Print Name/Title

Local Teachers' Union Leader (if applicable):

☐ **check if not applicable**

Molly Tuggle 1-5-10
Signature/Date

Molly Tuggle, Kirksville Community Teachers Association President
Print Name/Title

Authorized State Official - required:

By its signature below, the State hereby accepts the LEA as a Participating LEA.

Chris L Nicastro 1/18/2010
Signature/Date

Chris L. Nicastro, Mo. Commissioner of Education
Print Name/Title

Please return the fully executed MOU by January 8th, 2010 no later than 4:00 pm to:
Barb LePage via email: barb.lepage@dese.mo.gov or fax to 573-751-1179

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_____
Signature/Date

_____
Print Name/Title

President of Local School Board (or equivalent, if applicable)**:**

☐ **check if not applicable**

_____
Signature/Date

_____
Print Name/Title

Local Teachers' Union Leader (if applicable)**:**

☐ **check if not applicable**

_____
Signature/Date

_____
Print Name/Title

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3. Update Missouri high school graduation requirements to include dual credit, internship, and STEM opportunities.	3. Develop plan to expand the number of advanced course offerings and expand STEM opportunities with emphasis on those that foster hands-on and inquiry-based learning.
C. Data Systems to Support Instruction	
1. Promote and use the Missouri Comprehensive Data System to collect and maintain detailed, high quality student-and staff-level data linked to one another across entities and over time, providing a complete academic and performance history for each student in the P-20 system.	1. Participate in the state-wide student information system or develop and use the capacity to extract data from the district student information system for daily submissions to the Missouri Comprehensive Data System.
2. Promote and use the Missouri Comprehensive Data System to provide near real time data to be used with reporting and analysis tools by regional support centers to provide targeted, differentiated, and immediate support to schools based upon changing needs in performance by students and teachers in the P-20 system.	2. Access and use data from the Missouri Comprehensive Data System for evaluation of programs, evaluation of the effectiveness of instruction, and the performance of students. The system will support both in-depth and longitudinal analysis at the district leadership level, and user-friendly information at the school and classroom levels.
3. Collaborate with appropriate partners to increase bandwidth to schools and communities to support the Missouri Comprehensive Data System and the use of the system by students, parents, educators, communities, and researchers.	3. Leverage local, state, and grant funding to connect to the bandwidth necessary to support the use of the Missouri Comprehensive Data System.
4. Expand data analysis training to include data team certification in every school district by 2011 and in every school by 2012.	4. Send LEA teams to train and gain data team certification.
5. Provide incentives, including grants, to universities, colleges, school-based researchers and independent researchers to investigate narrowly defined questions focused on closing gaps in achievement.	5. Collaborate with the research community to use the Missouri Comprehensive Data System to close achievement gaps.
D. Great Teachers and Leaders	
1. Collaborate with all stakeholders, to revise the performance-based teacher and leader evaluation systems to include evidence of student learning garnered through objective measures such as standardized test results, local assessment data, student-level measures and instructional practices.	1. Work in collaboration with the state, design and implement revised performance-based teacher and leader evaluation system to include evidence of student learning garnered through objective measures such as standardized test results, local assessment data, student-level measures and instructional practices.
2. Use the Missouri Comprehensive Data System to provide a	2. Collaborate with regional service centers, teacher preparation

State Actions	LEA Actions
database that links student performance, teacher practices and leadership decisions.	programs, and/or other partners to develop and provide to educator training programs, teachers, and educational leaders professional development addressing the use of real-time data provided by the Missouri Comprehensive Data System reports to guide instructional practices, mentoring, and coaching.
3. Collaborate with LEAs to develop a system of compensation for effective teachers and to provide incentives for master teachers to assume additional responsibilities/ roles such as mentoring, coaching, modeling, etc.	3. Conduct annual evaluations to inform decisions around compensation, promotion, retention, remediation, removal.
4. Provide support and assistance in the development of a performance salary and contribution model that takes into account student performance and teacher/leadership contributions.	4. Develop a performance salary and contribution model.
5. Develop a process to ensure effective teachers and leaders are placed in high poverty/high minority schools.	5. Collaborate with the state, regional service centers, and partners to implement strategies to ensure the placement of effective teachers in high poverty/high minority schools and support additional teacher professional development for reaching diverse learning environments.
6. Develop in collaboration with institutions of higher education; incentives for teacher preparation programs to identify and recruit individuals into STEM related areas.	6. Provide data regarding hard-to-staff subjects and specialty areas and LEAs will provide projected staffing future staffing needs for hard-to-staff subjects and specialty areas.
7. Develop in collaboration with LEAs a model which identifies characteristics for "grow your own" teachers and principals in hard-to-staff subjects and specialty areas.	7. Partner with educator preparation programs to recruit and train teacher candidates from the local LEA to teach in hard-to-staff subjects and specialty areas, and to attract and retain teachers for the LEA.
8. The regional service centers will deliver technical assistance to building and district-level teachers and administrators regarding strategies correlated with increased student growth. The Missouri Comprehensive Data System will be used to evaluate the effectiveness of professional development.	8. LEAs in collaboration with the regional service centers, teacher preparation programs, and/or other partners will develop and provide to educator training programs, teachers, and educational leaders professional development addressing the use of real-time data provided by the Missouri Comprehensive Data System reports to guide instructional practices, mentoring, and coaching.
9. Develop incentives for other non-traditional teacher preparation programs including teacher residencies or similar.	9. Pursue a human capital approach to recruiting, hiring and providing professional development to staff.
10. Link student performance data to classroom teachers and to teacher training institutions.	10. Utilize state data on student performance, classroom teachers and teacher training institutions in personnel decisions.
E. Turning Around the Lowest-Achieving Schools	
1. Provide technical support to school leaders in implementing a turnaround process.	1. Unaccredited and Provisionally Accredited districts, and/or districts and LEAs with schools in the lowest-achieving 5% will implement one of the four school intervention models where appropriate in the LEA and/or required by regulation: a. Turnaround model b. Restart model c. School closure d. Transformation model (provided that an LEA with more than nine persistently lowest-achieving schools may not

State Actions	LEA Actions
	use the transformation model for more than 50 percent of its schools.) Accredited districts and districts and LEAs without buildings in the lowest achieving 5% will use data to identify an area or areas of needed improvement to eliminate achievement gaps.
2. Develop a Missouri Turnaround Model to train teachers and leaders in turning around the state's low performing districts, schools, and groups of students.	2. Work in partnerships with the regional service centers and other institutions providing training and support turn around low performing schools and groups of students.
3. Provide resources, strategies and support for the recruitment and retention of effective teachers and leaders for chronically low-achieving schools.	3. Collaborate with the regional service centers, other LEAs, and institutions of higher education to train, recruit and retain effective leaders for their chronically low-achieving schools.
4. Develop a model for a seamless, community-based system of support for children and families including education, health and social services.	4. Work collaboratively with those who specialize in providing social/emotional/health services to provide a seamless structure of support for all children.
5. Pursue changes in state law to improve existing charter authorization to ensure greater accountability, and deliberate and effective expansion of innovative models (including charter schools, charter-like schools and LEA autonomous schools).	5. Allow more flexibility for creation of innovative school models.

2 State of Missouri

able for (A)(1)

provides detailed information on the participation of each participating LEA (as defined in this notice). States should use this table to complete the

ng LEAs	LEA Demographics			Signatures on MOUs			MOU Terms	Preliminary Scope of Work – Participation in each applicable Plan Criterion																
	# of Schools	# of K-12 Students	# of K-12 Students in Poverty	LEA Supt. (or equivalent)	President of local school board (if applicable)	President of Local Teachers Union (if applicable)	Uses Standard Terms & Conditions?	(B)(3)	(C)(1)	(C)(3)(ii)	(C)(3) (iii)	(D)(2) (i)	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
re				Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Yes/ No	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA
tte (048914)	1	482	130	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1090)	2	266	142	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
01092)	2	257	112	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
123)	2	758	222	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03129)	2	452	205	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
98)	4	2455	781.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3046)	3	465	204.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8909)	1	454	335	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
r Sch. (048902)	1	181	150	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9078)	1	161	39.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
987)	2	782	538	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
II (093120)	2	344	180	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-II (047062)	4	1050	620.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
139)	2	621	162	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(039135)	3	849	311	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
150)	2	229	127	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
55110)	5	2089	1072.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	3	1446	937	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
X (002090)	1	128	22	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9135)	1	150	82	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
demy (048911)	1	233	245	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(077101)	2	382	216.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
122)	2	133	46	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

	4	1712	903.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3128)	2	241	147	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
047064)	1	133	76	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
52)	11	4959	2044	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03135)	2	566	281.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2091)	2	475	195	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
94076)	2	623	345.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
027055)	1	134	44	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
026002)	2	953	103	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (103131)	4	748	380	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
04045)	4	666	312.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (048068)	22	13952	2838	Y	Y	UNK	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
001)	6	2664	1234.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7061)	5	1565	695.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
17124)	2	118	85.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-I (082100)	4	1358	515.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
106001)	2	251	117	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
06004)	6	4205	1945.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3061)	2	348	170	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(013054)	2	106	59	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
01)	4	803	186.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
108143)	2	237	137	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
058112)	4	1088	422	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
r Sch. (048916)	2	426	311	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
021149)	2	276	145	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IV (011079)	2	371	109.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3107)	2	166	84	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0077)	2	258	163	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
29)	2	1024	509	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7155)	3	809	525.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
042117)	2	143	84.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
57)	1	58	42	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(015002)	9	4339	1850.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5001)	4	1836	651	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
35093)	2	639	392	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
015)	2	531	180	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3 (016096)	9	3959	2002.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(049132)	6	3330	1106	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

(017125)	5	457	454	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
49142)	8	4136	2185	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(078012)	3	1381	956.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
05123)	4	1949	963.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0)	8	2420	1562	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
90075)	1	50	46	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4086)	4	2031	1067	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10091)	4	1311	340.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
22088)	2	239	124.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0060)	2	558	286	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
67061)	3	1075	781.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
051153)	2	164	88	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
059117)	7	1957	824.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
tessori (115911)	1	52	28	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3101)	4	1032	412.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
068075)	1	117	58	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5097)	2	338	266	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	6	2605	393	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11087)	3	1074	676	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
092)	4	1051	343	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-IV (015003)	2	228	155.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	4	1833	866.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(025003)	3	813	218	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
08111)	3	773	387	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6001)	3	689	212.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6005)	2	677	238	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0093)	31	17256	5872.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(004106)	2	338	164	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
54037)	2	519	164	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
emies (115906)	4	2732	2533	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
eers Center (115901)	1	394	297	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
004)	2	322	120	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
84)	2	235	103	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3058)	1	26	15	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78)	2	92	61	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
043)	3	745	358.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(028101)	3	1038	520.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (028102)	3	1394	691.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

950013)	2	781	224	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
29002)	2	154	77	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
30093)	5	1826	1079	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
119)	1	31	19	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. (048912)	1	472	424	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	2	258	149	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
92)	2	312	149.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(033093)	1	285	126	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Academy (048917)	2	952	773	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
14)	5	3130	1351	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
132)	4	2048	919	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
073102)	3	936	452	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
38)	3	1092	461	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ation Ctr. (048903)	1	233	160.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
91092)	4	1623	1036.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03)	2	354	192	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
150)	2	273	104	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0005)	3	1387	598	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
o. C-1 (011076)	3	735	180	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-II (018047)	3	819	513	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-VI (073099)	3	1681	981	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
067055)	4	1175	613	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
s R-II (020002)	3	1218	595	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2)	5	1915	977.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7002)	3	831	405.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
91107)	2	316	193	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lyle Academy (115904)	2	850	649.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40 (024089)	7	2991	1131.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
122)	2	350	222.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
039142)	3	1111	379.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4002)	2	406	236.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
033)	2	176	70	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46140)	1	569	163.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (094078)	10	3827	1647.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6077)	3	644	269.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
nt R-II (096089)	25	12678	7344	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
006)	4	3125	964	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12101)	3	633	301	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

6003)	3	1215	747.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
48066)	12	4888	1997.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	17	11646	3136	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-III (092088)	23	20395	2344.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(036123)	1	155	35	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (062072)	4	1932	948.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Of Innovation (048922)	n/a	303	n/a	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(092087)	24	18687	2672.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	5	2183	913.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
077102)	2	629	410	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
042)	2	553	295	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-I (037039)	3	1115	394.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-II (037037)	4	1886	769	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73)	2	348	203	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
127)	1	42	19	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(041004)	2	150	103	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	2	368	150.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(046135)	1	299	159	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(006103)	2	251	154.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
m. (048913)	1	223	195	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78)	1	25	21	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(048069)	6	3265	548.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
048074)	9	4046	2531.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
050002)	3	823	265.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
05123)	2	320	182	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(033092)	1	180	119	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
III (080121)	2	393	201.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
029004)	2	477	309	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11086)	4	755	508	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(040100)	2	157	98	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	2	178	93	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4003)	2	298	174	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
010089)	4	1343	401.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3055)	3	737	296	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
96103)	3	1798	1172.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
075)	8	3611	1815.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
097122)	1	48	11	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (010092)	3	592	204	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

X (019149)	7	2755	784.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4113)	3	792	465.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
92)	3	835	663	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88)	30	18886	9788.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
42111)	2	663	360	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
043004)	3	293	190	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-I (048072)	18	6937	5070.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
043001)	3	818	411	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88075)	2	245	128.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
068071)	1	69	19	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
y Academy (048904)	1	312	230	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
35094)	2	633	332	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
152)	3	1438	538.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9107)	1	64	26	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6005)	4	1370	794.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
048920)	n/a	215	n/a	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
152)	4	1047	530	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (046128)	1	208	92.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7126)	1	65	8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (084004)	2	370	291	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41)	2	271	169	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
07)	2	748	352	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cademic Success (115907)	1	505	428	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
y Es And Math (115909)	1	1387	1147	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
y Of Careers (115908)	3	1527	1311	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
d Env Sci & Ma (048919)	2	1090	950.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(048077)	27	13976	7240.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7065)	2	445	228.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5090)	9	4745	1421.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
068074)	2	219	65.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
049137)	3	488	221	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
074195)	2	155	63	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
26006)	17	8010	3370.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VII (050007)	3	740	204	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-)	8	3110	2521	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
II (051154)	3	649	341	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
49148)	19	7678	4037.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2 (046137)	1	214	134	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

048078)	65	18103	14164.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
086)	7	3594	406	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
02)	7	2039	1224.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(021150)	2	178	73	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8044)	2	327	140	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
062)	1	54	21	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10014)	4	828	534.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
51150)	2	282	119	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Academy (048918)	1	115	91	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
106006)	2	326	173	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
001091)	5	2557	1016.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
096092)	9	5322	812	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
III (051155)	4	1494	555.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2096)	2	554	324	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
080118)	2	349	198	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1154)	2	348	195	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
053114)	1	469	242	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
053111)	3	890	498.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	6	3701	296.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(054039)	3	1074	432.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
93123)	2	463	239	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
045)	3	751	450	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0104)	1	62	32	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
002)	3	864	272	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
089080)	3	1322	281	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
53113)	8	4638	2151.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
om. Academy (048910)	2	708	512	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VII (048071)	25	17335	2198.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
42118)	1	69	46	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
156)	3	376	190	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9078)	2	208	45	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
090078)	3	286	175	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
56017)	2	1021	452	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
054045)	5	1021	405	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
101)	3	542	291	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
90)	17	10263	1699	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
07154)	2	830	442	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(096093)	7	5643	798.7	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

3106)	2	296	161	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-III (059114)	1	76	29	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
29001)	2	369	214	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
e R-VIII (039139)	4	2280	632	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
036133)	1	342	162	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
82108)	3	794	396	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	1	54	27	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
04)	2	218	130.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (015004)	2	345	219	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
61156)	5	1362	555.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(061158)	2	137	69	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9108)	2	265	122	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
092)	2	1104	732.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(097119)	2	110	58	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	1	62	50	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
114115)	3	709	393	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
mond Heights (096107)	4	1120	529.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
58109)	3	634	259.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
063067)	3	827	424.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-V (084005)	2	657	377	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
064072)	2	222	88	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(055106)	2	773	371	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-VI (062070)	2	178	96.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	7	2598	1305.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12102)	5	3198	1277.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
74201)	5	1463	394.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2055)	2	609	237	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-I (060077)	10	3785	2235	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-II (009077)	2	589	284.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
058108)	2	275	47	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
096094)	17	11124	2284.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-III (036126)	10	3435	1490.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10)	6	2507	1177.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21)	2	203	88	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16)	1	50	18	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
o. R-V (011078)	2	693	155	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 (069104)	1	49	32	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24)	3	735	478	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

066103)	2	270	152	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
04)	2	569	345	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	7	2386	1319.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
28)	6	2228	1056.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(068070)	3	1343	565	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (068072)	1	56	32	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(069106)	3	716	298.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-II (070093)	5	1331	627.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(042121)	2	83	31	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
071091)	3	664	411	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(071092)	4	1529	918.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(044083)	2	303	109	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-III (114114)	5	1611	932	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Birch Tree R-III (046130)	4	1298	747	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(055108)	4	1547	716.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
091)	2	428	261	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
012108)	3	627	412	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IV (016097)	1	305	127	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
108)	9	4380	2357.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
142)	7	2583	1154	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-III (014127)	2	739	239.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(045076)	2	475	216	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
138)	3	488	166	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-I (072074)	6	1644	977	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
013057)	1	39	17	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1095)	2	454	248	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2099)	2	254	165.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	9	5437	1668.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VII (074187)	2	226	106	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(017126)	2	201	66	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
09)	11	4947	3867	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
. R-VI (002089)	3	372	137.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-I (014126)	4	1337	611	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
III (031118)	2	84	51	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
y 74 (024093)	31	18391	7263.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-III (065096)	2	201	106	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-VI (074197)	2	228	97	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-I (078001)	2	302	216	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

R-I (083001)	5	657	124.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2081)	2	316	113	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
nunity School (115913)	n/a	54	n/a	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
s Co. R-I (094083)	6	3207	1524.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (033094)	1	225	121	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ay Co. R-V (074194)	2	235	89	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ph Co. R-IV (088072)	2	474	168	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-I (108147)	2	206	136	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
50001)	11	6826	2335	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(021148)	2	190	68	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4112)	3	377	267	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(048070)	4	2122	647.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
091)	1	105	50	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
016094)	2	338	141	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4041)	4	2131	707	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
55)	2	366	176	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (092091)	3	1486	383.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
097118)	1	48	21	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-III (075086)	2	280	133.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
087)	2	454	138.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
076082)	2	648	219	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
076083)	2	847	177	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
054)	2	136	48	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	2	558	287.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
027058)	2	243	134	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
093)	7	5366	1671.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(115905)	2	524	492	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
074)	3	1154	352	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9)	3	525	170	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5)	16	10230	2204	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
y (048921)	n/a	436	n/a	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(031116)	2	175	85	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
096090)	11	5626	1907.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
II (078003)	1	119	50	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
c. Sch. Dist. (078013)	23	0	0	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9077)	5	2342	1061.9	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80116)	2	378	180	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
080122)	1	146	78	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

081097)	1	189	97	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(055105)	3	739	410	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2101)	3	544	205	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
027059)	3	301	94	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(034122)	1	120	83	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6)	2	666	234.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
083003)	8	3185	592.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VI (084006)	4	978	474	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
59)	3	404	160	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
012109)	10	4958	2802.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
068)	3	812	424	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
029)	4	2437	1247.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (027057)	2	146	37	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24)	3	691	439	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
086100)	3	795	317.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03130)	4	911	567	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
87083)	4	780	299	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VII (107158)	1	130	67	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8073)	18	8789	4214.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (104044)	7	2196	1175.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
073)	1	155	72	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39134)	6	4319	1601.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
07124)	2	403	231.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46132)	1	427	235	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3127)	2	305	213	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
85044)	3	603	316.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(110030)	1	167	102	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41005)	2	98	69	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
091095)	1	141	77	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
66)	2	158	93	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	9	6355	4160	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ns (096111)	13	6884	5663	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03032)	2	384	151.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(096091)	31	22566	2715.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	8	4004	1597.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
090)	4	1534	666	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21151)	2	476	172	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4042)	2	411	120.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

9140)	2	796	509	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
02097)	6	2390	686.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
sage (066105)	4	1963	860.3	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(098080)	3	678	376	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(099082)	2	723	280	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
00059)	3	986	479	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(100062)	2	363	245	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
00061)	3	975	474.8	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
a (048915)	1	204	187	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
125)	8	4588	2678.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
lle C-8 (035098)	3	848	494	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3106)	3	1637	673	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2103)	3	887	515.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
42113)	1	49	20	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(102085)	4	806	338.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
08144)	2	207	129	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
05127)	1	154	105	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0063)	9	3606	2067.2	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	2	385	162	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
121)	1	103	69	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	2	379	171.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80119)	2	596	238	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24087)	4	2276	258.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-II (014130)	3	909	325	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
o. R-II (041002)	4	905	384.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-I (044084)	2	278	107	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-IV (074202)	2	204	58	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-V (078005)	2	729	458	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-I (010087)	4	1449	278.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ds Co. R-II (090076)	2	558	329	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
35099)	2	402	284	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ston Co. R-I (059113)	2	203	113	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
005121)	3	868	495.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
090)	3	729	373	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
St. Louis Co. (096119)	308	4227	1021.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0101)	1	49	32	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
22094)	3	745	360	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (036134)	1	266	57	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

(039141)	54	24398	10839.5	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
mersion School (115912)	n/a	170	n/a	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(092090)	10	5175	1625.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
036136)	5	2379	978.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (066104)	2	255	68	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1094)	3	1750	938.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
32)	28	11162	6365.1	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School (115903)	1	910	613	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5115)	91	27421	17579.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
38045)	2	348	134	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
o. R-II (095059)	4	2023	828	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
28103)	3	954	537.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77)	2	90	31	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(032058)	2	253	79	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0001)	3	1093	589	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
39137)	3	1214	491	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9140)	1	89	37	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0090)	3	453	169.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
)	4	2244	944.3	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (107153)	2	395	235.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0009)	1	325	147	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(085043)	1	68	32	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VII (097131)	2	474	214	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
06002)	1	208	137.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
31)	2	369	158	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
085)	2	689	386	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77100)	1	65	51.5	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(017122)	2	189	70.4	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
073)	2	603	242	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0107)	3	1198	584	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(031122)	2	178	99	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
03)	9	5257	2029	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(012110)	3	1011	583	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
131)	5	3059	1098.7	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
032056)	2	147	65	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
my (048901)	3	1134	895	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
096112)	9	3294	1858	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
lership Academy (048907)	1	200	153	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

031)	3	454	215	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18050)	2	516	293.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
109)	2	640	279	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5111)	2	383	300	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
V (039136)	2	304	129	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(109003)	5	3035	1241.7	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (051159)	10	3337	1071.6	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8107)	5	1334	817	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
139)	12	4274	942.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (085046)	9	5589	2175.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(043003)	2	403	241	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(049144)	11	4077	1808	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
096114)	10	4368	735	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
leon R-IX (054043)	2	430	123	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
town R-I (070092)	2	497	226	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(092089)	14	11929	1986	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
o. R-I (074190)	2	280	125	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
I (046134)	5	2534	1045.2	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-II (083002)	2	680	117	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Co. R-IV (094087)	3	1050	578	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
080)	3	635	322	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73105)	1	154	107	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
043002)	2	288	226	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
133)	7	4156	1544.9	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
-IV (046131)	3	1317	776.6	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
0010)	5	3007	907	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
57004)	4	1550	657.1	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
31117)	2	180	75	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
009080)	3	912	515	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
113001)	2	385	182.4	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
(109002)	3	1518	633.8	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
079)	2	244	145	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Last Name	First Name	Title	Affilitation	RSVP	Group
Ableidinger	Joe	CONSULTANT		Yes	
Acsenvil	Alex	Asst. Director, Technology CO-CHAIR	Independence School District	Yes	
Adams	Kelvin	Superintendent of Schools	St. Louis City School District	Yes	
Agnew-Talley	Jo	Dean of Education	Park University	Yes	
Agrawal	Ashok	Dean of Math, Science Engineering & Technology	St. Louis Community College at Florissant Valley	Yes	
Anderson	Jeremy	CONSULTANT		Yes	
Anderson	Maggie	Superintendent of Schools	Knob Noster R-VIII	Yes	
Armstrong	Mary	President	Local 420 St. Louis Teachers Union	Yes	
Baier	Scott	Executive Director	Teach for America	Yes	
Baldwin	Beccy	RPDC Director	Northwest RPDC	Yes	
Bates	Jeanne	Vice President	Hall Family Foundation	Yes	
Beckwith	Lynn	Retired Superintendent		Yes	
Beglau	Monica	Director	eMINTS National Center	Yes	
Bennett	Linda	Interim Dean of Education	University of Missouri-Columbia	Yes	
Birks	Elizabeth D.	Governor's Faith Based Outreach Program Liaison (Kansas City)		Yes	
Blaine	Julie	RPDC Director	Central RPDC	Yes	
Blanchett	Wanda	Dean, School of Education	University of Missouri-Kansas City	Yes	
Kite	Terry	Teacher Education	Jefferson College	Yes	
Briggs	Regenia	Director	Hillyard Technical Center	Yes	
Tanner	Cindy	Teacher Education	Three Rivers Community College	Yes	
Bruton	Mary	Workforce Analysis Manager	Dept. of Economic Development	Yes	
Haun	Dwight	Chair of Education	Southwest Baptist University	Yes	
Burnett	Tom	Manager, Strategic Initiatives	Apple	Yes	
Byers	Chip	MOREnet		Yes	
Caccamo	Jim	Great Teachers and Administrators		Yes	
Camoriano	Jim	Missouri Government, Media, & Community Affairs	State Farm Insurance	Yes	
Carruth	Gayden	Executive Director	Cooperating School District of Kansas City	Yes	
Chapel	Cynthia	Chair of Education	Lincoln University	Yes	
Chase	Phyllis	Assistant Superintendent CO-CHAIR	North Kansas City 74 School District	Yes	
Churchwell	Eric	Secretary	Mo. Association of School Administrators	Yes	
Ciafullo	Scott	President	American Federation of Teachers	Yes	

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Clancy-May	Maureen	Superintendent of Schools	Bayless School District	Yes	
Clark	Maxine	Founder and Chief Executive Bear	Build a Bear	Yes	
Cochran	Peggy	CO-CHAIR		Yes	
Condren	Tammy	NAESP Representative	Marion C. Early Elementary School	Yes	
Copeland	Sherry	RPDC Director	Missouri Western RPDC	Yes	
Corcoran	MaryJo	Director of Parent Education	Ladue School District	Yes	
Craig	Chris	Director of Education	Drury University	Yes	
Doel	Kelly	Coordinator of Certification	Drury University	Yes	
Cruz	Carolina	Student	Hazelwood School District	Yes	
Allen	Sandra	Missouri Senate		Yes	
Cutbirth	Suzy	RPDC Director	Southwest RPDC		
Cutts	Justin	Student	Hazelwood School District	Yes	
Davis	Darl	RPDC Director	Northeast RPDC	Yes	
Days	Rita	Missouri Senate		Yes	
de Loyola	Shawn	Executive Director	Missouri Protection and Advocacy		
Deggendorf	Mike	Sr. Vice President, Delivery	Great Plains Energy		
Denney	Joel		Missouri School Boards Association	Yes	
Van Tuinen	Patt)	Director	Department of Health and Senior Services	Yes	
Dorsey	Dennis	RPDC Director	St. Louis RPDC	Yes	
Elder	Bill		OSEDA	Yes	
Evans	Laura	Strategist	Cerner Corporation	Yes	
Faulkenberry	John	MASSP President	Lee's Summit High School	Yes	
Faulkner	Intisar	Student	Hazelwood School District	Yes	
Felmlee	Chris	Superintendent of Schools	Van-Far R-I School District	Yes	
Flowers	Clinton	Division of Workforce Development	Division of Workforce Developoment	Yes	
Franklin	Ken	Governor's Faith Based Outreach Program Liaison (St. Louis)		Yes	
Freeman	William	Dean of Education	Fontbonne University	Yes	
Fuemmeler	Cheri	RPDC Director	Southeast RPDC	Yes	
Fulton	Mike	Superintendent of Schools	Pattonville R-III School District	Yes	
Gaal	John	Director of Training & Workforce Development	The Carpenters' District Council of Greater St. Louis	Yes	
Galland	Cathy	RPDC Director	Southern RPDC	Yes	
Gallimore	Tim	Assistant Commissioner/Academic	Department of Higher Education	Yes	
Gardner	Donna	Chair of Education/MACCE	William Jewell College	Yes	

Last Name	First Name	Title	Affilitation	RSVP	Group
Gibbons	Liz	CharacterPlus	Cooperating School Districts	Yes	
Gray Smith	Linda	Superintendent of Schools	Chillicothe R-II School District	Yes	
Gronniger	Richard	Human Resources Manager	Altec Industries, Inc.	Yes	
Guinther	Chris	Mo. National Education Association	Mo. National Education Association	Yes	
Hamberg	Linda	Teacher Education	St. Louis Community College-Florissant Valley	Yes	
Hammer	Ann	Director of Education	Culver-Stockton College	Yes	
Hardy	Colleen	Chair of Education	Evangel University	Yes	
Hassel	Bryan	CONSULTANT		Yes	
Haugen	Sue	TOY Finalist	Jefferson City School District	Yes	
Hausfather	Sam	Dean of Education	Maryville University	Yes	
Helms	Ron	MASSP Past President	Lindbergh High School	Yes	
Hessee	Pam	TOY Finalist		Yes	
Hollingsworth	Debra	Vice President-External Affairs	AT&T Missouri	Yes	
Knauer	Regina	Director	Department of Conservation	Yes	
Hull	Angie	Executive Director	Coordinating Board for Early Childhood	Yes	
Huxel	Mary Beth	Curriculum & Instruction	East Central College	Yes	
Jackson	Wendy	President	Missouri PTA	Yes	
Jackson	Kristin	TOY Finalist	Lee's Summit R-VII School District	Yes	
Jarrett	Ann	Mo. National Education Association	Mo. National Education Association	Yes	
Keelin	Byron	Executive Director	Mo. Chamber of Commerce	Yes	
Riegel	Nicole	Director of Program Development	Kansas City Life Sciences Institute, Inc.	Yes	
Kinder	Paul	President	Mo. Association of School Administrators	Yes	
King	Jim	Executive Director	Mo. Association of Secondary School Principals	Yes	
King	Kent	Executive Director	Missouri State Teachers Association	Yes	
Knodell	Joe	Executive Director	Missouri Education Reform Council	Yes	
Kostner	Linda	Interim Director	Kansas City RPDC	Yes	
Kowal	Julie	CONSULTANT		Yes	
Kronley	Robert	CONSULTANT		Yes	
Kurtz	Roger	Executive Director	Mo. Association of School Administrators	Yes	
Lair	Mike	Mo. House of Representatives		Yes	
Lane	Valerie	Center for Human Services-Children's	Coordinating Board for Early Childhood	Yes	
Lankford	David	Vice President	Mo. Chamber of Commerce-Education	Yes	

Last Name	First Name	Title	Affilitation	RSVP	Group
			Foundation		
Lewis	John	RPDC Director	South Central RPDC	Yes	
Lineberry	David		Missouri School Boards Association	Yes	
Lombardi	George	Director	Department of Corrections	Yes	
Loyacono	Laura	Project Lead the Way (per Margo)	Project Lead the Way	Yes	
Luna-Wolf	Mary Beth	CONSULTANT		Yes	
Lupardus	Carol	Teacher Education	St. Louis Community College-Wildwood		
Maier	Randy	Community & Education Relations	Integrated Defense Systems The Boeing Company	Yes	
Malito	Robert	Superintendent of Schools	Parkway C-2 School District	Yes	
Malsick	Rick	CONSULTANT		Yes	
Martin	John	CO-CHAIR		Yes	
Martz	Matt	MAESP Past President	Skaith Elementary School	Yes	
Masengale	Emily	TOY Finalist		Yes	
May	Vicki	Assistant Dean	Washington University	Yes	
Mayfield	Wayne	Standards and Assessments	University of Missouri	Yes	
McMahon	Ann		Washington University	Yes	
Middleton	Michael	Deputy Chancellor	University of Missouri-Columbia	Yes	
Miller	Ned	Interim RPDC Director	Heart of Missouri RPDC	Yes	
Minne	Sam	Department of Education	Truman State University	Yes	
Mitko	Susanne	TOY		Yes	
Noe	Margaret	Dean of Education	Southeast Missouri State University	Yes	
Chastain	Lesa	Chair of Education	Baptist Bible College	Yes	
Palm	Joseph	Chief	Department of Health & Senior Services Division of Community & Public Health	Yes	
Pantleo	Mike	Director	Fort Osage Career & Technical Center	Yes	
Parham	Douglas	Community Church of God			
Parshall	Tim		Assessment Resource Center	Yes	
Peters	Faye	Executive Director	Mo. Association of Elementary School Principals	Yes	
Petersen	Cheryl	MAESP Secretary-Treasurer	Cole Camp Elementary School	Yes	
Phillips	Richard	CO-CHAIR	Missouri Student Success Network	Yes	
Piper	Mary	Interim Superintendent	Hazelwood School District	Yes	
Porr	Richard	Chair of Education	Missouri Western State University	Yes	
Good	Glenn	Interim Dean of College of Education	University of Missouri-Columbia	Yes	
Preis	Stacey	Executive Director	Joint Committee on Education	Yes	

Last Name	First Name	Title	Affilitation	RSVP	Group
Price	Deborah	Deputy Director of Boards and Commissions	Office of the Governor	Yes	
Pruitt	Tracy	TOY Finalist	Hickman Mills C-1 School District	Yes	
Quiriconi	Margo	Director, Research & Policy for Education CONSULTANT	Kauffman Foundation	Yes	
Randol	Melissa		Missouri School Boards Association	Yes	
Hime	Nicole	TOY Finalist		Yes	
Reeves	Doug	CONSULTANT		Yes	
Robb	Vickie	MAESP Retired Principals Rep		Yes	
Roberts	Laurie	CONSULTANT		Yes	
Ruhl	Max	Dean of Education	Northwest Missouri State University	Yes	
Schad	Rodney	Mo. House of Representatives		Yes	
Finnegan	Judy	Director	Department of Mental Health	Yes	
Schattgen	Sharon		OSEDA/Columbia School District	Yes	
Scherer	Mary Beth	Treasurer	Mo. Association of School Administrators	Yes	
Baber	Susan	Dean of Education	University of Missouri-St. Louis	Yes	
Scott	L. Carol	Executive Director	Missouri Child Care Resource & Referral Network	Yes	
Shannon	Cheri	Executive Director	Mo. Charter Public Schools Association	Yes	
Simmons	Ben	Executive Director	Mo. National Education Association	Yes	
Sireno	Lisa		Assessment Resource Center	Yes	
Smith	Alvin	St. Paul AME Church		Yes	
Smith	Melody	Superintendent of Schools	St. Joseph School District	Yes	
St. Joe	Student	Name TBA		Yes	
St. Joe	Student	Name TBA		Yes	
Kintzel	Jeremy	Commissioner	Department of Higher Education	Yes	
Stepleton	Sue	President/CEO	Parents as Teachers National Center	Yes	
Stuart	Diana	Teacher Education	Mineral Area College	Yes	
Swan	Kathy	President	JCS/Tel-Link	Yes	
Tatman	Dinah	New Sunnymount		Yes	
Taylor, Jr.	Curtis	Student	Hazelwood School District	Yes	
Templeton	Mark	Director	Department of Natural Resources	No	
Teran	Ralph	Superintendent of Schools CO-CHAIR	Grandview C-4 School District	Yes	
Thaman	Douglas	Director of Professional Services	National Association of Charter School Authorizers	Yes	

Last Name	First Name	Title	Affilitation	RSVP	Group
Thiele	Nick	Superintendent of Schools	Bloomfield R-XIV School District	Yes	
Thomson	Mike	Mo. House of Representatives		Yes	
Thornburg	Kathy	Professor and Director	Center for Family Policy & Research	Yes	
Thruston	Cheryl	Director, Dislocated Worker Program	Missouri AFL-CIO	Yes	
Thurwalker	Zac	TOY Finalist		Yes	
Tilson	VeAnn	Past President	Mo. Association of School Administrators	Yes	
Tobias	Grayling	Asst. Superintendent	Hazelwood School District	Yes	
Urkevich	John	Executive Director	Cooperating School District of St. Louis	Yes	
VanNoy	Cheryl	Assistant Superintendent CO-CHAIR	Hazelwood School District	Yes	
Wahby	Robbyn	Mayoral Research	Office of Mayor Francis Slay	Yes	
Wallace	Maynard	Mo. House of Representatives		Yes	
Wally	Susan	President/CEO	PREP-KC	Yes	
Ward	Carter	Executive Director	Missouri School Boards Association	Yes	
Watson	Jerry	Interim Superintendent	Farmington R-VII School District	Yes	
Wicks	Ray	Chair	Special Education Advisory Panel	Yes	
Wilkerson	Bill	Executive Director	Reach Out St. Louis!	Yes	
Williams	Marge	Superintendent of Schools	Hickman Mills C-1 School District	Yes	
Williams	Margaret	TOY		Yes	
Williams	Nancy “Suzie)	Blue Eye School District		Yes	
Williams	Vic	Superintendent of Schools	Fairview R-XI School District	Yes	
Wilson	George	Executive Director	Missouri Council of Administrators of Special Education	Yes	

DESE

Last Name	First Name	Group
Nicastro	Chris L.	
Coffman	Robin	
Morris	Jim	
Van Zandt	Mark	
Brown	Charles	
Johnson	Stan	
Quinn	Tom	
Atkins Lieberman	Heidi	
Muenks	Robin	
Vandeven	Margie	
Leigh Ann	Grant Engle	
Castleman	Amber	
Hoge	Sharon	
Rosenkoetter	Rusty	
Strand	Jocelyn	
Cindy	Hollis	
Andrea	Wood	
Becky	Odneal	
Larry	Flakne	
David	Liechti	
Sybl	Slaughter	
Deborah	Demien	
Russell	Thompson	
Archie	Rev. Stan	
Ponder	Mike	
James	Diana	
Wright	Paul	
Joyce	Cowell	
Denise	Roach	
Barb	LePage	
Freida	Krogstad	
Kelli	Dickey	
Lina	Browner	
Tammy	Allee	
Jackie	Wieberg	

Robin	Barbour	

Missouri Race to the Top

JEFFERSON CITY NOVEMBER 23, 2009

Winning the Race to the Top

Stakeholders Forum

9:30 a.m.	**WELCOME & INTRODUCTIONS**	Governor Jay Nixon Chris L. Nicastro, Ph.D. *Missouri Commissioner of Education* David Liechti, President *State Board of Education*
10:00 a.m.	**RACE TO THE TOP: WHAT IT WILL TAKE**	Ryan Reyna, Policy Analyst *National Governors Association*
10:50 a.m.	**OPPORTUNITIES FOR MISSOURI**	Doug Reeves, Founder *The Learning and Leadership Center*
11:50 a.m.	**ORGANIZING THE TEAMS**	Commissioner Nicastro

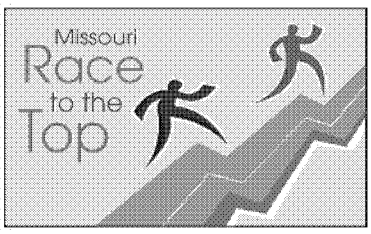
12:00 p.m. **TEAM MEETINGS**

- Teams lunch together
- Break-out in small groups to address these questions:
  1. What are our strengths in this assurance area?
  2. What are innovative ideas in this assurance area that should be included in the proposal?
  3. What else do we need to know or do?
- Discuss and determine a few compelling innovations that should be pursued in the RT3 proposal
- Each team reconvenes; group leaders report back to entire team

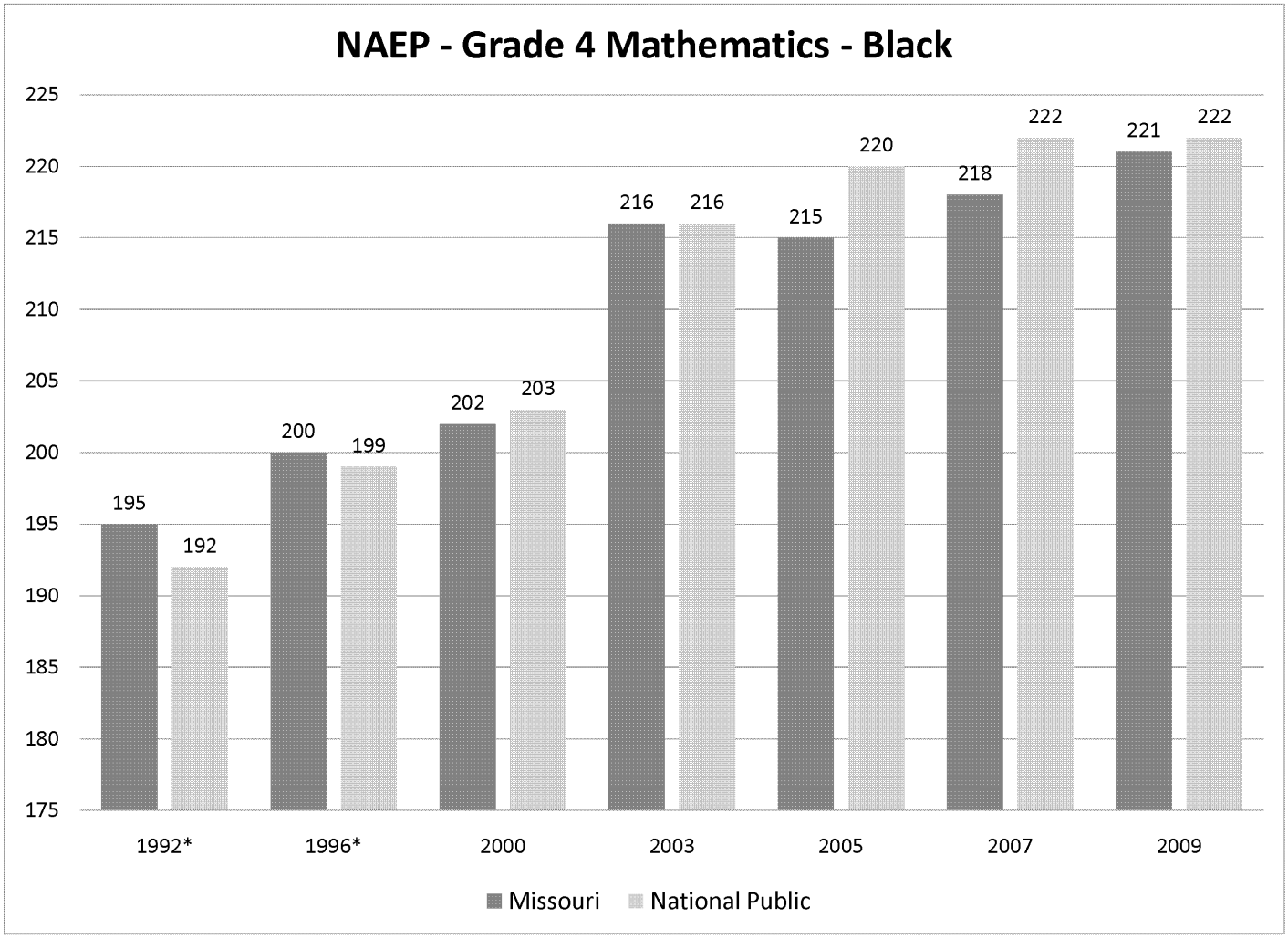
3:00 p.m. **GENERAL SESSION: TEAM REPORTS**

- Brief (10-minute) reports from team co-chairs
- What are the compelling innovations (up to three for each group) that Missouri should pursue in its RT3 proposal and beyond?
- Next steps?

4:00 p.m. **ADJOURN**



CONVENED BY THE MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION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220
215
210
205
200
195
190
185
180
175
195
192
200
199
202
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216
216
215
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218
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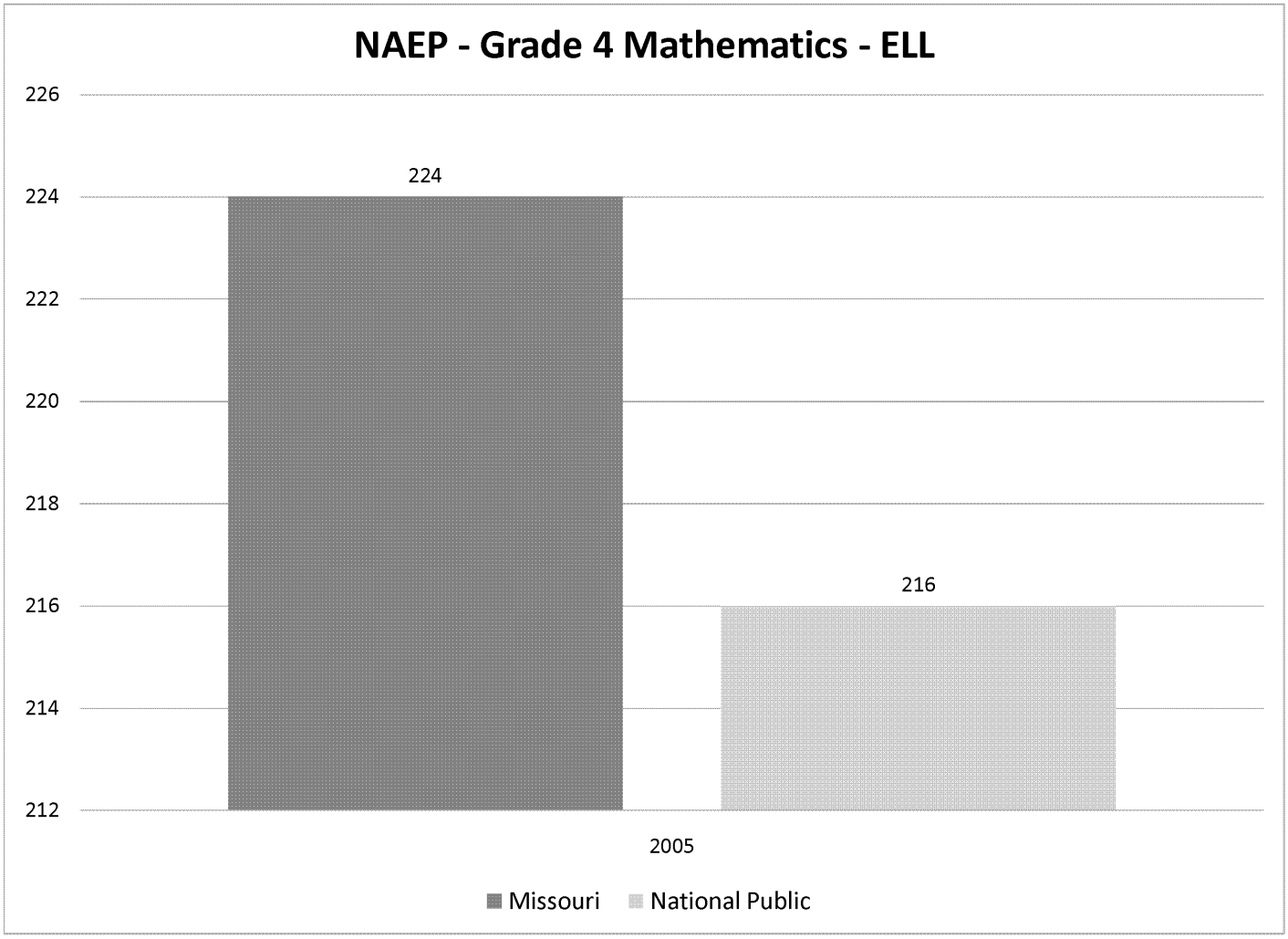
221
222
1992*
1996*
2000
2003
2005
2007
2009
Missouri
National Public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226
224
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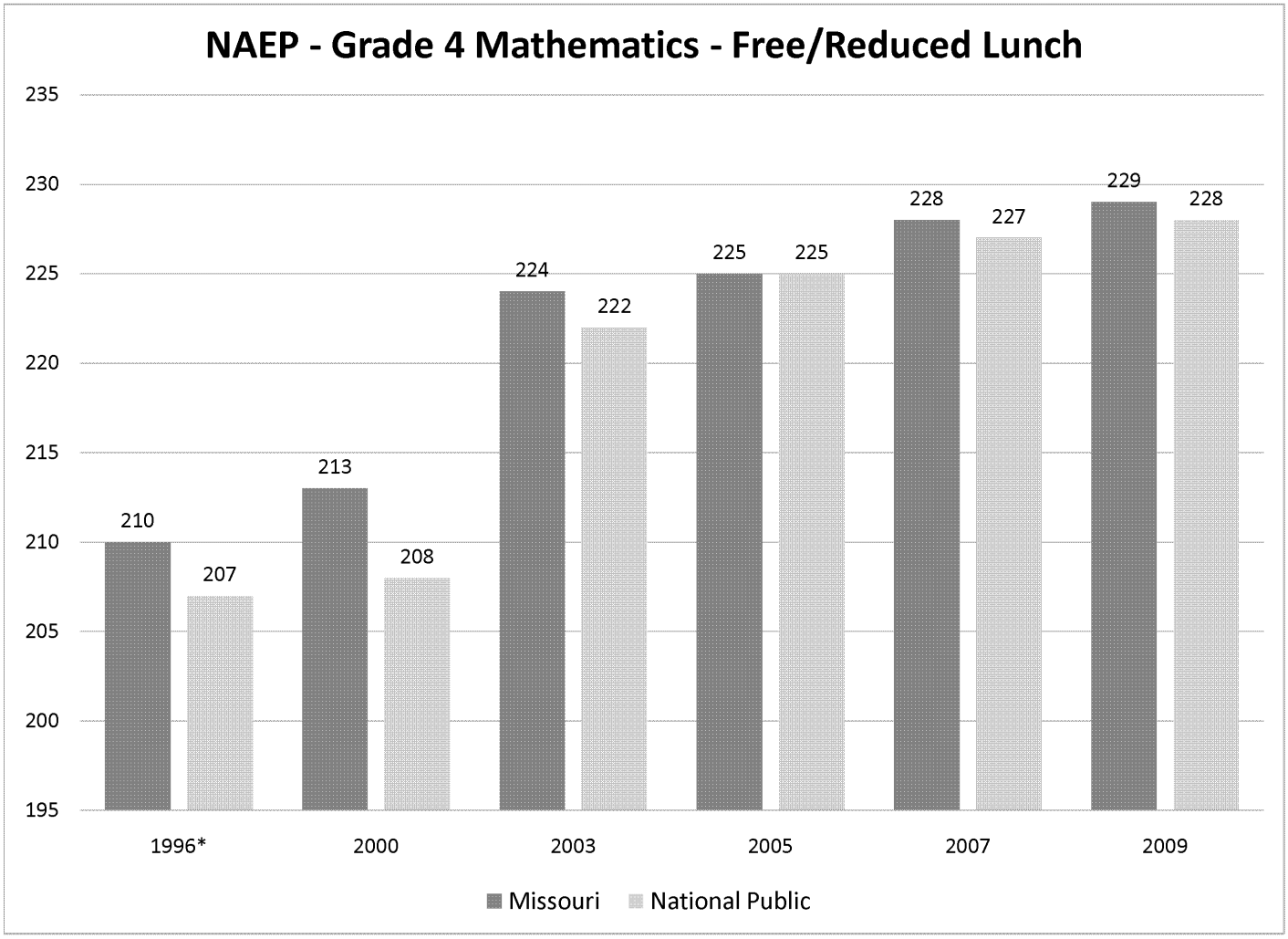
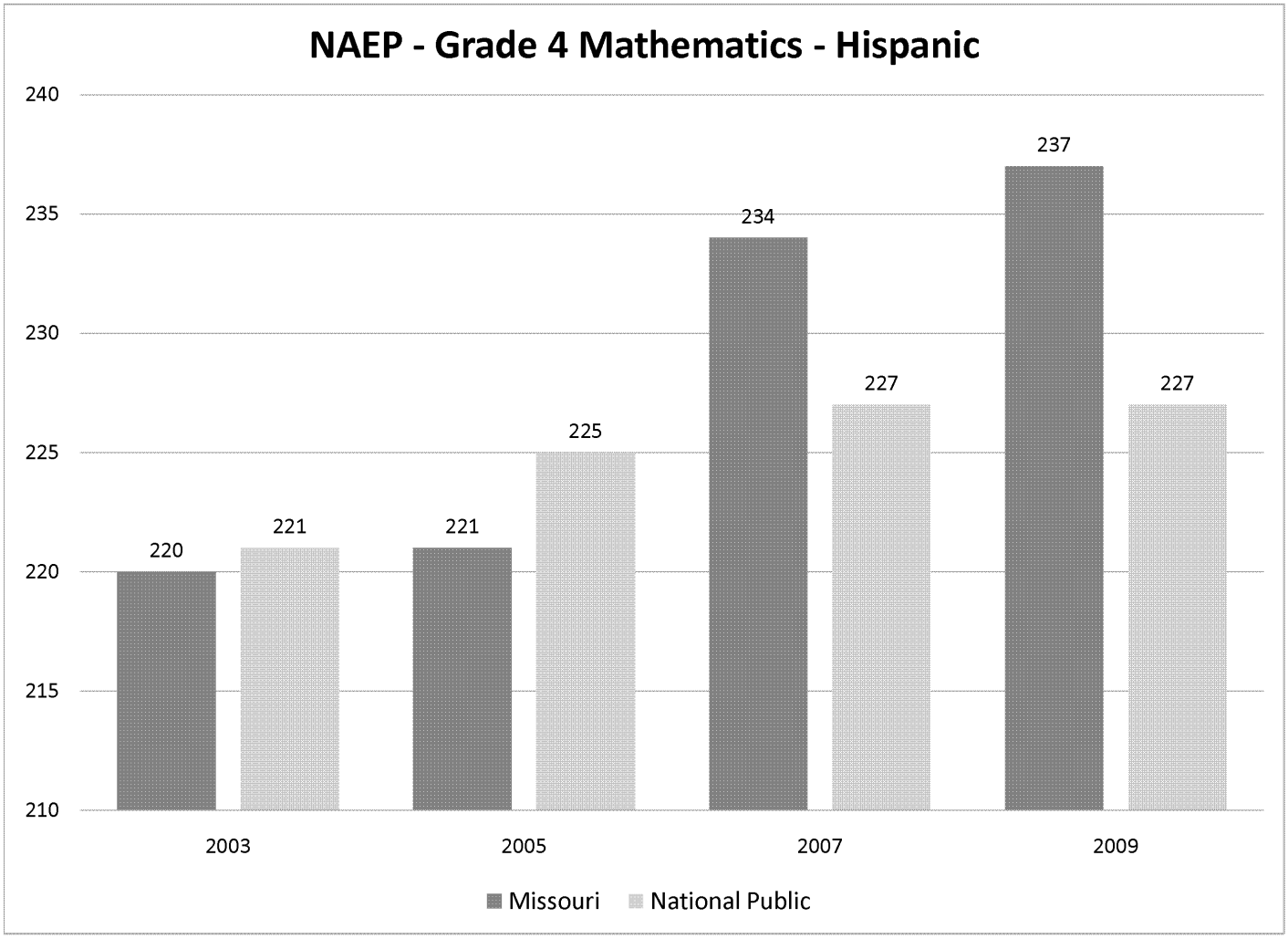
218
216
214
212
224
216
2005
Missouri
National Public


NAEP - Grade 4 Mathematics - Free/Reduced Lunch
235
230
225
220
215
210
205
200
195
210
207
213
208
224
222
225
225
228
227
229
228
1996*
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 4 Mathematics - Hispanic
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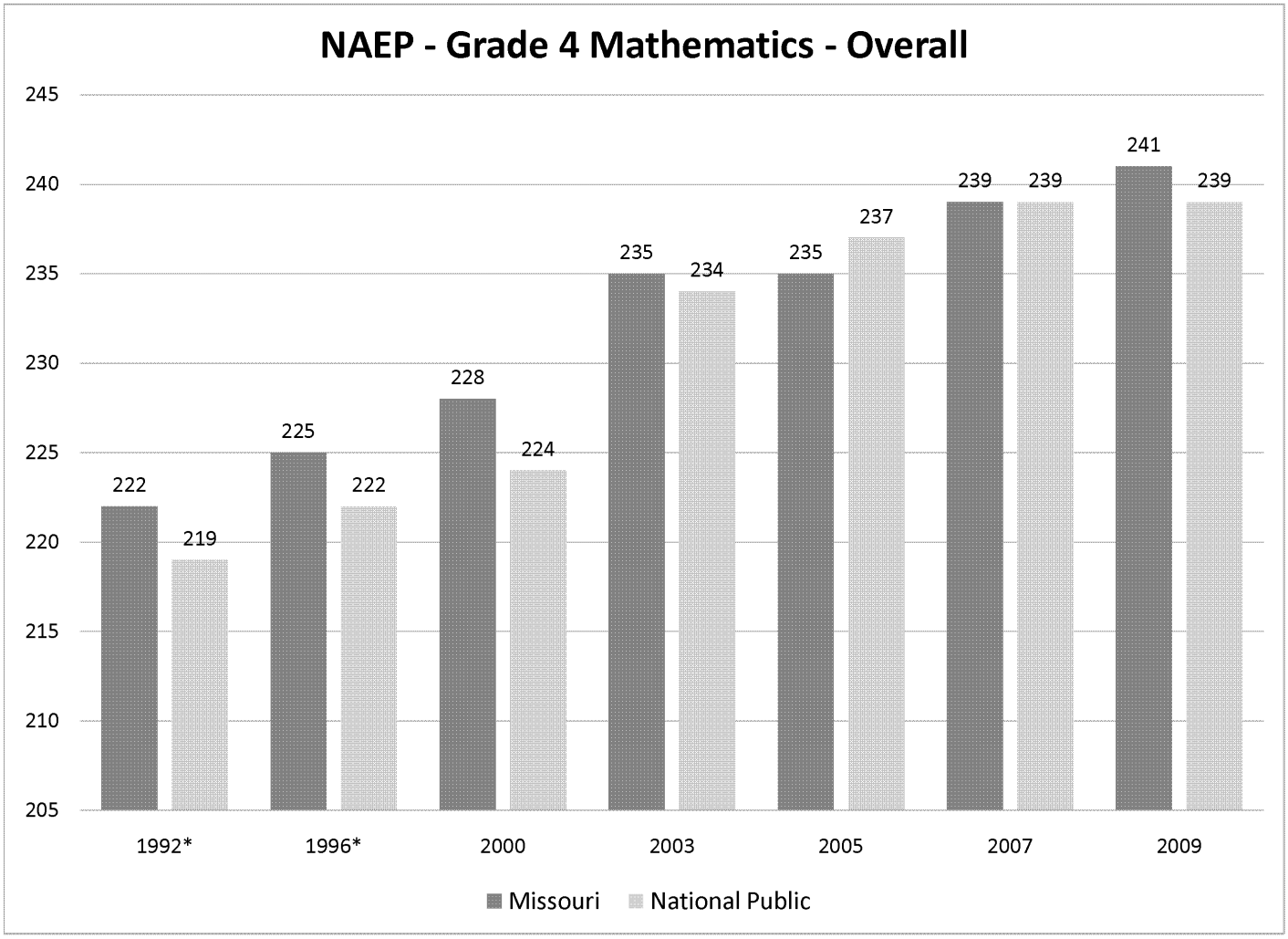
215
210
220
221
221
225
234
227
237
227
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 4 Mathematics - Overall
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240
235
230
225
220
215
210
205
222
219
225
222
228
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235
237
239
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1992*
1996*
2000
2003
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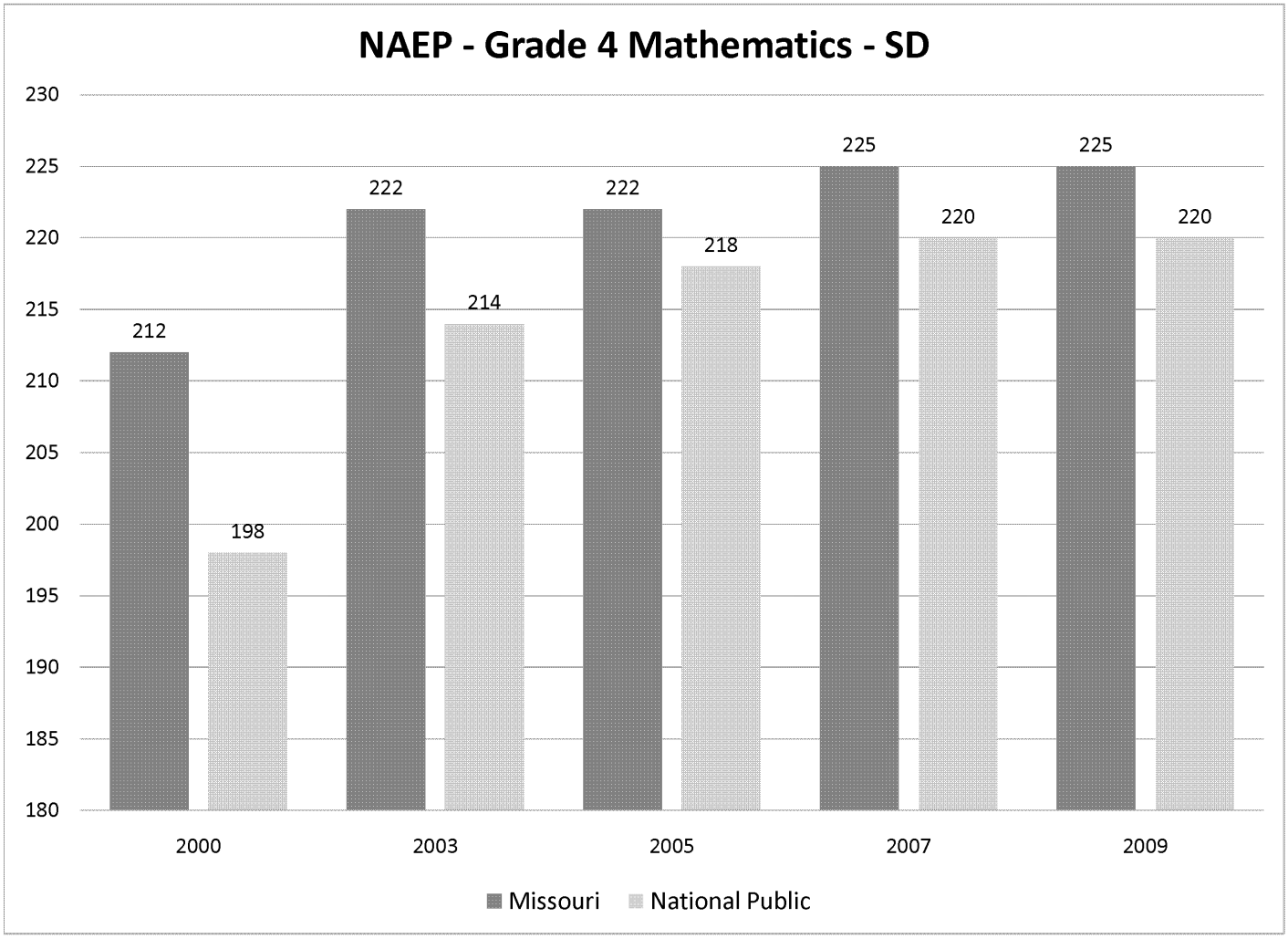
2007
2009
Missouri
National Public


NAEP - Grade 4 Mathematics - SD
230
225
220
215
210
205
200
195
190
185
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214
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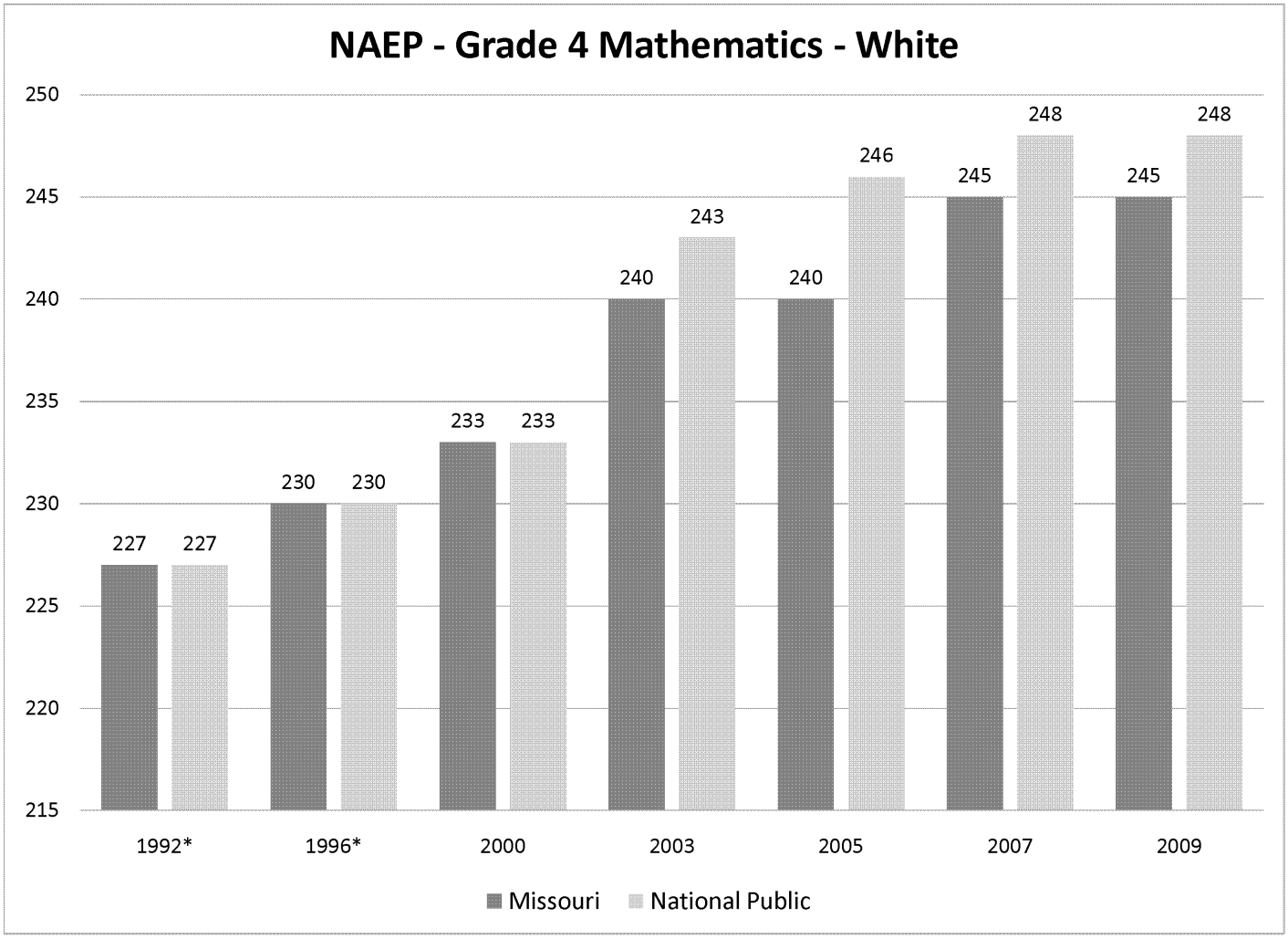
218
225
220
225
220
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 4 Mathematics - White
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245
240
235
230
225
220
215
227
227
230
230
233
233
240
243
240
246
245
248
245
248
1992*
1996*
2000
2003
2005
2007
2009
Missouri
National Public

Appendix 4 State of Missouri

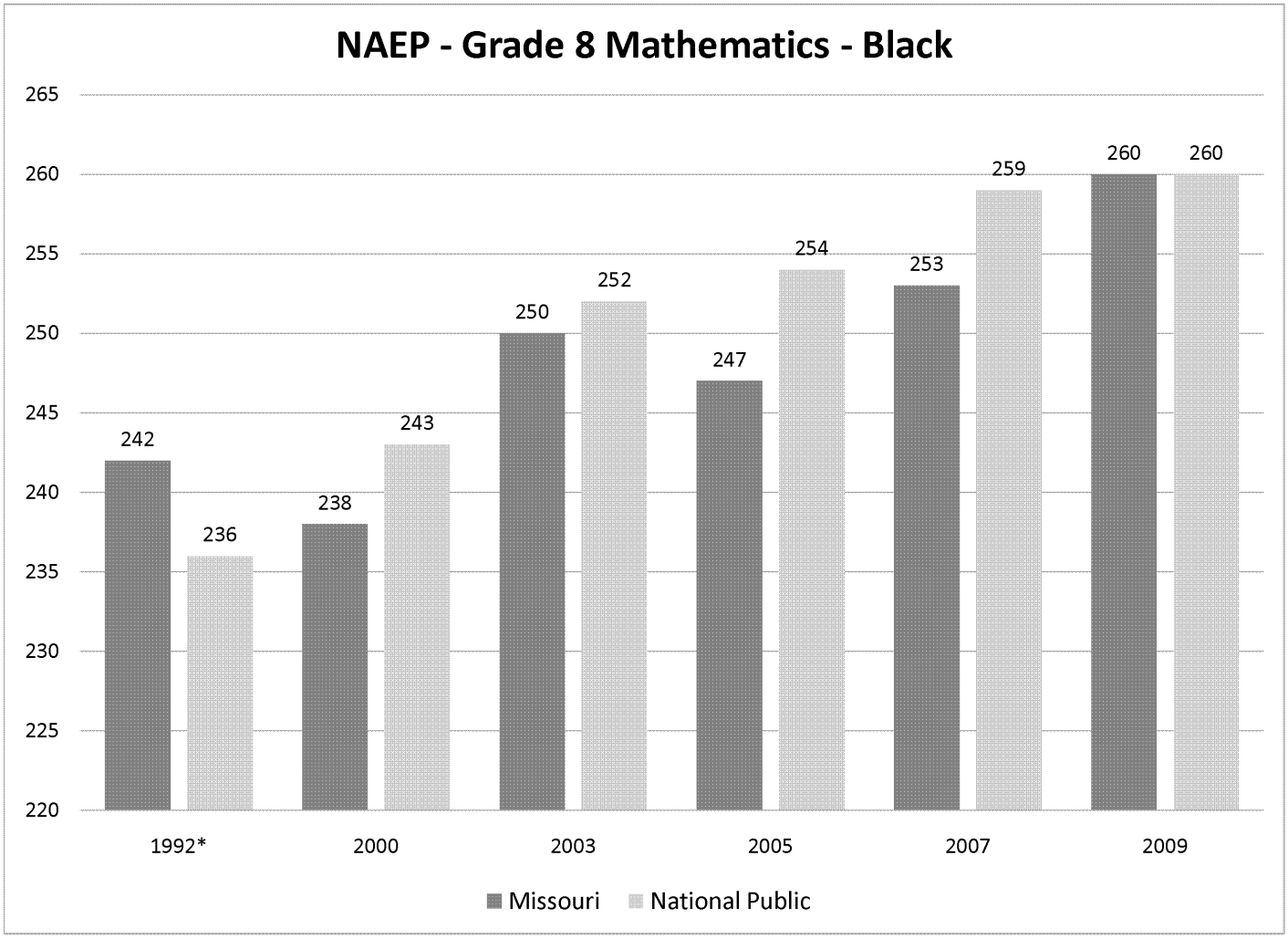
NAEP - Grade 4 Mathematics

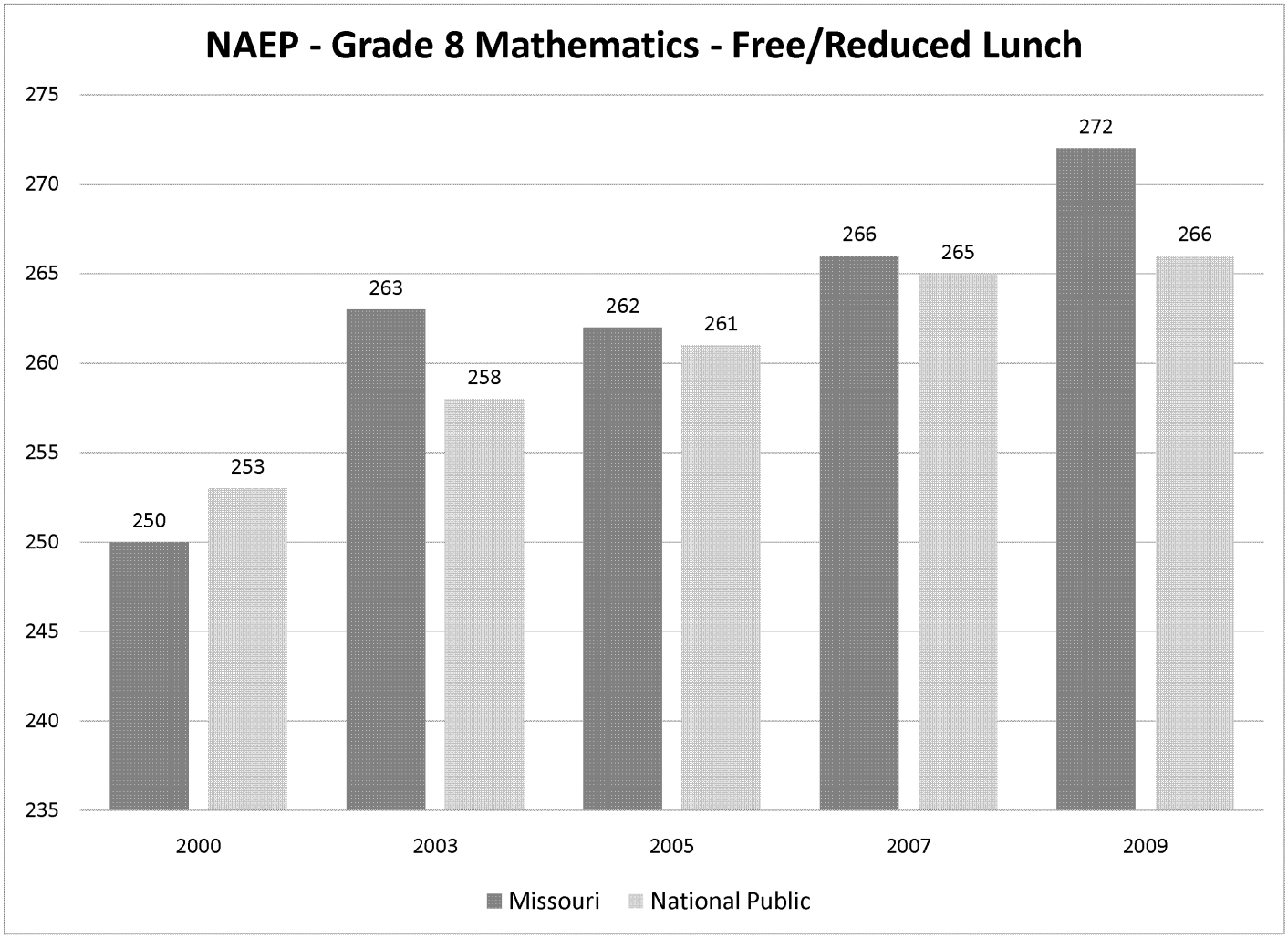
Missouri (Average Scale Score)

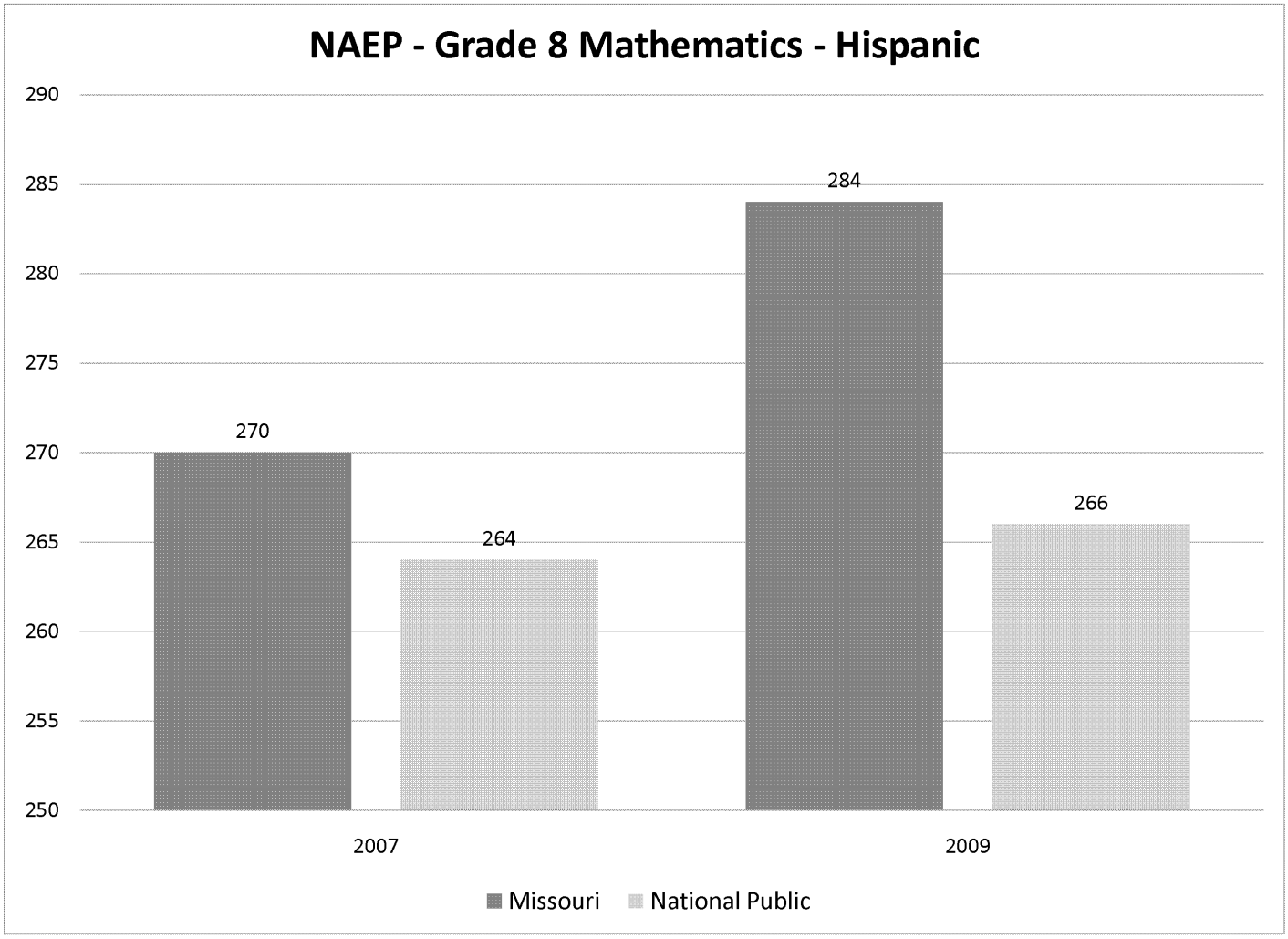
Year	Overall	White	Black	Hispanic	Free/ Reduced Lucnh	SD	ELL
1992*	222	227	195				
1996*	225	230	200		210		
2000	228	233	202		213	212	
2003	235	240	216	220	224	222	
2005	235	240	215	221	225	222	224
2007	239	245	218	234	228	225	
2009	241	245	221	237	229	225	

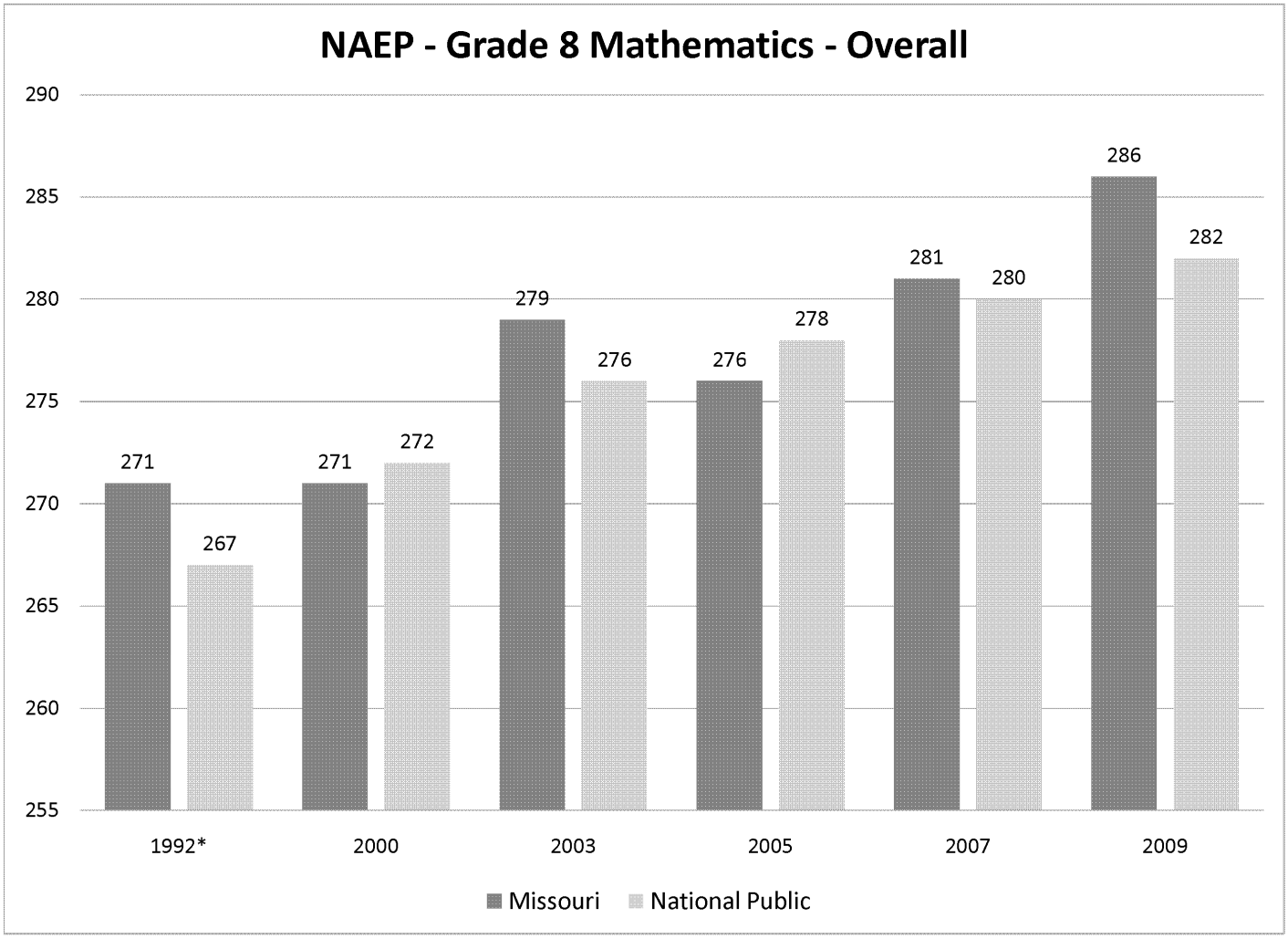
National Public (Average Scale Score)

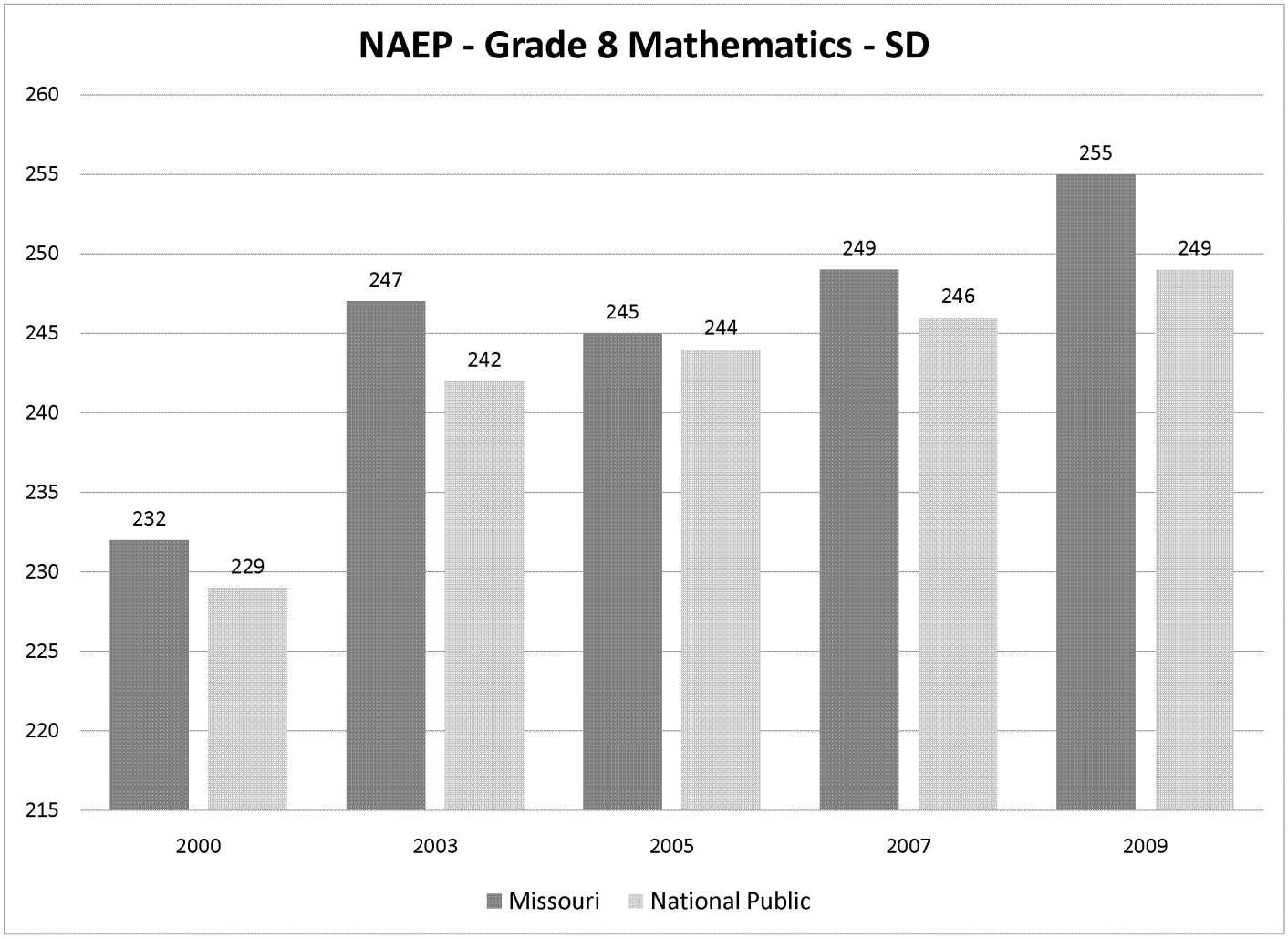
1992*	219	227	192	201			
1996*	222	230	199	204	207		
2000	224	233	203	207	208	198	199
2003	234	243	216	221	222	214	214
2005	237	246	220	225	225	218	216
2007	239	248	222	227	227	220	217
2009	239	248	222	227	228	220	218


NAEP - Grade 8 Mathematics - Black
265
260
255
250
245
240
235
230
225
220
242
236
238
243
250
252
247
254
253
259
260
260
1992*
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 8 Mathematics - Free/Reduced Lunch
275
270
265
260
255
250
245
240
235
250
253
263
258
262
261
266
265
272
266
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 8 Mathematics - Hispanic
290
285
280
275
270
265
260
255
250
270
264
284
266
2007
2009
Missouri
National Public


NAEP - Grade 8 Mathematics - Overall
290
285
280
275
270
265
260
255
271
267
271
272
279
276
276
278
281
280
286
282
1992*
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 8 Mathematics - SD
260
255
250
245
240
235
230
225
220
215
232
229
247
242
245
244
249
246
255
249
2000
2003
2005
2007
2009
Missouri
National Public

Appendix 4 State of Missouri

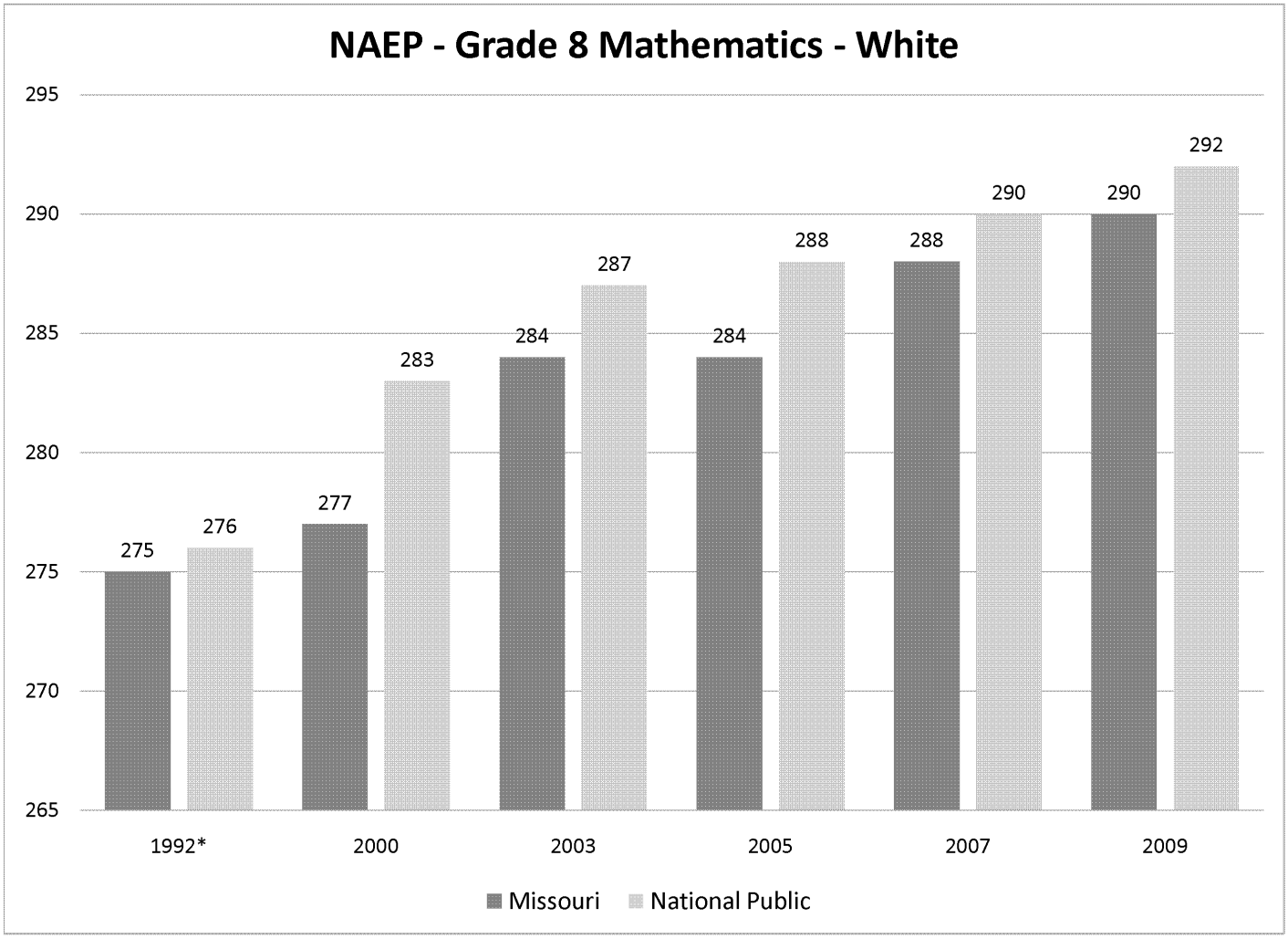
NAEP - Grade 8 Mathematics

Missouri (Average Scale Score)

Year	Overall	White	Black	Hispanic	Free/ Reduced Lucnh	SD	ELL
1992*	271	275	242				
1996							
2000	271	277	238		250	232	
2003	279	284	250		263	247	
2005	276	284	247		262	245	
2007	281	288	253	270	266	249	
2009	286	290	260	284	272	255	

National Public (Average Scale Score)

1992*	267	276	236	247			
1996	269	279	239	249	250	231	226
2000	272	283	243	252	253	229	234
2003	276	287	252	258	258	242	241
2005	278	288	254	261	261	244	244
2007	280	290	259	264	265	246	245
2009	282	292	260	266	266	249	243


NAEP - Grade 8 Mathematics - White
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290
285
280
275
270
265
275
276
277
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284
287
284
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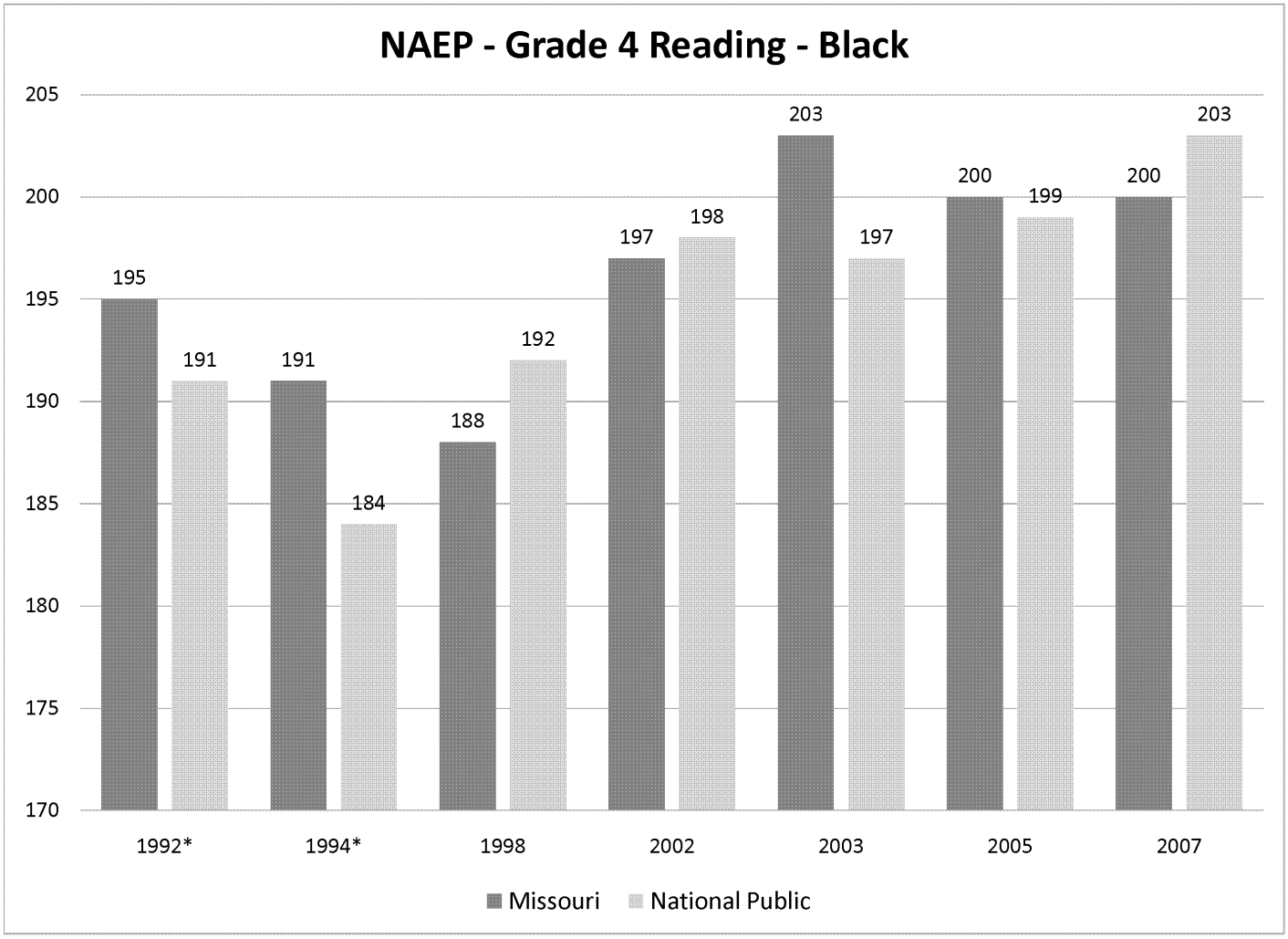
288
290
290
292
1992*
2000
2003
2005
2007
2009
Missouri
National Public


NAEP - Grade 4 Reading - Black
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200
195
190
185
180
175
170
195
191
191
184
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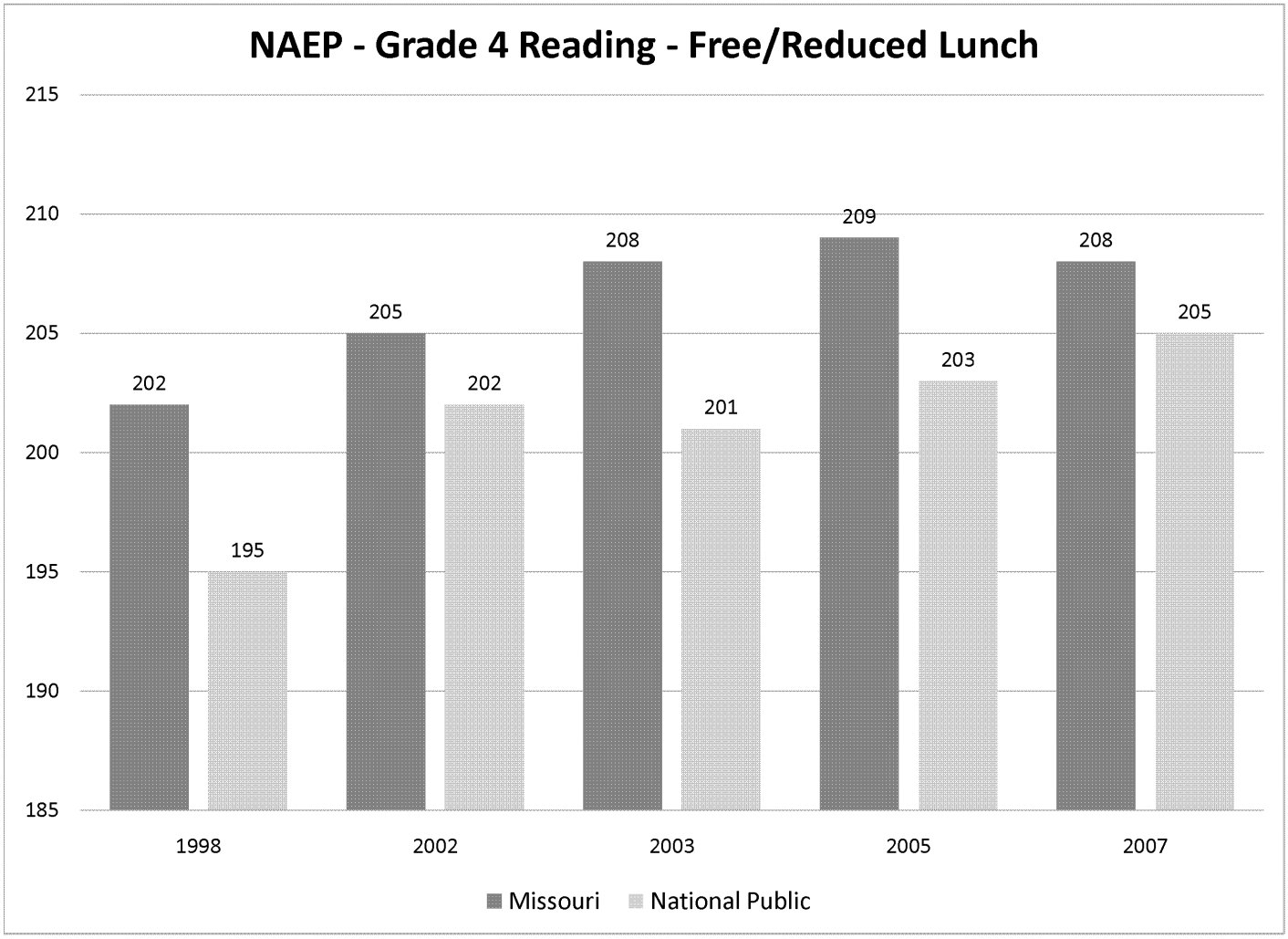
198
203
197
200
199
200
203
1992*
1994*
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 4 Reading - Free/Reduced Lunch
215
210
205
200
195
190
185
202
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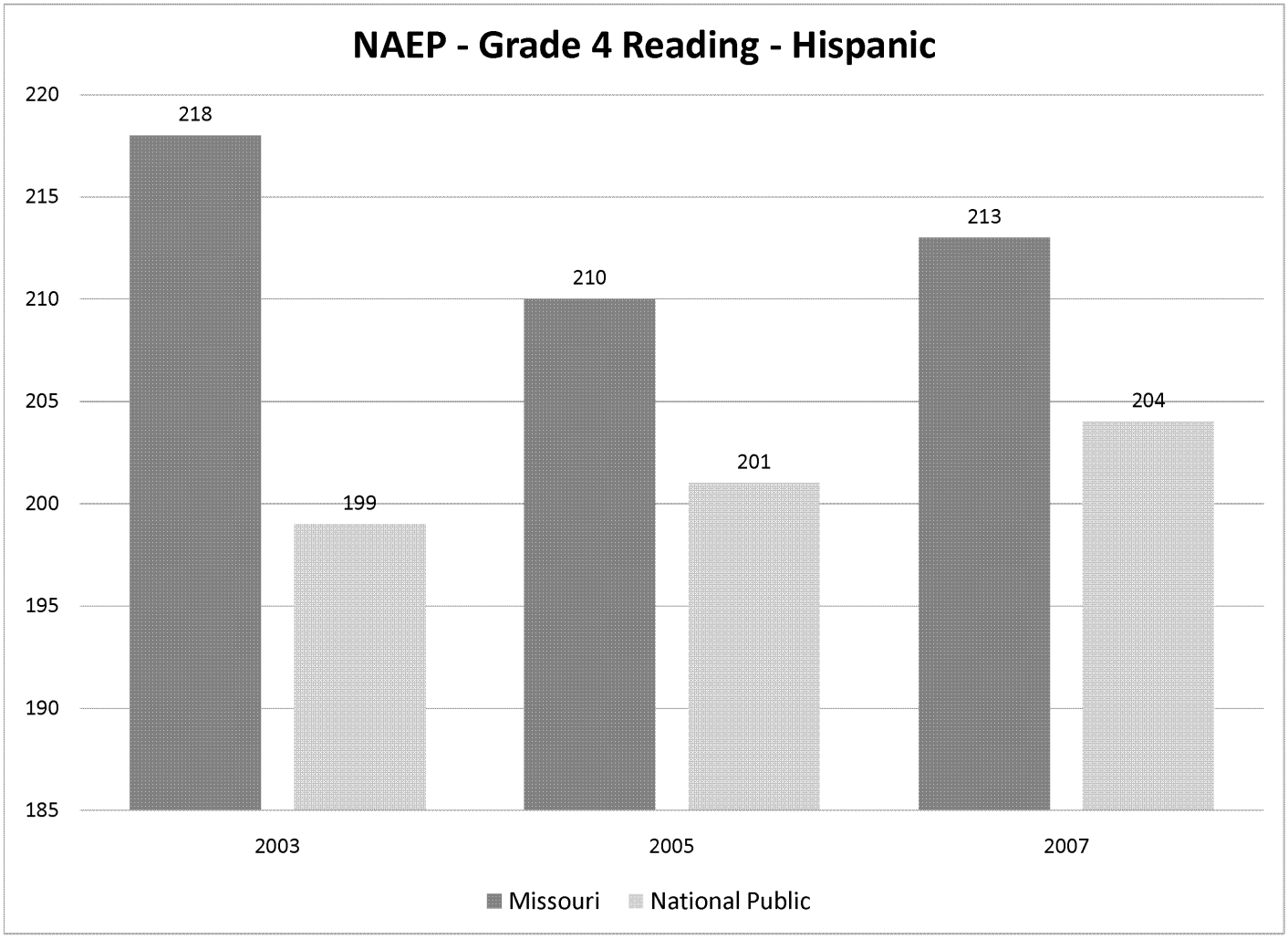
205
202
208
201
209
203
208
205
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 4 Reading - Hispanic
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215
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185
218
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210
201
213
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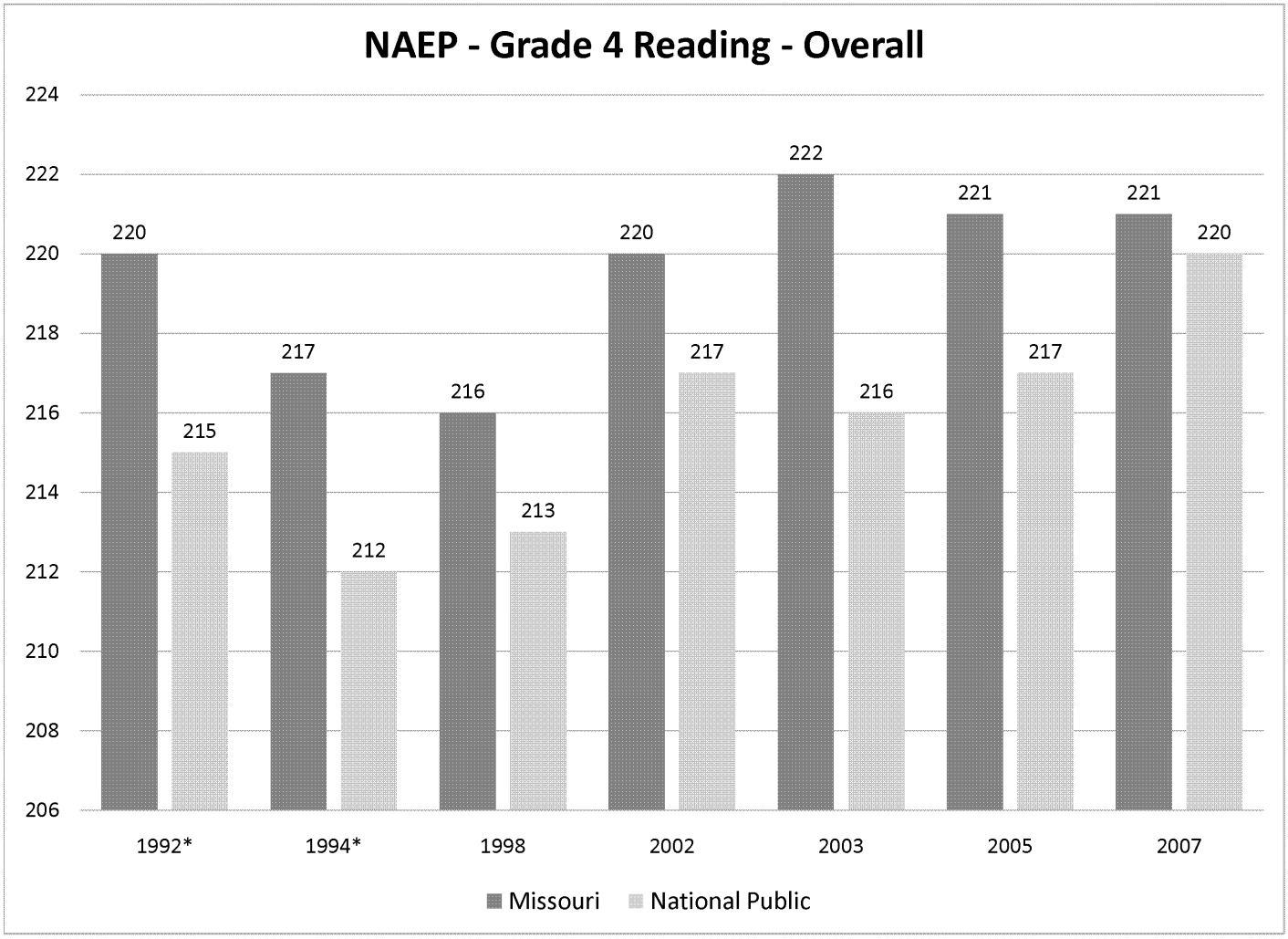
2003
2005
2007
Missouri
National Public


NAEP - Grade 4 Reading - Overall
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222
220
218
216
214
212
210
208
206
220
215
217
212
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213
220
217
222
216
221
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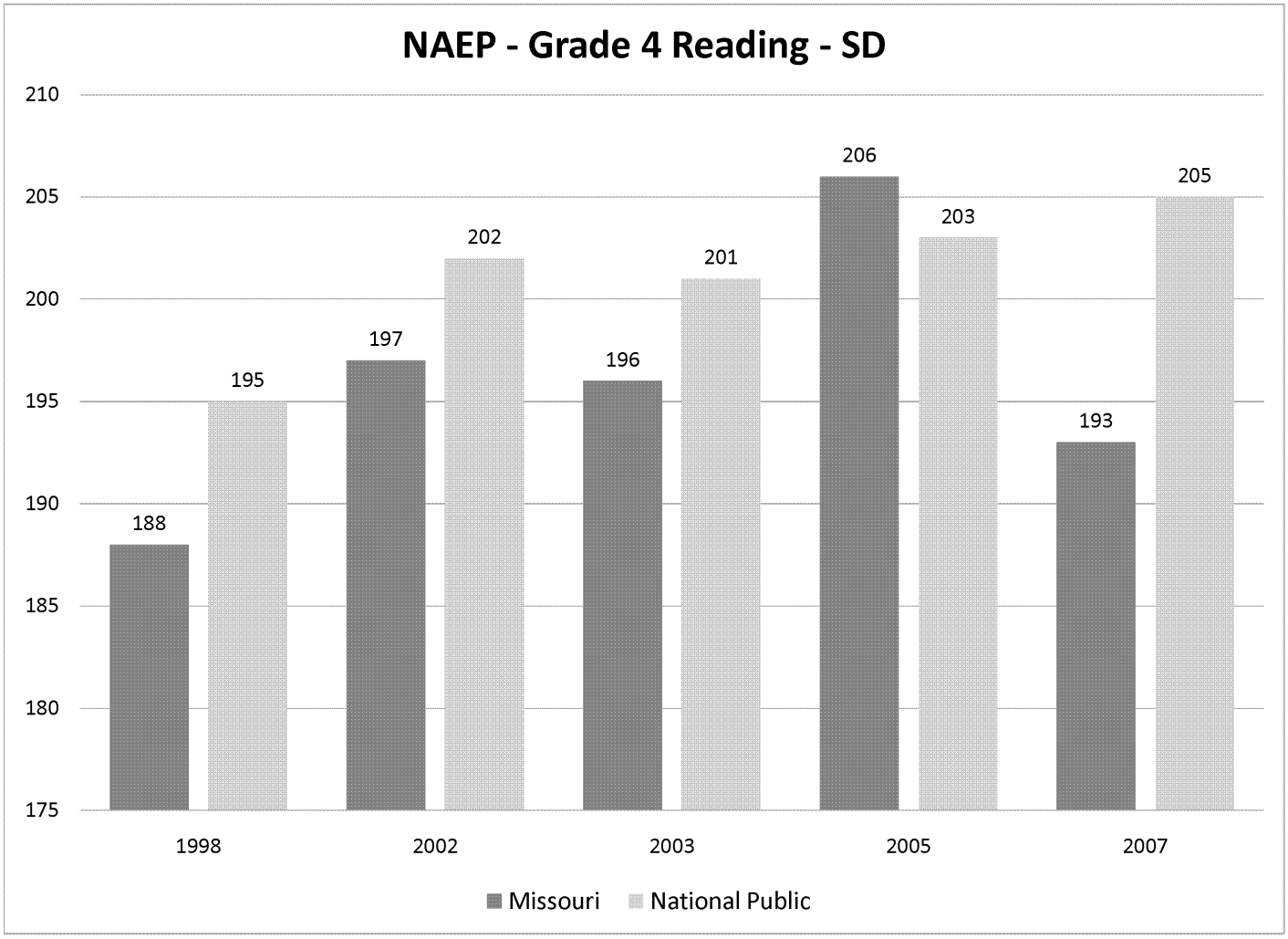
221
220
1992*
1994*
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 4 Reading - SD
210
205
200
195
190
185
180
175
188
195
197
202
196
201
206
203
193
205
1998
2002
2003
2005
2007
Missouri
National Public

Appendix 4 State of Missouri

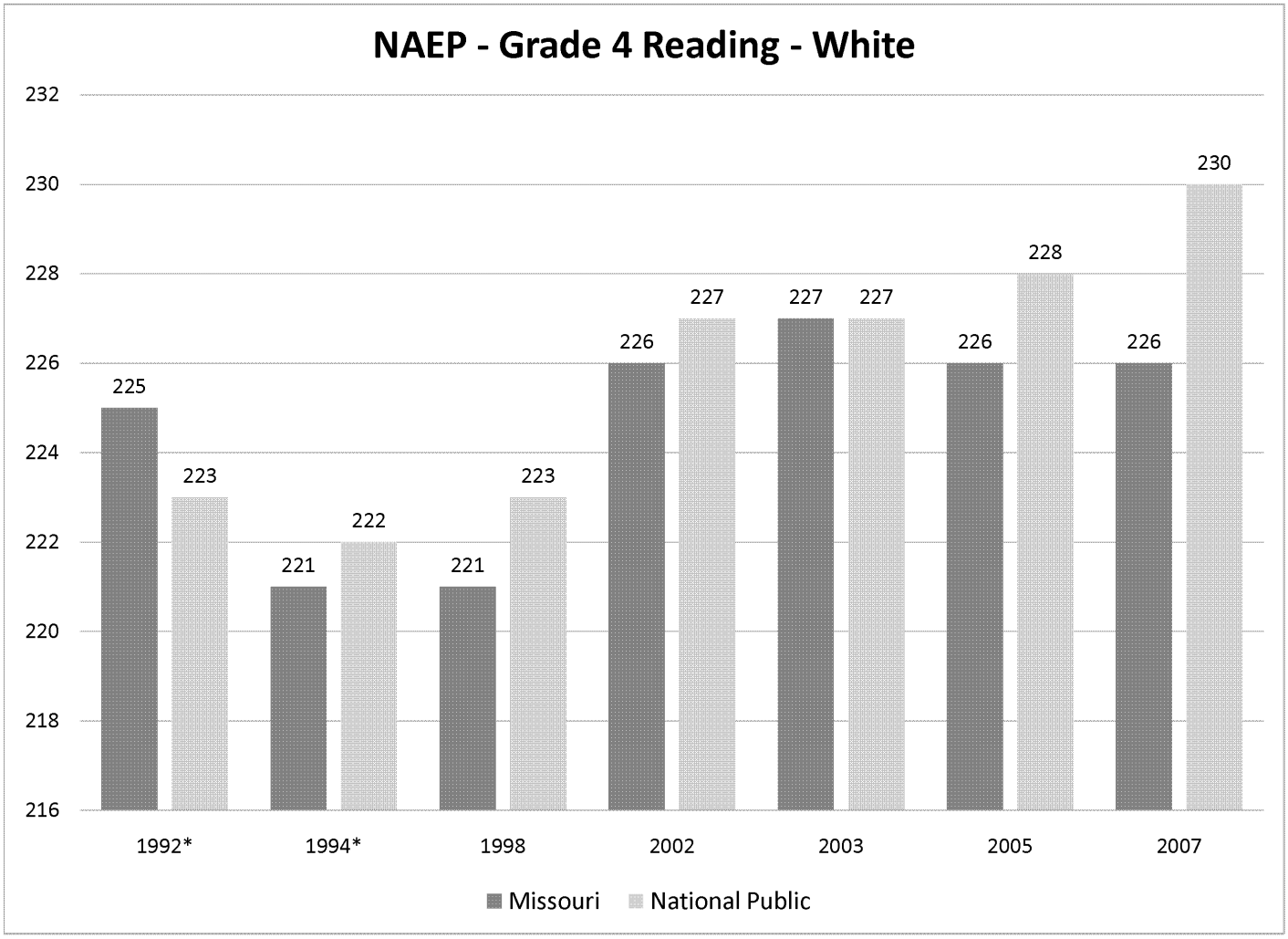
NAEP - Grade 4 Reading

Missouri (Average Scale Score)

Year	Overall	White	Black	Hispanic	Free/ Reduced Lucnh	SD	ELL
1992*	220	225	195				
1994*	217	221	191				
1998	216	221	188		202	188	
2000							
2002	220	226	197		205	197	
2003	222	227	203	218	208	196	
2005	221	226	200	210	209	206	
2007	221	226	200	213	208	193	

National Public (Average Scale Score)

1992*	215	223	191	194			
1994*	212	222	184	186			
1998	213	223	192	192	195	176	174
2000	211	223	189	188	192	167	167
2002	217	227	198	199	202	187	183
2003	216	227	197	199	201	184	186
2005	217	228	199	201	203	190	187
2007	220	230	203	204	205	190	188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230
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222
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218
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221
222
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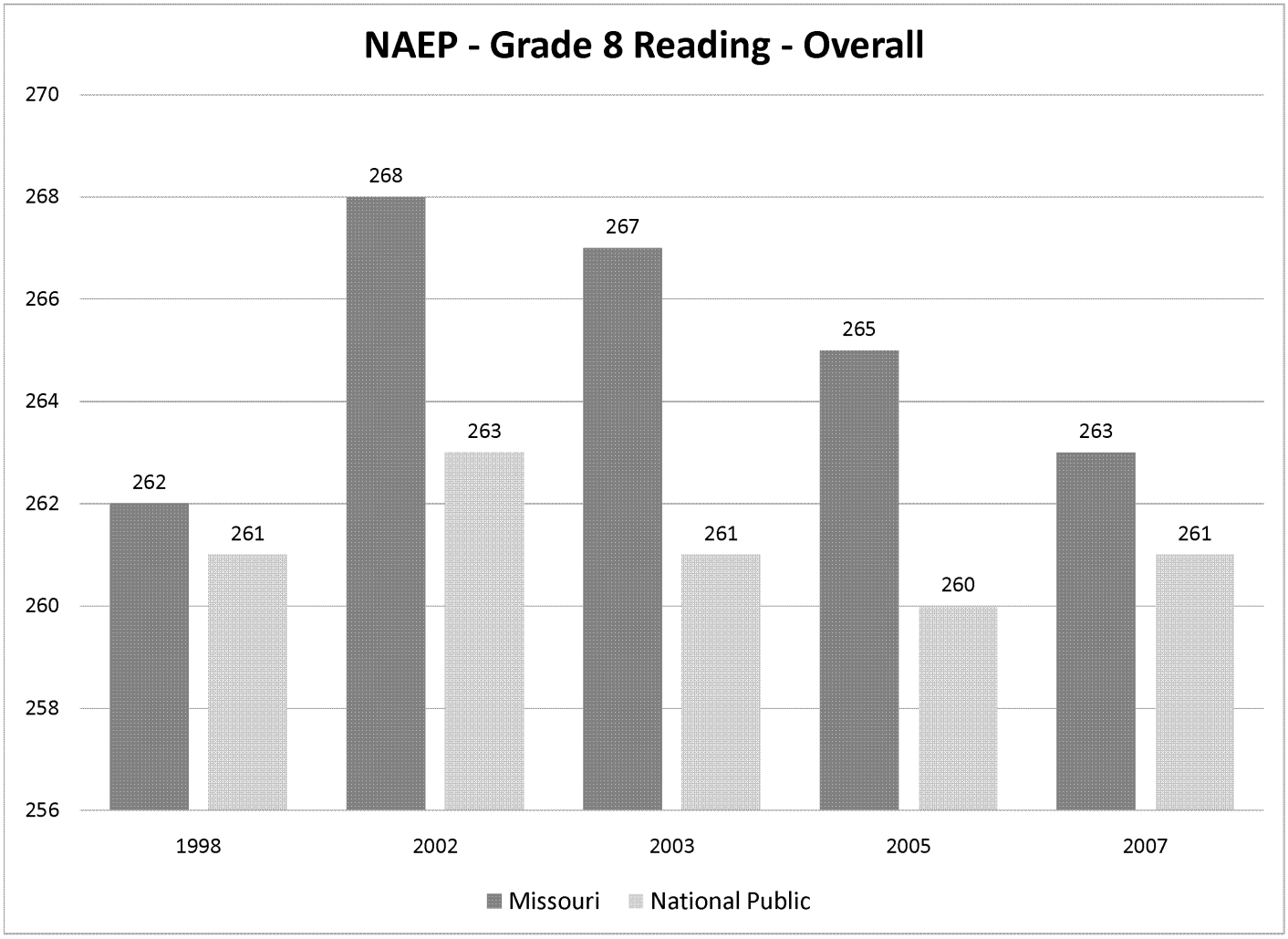
227
226
228
226
230
1992*
1994*
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 8 Reading - Overall
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268
266
264
262
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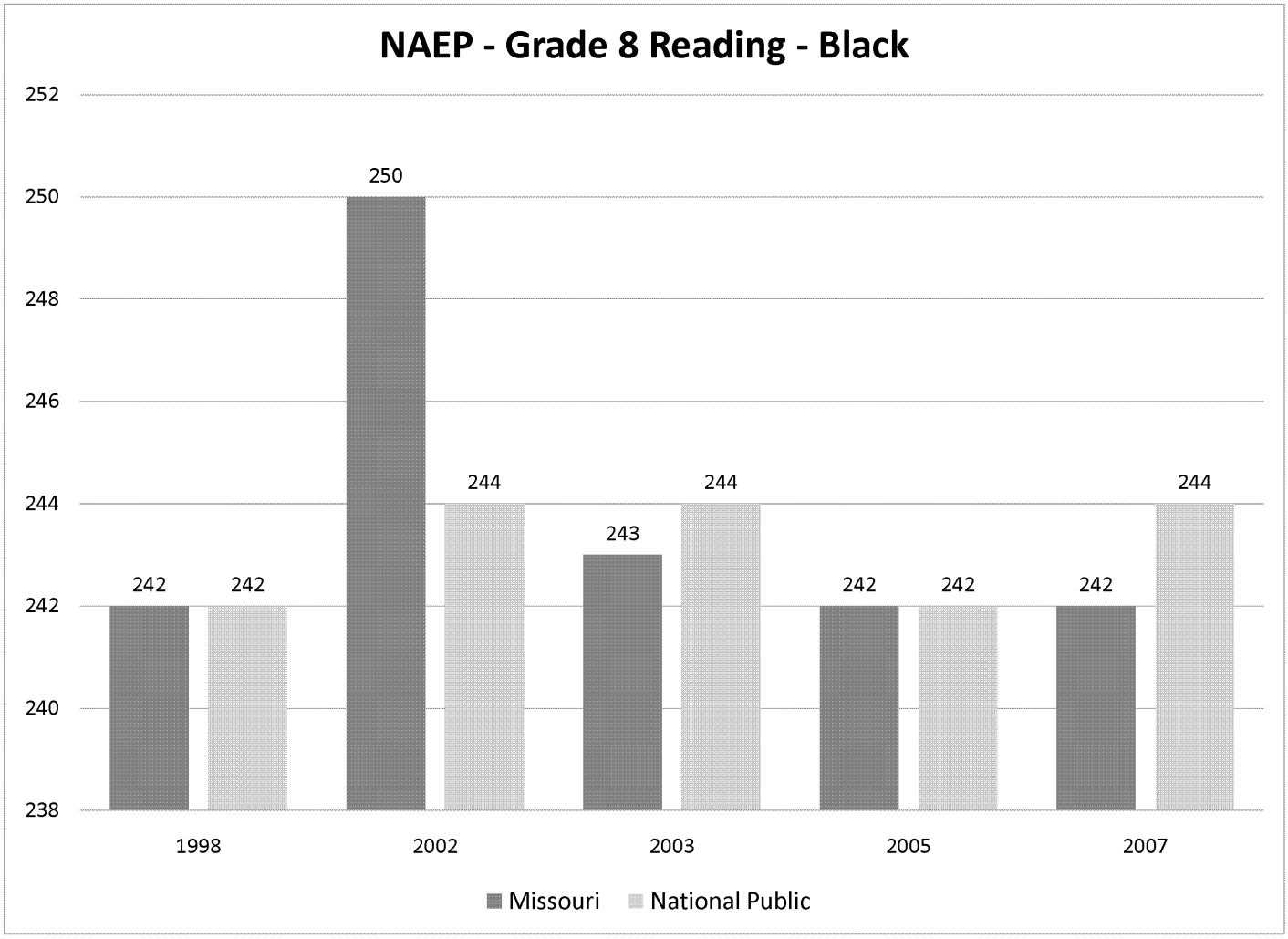
263
261
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 8 Reading - Black
252
250
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246
244
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238
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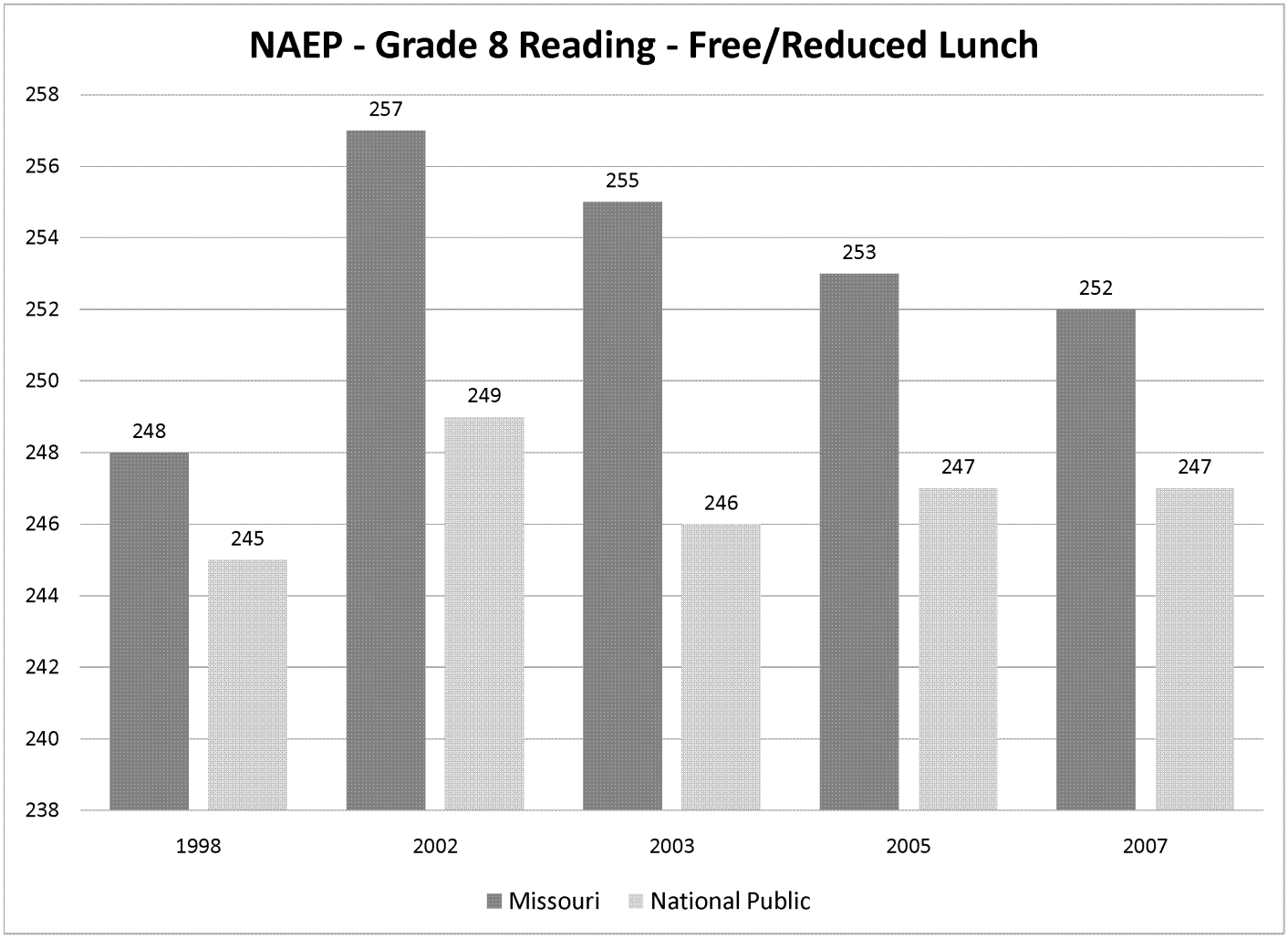
244
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 8 Reading - Free/Reduced Lunch
258
256
254
252
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248
246
244
242
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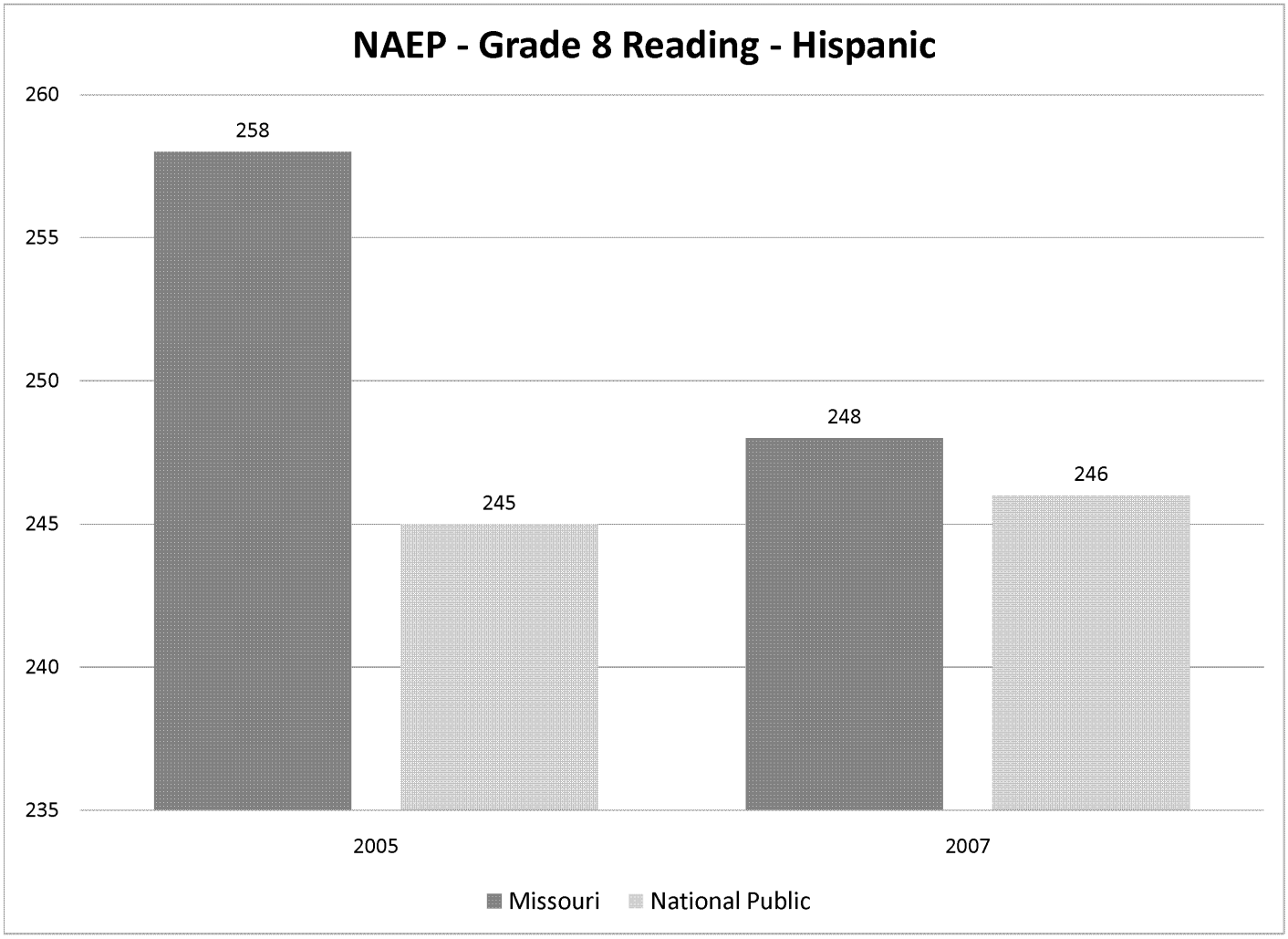
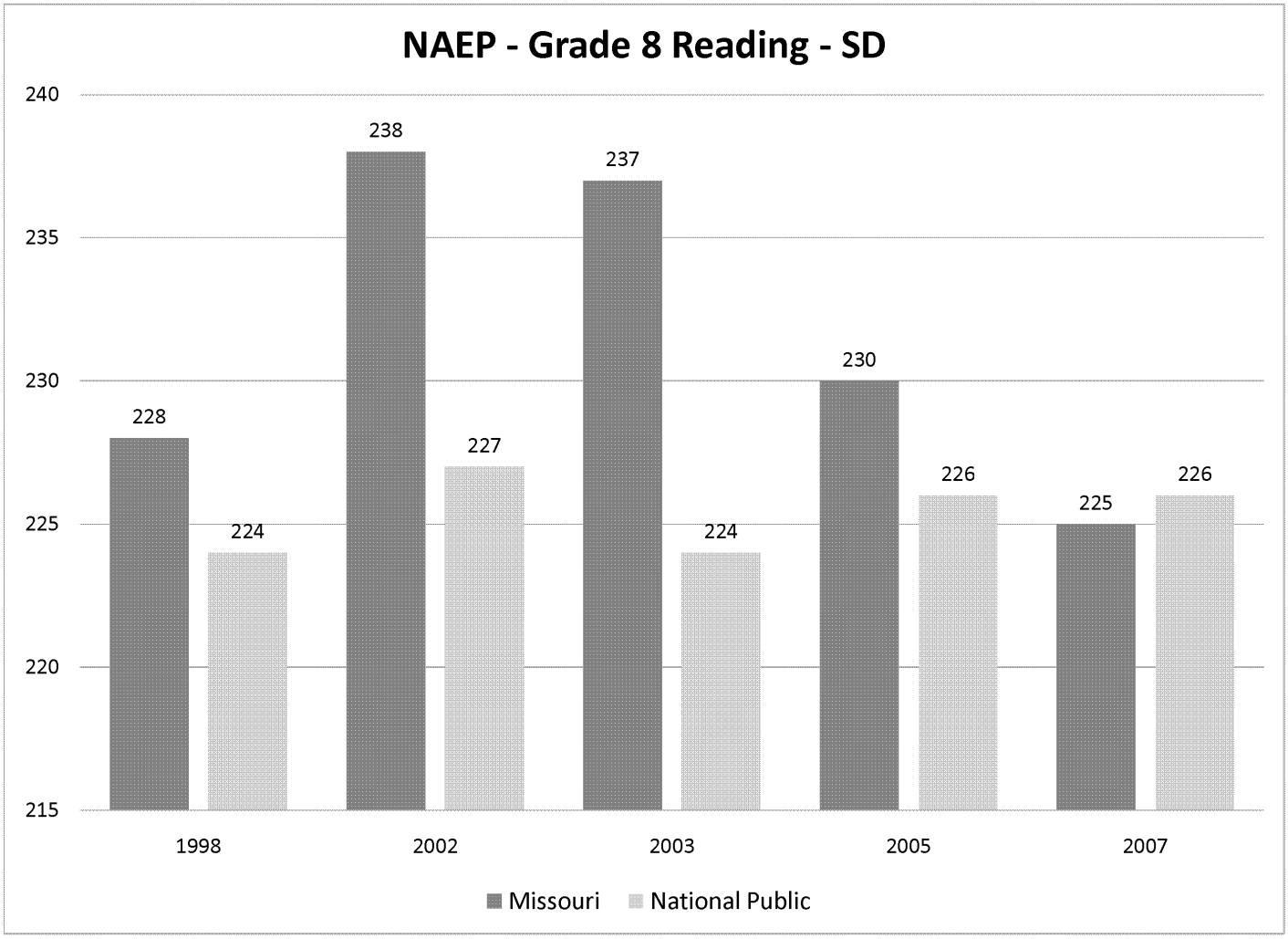
238
248
245
257
249
255
246
253
247
252
247
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 8 Reading - Hispanic
260
255
250
245
240
235
258
245
248
246
2005
2007
Missouri
National Public


NAEP - Grade 8 Reading - SD
240
235
230
225
220
215
228
224
238
227
237
224
230
226
225
226
1998
2002
2003
2005
2007
Missouri
National Public

Appendix 4 State of Missouri

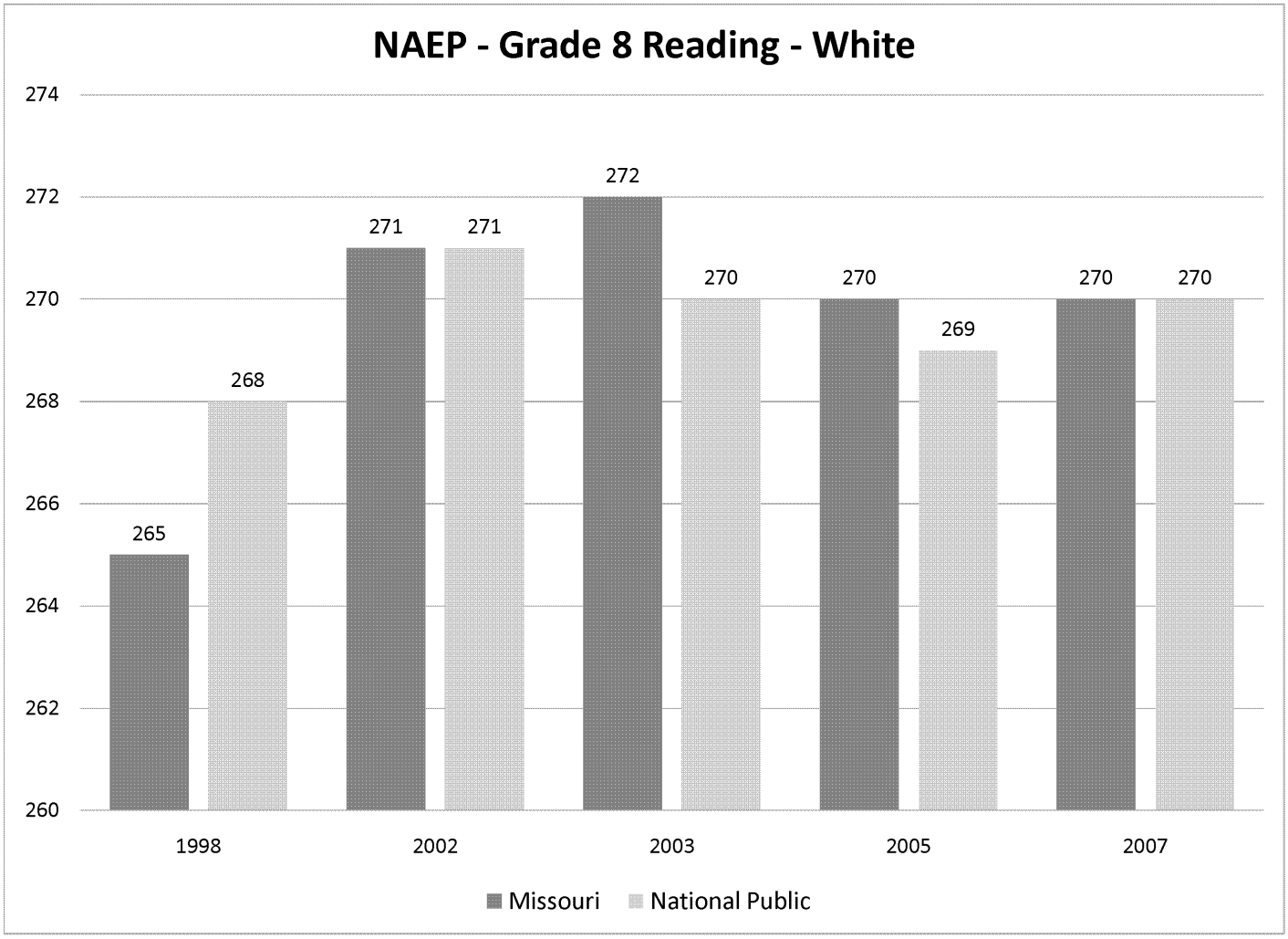
NAEP - Grade 8 Reading

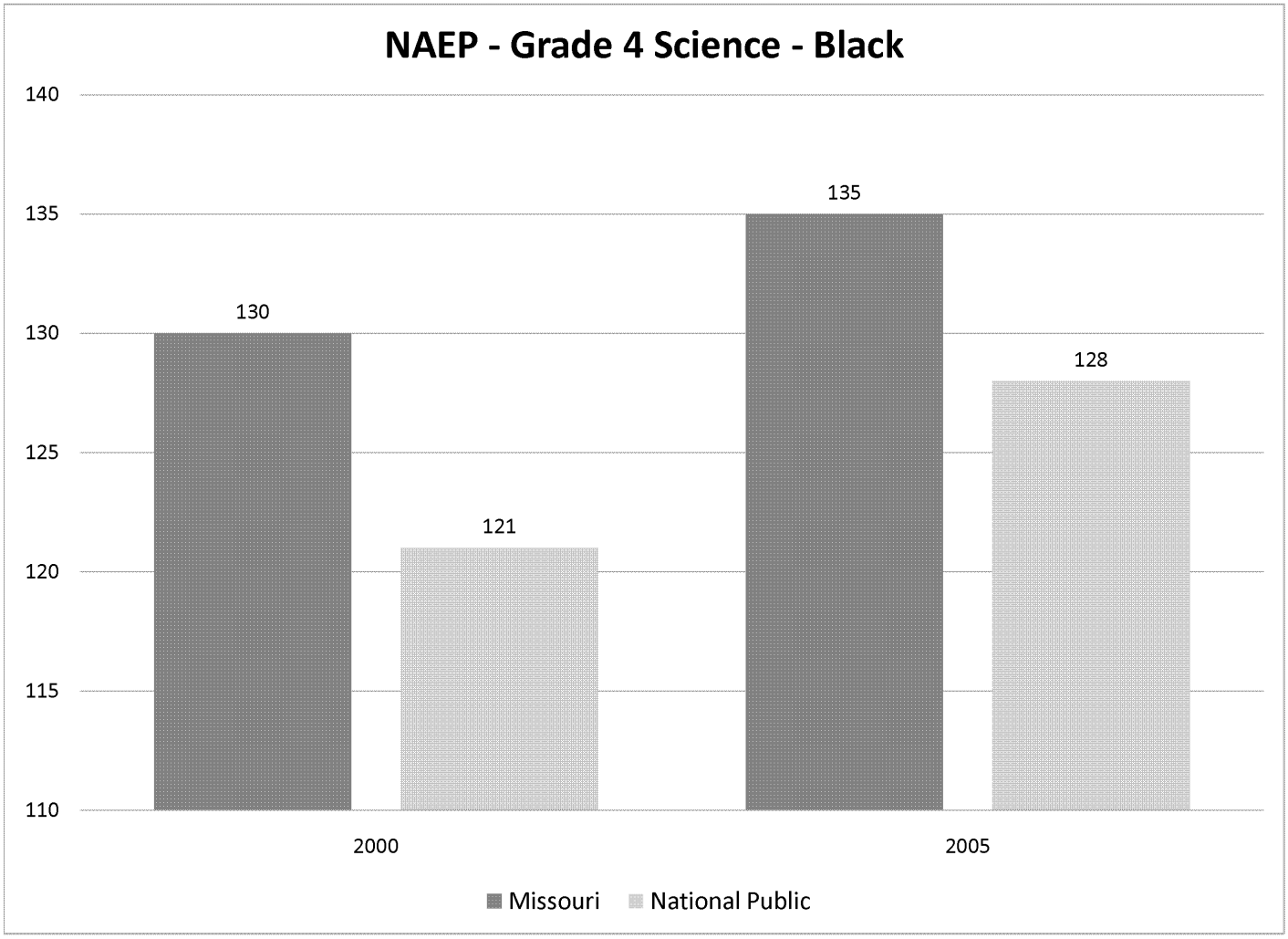
Missouri (Average Scale Score)

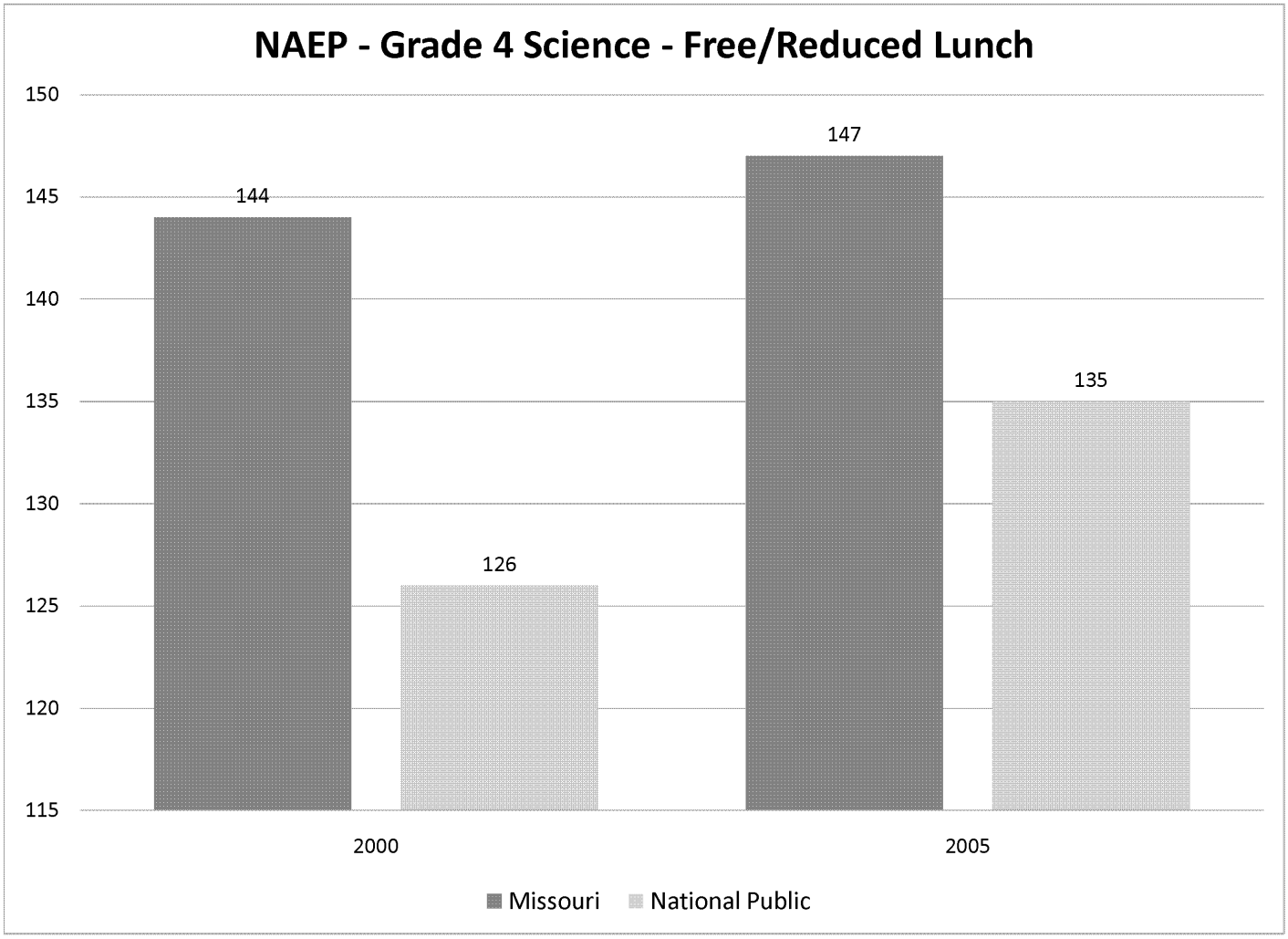
Year	Overall	White	Black	Hispanic	Free/ Reduced Lucnh	SD	ELL
1992*							
1994*							
1998	262	265	242		248	228	
2002	268	271	250		257	238	
2003	267	272	243		255	237	
2005	265	270	242	258	253	230	
2007	263	270	242	248	252	225	

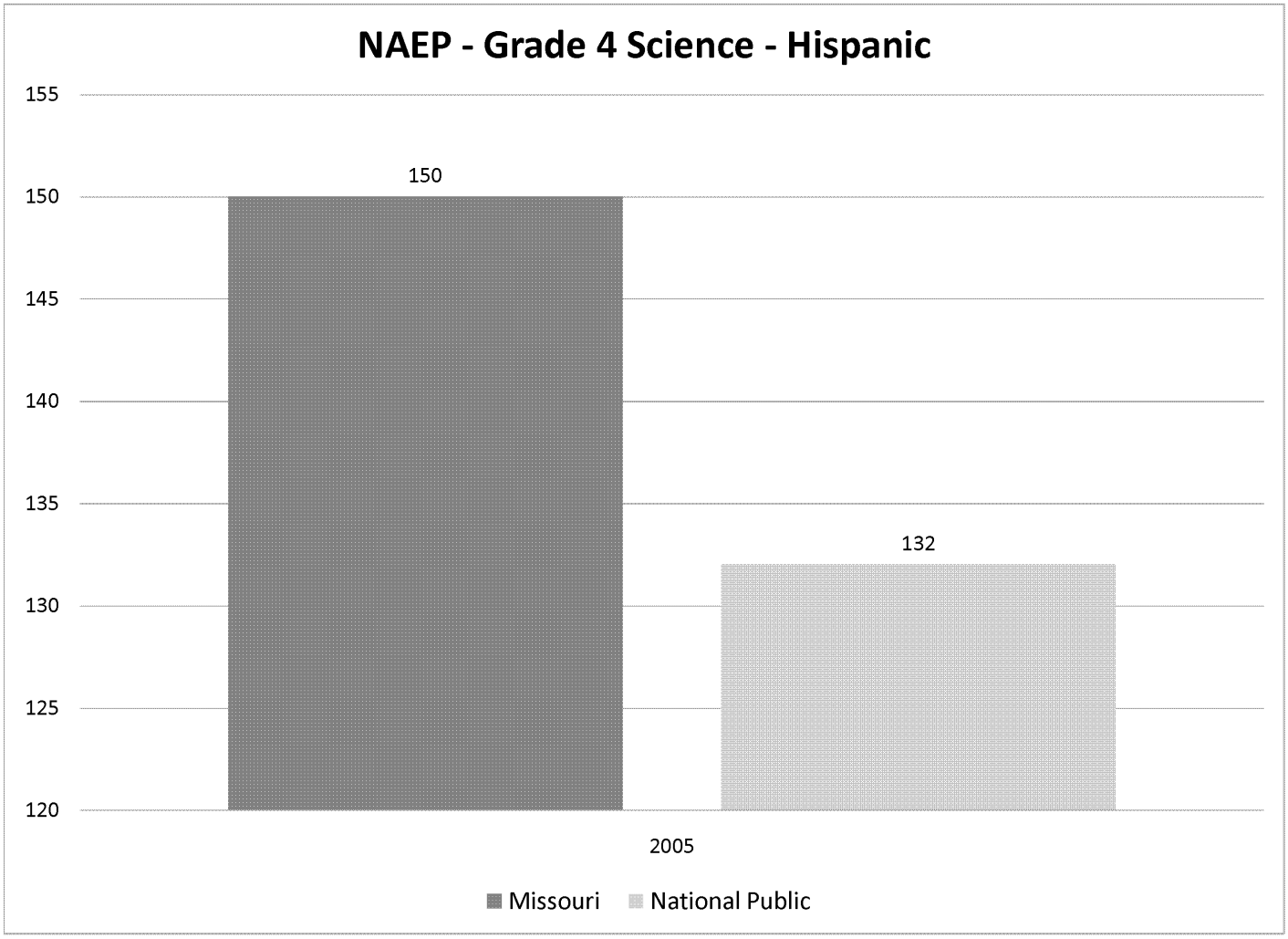
National Public (Average Scale Score)

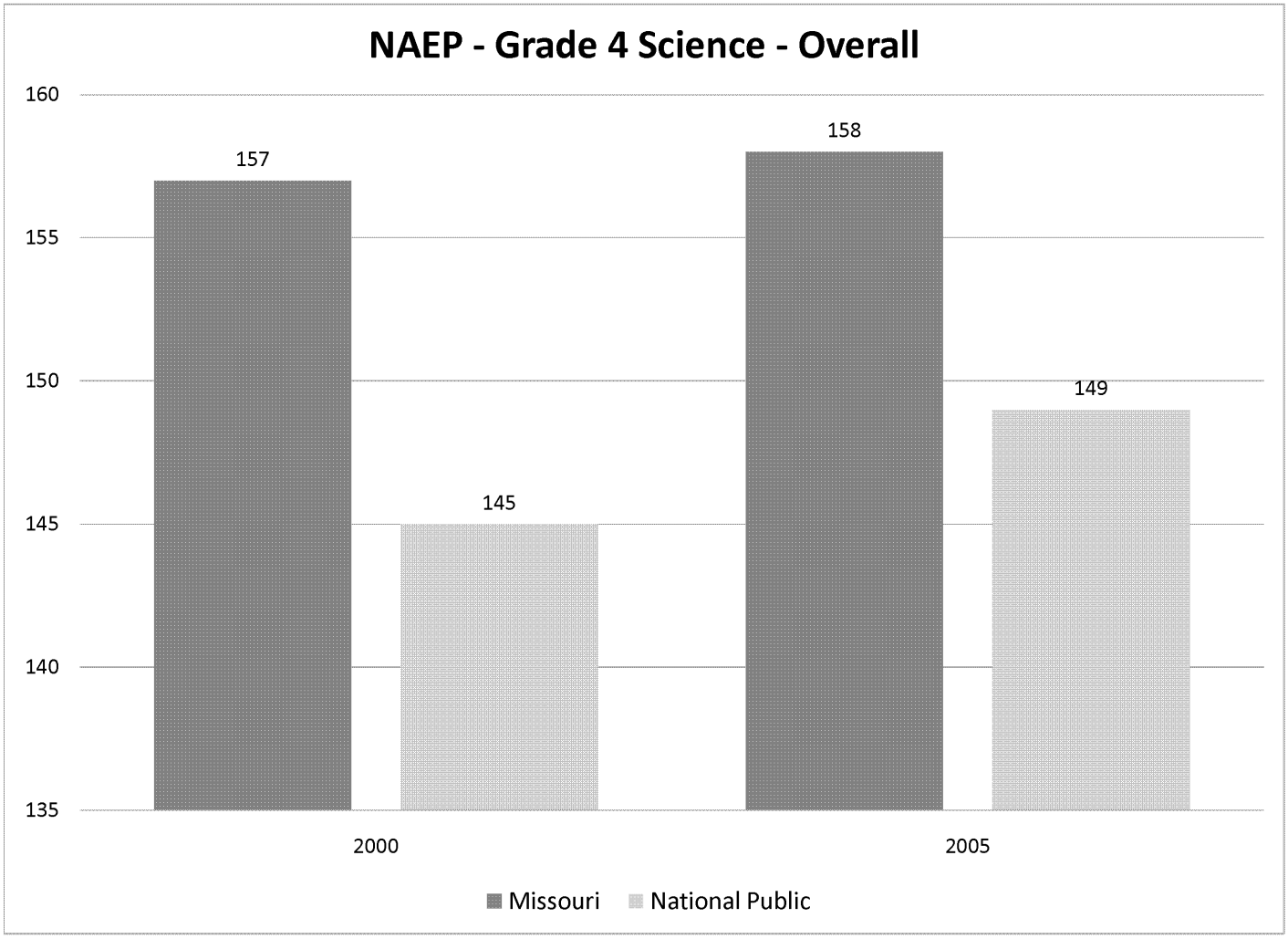
1992*	258	265	236	238			
1994*	257	265	235	239			
1998	261	268	242	241	245	224	217
2002	263	271	244	245	249	227	224
2003	261	270	244	244	246	224	222
2005	260	269	242	245	247	226	224
2007	261	270	244	246	247	226	222

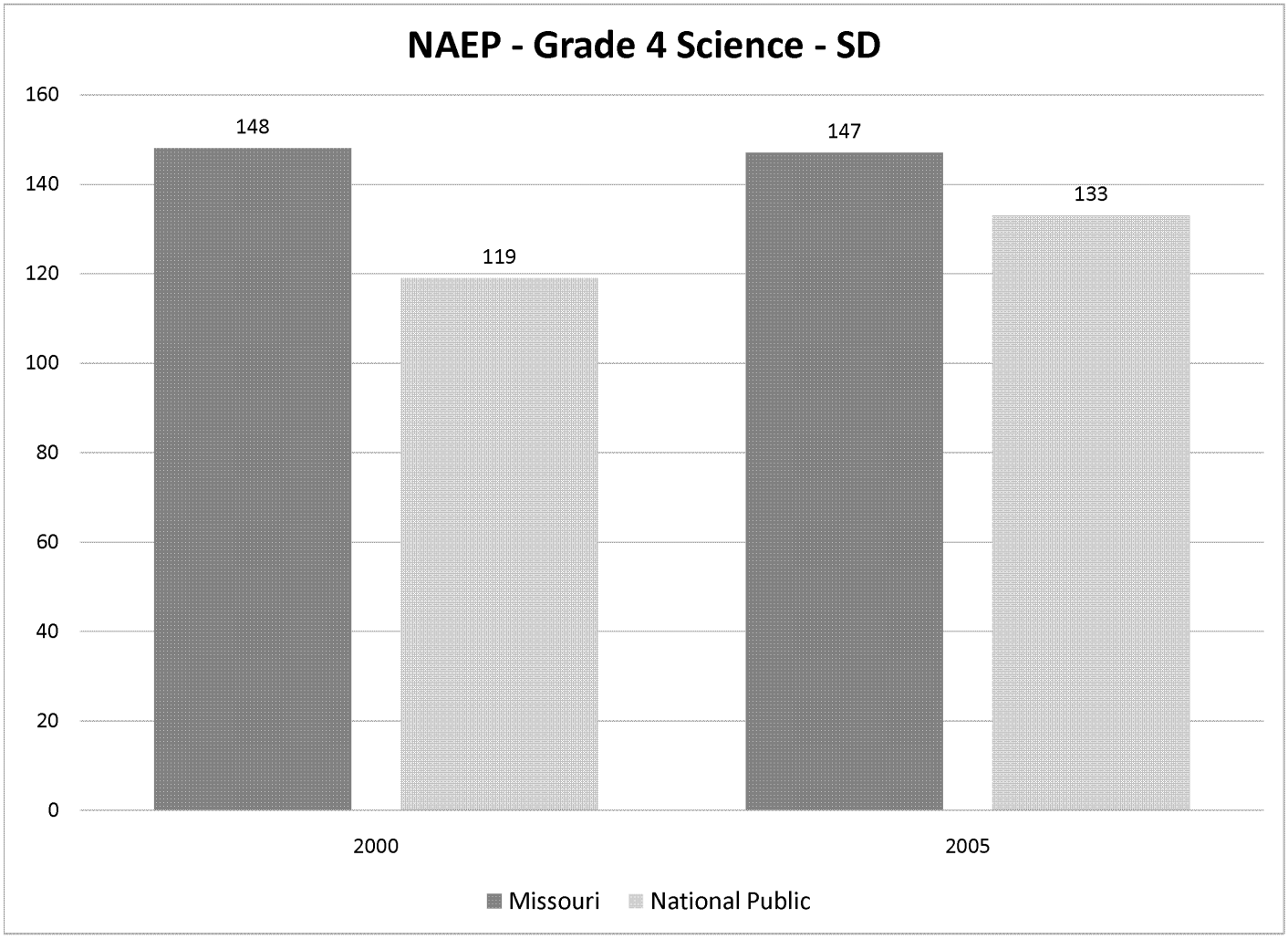

NAEP - Grade 8 Reading - White
274
272
270
268
266
264
262
260
265
268
271
271
272
270
270
269
270
270
1998
2002
2003
2005
2007
Missouri
National Public


NAEP - Grade 4 Science - Black
140
135
130
125
120
115
110
130
121
135
128
2000
2005
Missouri
National Public


NAEP - Grade 4 Science - Free/Reduced Lunch
150
145
140
135
130
125
120
115
144
126
147
135
2000
2005
Missouri
National Public

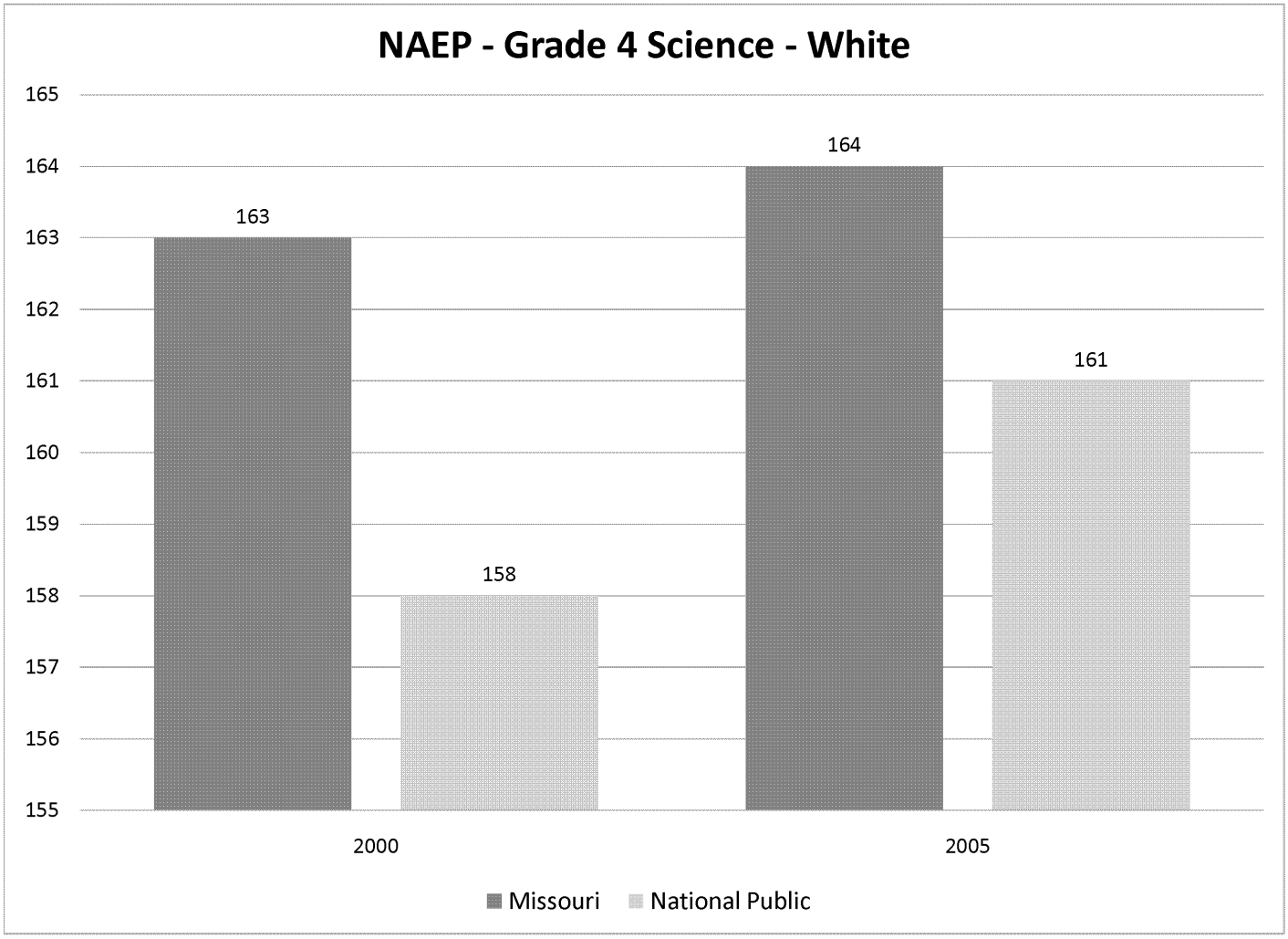

NAEP - Grade 4 Science - Hispanic
155
150
145
140
135
130
125
120
150
132
2005
Missouri
National Public

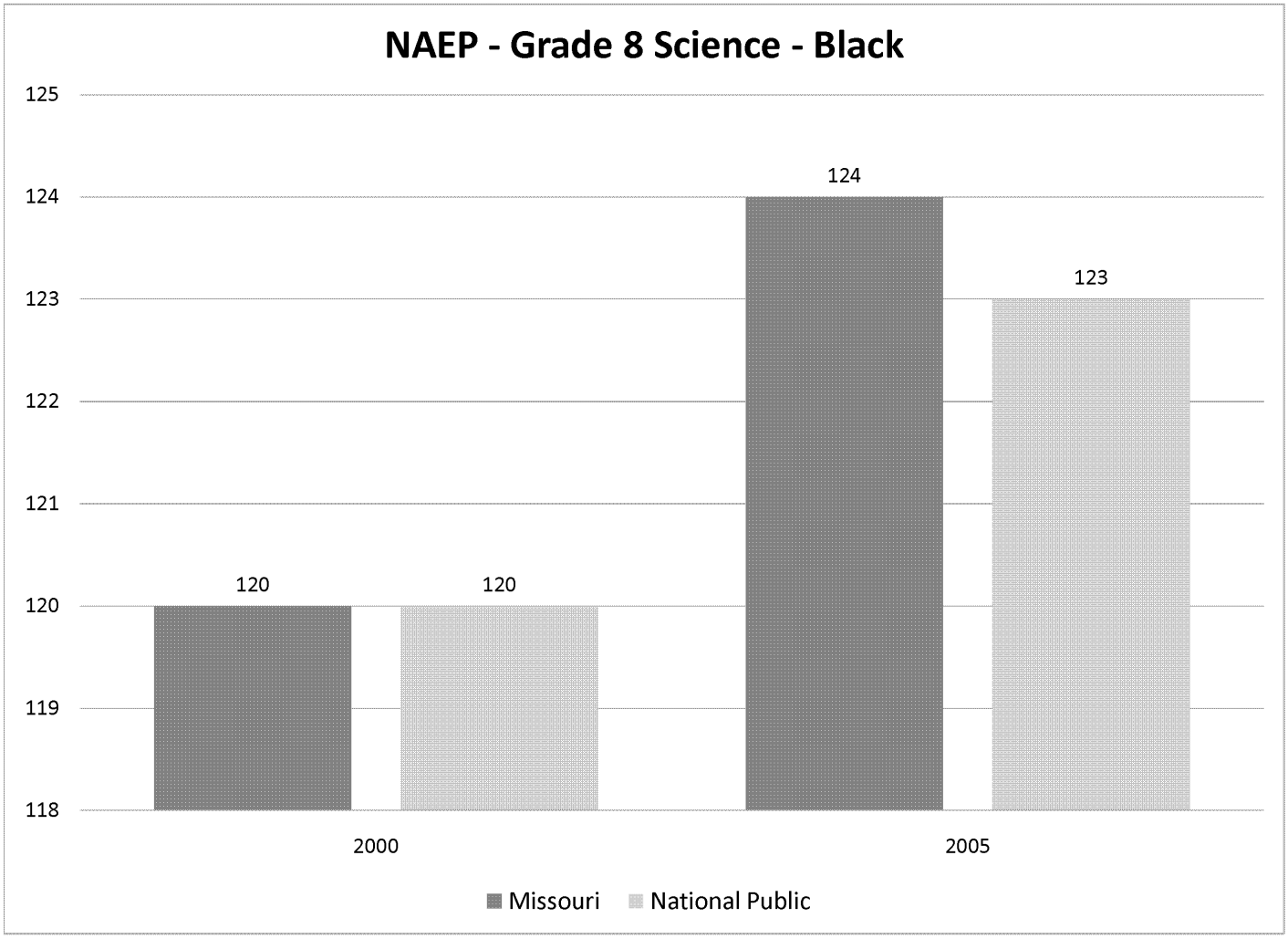

NAEP - Grade 4 Science - Overall
160
155
150
145
140
135
157
145
158
149
2000
2005
Missouri
National Public

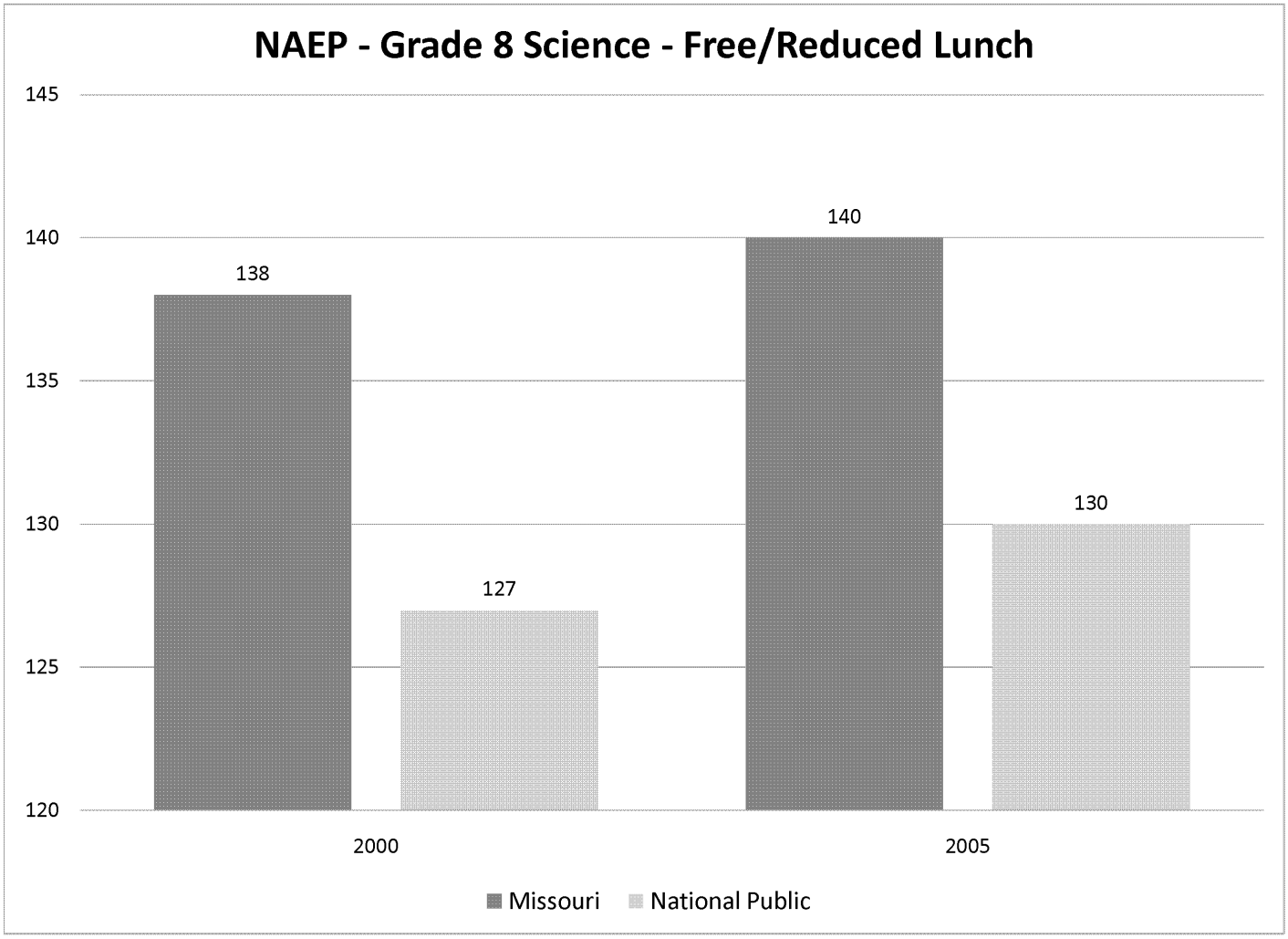

NAEP - Grade 4 Science - SD
160
140
120
100
80
60
40
20
0
148
119
147
133
2000
2005
Missouri
National Public

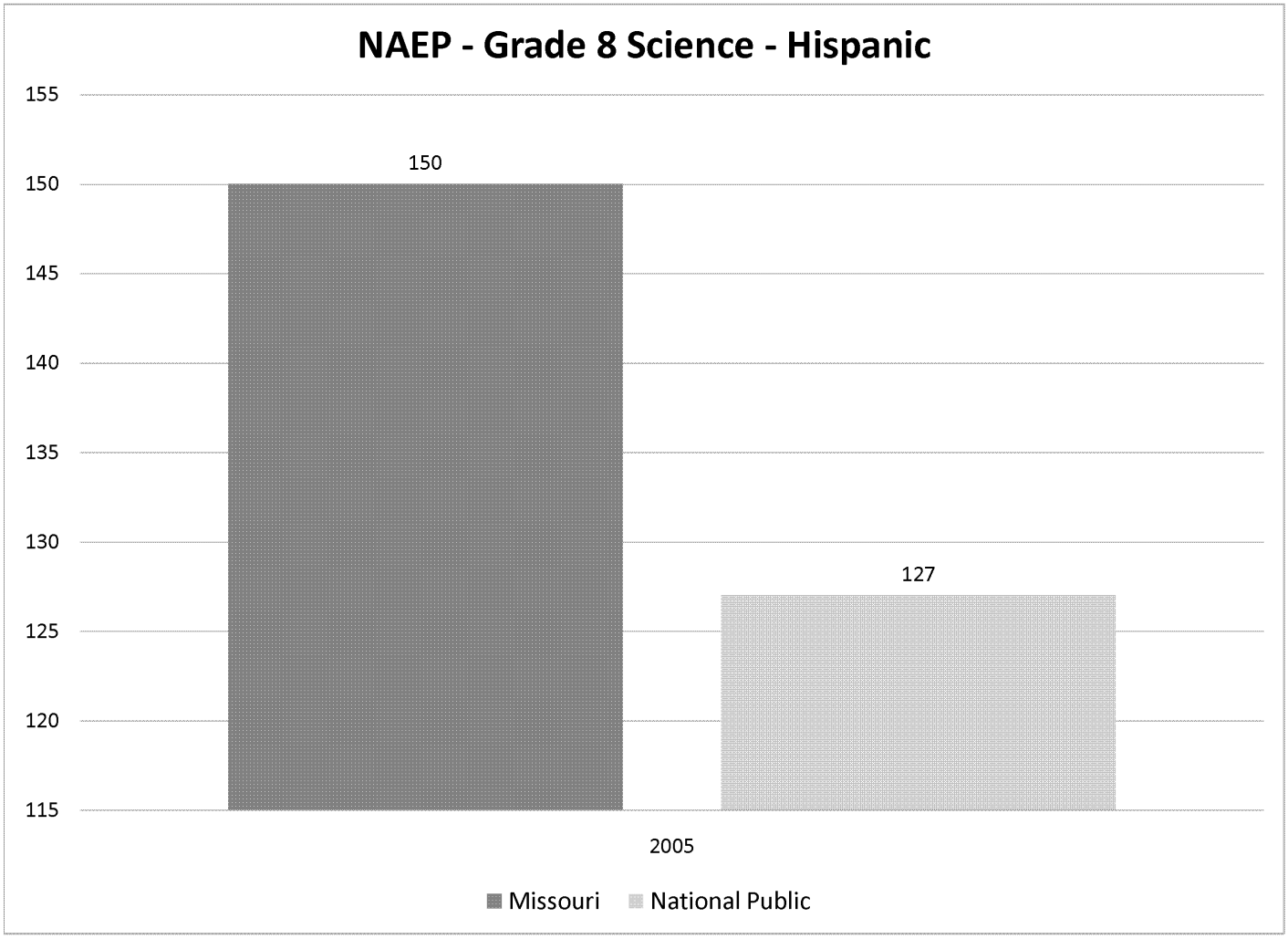
Appendix 4 State of Missouri

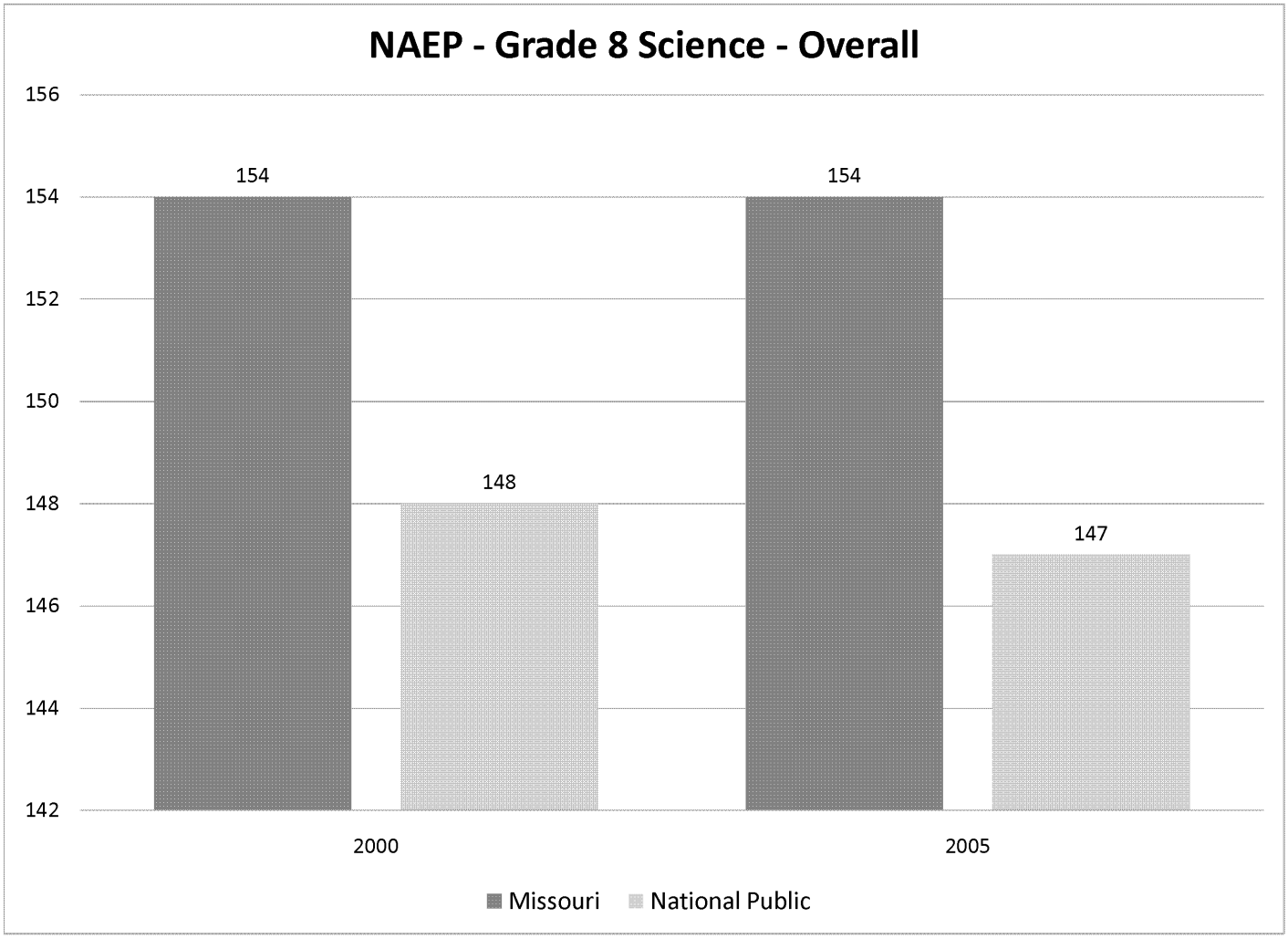
NAEP - Grade 4 Science							
Missouri (Average Scale Score)							
Year	**Overall**	**White**	**Black**	**Hispanic**	**Free/ Reduced Lucnh**	**SD**	**ELL**
1996							
2000	157	163	130		144	148	
2005	158	164	135	150	147	147	
National Public (Average Scale Score)							
1996	145	157	119	122	128	124	99
2000	145	158	121	121	126	119	102
2005	149	161	128	132	135	133	120

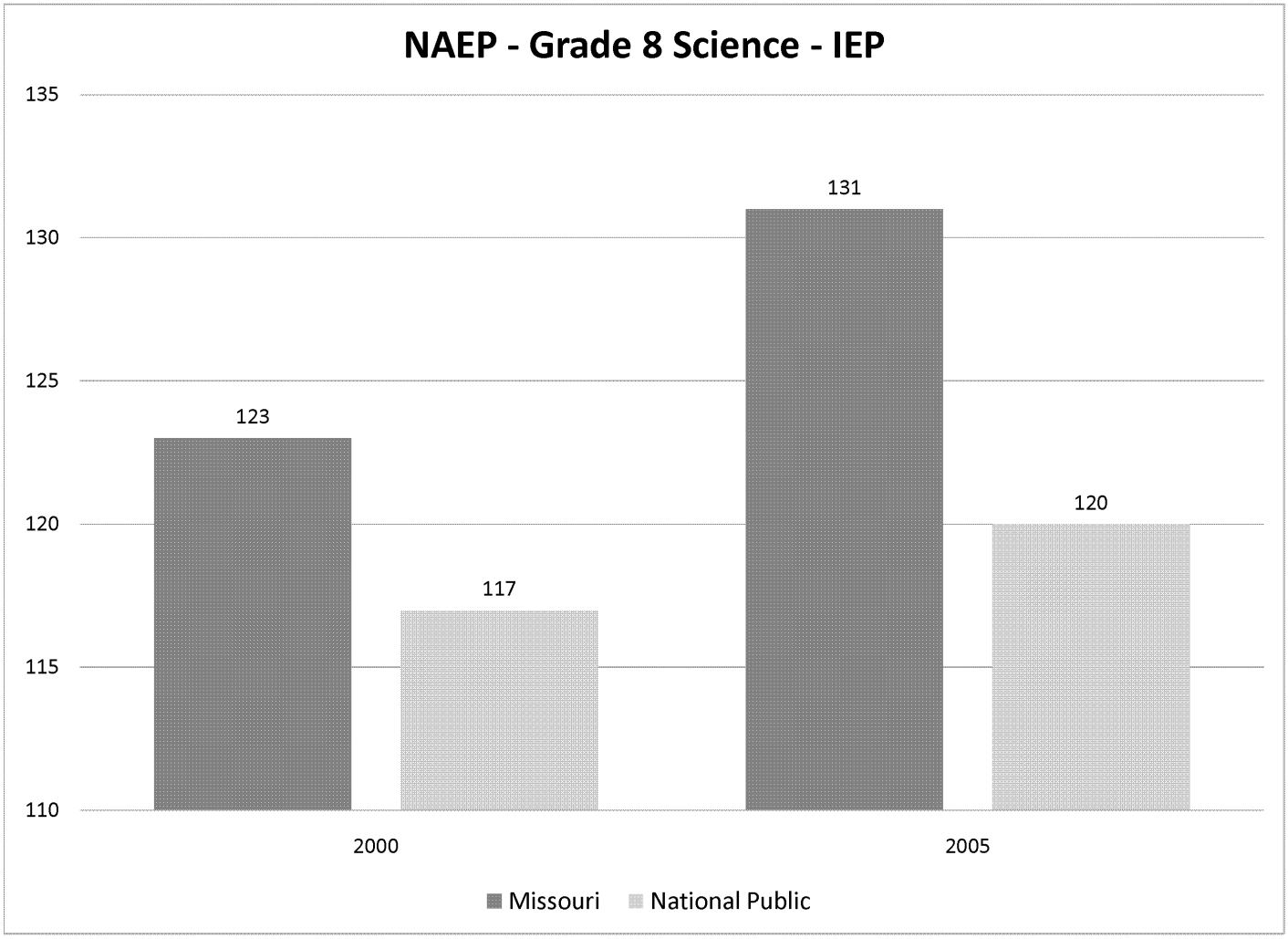

NAEP - Grade 4 Science - White
165
164
163
162
161
160
159
158
157
156
155
163
158
164
161
2000
2005
Missouri
National Public


NAEP - Grade 8 Science - Black
125
124
123
122
121
120
119
118
120
120
124
123
2000
2005
Missouri
National Public


NAEP - Grade 8 Science - Free/Reduced Lunch
145
140
135
130
125
120
138
127
140
130
2000
2005
Missouri
National Public


NAEP - Grade 8 Science - Hispanic
155
150
145
140
135
130
125
120
115
150
127
2005
Missouri
National Public


NAEP - Grade 8 Science - Overall
156
154
152
150
148
146
144
142
154
148
154
147
2000
2005
Missouri
National Public


NAEP - Grade 8 Science - IEP
135
130
125
120
115
110
123
117
131
120
2000
2005
Missouri
National Public

Appendix 4 State of Missouri

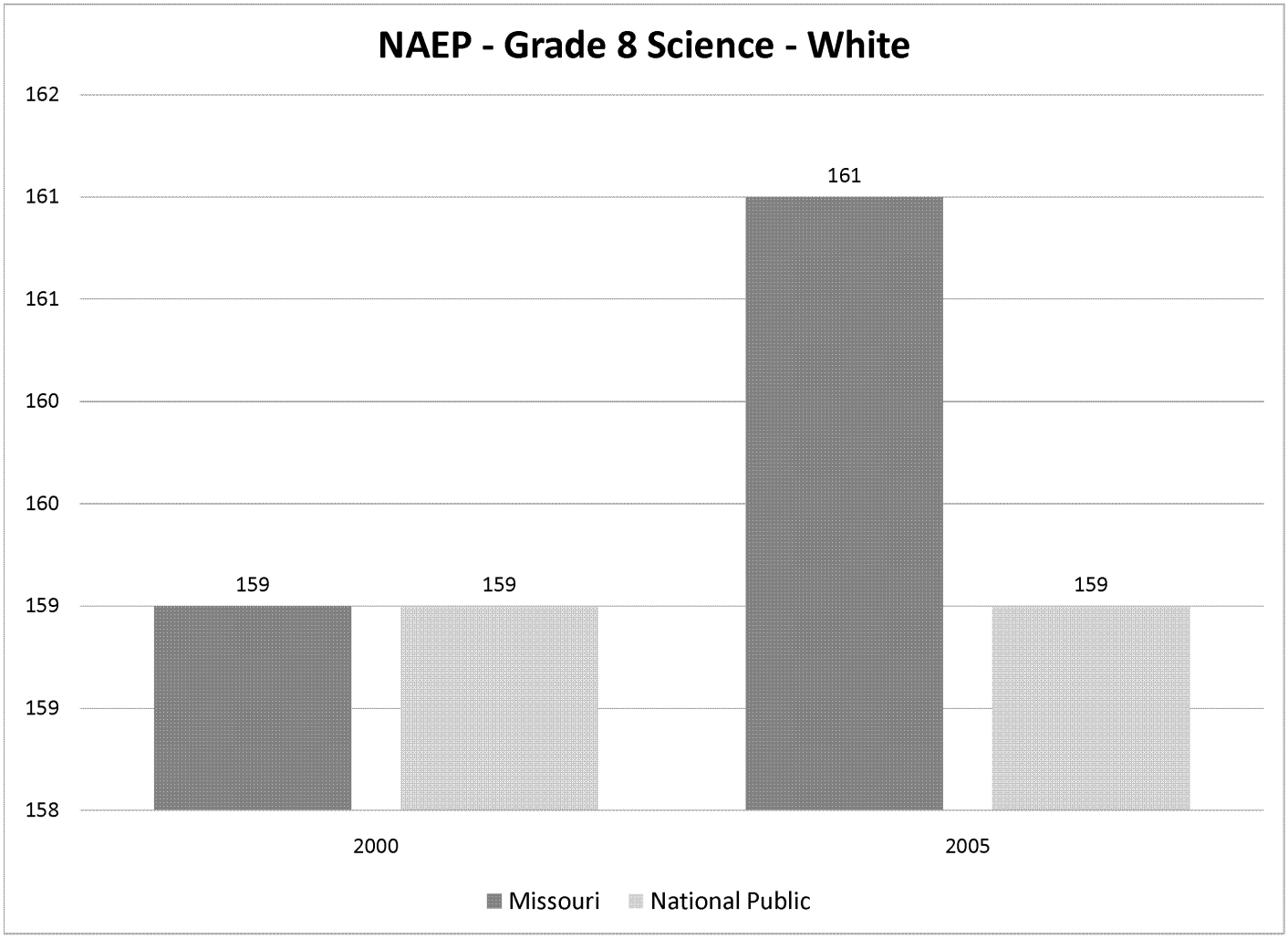
NAEP - Grade 8 Science

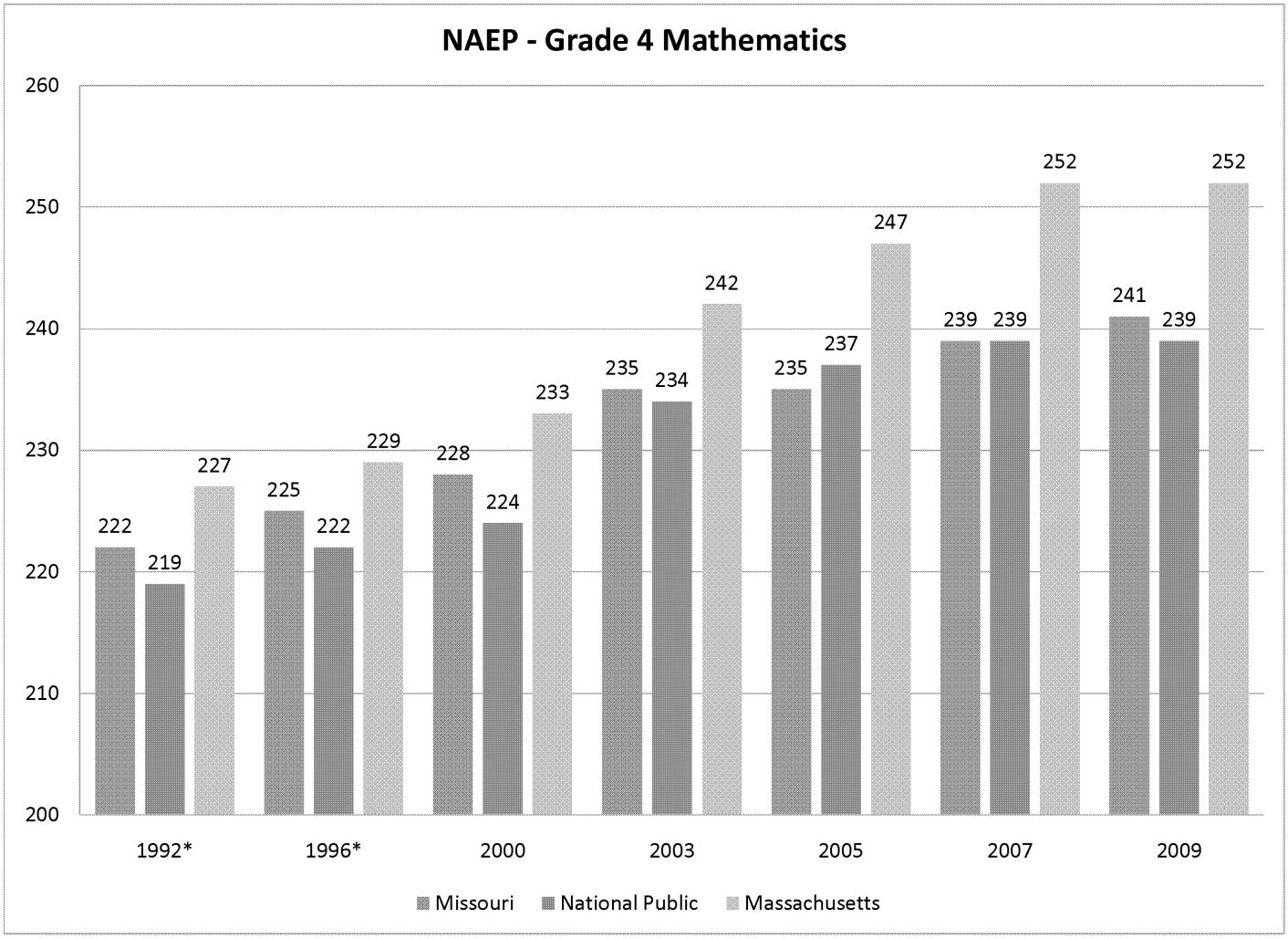
Missouri (Average Scale Score)

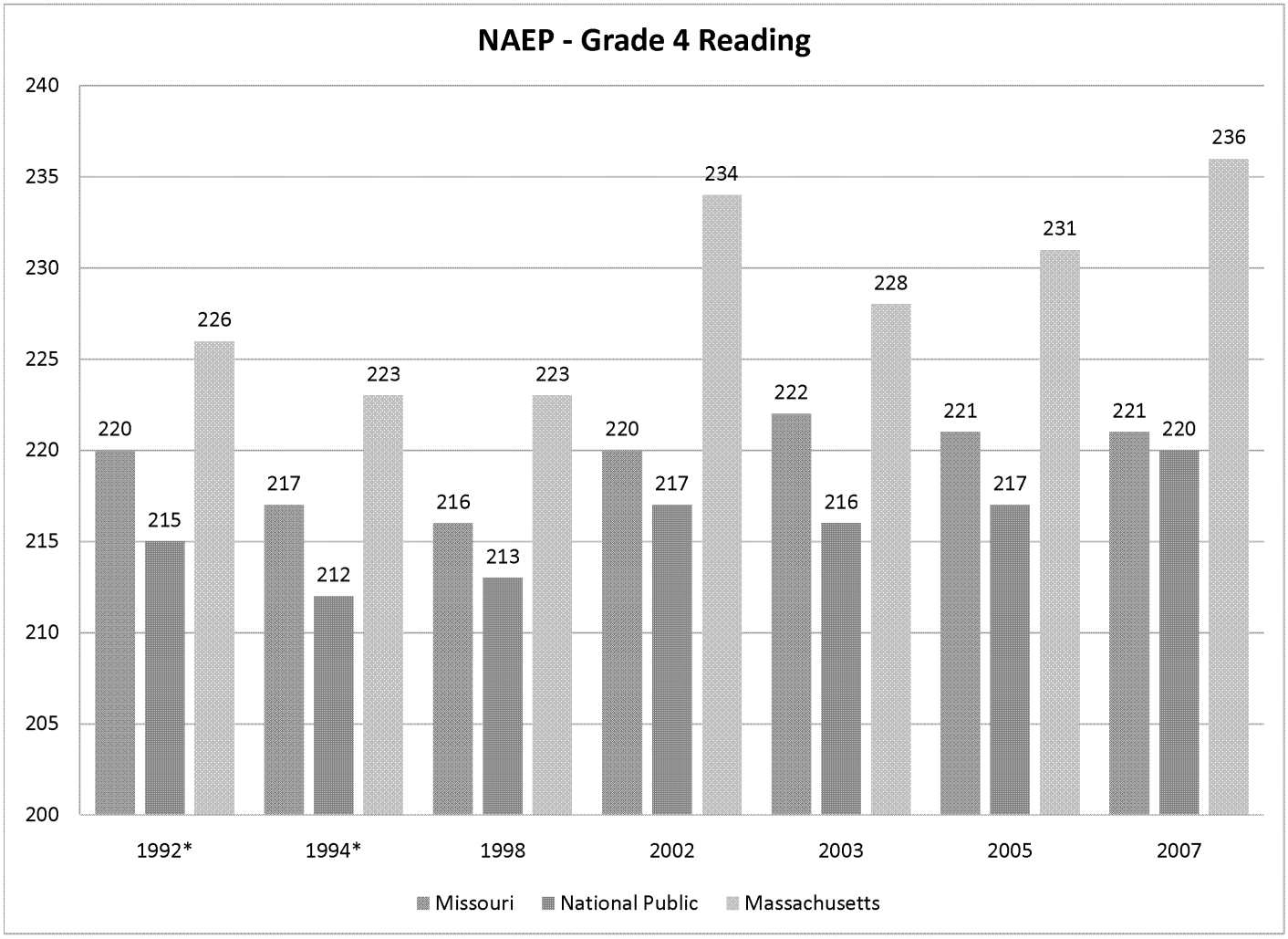
Year	Overall	White	Black	Hispanic	Free/ Reduced Lucnh	SD	ELL
1996							
2000	154	159	120		138	123	
2005	154	161	124	150	140	131	

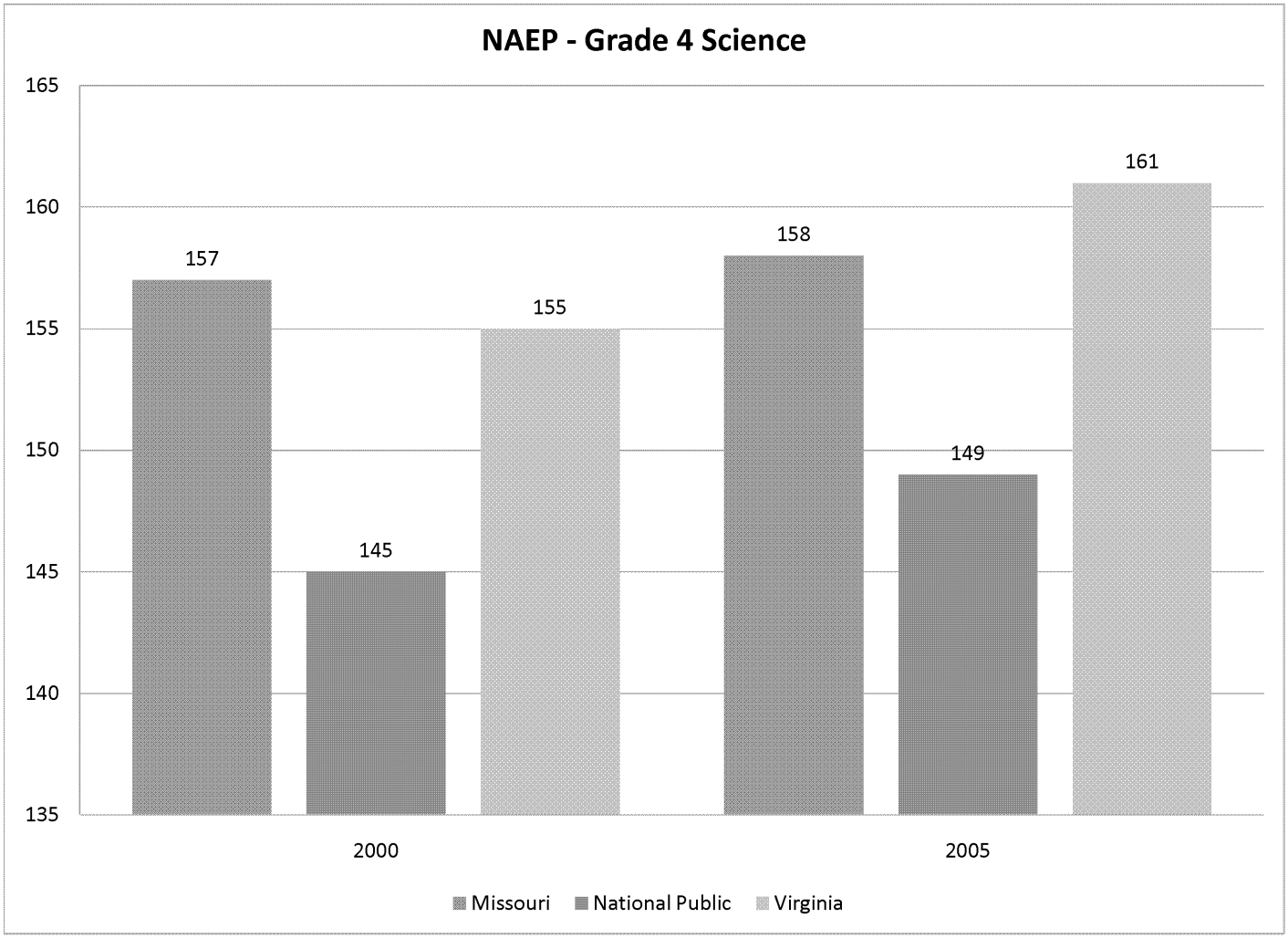
National Public (Average Scale Score)

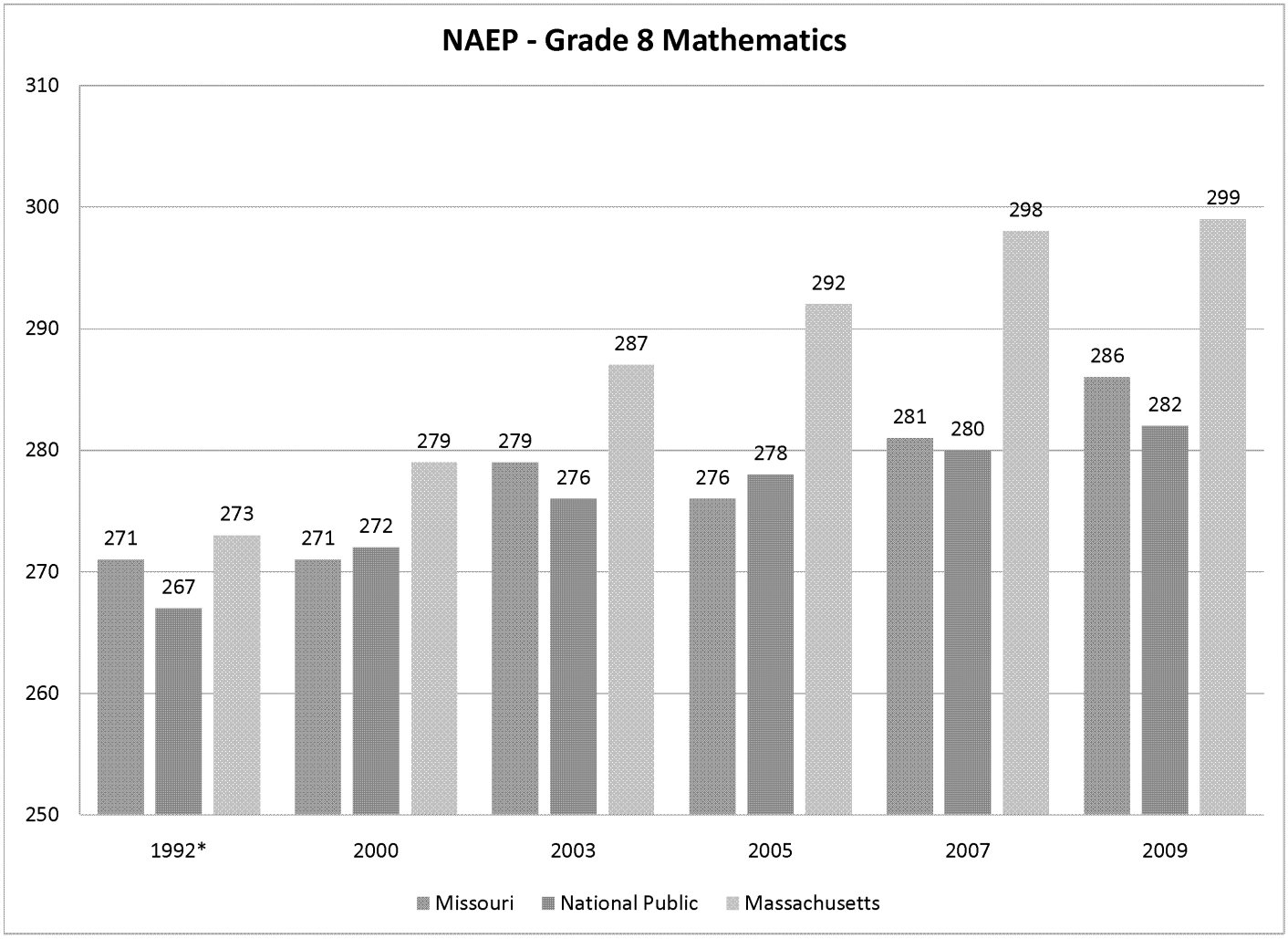
1996	148	158	120	126	129	112	90
2000	148	159	120	125	127	117	102
2005	147	159	123	127	130	120	107

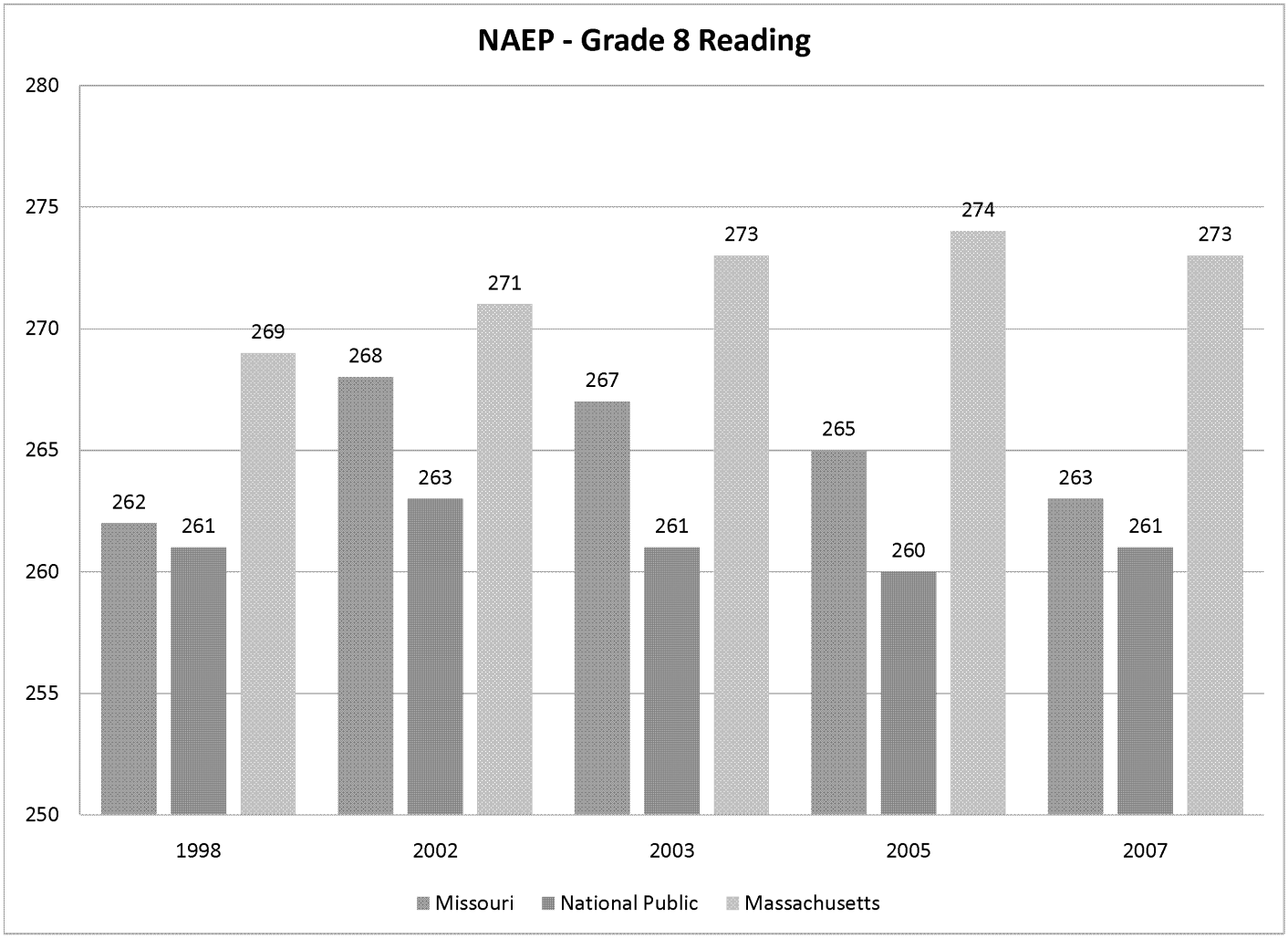

NAEP - Grade 8 Science - White
162
161
161
160
160
159
159
158
159
159
161
159
2000
2005
Missouri
National Public

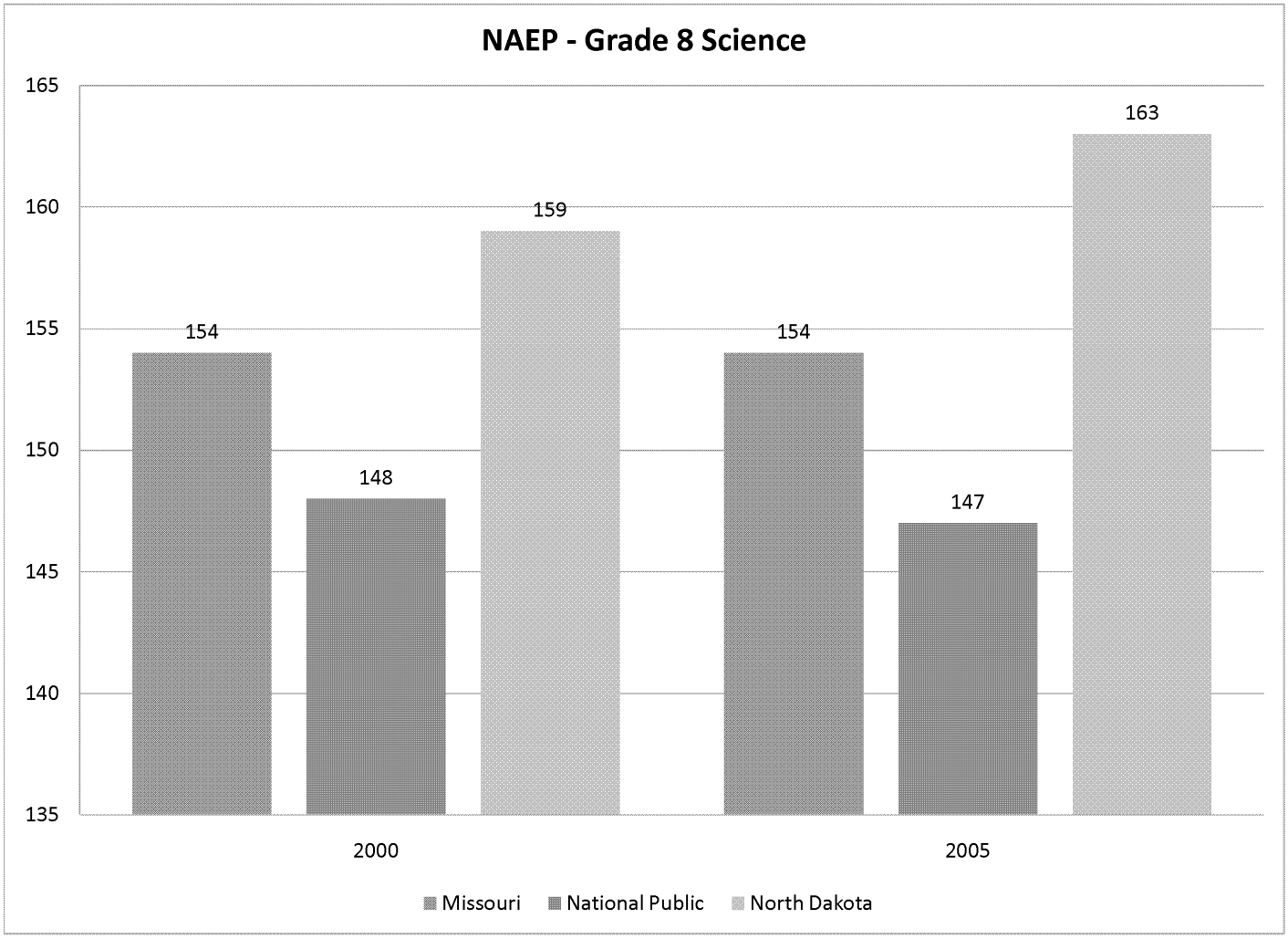

NAEP - Grade 4 Mathematics
260
250
240
230
220
210
200
222
219
227
225
222
229
228
224
233
235
234
242
235
237
247
239
239
252
241
239
252
1992*
1996*
2000
2003
2005
2007
2009
Missouri
National Public
Massachusetts


NAEP - Grade 4 Reading
240
235
230
225
220
215
210
205
200
220
215
226
217
212
223
216
213
223
220
217
234
222
216
228
221
217
231
221
220
236
1992*
1994*
1998
2002
2003
2005
2007
Missouri
National Public
Massachusetts


NAEP - Grade 4 Science
165
160
155
150
145
140
135
157
145
155
158
149
161
2000
2005
Missouri
National Public
Virginia


NAEP - Grade 8 Mathematics
310
300
290
280
270
260
250
271
267
273
271
272
279
279
276
287
276
278
292
281
280
298
286
282
299
1992*
2000
2003
2005
2007
2009
Missouri
National Public
Massachusetts


NAEP - Grade 8 Reading
280
275
270
265
260
255
250
262
261
269
268
263
271
267
261
273
265
260
274
263
261
273
1998
2002
2003
2005
2007
Missouri
National Public
Massachusetts


NAEP - Grade 8 Science
165
160
155
150
145
140
135
154
148
159
154
147
163
2000
2005
Missouri
National Public
North Dakota

Appendix 5 State of Missouri

Year	Grade 4 Mathematics	Grade 4 Reading	Grade 4 Science	Grade 8 Mathematics	Grade 8 Reading	Grade 8 Science
Missouri (Average Scale Score)						
1992*	222	220		271		
1994*		217				
1996*	225					
1996						
1998		216			262	
2000	228		157	271		154
2002		220			268	
2003	235	222		279	267	
2005	235	221	158	276	265	154
2007	239	221		281	263	
2009	241			286		
National Public (Average Scale Score)						
1992*	219	215		267	258	
1994*		212			257	
1996*	222					
1996			145	269		148
1998		213			261	
2000	224	211	145	272		148
2002		217			263	
2003	234	216		276	261	
2005	237	217	149	278	260	147
2007	239	220		280	261	
2009	239			282		
(Highest State in Last Year Given)						
	Massachusetts	Massachusetts	Virginia	Massachusetts	Massachusetts	North Dakota
1992*	227	226		273		
1994*		223				
1996*	229					
1996						
1998		223			269	
2000	233		155	279		159
2002		234			271	
2003	242	228		287	273	
2005	247	231	161	292	274	163
2007	252	236		298	273	
2009	252			299		

The Council of Chief State School Officers and
The National Governors Association Center for Best Practices

Common Core Standards
Memorandum of Agreement

Purpose. This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

Background. Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

Benefits to States. The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and "end-of-high-school" expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

Process and Structure

- **Common Core State-Based Leadership.** The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core of standards (see attached timeline). These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level.

As such, these organizations will facilitate a state-led process to develop common core standards in English language arts and mathematics that are:

- Fewer, clearer, and higher, to best drive effective policy and practice;
- Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
- Inclusive of rigorous content and application of knowledge through high-order skills, so that all students are prepared for the 21st century;
- Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
- Research and evidence-based.

- **National Validation Committee.** CCSSO and the NGA Center will create an expert validation group that will serve a several purposes, including validating end-of-course expectations, providing leadership for the development of K-12 standards, and certifying state adoption of the common core standards. The group will be comprised of national and international experts on standards. Participating states will have the opportunity to nominate individuals to the group. The national validation committee shall provide an independent review of the common core standards. The national validation committee will review the common core as it is developed and offer comments, suggestions, and validation of the process and products developed by the standards development group. The group will use evidence as the driving factor in validating the common core standards.

- **Develop End-of-High-School Expectations.** CCSSO and the NGA Center will convene Achieve, ACT and the College Board in an open, inclusive, and efficient process to develop a set of end-of-high-school expectations in English language arts and mathematics based on evidence. We will ask all participating states to review and provide input on these expectations. This work will be completed by July 2009.

- **Develop K-12 Standards in English Language Arts and Math.** CCSSO and the NGA Center will convene Achieve, ACT, and the College Board in an open, inclusive, and efficient process to develop K-12 standards that are grounded in empirical research and draw on best practices in standards development. We will ask participating states to provide input into the drafting of the common core and work as partners in the common core standards development process. This work will be completed by December 2009.

- **Adoption.** The goal of this effort is to develop a true common core of state standards that are internationally benchmarked. Each state adopting the common core standards either directly or by fully aligning its state standards may do so in accordance with current state timelines for standards adoption not to exceed three (3) years.

  This effort is voluntary for states, and it is fully intended that states adopting the common core standards may choose to include additional state standards beyond the common core standards. States that choose to align their standards to the common core standards agree to ensure that the common core represents at least 85 percent of the state's standards in English language arts and mathematics.

  Further, the goal is to establish an ongoing development process that can support continuous improvement of this first version of the common core standards based on research and evidence-based learning and can support the development of assessments that are aligned to the common core standards across the states, for accountability and other appropriate purposes.

- **National Policy Forum.** CCSSO and the NGA Center will convene a National Policy Forum (Forum) comprised of signatory national organizations (e.g., the Alliance for Excellent Education, Business Roundtable, National School Boards Association, Council of Great City Schools, Hunt Institute, National Association of State Boards of Education, National Education Association, and others) to share ideas, gather input, and inform the common core standards initiative. The forum is intended as a place for refining our shared understanding of the scope and elements of a common core; sharing and coordinating the various forms of implementation of a common core; providing a means to develop common messaging between and among participating organizations; and building public will and support.

- **Federal Role.** The parties support a state-led effort and not a federal effort to develop a common core of state standards; there is, however, an appropriate federal role in supporting this state-led effort. In particular, the federal government can provide key financial support for this effort in developing a common core of state standards and in moving toward common assessments, such as through the Race to the Top Fund authorized in the American Recovery and Reinvestment Act of 2009. Further, the federal government can incentivize this effort through a range of tiered incentives, such as providing states with greater flexibility in the use of existing federal funds, supporting a revised state accountability structure, and offering financial support for states to effectively implement the standards. Additionally, the federal government can provide additional long-term financial support for the development of common assessments, teacher and principal professional development, other related common core standards supports, and a research agenda that can help continually improve the common core standards over time. Finally, the federal government can revise and align existing federal education laws with the lessons learned from states' international benchmarking efforts and from federal research.

Agreement. The undersigned state leaders agree to the process and structure as described above and attest accordingly by our signature(s) below.

Signatures
Governor:
Chief State School Officer:

Jeremiah W. (Jay) Nixon
2009.06.25 17:35:27 -05'00'

MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
205 JEFFERSON STREET
POST OFFICE BOX 480
JEFFERSON CITY, MISSOURI 65102

FACSIMILE TRANSMITTAL SHEET

TO: Bevin Kennedy	FROM: Chris L. Nicastro, Ph.D. Commissioner of Education
COMPANY: CCSSO	DATE: 8/14/2009
FAX NUMBER: 202-408-8076	TOTAL NO. OF PAGES INCLUDING COVER: 5
PHONE NUMBER:	SENDER'S REFERENCE NUMBER: 573-751-1179 fax
RE: Common Core Standards MOA	SENDER'S PHONE NUMBER: 573-751-4446 phone

X URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

MDHE

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Core Competencies & Standards

Published December 2009

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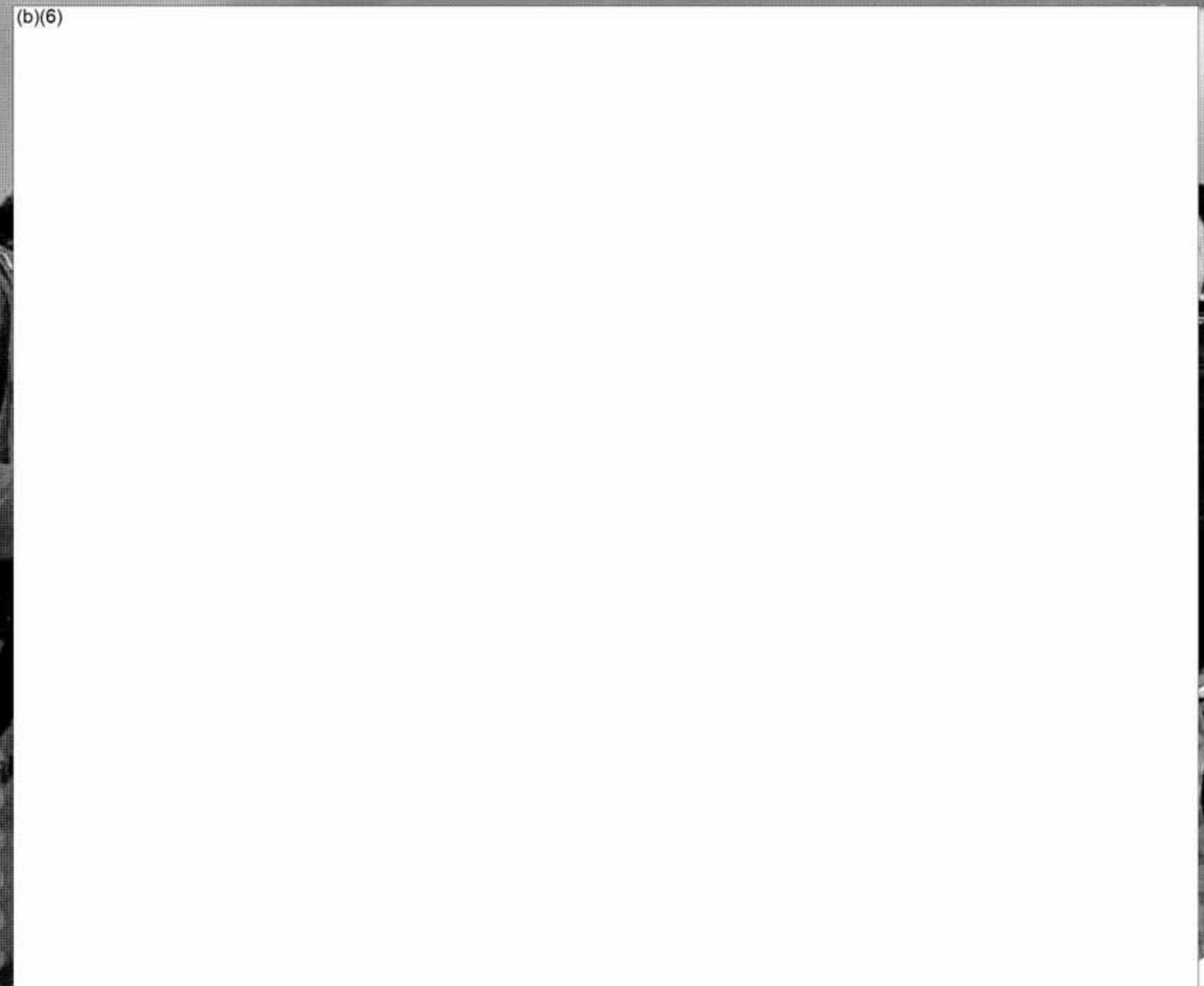

Core Competencies & Standards

3515 Amazonas Dr., Jefferson City, MO 65109-5717
Phone: 573-751-2361 Fax: 573-751-6635 Information Center: (800) 473-6757
info@dhe.mo.gov • www.dhe.mo.gov

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Introduction

The Curriculum Alignment Initiative

The Missouri Department of Higher Education (MDHE) established the Curriculum Alignment Initiative (CAI) in 2007 to develop entry- and exit-level competencies for beginning general education coursework in seven disciplines. Curriculum alignment is intended to smooth pathways for students entering into and progressing through college. It will improve the college readiness of high school students by defining what it means to be college ready, and facilitate transfer of entry-level collegiate courses when students move from one institution to another. Over 400 secondary and postsecondary faculty and administrators collaborated to develop more than 800 individual competencies.

Entry- and Exit-level competencies were developed for the following disciplines:

- Arts and Humanities
- Engineering and Technology
- English and Communications
- Foreign Languages
- Mathematics
- Sciences
- Social Sciences

Each disciplinary workgroup was charged with identifying the first general education courses in their discipline and developing broad entry- and exit-level course competencies. The CAS was charged with coordinating the work of the seven disciplinary groups and identifying policies and procedures to ensure full implementation by public colleges and universities.

Competencies Model

For students to be successful in collegiate-level coursework, they must master a set of competencies that prepares them to learn in the college setting. To realize this ideal, a major paradigm shift was necessary.

There were several steps involved in shifting to an effective competencies model:

1. Articulating implicit expectations for students entering into and exiting from higher education courses. By establishing clearly expected norms, expectations will be raised for students who aspire to enter college.
2. Linking the competencies to assessment, ensuring that the CAI work does not simply end up on a shelf.
3. Identifying policy implications in key areas (e.g. dual credit; remediation/developmental education; transfer policies) to reinforce policy alignment.
4. Stipulating agreed-upon implementation schedules for competencies standards as well as any related policy revisions, for a smooth transition.

Curriculum Alignment Vision

Collaboratively develop a competencies model for beginning-level general education that ensures student preparedness for collegiate-level coursework and portability of beginning general education course credit among Missouri postsecondary institutions.

Assumptions

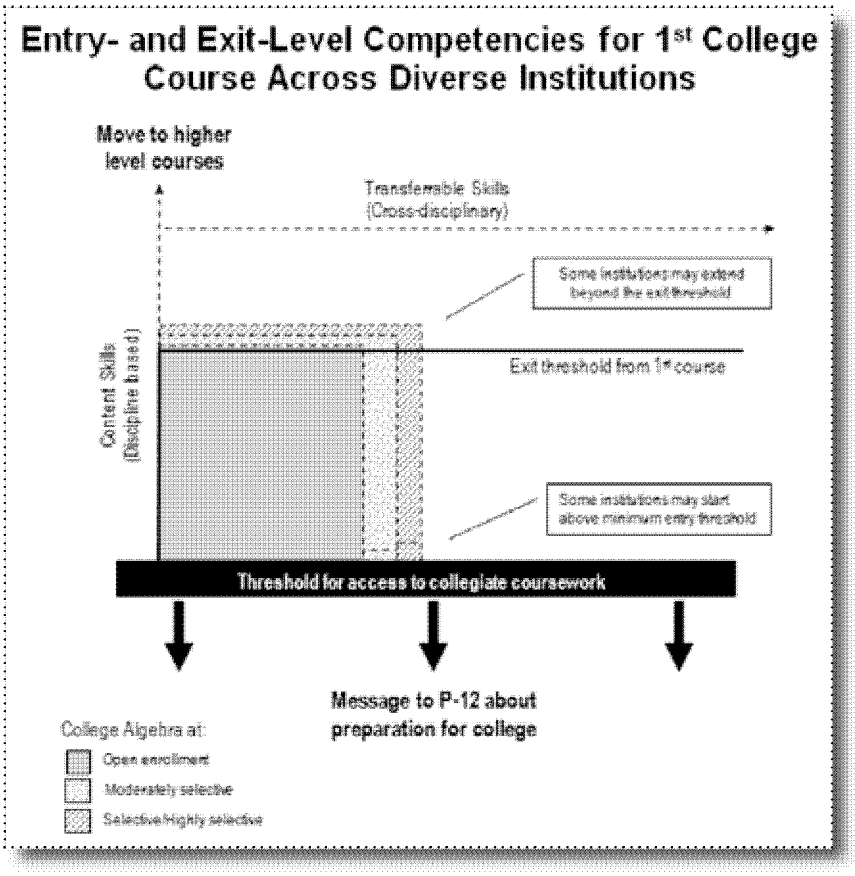
The process of shifting to a competencies model approach was based on several important underlying assumptions.

- This process would undertake a fundamental shift of multiple dimensions, (e.g. standards, curriculum, assessment, and policy) as well as having an impact across the P-20 continuum and its constituents (e.g. K-12, postsecondary, policy makers, administrators, educators, students, and families).
- Genuine systems change would take a significant time investment, but realistic timelines would be necessary.
- Mastery of entry-level competencies would not be adequate for many students who aspire to professional careers, especially in mathematics, engineering, technology and sciences (METS). In many fields, a basic level of preparation may be neither desirable nor sufficient for preferred institutional admission, persistence, timely completion and successful entry into a profession.
- Delivery modes, while important, are outside the realm of CAI to dictate instruction at the institutional level; a balance between content and instructional practice should be maintained for optimal student learning.
- The CAI should be a dynamic model that will be continually updated for currency and relevancy.

Introduction

Relation to Institutional Selectivity

Admissions selectivity categories at Missouri public institutions vary across the state from open enrollment to highly selective institutions. Institutions maintain the right to choose both their level of selectivity based on institutional mission and purpose and develop curriculum suitable to their student body. This tiered admission selectivity provides a balanced public higher education system which serves a diverse group of entering students. There is, however, collective responsibility across public postsecondary institutions to send consistent and forceful messages to students in the pipeline about what is necessary in preparation for college. While entry and exit points for a course may differ slightly depending upon the preparation levels of entering students, as a result of this work those in the pipeline will have a much better understanding of minimum thresholds necessary for access to collegiate work. Some students may in fact start at a different level and bypass that first course completely. Developing a common framework for beginning general education courses will also ensure the transferability of these courses across collegiate-level institutions.



By putting multiple institutions at the table simultaneously, CAI is looking for commonality on minimal thresholds. At the same time, it seeks to provide institutional flexibility to make local decisions about placement of both under prepared and prepared students. The diagram below is presented as a graphic illustration of an operational conceptualization representing the way the process will work.

The thick black line at the bottom of the diagram represents a dividing line between under prepared and prepared students by establishing minimal thresholds that must be met in order to proceed to collegiate level courses. The down arrows represent consistent messages to K-12 students. Those who are unable to demonstrate minimal competencies as high school graduates would be placed in developmental courses to address deficiencies.

Students who enter above the minimal threshold would undergo placement decisions by the local institution depending on their level of preparation. The two axes in the diagram represent the type of competencies that students would master in their first course in the discipline. The vertical axis represents content-based skills in a particular discipline, while the horizontal axis denotes those transferable skills that are acquired across the disciplines, such as study skills or critical thinking.

Mathematics is used for illustrative purposes in the diagram. The three boxes in the diagram are intended to represent a college algebra course at institutions with different admission selectivity (solid for open enrollment, dotted for moderately selective and striped for selective and highly selective). It is important to note that each institution, including open enrollment institutions, would have flexibility at where to start and how far they would take students in the learning process. The diagram, however, represents typical patterns that would be expected from the CAI competencies model.

The solid box is the smallest in this case, since students would be expected to start at the minimal competency level. On both the vertical and horizontal axes, solid courses would be expected to bring students to minimum exit-level competencies including the content skills (vertical axis) and cross-disciplinary skills (horizontal axis). Courses at dotted and striped institutions would cover all of the material in the solid box and beyond. Students in these courses might in fact achieve beyond minimal competencies identified on both axes; thus, the dotted line indicates the potential for different start and

exit points based on the preparation level of entering students and the course dynamics during a particular semester.

The model assumes that a student body that enters just at the threshold for access to collegiate-level course work will focus most of their attention on mastering the content knowledge. While notable gains in their transferable skills will also be realized, much of the course time will be spent on purely content-related tasks. At higher selectivity-level institutions, greater gains would be expected for both content and cross-disciplinary skills. The student body that has the ability to start beyond the threshold point and/or easily master the content knowledge will have more course time devoted to deepen conceptual understanding and develop transferable skills, such as critical thinking or writing.
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Entry-Level Competencies

Arts & Humanities

Note: The first draft of the arts and humanities entry-level competencies contained primarily cross-disciplinary competencies. The original draft has been replaced with the arts competencies below. The original draft of the entry-level competencies will be incorporated into cross-disciplinary competencies developed across the discipline workgroups.

Competencies for the Fine Arts

These competencies constitute a body of what we consider the minimal level of essential knowledge and skills students should have acquired and be able to demonstrate based on experience in one (selected) fine arts discipline – dance, music, theatre, or visual arts, to certify that they are ready for entry-level college work in said fine arts discipline. Competencies listed below should be interpreted based on a single selected field. These entry level competencies would not apply in the event that a student graduated from a school district which did not offer or require fine arts opportunities.

Essential Entry Level Competencies for the Fine Arts

I. Product and Performance

1. Develop and apply skills of expression to communicate (perform/produce) through the arts by performing, creating, or producing works in visual/performance arts.
   a. Dance: Move, perform, or read and notate dance.
   b. Music: Sing or play an instrument, read musical notation.
   c. Theatre: Interpret a role by reading a script or improvising.

   Visual art: Create a two- or three-dimensional art piece.

II. Elements and Principles

1. Identify elements and principles for visual/performing art forms. Elements:
   a. Dance: Energy/force, space, time.
   b. Music: Duration, intensity, pitch, timbre.
   c. Theatre: Scenario, script/text, set design.
   d. Visual art: Line, shape, color, texture, form, value, space.
   e. Principles:
   f. Dance: Choreography, form, genre, improvisation, style, technique.
   g. Music: Composition, form, genre, harmony, rhythm, texture.
   h. Theatre: Balance, collaboration, discipline, emphasis, focus, intention, movement, rhythm, style, voice.
   i. Visual art: Balance, contrast, emphasis, rhythm/repetition, proportion, unity.
   j. Develop and apply knowledge and skills to read standard notation and/or discuss art works, musical or theatrical performances.

III. Artistic Perceptions

1. Communicate perceptions and ideas in selected art form using an arts-specific vocabulary.
2. Exchange information, questions, and ideas in the evaluation of works of art.

IV. Interdisciplinary Connections

1. Discover and evaluate patterns and relationships within the visual arts and the performing arts.
2. Identify and explain ways in which the principles and subject matter of fine arts disciplines are interrelated to math, science, social studies and communication arts.

V. Historical and Cultural Context

1. Recognize and explain how the fine arts are created in relation to major cultural, socio-political and historical periods.
2. Compare and contrast artworks from

Entry-Level Competencies

English & Communication

The following are the *writing, thinking and expressive* skills identified and recommended by our group of community college and four-year English instructors and professors as well as high school teachers of English. The competencies constitute a body of what we consider the minimal level of knowledge and skills students *should have acquired to certify* that they are ready for entry-level college work in English.

I. Demonstrate critical and analytical thinking for reading, writing, and speaking purposes.
   1. Participate in active reading and discussion of texts.
   2. Incorporate ideas and information from readings into own writing.
   3. Identify purpose, main idea, and supporting evidence.
   4. Distinguish between fact and opinion.
   5. Distinguish between general and specific information.
   6. Summarize and paraphrase information.
   7. Communicate effectively in groups by listening, reflecting, and responding appropriately.

II. Understand and use a writing process.
   1. Have flexible strategies for generating, revising, editing, and proofreading.
   2. Understand writing as an open, flexible process that permits a writer to use later invention and rethinking to revise work.

III. Compose sound sentences.
   1. Use a variety of sentence structures correctly (simple, compound, complex, and compound-complex).
   2. Produce sentences free of major sentence-level errors (fragments, comma splices, fused-sentences).
   3. Communicate with few errors in grammar, usage and mechanics.

IV. Compose sound paragraphs.
   1. Write focused topic sentences.
   2. Use descriptive details, examples, and facts to develop the paragraph's main idea.
   3. Use effective patterns of organization (e.g., chronological, emphatic, spatial, etc.). and development (e.g., comparison/contrast, narration, definition, etc.).
   4. Use transitional devices within paragraphs to achieve coherence and focus.

V. Produce sound discourse.
   1. Use basic essay structure, including an introduction, body, and conclusion.
   2. Construct thesis statements.
   3. Organize ideas logically.
   4. Develop an essay's main idea with adequate and specific supporting detail.
   5. Use transitional devices within essays to achieve coherence, flow, and focus.
   6. Maintain appropriate tone and vocabulary for target audience.

VI. Be familiar with elementary research procedures.
   1. Acknowledge source material and be able to distinguish it from their own ideas.
   2. Locate and retrieve relevant information using traditional and contemporary technologies.
   3. Evaluate reliability of information and sources.
   4. Record relevant information.
   5. Document sources of information, using recognized documentation format.

Entry-Level Competencies

Foreign Languages

Foreign Languages are specifically mentioned in Senate Bill 389 as one of the areas to be addressed by the Curriculum Alignment Initiative. The initial competencies developed as entry-level competencies for entry into postsecondary foreign languages reflected the minimum level of skill (not necessarily the optimal level). Because a foreign language is not a requirement for high school graduation in Missouri, initial competencies reflected general cross-disciplinary skills (e.g. grammar skills) needed for success in a first foreign language course. For this reason, these competencies are not considered just to be important to foreign languages, but to all of the discipline areas. Therefore, these competencies will be incorporated into a cross-disciplinary section that will anchor all of the entry competencies.

Entry-Level Competencies

Mathematics

Incoming college level students are expected to bring hands-on skills in computation and algebraic manipulation, as well as conceptual knowledge rooted in a deep and profound understanding of numbers and basic geometry. Incoming students are expected to know basic mathematical concepts in computation, algebra and geometry. These are described in some detail in following sections.

In addition, incoming students need to have a comfort level with mathematics so that they approach problems by investigating their nature, asking questions, and revising approaches as they reflect on them. It is as important to understand why a solution works as it is know how one reaches a solution.

Mastery of mathematics at all levels should include the following characteristics:

1. Thinking conceptually and not just procedurally about mathematics. Mathematics is a way of understanding, a thinking process, and not a collection of detached procedures to be learned and applied separately.
2. Using logical reasoning and common sense to work on problems in order to find solutions. Successful students can explain their processes and can check their solutions to see whether their findings make sense.
3. Using experimental thinking and a willingness to investigate the steps used to reach a solution, and recognizing that there are often multiple approaches to solving a problem.
4. Taking risks and accepting that a first or second attempt may result in a wrong answer, but that each attempt is an opportunity to try new approaches toward solving the problem.
5. Understanding that formulas and algorithms in computation, while important and crucial, are only part of the analytical process.

Successful incoming students understand that mathematical problem solving involves logical reasoning. Technology is important and relevant in understanding mathematics, but students should be aware of the limitations of technology and recognize that calculators and computers are tools to assist but not replace the thinking process. Students should understand the basic mathematical terminology and use it appropriately. Students must pay attention to the wording of problems and move with ease between the symbolic representation of a problem and its verbal representation. Students are expected to write with clarity and cohesiveness.

Successful students will also present an orientation toward learning that presents itself as a willingness to work for significant periods of time on a single problem. Persistence is invaluable in the quest for a solution to a problem. Sustained inquiry - engaging in the process for more than a short period of time - is an important part of the process when solving a problem. Oftentimes this process will help foster a deeper understanding, build confidence, and inspire learning.

Successful students demonstrate active participation in the process of learning mathematics by:

1. being willing to experiment with problems that have multiple solution methods;
2. demonstrating an understanding of the mathematical ideas behind the steps of a solution, as well as the solution;
3. showing an understanding of how to modify patterns to obtain different results;
4. showing an understanding of how to modify strategies to obtain different results;
5. recognizing when a proposed solution does not work, analyzing why, and using the analysis to seek a valid solution; and
6. demonstrating an ability to solve multi-step problems with a variety of strategies.

In the sections that follow, entry level competencies have been detailed in areas of numerical computation, algebra and geometry. Examples demonstrating the levels of understanding needed will become a part of this document when they are completed. An asterisk by a number indicates that the competency listed is one that is expected of students who plan to major in METS areas of study.

Entry-Level Competencies

Mathematics

I. Numerical Computation

Conceptual understanding of these basic computations, although not explicitly stated (in the examples), is assumed. While technology is useful in helping students explore and enhance their understanding of basic computations, their ability to conceptually understand and perform basic computations without the aid of technology increases the likelihood of success in college level mathematics courses.

Successful students must be able to:

1. Apply mathematical operations to all real numbers in any form (including integers, rational numbers, radicals, and decimals), following the correct order of operations.
2. Calculate the sum, difference, product, and quotient of complex numbers and express the result in standard form.
3. Recognize and generate equivalent forms of fractions, decimals, and percents.
4. Compare and order real numbers, including finding their approximate locations on the number line.
5. Apply laws of rational exponents to real number bases.
6. Recognize and generate equivalent representations (i.e., scientific notation) for very large and very small numbers, and perform mathematical operations on such numerical representations. Move flexibly between scientific notation and expanded form.
7. Compute quantities involving absolute value.
8. Apply the properties of real numbers (including commutative, associative, identity, inverse, and distributive properties).
9. Perform numerical computations involving units of measurement, standard and metric.
10. Communicate accurately using mathematical terminology (e.g., addend, sum, difference, factor, product, divisor, dividend, quotient, remainder, numerator, denominator, exponent, base, radicand, and index).
11. Accurately record symbolic manipulations used in numerical computations, as well as the solutions of numerical computations (e.g., equal signs, inequality symbols, grouping symbols, exponents, subscripts, and solution sets).
12. Communicate accurately using set notation/ terminology (e.g., set-builder notation, element of, well-defined, finite/infinite, subset, proper subset, Ø, cardinal number, equal, equivalent, and interval notation).
13. Estimate numerical computations and judge the reasonableness of the results of these computations.
14. Apply set operations and relations to sets (i.e., union, intersection, complement, and subsets).
15. Represent sets using graphic organizers, including Venn diagrams.

II. Algebra

Successful students are expected to bring a combination of hands-on skill and conceptual understanding of algebra.

1. Successful students know and apply basic algebraic concepts. They:
   a. Add, subtract, multiply, and divide polynomials, rational expressions, and radical expressions.
   b. Divide polynomials.
   c. Apply properties of exponents and radicals.
   d. Factor polynomials (e.g., greatest common factor, grouping, trinomials, difference of squares, sum and difference of cubes).
   e. Simplify polynomials, rational expressions, and radical expressions.
2. Successful students use various appropriate techniques to solve basic equations and inequalities. They:
   a. Solve linear equations and absolute value equations.
   b. Solve linear inequalities and absolute value inequalities.
   c. Solve systems of linear equations and inequalities with two variables, using algebraic or graphical methods.
   d. Solve quadratic equations by factoring, completing the square, and using the quadratic formula.
   e. Solve rational equations.
   f. Solve radical equations.
   g. *Solve nonlinear inequalities. *(Recall, an asterisk by a number indicates that the competency listed is one that is expected of students who plan to major in METS areas of study.)*

3. Successful students distinguish among expressions, formulas, equations, functions and relations. They know when it is possible to simplify, solve, substitute or evaluate appropriately. In addition, they:
   a. Correctly apply the algebraic language and notation for functions including domain and range.
   b. Compose and decompose functions and find inverses of basic functions.
   c. Identify and compare a variety of functions (e.g., constant, linear, quadratic, cubic, absolute value, exponential and logarithmic functions) and apply the properties of each.
4. Successful students understand the relationship between equations and graphs. They:
   a. Recognize basic forms of the equation of a line and graph the line without technology.
   b. Recognize the basic shape of the graph of a quadratic function; find the vertex; calculate and recognize the relationships among the solutions of the related quadratic equation, zeroes of the function and intercepts of the graph.
   c. Recognize and sketch the basic shapes of the graphs of the following functions: constant, linear, quadratic, cubic, square root, cube root, absolute value, exponential and logarithmic (without technology).
   d. Describe the effects of parameter changes on functions.
   e. Describe and sketch the effects of transformations on the graphs of functions.
   f. Represent data in a variety of ways (e.g. scatter plot, graph, and table) and select the most appropriate method.
5. Successful students understand algebra well enough to apply it procedurally and conceptually to a range of common problems. Successful students demonstrate the ability to work with formulas and symbols algebraically. They:
   a. Recognize which type of function or expression best fits the context of a basic application.
   b. Use multiple representations to solve problems (e.g. analytic, numerical, and geometric).
   c. Represent algebraically and solve problems that include linear, quadratic, exponential, and logarithmic relationships.
   d. Use mathematics to solve applications from various fields (e.g. rates of change, compound interest, chemical mixture, population growth, and business).
   e. Solve literal equations and formulas for a specified variable.
   f. Communicate accurately using the vocabulary and symbols of algebra.
6. Successful students understand the appropriate use, as well as the limitation, of appropriate technology. They:
   a. Plot relevant graphs.
   b. Use appropriate problem solving methods.
   c. Recognize when the results produced are unreasonable or represent misinformation.

III. Geometry

Successful students must possess a basic body of knowledge including but not limited to the Pythagorean Theorem, formulas for perimeter, area, volume, and surface area. Successful students demonstrate an understanding of and can explain the mathematical ideas behind the steps of a solution as well as the solution. Successful students recognize when a proposed strategy does not work, analyze why, and use the analysis to seek a valid solution. Successful students understand the appropriate use as well as the limitations of technology.

Successful students must be able to:

1. Apply properties of similarity and congruence.
2. Recognize and apply properties and theorems of parallel lines cut by a transversal.
3. Recognize and apply properties and theorems related to circles.
4. Determine the area and perimeter of plane figures and use the concept of conservation of area.
5. Apply the basic formulas for volume and surface area of solids.
6. Use deductive reasoning to develop and write simple geometric proofs.
7. Use inductive reasoning in problem situations to build a basis for the use of both proof and counter-examples.
8. Apply properties of similarity, particularly related to triangles, to find unknown geometric measurements including angle measurements, lengths of sides, areas, and volumes.
9. Recognize and represent solids and surfaces in three-dimensional space from a two-dimensional representation (e.g. recognize the features of a three-dimensional object: faces, edges, vertices, and shape).
10. Use coordinate geometry to make connections between algebra and geometry.
    a. Describe lines in the coordinate plane using slope-intercept and point-slope form.
    b. Use slopes to describe the steepness and direction of lines in the coordinate plane and to determine if lines are parallel, perpendicular, or neither.
    c. Relate geometric and algebraic representations of lines, segments, simple curves, circles, and *conic sections. (Recall, an asterisk by a number indicates that the competency listed is one that is expected of students who plan to major in METS areas of study.)
    d. Derive and use the formula for distance between two points.
11. Apply the definitions of sine, cosine, and tangent using right triangle trigonometry and *similarity relations. (Recall, an asterisk by a number indicates that the competency listed is one that is expected of students who plan to major in METS areas of study.)
12. *Use trigonometry for examples of algebraic/geometric relationship, including the Law of Sines/Cosines and Trigonometric Identities. (Recall, an asterisk by a number indicates that the competency listed is one that is expected of students who plan to major in METS areas of study.)
13. Describe and represent transformations and symmetries of plane figures.
14. Make connections between analytic, numerical, and geometric methods to solve problems.

A. A. Natural Sciences General Entry Competencies

I. Quantitative skills
Students are more likely to succeed in a college science course if they enter with adequate preparation in mathematics. Students are strongly encouraged to meet the entry-level standards described for college math before enrolling in an introductory college-level science course.

II. Scientific Inquiry

1. Science understanding is developed through the use of scientific investigation, reasoning, and critical thinking.
    a. Scientific inquiry requires the ability to gather and analyze information and ideas.
        i. Apply sound library research skills (e.g., article searches, online databases).
        ii. Evaluate a given source for its scientific credibility (e.g. web sites, product advertisements, use of personal testimony in place of scientific evidence, etc.).
        iii. Read with comprehension and be able to summarize and draw conclusions from written material in basic science.
        iv. Interpret data using various representations (e.g., graphs, tables, charts, and plots).
    b. Scientific inquiry includes the ability to formulate a testable question and explanation.
        i. Compose testable questions and hypotheses.
        ii. Differentiate between a hypothesis and a scientific theory (e.g. a hypothesis is a tentative but testable explanation subject to experimentation; a scientific theory has been repeatedly confirmed through observation and experimentation).
        iii. Design and conduct a valid experiment (formulate and clarify the method; identify the controls; collect, organize, display and interpret the data; make revisions of hypotheses, methods and explanations; present the results; and seek critiques from others).
        iv. Recognize that it is not always possible, for practical or ethical reasons, to control some conditions (e.g., when sampling or testing humans, when observing animal behavior in nature).
        v. Acknowledge there is no fixed procedure called "the scientific method," but that some investigations involve systematic observations, models (e.g. astronomy), carefully collected and relevant evidence, and logical reasoning in developing hypotheses and other explanations.

c. Scientific inquiry includes the ability to select and utilize appropriate investigative methods and tools to gather and interpret relevant data.
    i. Make qualitative and quantitative observations using the appropriate senses, tools and equipment to gather data (e.g., microscopes, thermometers, computers, balances, metric rulers, graduated cylinders).
    ii. Measure length to the nearest millimeter, mass to the nearest gram, volume to the nearest milliliter, temperature to the nearest degree Celsius, time to the nearest second.
    iii. Understand the metric system and perform simple conversions within the metric system and between the metric and US systems. Use and interpret values written in scientific notation (exponents).
    iv. Judge whether measurements and computations of quantities are reasonable.
    v. Calculate descriptive statistics (e.g. mean, median, mode, range, ratio, percentage).
    vi. Depict data using various representations (e.g., graphs, tables, charts, and plots).

d. Scientific inquiry includes the evaluation of scientific principles and explanations (laws, theories, models) as well as the methods used to support them.
    i. Analyze whether evidence (data) and scientific principles support proposed explanations.
    ii. Communicate and defend a scientific argument.

2. A scientific theory is an explanation of some phenomenon of the natural world, based on a body of facts that have been repeatedly confirmed through observation and experiment.
    a. Scientific explanations of phenomena change over time as a result of new evidence (e.g., cell theory, theories of spontaneous generation, theories of extinction, evolutionary theory, genetic theory of inheritance).
        i. Differentiate between scientific theories and laws. In science, a law is a description of a specific relationship among observable phenomena (e.g., the Gas Laws), but does not explain the observed relationship. A theory explains a set of laws and related phenomena (e.g. the theory of plate tectonics explains diverse observations regarding the distributions of volcanoes, earthquakes, and geological formations, as well as the relationships among organisms that inhabit different continents). Theories lead to new predictions and tests of those predictions.
        ii. Explain why accurate recordkeeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society.
        iii. Recognize that acceptable validation of scientific theories includes reproduction of results and clearly reported methods and procedures that increase the opportunity for further research.
    b. Knowledge is cumulative and learning requires retention of knowledge and application to further topics; knowledge gained in one science is applicable to other sciences.

3. Science and technology affect, and are affected by, society.
    a. Science and society interact to determine the direction of scientific and technological progress.
        i. Understand that social and economic forces strongly influence which science and technology programs are pursued and supported with investment of resources and manpower.
        ii. Recognize the role of science in both personal and public decision-making.
        iii. Be able to evaluate scientific issues that impact your daily life.
    b. Science advances through the development and application of new technology and new ideas.
        i. Realize that technological challenges may create a demand for new science technology.
        ii. Understand that new technologies make it possible for scientists to extend research and advance knowledge.

B. Life Sciences Entry Competencies

These competencies define the knowledge and skills needed for students to successfully enter and complete college-level work in biology. Sources used in preparation of this document include 1) Updated draft of Course Level Expectations in Science prepared by Missouri DESE 2) Quality in Undergraduate Education (Georgia State University Proposed Standards for Non-Majors Biology Course) 3) Natural Sciences, A Project of AAU and Pew Charitable Trusts 4) MoDEC entry-level skills recommendations in reading, writing and math and 5) ACT College Readiness Standards.

The purpose of high school biology is to help students develop a foundation in biology that focuses on major themes in the discipline, and to help them become scientifically literate citizens. For example, students need to be familiar with health-related issues, biotechnology and agriculture issues, environmental concerns, and the human impact on natural systems. Of equal importance is that students understand the nature of scientific endeavors. The recommendations in this document highlight major themes and concepts in the discipline. Towards this end we encourage emphasis be placed on why biological processes (e.g. mitosis, photosynthesis, respiration, etc.) are important and less emphasis be placed on the details of these processes. We also encourage a shift in the emphasis from cell and molecular biology to a more balanced approach that includes organismal, evolutionary and ecological biology.

I. Properties and Principles of Matter and Energy
    1. Matter is composed of atoms that enter into chemical reactions to form molecules.
        a. Cells carry out chemical transformations for the synthesis or breakdown of organic compounds.
            i. Identify reactants and products in a chemical equation.
            ii. Understand the importance of the water molecule and the carbon atom to living organisms.
            iii. Identify the major organic compounds (proteins, nucleic acids, lipids, carbohydrates) that are found in living systems and identify their dietary sources.
        b. Enzymes are chemicals that facilitate the breakdown and synthesis of molecules in living organisms.
    2. Energy for most living organisms is derived ultimately from the sun.
        a. Energy from the sun is converted to ATP within living organisms.
            i. Understand that energy is stored or released in the breakdown and/or synthesis of organic compounds.
            ii. Recognize that as energy is transformed from one form to another (e.g., metabolic pathways, food webs), the amount of usable energy decreases with each transformation.
        b. ATP is used by all organisms as a source of energy to do work in a cell.

II.

III. Characteristics of Living Organisms

1. Cells are the fundamental units of structure and function of all living things.
    a. All cells share basic features (e.g., a plasma membrane).
        i. Explain the characteristics that separate living cells from non-living matter (e.g. reproduction, metabolism).
        ii. Recognize that all organisms are composed of cells, the fundamental units of structure and function; organisms may be unicellular or multicellular.
        iii. Describe the structure of the plasma membrane and the function of the following cell components: plasma membrane, cell wall, cytoplasm, nucleus, chloroplast, mitochondrion, and ribosome.
        iv. Predict the movement of molecules across the plasma membrane (i.e. diffusion, osmosis, active transport) as cells exchange materials with their environment or with other cells.
    b. Different types of cells have different specializations.
        i. State the similarities and differences between the cells of prokaryotes and eukaryotes, and plants and animals.
        ii. Recognize that cells both increase in number and differentiate, becoming specialized in structure and function, during and after embryonic development.
2. Living organisms transform energy through the processes of photosynthesis and cellular respiration.
    a. Photosynthesis and cellular respiration are complementary processes necessary for the survival of most organisms on Earth.
        i. Compare and contrast the function of mitochondria and chloroplasts (know that mitochondria are responsible for converting energy from food to usable ATP and that chloroplasts harvest energy and carbon from the sun and air, respectively).
        ii. Compare and contrast the products and reactants for the overall processes of photosynthesis and cellular respiration, stressing the importance of and the interrelationship between these processes (e.g., recycling of oxygen and carbon dioxide). Do not assess intermediate reactions (i.e. no light-dependent and light-independent reactions, Krebs cycle, etc). Focus on the beginning- and end-products of photosynthesis and cellular respiration.
    b. Plants perform both photosynthesis and cellular respiration.
3. All living cells have genetic material (DNA) that carries hereditary information.
    a. The organization of DNA into chromosomes is key to both replication of DNA and its distribution to new cells or organisms.
        i. Differentiate between the terms genome, chromosome, DNA, and gene.
        ii. Describe the chemical and structural properties of DNA (e.g., DNA is a double helix comprised of four different nucleotides).
        iii. Explain how base-pairing rules allow cells to replicate DNA molecules.
        iv. Recognize that an error in the DNA molecule (mutation) can be transferred during replication.
        v. Identify possible external causes (e.g., heat, radiation, certain chemicals) and effects of DNA mutations (e.g., altered proteins which may affect chemical reactions and structural development).

b. Protein structure and function are coded by the DNA molecule.
   i. Recognize that DNA codes for proteins, which are expressed as the heritable characteristics of an organism.
   ii. Recognize that information flows from DNA to messenger RNA to a resulting protein. (Understanding this concept is more important than the details of transcription and translation.)
   iii. Identify the diverse roles proteins play on the cellular level (enzymes, structure, communication, transport, etc.).
   iv. Explain how most cells in an organism have the same DNA, genes and chromosomes, but are functionally different because they make different proteins (e.g., pancreatic islet cells make insulin while lymphocytes make antibody).

c. Biotechnology and genetic engineering (e. g., recombinant DNA technology) can be used to analyze or manipulate gene structure and function.

4. The reproductive process provides a genetic basis for the transfer of biological characteristics from one generation to the next.
   a. Reproduction can occur asexually or sexually.
      i. Distinguish between asexual and sexual reproduction.
      ii. Explain the importance of sexual reproduction in the generation of variation among individuals within a population.
   b. Chromosomes carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction.
      i. Recognize that the reproduction of body cells (and asexual reproduction in single-celled organisms) occurs through the process of mitosis, which results in daughter cells that are genetically identical to the parent cell. Students do not need to name the stages of mitosis or meiosis.
      ii. Recognize that through the process of meiosis, the number of chromosomes in gametes is reduced by half. (Emphasize the similarities and differences between mitosis and meiosis, rather than details of the stages involved.).
      iii. Explain how fertilization restores the diploid number of chromosomes.
   c. The pattern of inheritance for many traits can be predicted using the principles of Mendelian genetics.
      i. Recognize that alleles are different versions of a single gene.
      ii. Explain the chromosomal differences between human males and females (XY and XX, respectively).
      iii. Predict the probability of the occurrence of specific traits, including sex-linked traits, in an offspring by using a monohybrid cross.

5. Structure is related to function in multicellular organisms.
   a. The structure of multicellular organisms is best understood as a hierarchy of structural levels from cells, to tissues, to organs, to organ systems, that interact to maintain homeostasis.
      i. Identify the major component parts and explain the function of the primary organ systems of humans, including respiratory, circulatory, reproductive, and digestive systems.
      ii. Provide an example of how different components of the human body interact to maintain homeostasis.

b. Structures in plants and animals support the function of energy transformation.

i. Relate the operation of body systems to the processes of cellular respiration, nutrient acquisition, and waste removal.

ii. Relate the major organs of plants (e.g. roots, stems, leaves) to their roles in photosynthesis.

6. A fundamental unity underlies the diversity of all living organisms.

a. Biological classifications are based on how organisms are related.

i. Recognize that the probability of relatedness can be determined by comparing DNA sequences.

ii. Explain how similarities used to group taxa might reflect evolutionary relationships (e.g., similarities in DNA and protein structures, morphology, etc.) with the focus on domains and kingdoms.

b. The classification of organisms is constantly being revised and extended as scientists gather more information.

IV. Evolution and Ecology of Organisms

1. The theory of evolution provides a fundamental framework for understanding the history and diversity of life on Earth and is the central unifying theme of biology.

a. Evidence for the nature and rates of evolution can be found in anatomical and molecular characteristics of organisms.

i. Explain the evidence that supports the theory of biological evolution (e.g., fossil records, homologous and vestigial structures, similarities among organisms in DNA/proteins and morphological traits).

ii. Identify how evolution is happening today (e.g., antibiotic resistant bacteria) and its impact on humans.

iii. Understand that evolution takes time. Evolution can happen in a few generations, but major change, such as speciation, often requires long periods of time.

b. Natural selection is one of the primary mechanisms of evolution.

i. Define evolution as a change in the proportions of alleles in a population. (Note: students do not need to know about Hardy-Weinberg equilibrium.)

ii. Explain that evolution is the outcome of natural selection: 1) Organisms pass their genetic traits to their offspring. 2) The offspring are not identical to each other, but carry genetic variation as a result of both mutations and new combinations of existing alleles. 3) Not all members of a generation will reproduce equivalently. 4) Because the genetic makeup of the next generation will be derived from those individuals that are able to pass on their alleles, the proportion of individuals with advantageous characteristics will increase in the population. Note that while mutations occur randomly, the process of natural selection is not random.

iii. Although natural selection can cause a new trait to become widespread, natural selection does not direct the mutations that cause the initial appearance of a trait in the population.

iv. Identify examples of adaptations that have resulted from variations favored by natural selection (e.g., long-eared jack rabbits, camouflaged insects) and describe how that variation provided individuals an advantage for survival.

v. Explain how environmental factors (e.g., habitat loss, climate change, pollution, introduction of nonnative species) can be agents of natural selection.

c. Extinction occurs as a result of both natural processes and human-induced changes in the environment.

i. Explain how genetic homogeneity may cause a population to be more susceptible to extinction (e.g., succumbing to a disease for which there is no natural resistance).

ii. Explain why species that are adapted to a particular environment may go extinct if the environment changes.

2. Organisms interact with one another and with their environment.

a. Interactions among populations within a community affect the structure and balance of an ecosystem.

i. Understand that biologists view the natural world in a hierarchical organization from individuals, populations, communities and ecosystems.

ii. Define a species (e.g. the ability to mate and produce fertile offspring).

iii. Observe a local ecosystem (local pond, aquarium, etc.) and explain the nature of interactions between organisms in predator/prey relationships and different symbiotic relationships (i.e., mutualism, commensalism, parasitism).

iv. Understand the concept of the ecological niche of an organism (the interactions and interdependence of the organism with other organisms and the environment).

b. Living organisms have the capacity to produce populations of infinite size, but environments and resources are finite.

i. Identify and explain the limiting factors (biotic and abiotic) that may affect the carrying capacity of a population within an ecosystem.

ii. Explain how populations within an ecosystem may change in number and/or structure in response to changes in biotic and/or abiotic factors.

c. All organisms, including humans, and their activities cause changes in their environment that affect the ecosystem and the diversity of species within that ecosystem.

i. Explain how natural or human caused changes (biological, chemical and/or physical) in one ecosystem may affect other ecosystems due to natural mechanisms (e.g., global wind patterns, water cycle, ocean currents).

ii. Explain the impact (beneficial or harmful) that a natural or human caused environmental event (e.g., forest fire, flood, volcanic eruption, avalanche, acid rain, global warming, pollution, deforestation, introduction of an exotic species) may have on individuals, populations, species, communities and/or the global environment.

3. Matter recycles within and energy flows through the ecosystem.

a. Matter (e.g., carbon, nitrogen, oxygen) is recycled within an ecosystem.

i. Recognize that living organisms play a critical role in recycling of matter.

ii. Understand that human activities can alter the natural recycling of matter (e.g., global warming).

b. As energy flows through the ecosystem, living organisms capture a portion of that energy and transform it to a form they can use.

i. Illustrate and describe the flow of energy within a food web and an energy pyramid.

ii. Predict how the use and flow of energy may be altered due to changes in a food web.

C. Physical Sciences Entry Competencies

The physical sciences include Astronomy, Chemistry, Geology, and Physics. College Knowledge: What It Really Takes for Students to Succeed and What We Can Do to Get Them Ready was used as a resource for the competencies related to these courses. College Knowledge is written by David T. Conley and published by the Center for Education Policy Research in Eugene, Oregon. The competencies also embrace the National Science Standards as expressed in the K-12 standards as adopted by DESE.

A proficient level on Missouri high school science end-of-course exams is desired for all high school graduates; however, these competencies are specific for the introductory classes. The most important skill for success in physical science courses is mathematical proficiency. As mentioned in other places in this report, habits of mind are also very important to achieving that success. Further, students who complete high school chemistry and physics courses should be better prepared to be successful in college level physical science courses. While the competencies below are split into sections according to sub-disciplines within the physical sciences, there is large cross-over between these sub-disciplines such that competencies in one sub-discipline may apply to introductory courses in the others.

I. Geology (Earth Science)-Students should:

1. Be prepared to enter college algebra (see the Mathematics Entry Level Competencies).
2. Know that the earth is a body in space whose environmental system consists of the atmosphere, cryosphere, hydrosphere and biosphere; and that this system depends largely on the sun for light and heat.
3. Understand that the current environment (e.g., geography and climate) has changed dramatically in the past and will continue to do so.
4. Understand that relationships exist among the solid earth (geology and soil science), the water (hydrology and oceanography) and the atmosphere (meteorology and atmospherics.
5. Be aware of the major events in the geologic history of the Earth.

II. Astronomy-Students should:

1. Be prepared to enter college algebra (see the Mathematics Entry Level Competencies).
2. Be familiar with the nature of the solar system and the universe.
3. Be familiar with the basic motions of bodies in space.
4. Have an appreciation of the immensity of the universe.

III. Chemistry-Students should:

1. Be prepared to enter college algebra (see the Mathematics Entry Level Competencies).
2. Understand that atoms, molecules and ions have a set of physical and chemical properties that control their behaviors in a range of states.
3. Know that states of matter depend on molecular arrangement and freedom of motion.
4. Have a basic familiarity with the Periodic Table.
5. Know the structure of an atom.
6. Understand that molecules are composed of atoms in unique and consistent arrangements.
7. Know that substances react chemically in characteristic ways with other substances to form new substances (compounds) with different characteristics and properties.

IV. Physics-Students should:

1. Be prepared to enter college algebra (see the Mathematics Entry Level Competencies).
2. Understand the relationship between energy, heat and temperature.
3. Understand conservation of mass and energy.
4. Understand the difference between position, velocity and acceleration.
5. Understand Newton's laws as a classical description of motion.
6. Know the characteristic properties of waves.
7. Understand every object exerts gravitational force on every other object.
8. Understand general concepts related to electrical and magnetic forces.

Entry-Level Competencies

Social Sciences

The Social Science Workgroup of the Missouri Department of Higher Education wish to present the following entry-level competencies in an effort to establish what they feel are the essential standards for successful entry into postsecondary social science coursework. The following competencies outline both general and discipline-specific knowledge. These standards are based upon the earlier work of the Association of American Universities and the PEW Charitable Trusts *(Social Sciences, A report for Standards for Success*, pp: 55-65. www.s4s.org).

I. General Knowledge and Skills
Successful students have a basic understanding of the social sciences (anthropology, history, economics, geography, political science, sociology). They:

1. Distinguish between the different characteristics that define the disciplines within the social sciences.
2. Are aware of current world events, issues, and problems and know how concepts and theories in the social sciences can be applied to understand them.
3. Perceive events and circumstances from the vantage point of others, including those in racial and cultural groups different from their own; from the other gender, from other ages; and from those who live under other political and economic systems.
4. Are able to identify and analyze problems appropriate to the social science discipline being studied.
5. Are able to distinguish between, read, and comprehend primary and secondary documents.

II. History
Successful students know significant periods and events in United States history. They understand important events, social movements and political processes that have shaped U.S. and World history, and are aware of the major historical figures that influenced history. These include but are not limited to:

1. The evolution and distinctive characteristics of major early Asian, African, and American pre-Columbian societies and cultures.
2. The connections among civilizations from earliest times, and the gradual growth of global interaction among the world's peoples, speeded and altered by changing means of transport and communication.
3. Comparative history of selected themes, to demonstrate commonalities and differences not only between European and other societies, but among European and non-European societies themselves.
4. Varying patterns of resistance to, or acceptance and adaptation of, industrialization and its accompanying effects, in representative European and non-European societies.
5. The adaptation of both indigenous and foreign political ideas, and practices in various societies. Borrowers of other's political ideas, exporters of political ideas.
6. The interplay of geography and local culture in the responses of major societies to outside forces of all kinds.
7. The evolution of American political democracy, its ideas, institutions, and practices from colonial days to the present; the Revolution, the Constitution, slavery, the Civil War, emancipation, and civil rights.
8. The development of the American economy; geographic and other forces at work; the role of the frontier and agriculture; the impact of technological sources and urbanization on land and resources, on society, politics, and culture. The role and emancipation of American labor.
9. The gathering of people and cultures from many places, and the several religious traditions, that have contributed to the American heritage and to contemporary American society.
10. The changing role of the United States in the outside world; relations between domestic affairs and foreign policy; American interactions with other nations and regions, historically and in recent times. The United States as a colonial power and in two world wars. The Cold War and global economic relations.
11. The distinctively American tensions between liberty and equality, liberty and order, region and nation, individualism and the common welfare, and between cultural diversity and civic unity.
12. The major successes and failures of the United States, in crises at home and abroad. What has "worked" and what has not, and why.

III. Political Science (Civics)

1. Successful students have a basic understanding of types of governments. They:
   a. Understand the nature and source of various types of political authority (e.g., the differences between democracy and oligarchy).
2. Successful students have a basic understanding of the U.S. political system and its history. They:
   a. Know basic facts about the U.S. political system and constitutional government (e.g., federalism; checks and balances; and legislative, executive and judiciary branches of power).
   b. Understand the content and context of documents that established the U.S., especially The Declaration of Independence and the U.S. Constitution.
   c. Understand the content and context of documents important for the protection of individual rights in the U.S., especially the U.S. Constitution and the Bill of Rights.
   d. Know the methods citizens can use to participate in the political process at local, state and national levels, and how political participation can influence public policy.

IV. Geography

Below are entry-level competencies in geography. These competencies encompass general concepts in Geography, Physical Geography and Human Geography. It is not our expectation that students would be fully conversant in these concepts when entering college, but that they would have been exposed to many of them. Traditionally, place name identification has been conceived of as the main focus of geography, but much more important are the major geographical concepts and cultural understanding of the diversity of the places in the world. Geographical approaches link many different branches of the social sciences, as well as the physical sciences. As such students who have exposure to these concepts will be more likely to succeed in not only college-level geography courses, but they will be in a stronger position to succeed in other courses, such as: introduction to physical science, surveys of American and world history, introduction to sociology and anthropology courses, and beginning government courses. Students meeting entry-level expectations in geography will be able to:

1. Use maps to determine and define major geographical units, such as: regions, continents, countries, and major cities.
2. Identify and interpret different types of maps, such as: topographic (raised relief and contour), cartograms, proportional symbol, and choropleth maps
3. Identify and define places by understanding ethnicity; language and language systems; and patterns of religion
4. Define and distinguish between concepts of relative distance and absolute distance, relative direction and absolute direction, relative location and absolute location
5. Understand fundamental population models, such as the demographic transition model, and associated terminology, including but not limited to, total fertility rate, rate of natural increase, etc.
6. Describe different patterns of migration, the different types of migration, and the causes of migration
7. Read and interpret data in atlases, e.g. percentage of population who are farmers, population density, percentage of population that live in urban areas
8. Identify the continents of the world and their major topographic qualities, i.e. mountainous, high plateau, etc and demonstrate an understanding of how these qualities influence human settlement patterns
9. Distinguish between weather and climate and demonstrate an understanding of how climate influences human settlement patterns
10. Identify areas of the world by their dominant vegetation characteristics, i.e. savanna, tropics and demonstrate an understanding of how this influences human settlement patterns
11. Identify major bodies of water, i.e. oceans, seas, and major rivers and distinguish between fresh and salt water and demonstrate an understanding of how proximity to fresh water continues to influence human settlement patterns.

Entry-Level Competencies

American Government

The purpose of the American government course at Missouri colleges and universities is to prepare students to be competent citizens who understand and are capable of participating in the political processes of the nation. Upon successful completion of the course, the student will:

1. Understand of the environment of the American political system by examining the political ideologies and theories of democracy that influenced the construction of our system of government.
2. Outline the structure of our government, as set up in the Constitution.
3. Describe the links between citizens and government. In this, they should articulate key concepts about voting, political parties, campaigns, and other forms of political participation.
4. Understand (1) the structure and interactions of the presidency, congress, bureaucracy, and courts and (2) how the institutions are intended to respond to citizen inputs.
5. Understand practices and processes that describe how governmental institutions work and interact to create domestic and foreign policy.

We recognize there will be variation in emphasis by instructor, but the preceding goals, if met, will provide a student who completes the course with a grade of C or better with the minimum level of knowledge that we expect of a competent citizen and of students who enter our upper division courses. At the end of the day, students should walk away with a holistic picture of the varied institutions and practices in our system, which allows them to understand these as solutions, albeit imperfect ones, to problems of governance in this country.

These goals can be met if the content of each course covers the following topics and students are tested on their knowledge of this material.

I. The Environment of our System

1. Origins of the American System. Students will:
   a. Define the word "politics."
   b. Define "ideology" and its component parts, beliefs and values.
   c. Identify the key components of three classic ideologies (Classical Conservatism, Classical Liberalism, Classical Socialism).
   d. Explain what Classic Liberalism is, why it is the "American" ideology, and why it makes the United States unique as the world's most classically liberal nation.
   e. Understand the difference between a democracy and a republic
   f. Understand the contributions of Rousseau, Locke, Montesquieu, and Newton to the American version of democracy.
2. The Constitution. Students should be able to:
   a. Understand the weaknesses of our first national government, the Articles of Confederation and why certain leaders felt it was necessary to create a new government (patriots, merchants)
   b. Understand that the framers of the Constitution were pragmatic politicians who in large part drafted the Constitution to solve practical problems of governance, identify the key parts of the Constitution, both in the main body and the Amendments (the 7 articles and, at a minimum, the first 10 amendments and the Civil War Amendments).
   c. Identify the major sections of the Missouri Constitution (especially Articles 1-4 and 12).

3. Federalism. Students should be able to:
    a. Define federalism and understand why it was included in the Constitution.
    b. Describe the clauses in the Constitution relevant to the power of the central government in the state-federal relationship (supremacy clause, full faith and credit, privileges and immunities, elastic, commerce, etc.).
    c. Describe the clauses in the Constitution relevant to the power of the state governments in the state-federal relationship (enumerated powers, 10th amendment, 11th amendment, etc.).
    d. Explain the importance of McCulloch v. Maryland.
    e. Explain the concept of "devolution" in the state-federal relationship.
    f. Understand the modern relevance of federalism and its implications.

II. Links between the Government and the Governed
1. Political Participation. Students should be able to:
    a. Define political participation.
    b. Understand why some people are more likely to participate in politics than others.
    c. Explain why Americans, in general, participate at lower rates than people in other democratic countries (most nations have very different political party systems).
    d. Explain why Americans now participate at lower rates than Americans of forty years ago (should include possible explanations as well as the argument that the decline in participation is overblown).
    e. Understand why some interest groups are more "successful" than others (explain the difference between economic interest groups and public interest groups). Identify the ways in which interest groups influence the policymaking process (lobbying, grassroots lobbying, etc.).

2. Public Opinion and the News Media. Students should be able to:
    a. Explain the role public opinion should play in governing a representative democracy (be conversant with the terms "delegate," "trustee," and "politico").
    b. Describe the possible flaws in public opinion polling and how to be a careful consumer of such polls (understand sampling, question wording, survey design, margin of error).
    c. Describe the problems with the coverage of politics by the news media (overemphasis on scandal and sensational events).
    d. Explain how politicians use the news media (use of staged events, trial balloons and leaks, extensive PR staff).
    e. Explain how the news media have changed politics (image over substance).
3. Political parties. Students should be able to:
    a. Define a political party and distinguish it from an interest group.
    b. Explain the functions served by parties in a representative democracy.
    c. Describe how the Progressive Era reforms and how they weakened parties in the United States.
    d. Explain the difference between the difference between choosing representatives from single member, simple plurality districts (and states in the case of Senators) and proportional representation.
    e. Explain why we have a predominantly two
    f. -party system in the United States.
    g. Describe the role third parties have historically played in the United States.

4. Campaigns. Students should be able to:
    a. Explain the criteria for a good election (turnout, absence of fraud and demagoguery, be informational, influence what government does).
    b. Analyze recent elections by the criteria for a good election.
    c. Explain what the Electoral College is and how it works.
    d. Understand the current state of campaign finance law in the United States (should know the FECA amendments of 1973, Buckley v. Valeo, Bipartisan Campaign Reform Act, McConnell v. FEC, more recent developments).

III. Institutions and Issues

1. Congress. Students should be able to:
    a. Explain the local orientation of members of Congress (which means that they should know Congress is better at serving local interests than the national interest and why that is the case).
    b. Describe the structure of the House and Senate.
    c. Understand the process of how a bill becomes a law.
    d. Know that the passage of the annual budget is Congress's biggest job and know how that process works.
2. Executive Branch. Students should be able to:
    a. Know who can legally become president and contrast it with the far more limited (demographically) group of people who have actually served as president.
    b. List the functions, or jobs, of the president.
    c. Distinguish between the formal (constitutional) and informal (evolved) powers of the president.
    d. Explain why the president is much more effective as a foreign policy leader than a domestic policy leader.
    e. Understand the characteristics and functions of the bureaucracy, as well as the manner in which it fits into a democratic society.
3. The Courts. Students should be able to:
    a. Explain the primary function (adjudicating) and primary objective (protect civil liberties) of courts.
    b. Answer important questions about the design of the federal judiciary through an understanding of Hamilton's Federalists papers on the subject (why permanent tenure in office, why selection by the president and confirmation by the senate, why a small, collegial court).
    c. Describe the design of the federal judiciary (district, circuit, supreme courts); understand how the Supreme Court functions.
    d. Define judicial review and be able to explain the importance of Marbury v. Madison.
    e. Understand the factors which influence Supreme Court decisions (the Constitution, the law, personal views of the justices, public opinion).
    f. Know the limits on the power of the Supreme Court (the president, the Congress, the Constitution, judicial restraint).
    g. Explain the difference between civil rights and civil liberties.
    h. Define selective incorporation.
    i. Identify the constitutional amendments that bear on our most important right, voting (15, 17, 19, 23, 24, 26).
4. Policy. Students should be able to:
    a. Explain what type of economic system the United States has.
    b. Explain why the government is involved in regulating the economy.
    c. Explain the difference between fiscal and economic policy.
    d. List the foreign policy goals of the United States.
    e. Describe the process of making foreign policy in a democracy.
    f. Differentiate between the country's military and economic tools for making foreign policy.
    g. Understand the ways in which political institutions and the attitudes of the general public interact in the production of both foreign and domestic policy.

Entry-Level Competencies

College Algebra

I. All institutions generally expect students should be able to:

1. Understand the concepts of functions and be able to apply the properties of functions and their graphs.
2. Understand the relationship between linear functions and straight lines and be able to apply such knowledge.
3. Understand the concept of piecewise-defined functions and be able to translate this knowledge to their properties and graphs.
4. Understand the concept of transformation (e.g., shifting, reflecting, stretching, shrinking) of functions and be able to recognize and apply such knowledge when graphing functions.
5. Understand the concept of combining functions and be able to perform these operations and recognize the resulted functions and their properties.
6. Understand the invertibility of functions and the relationship between functions inverse to each other, and be able to determine inverse functions when appropriate.
7. Understand the meaning of solutions to linear and rational equations and be able to solve such equations whenever appropriate.
8. Apply the acquired understanding and knowledge of functions to model appropriate real-world situations and draw mathematical conclusions.
9. Understand the concept of complex numbers and be able to perform operations involving them.
10. Understand the meaning of solutions to quadratics equations and be able to solve such equations.
11. Understand and recognize other types of equations and be able to apply previously acquired knowledge to solve such equations whenever appropriate.
12. Understand the meaning of solutions to linear and absolute value inequalities and be able to solve such inequalities whenever appropriate.
13. Understand the relationship between quadratic functions and parabolas, and able to connect such knowledge to quadratics equations.
14. Understand the properties and graphs of polynomial functions and be able to perform basic operations involving polynomials.
15. Understand the meaning of the Remainder Theorem and its application to evaluating polynomial functions. Understand the meaning of the Factor Theorem and its application to solving polynomial equations.
16. Understand the meaning of zeros of polynomial functions and their connection to the graphs of these functions.
17. Understand the importance of the Fundamental Theorem of Algebra, its application to polynomial equations, and its connection to complex numbers.
18. Understand the properties and graphs of rational functions and be able to generate appropriate information, including asymptotes.
19. Understand the meaning of solutions to polynomial and rational inequalities and be able to solve such inequalities whenever appropriate.
20. Understand the properties and graphs of exponential functions and be able to evaluate and graph such functions.
21. Understand the relationship between logarithmic functions and exponential functions and be able to evaluate and graph such functions.
22. Understand the properties of logarithms and their relationship to exponentials. Be able to perform operations on logarithms.
23. Understand the meaning of solutions to exponential and logarithmic equations and be able to apply the inverse relationship between exponentials and logarithms to equations involving them whenever appropriate.
24. Understand the meaning of exponential growth and decay and apply the knowledge of exponential and logarithmic functions model two applications.
25. Understand the meaning of compound interest and apply the knowledge of exponential functions to model this application.

II. The following competencies are based on the elective topics and vary from institution to institution. Students should be able to:

1. Understand the underlining principle of variation and how it is used to model many applications.
2. Understand the meaning of solutions to linear systems of equations and be able to use effective ways to find and express possible solutions.
3. Understand the meaning of solutions to systems of nonlinear equations and be able to use effective ways to find and express possible solutions.
4. Understand the concepts of matrices and their inverses (if exist), matrix operations, determinants, and be able to perform required computations. Understand how matrices are used to model and solve system of linear equations and be able to perform required appropriate computations.
5. Understand the properties and graphs of parabolas, ellipses, and/or hyperbolas and be able to perform basic related algebraic/graphing operations.
6. Understand the concepts of sequences and series (including the arithmetic and geometric cases) and their applications. Be able to perform basic related algebraic tasks.

Entry-Level Competencies

1st Semester Foreign Language

The standards outlined below reflect college first semester exit competencies and are equivalent to the ACTFL (American Council on the Teaching of Foreign Languages) Novice Mid level and the CEF (Common European Framework) A1 level, with the exception of the optional cultural knowledge section. In each respective section below, students will:

I. Listening

1. Understand short and simple conversations on familiar topics such as myself, family, and my immediate surroundings when spoken slowly and clearly.
2. Sometimes recognize cognates, affixes, and thematic vocabulary to help me understand live or recorded spoken language.

II. Reading

1. Understand familiar names, words, and very simple sentences, for example on notices and posters or in catalogues.
2. Understand basic questions on standardized forms well enough to give important information (name, date of birth, nationality).
3. Distinguish between questions, statements, and exclamations.

III. Writing

1. Write lists, very short messages, post cards, and simple notes.
2. Write simple sentences describing myself and others using memorized phrases on familiar topics such as self, family, and immediate surroundings.
3. Supply basic personal information, such as physical information and preferences, in simple forms.

IV. Speaking

1. Describe self with some hesitation using memorized words and phrases and can ask and answer simple questions on familiar topics such as self, family, and immediate surroundings.
2. Use simple phrases and sentences to describe where they live and people they know, making themselves understood by a sympathetic native speaker.

V. Cultural Knowledge (OPTIONAL)

1. Have increased knowledge and appreciation of a different culture.

Suggested topics for inclusion in a first-semester foreign language course (ex.: Italian)

- Italy and the world
- Families and values in Italy
- Geography, how to place people, regional differences, dialects
- A typical day: work, play, daily habits, meals
- Health issues
- Educational system
- Spending money, bank system
- Modern cities
- Youth and their interests
- Art, artists, authors, films, TV, cartoons, comic books

Freshman Composition

The following competencies are the writing, thinking, communication, and expressive skills identified and recommended by a group of high school teachers, community, and four-year College English instructors. Upon successfully completing the required freshman composition course or sequence of courses, students should be able to do the following:

1. Demonstrate critical and analytical thinking for reading, writing, and speaking.
    a. Participate in active reading and discussion of a variety of texts.
    b. Incorporate ideas and information from readings into own writing.
    c. Identify purpose, main idea, and supporting evidence.
    d. Distinguish between fact and opinion and recognize textual biases.
    e. Distinguish between general and specific information.
    f. Summarize and paraphrase information.
    g. Analyze and evaluate their own and others' speaking and writing.
    h. Communicate effectively in groups by listening, reflecting, and responding appropriately.
    i. Formulate diagnostic questions for resolving issues and identify possible solutions.
    j. Show an awareness of the different modes of comprehension, as well as expression, required for effective oral communication, as opposed to written.
2. Compose sound and effective sentences.
    a. Use a variety of sentence structures correctly.
    b. Understand and employ subordination and coordination to express ideas.
    c. Avoid major sentence-level errors such as fragments, comma splices, fused sentences, etc.
    d. Communicate with few errors in grammar, usage, diction, and mechanics.
3. Compose unified, coherent, and developed paragraphs.
    a. Write focused topic sentences.
    b. Maintain focus and unity of paragraph.
    c. Use details, examples, and facts to develop the paragraph's main idea.
    d. Select and use appropriate patterns of organization for subject audience, and purpose.
    e. Use transitional devices.
    f. Employ appropriate, developed, and wide-ranging vocabulary.
4. Understand and use a recursive writing process to develop strategies for generating, revising, editing, and proofreading texts.
5. Produce rhetorically effective discourse for subject, audience, and purpose.
    a. Organize a logically structured essay that includes an introduction, body, and conclusion.
    b. Develop an essay's controlling idea (thesis or claim) with a balance of generalizations and adequate specific, illustrative details.
    c. Use transitional devices to achieve coherency, unity, and focus.
    d. Use a variety of rhetorical strategies to analyze and respond to topics and texts.
    e. Support position using relevant evidence and a reasoned argument.
    f. Develop and employ a wide-ranging vocabulary appropriate for the argument's rhetorical purposes.
6. Demonstrate effective research and information literacy skills.
    a. Formulate a [manageable] research question.
    b. Access appropriate sources.
    c. Evaluate and analyze information for credibility and accuracy.
    d. Synthesize information from a variety of sources and apply the synthesis to complex situations and problems.
    e. Cite primary and secondary sources using appropriate documentation style such as MLA, Chicago Manual, APA, etc.

Introductory Astronomy provides an ideal tool for teaching the nature of science and the scientific method. In particular, the paradigm shifts are well-known (e.g. geocentric vs. heliocentric models of the solar system) and the relationship between progress in science and invention of new technologies is clear. However, while the use of an astronomy course for teaching the nature of science necessitates teaching some basic physics concepts, it does not require specific subtopics within astronomy to be learned.

What follows is a list of both the physics concepts and astronomical topics that are deemed essential to an astronomy course whose aim is to convey the nature and methods of science.

I. Physics Concepts
The first exit competency must be to specify which physics concepts are essential to understanding the nature of science as taught in astronomy. They include:

1. Newton's laws
2. the nature of light (both waves and particles)
3. color, wavelength and energy
4. Doppler effect
5. electronic structure of atoms
6. spectroscopy and the relationship between (2) and (3)
7. blackbody radiation

In all cases, students should be able to demonstrate an understanding of the concepts and the meaning of the equations, though a rigorous mathematical understanding of formulas is not necessary. That is, they should know that the gravitational force between two bodies is proportion to the masses and inversely proportional to separation squared; they should know that the nature of a blackbody is such that the total power output is proportional to both the size (radius) and the temperature of an object, but that the effect of temperature is stronger than that of size.

II. Astronomical Concepts

1. Students should be able to explain how the motion of astronomical objects is viewed across the sky on various timescales (e.g. daily, monthly, yearly, etc.). Students should:
   a. Know how these apparent motions are manifest themselves in terms of seasons and lunar phases.
   b. Know that scientific relevance of the Zodiac constellations is simply that these constellations define the ecliptic plane (where the sun and planets travel on the sky).
2. Students should know the properties of planetary motion as described by Newton's Laws and Kepler's Laws. They should know how these properties allow us to derive planetary (and in fact stellar) masses.
3. Students should know what the fundamental measurable properties of stars are, such as distance (where applicable), brightness, temperature, and derivable properties such as mass, radius, etc. They should:
   a. Know how those properties are derived.
   b. Know what the Hertzsprung-Russell diagram is and what can be represented on it (populations of stars, evolutionary paths of stars).
   c. Know star nomenclature (main sequence, giant, supergiant, dwarf, etc.).
4. Students should know the hierarchical structure of the universe (solar system, galaxies, cluster galaxies, universe) and the methods of measuring astronomical scales (especially parallax and standard candles, but also Doppler shift and its relationship to Hubble's Law).
5. Students should know what Hubble's Law is and how it was determined. They should know how it can be used both to determine the history and to extrapolate the probable evolution of the universe.

Entry-Level Competencies

Introduction to Chemistry

(One Semester Course)

I. The Scientific Method. The student should be able to demonstrate that:
   1. Science is a process.
   2. Science is based on observations made in the physical world (data).
   3. Hypotheses are made based on these observations.
   4. Hypotheses are tested creating new data and probably new hypotheses.
   5. Laws are summary statements of a large number observations.
   6. Theories are statements that explain observations and predict future observations.
   7. Theories and Laws are subject to change; that Theories and Laws must be supported by the data.

II. Atoms and the Periodic Table. The student should be able to:
   1. Apply appropriate units to express various measurements.
   2. Use the method of dimensional analysis to systematically convert from one unit to another.
   3. Use the Law of Conversation of Mass and Energy.
   4. Quantify the three fundamental particles in any atom, isotope, or ion.
   5. Apply the significance of the electron configuration within an atom or ion and the position of an element on the periodic table.

III. Compounds, Formulas, Reactions, and Equations. The student should be able to:
   1. Classify elemental, ionic, and covalent substances and relate a systematic name to a formula.
   2. Recognize various reaction types and construct a balanced equation describing the formation of products from reactants.
   3. Use a periodic table and a balanced chemical equation to convert (reversibly) between mass to moles of a substance and mole to mole conversions for various changes.
   4. Apply the concept of limiting reactants and the nature of chemical analysis.
   5. Construct working Lewis structures for simple covalent compounds. Classify types of chemical bonding.

IV. Behavior of the States of Matter. The student should be able to:
   1. Use the kinetic-molecular theory to explain the behavior of gases.
   2. Relate the effect of pressure, volume, temperature, or amount changes as stated by the Ideal Gas Equation.
   3. Recognize the nature of intermolecular forces of attraction and their effect on the physical properties of substances.
   4. Predict Hydrogen Bonding and the unique physical properties it manifests in water and other biomolecules.
   5. Determine the energy transfer involved with varying temperature and changes in state using measured conversion factors.

V. Properties of Solutions. The student should be able to:
   1. Use the concept of intermolecular forces to explain the action of solvation of an ionic or covalent solute.
   2. Use dimensional analysis to systematically convert from one unit to any other with concentration units as a connection.
   3. Use the concepts of mass percent, parts per million, molarity, molality, and mole fraction.
   4. Translate a chemical change in a solution into a net ionic equation which discounts the presence of spectator ions.
   5. Characterize the simple action of acids and bases and the nature of the pH scale.

VI. Equilibrium, and Oxidation and Reduction. The student should be able to:
   1. Predict that chemical reactions go to an equilibrium state.
   2. Assign the oxidation states for each element within a formula.
   3. Identify oxidation and reduction reactions.
   4. Identify oxidizing agents and reducing agents.

Entry-Level Competencies

Introduction to Communication

The standards outlined below reflect college course exit competencies for oral communication in research, writing, thinking, communication, expressive skills and presentation identified and recommended by a group community and four-year college communication instructors. Upon successfully completing the required oral communication course, students should be able to do the following:

1. Invention: Demonstrate the ability to use productive imagination for the discovery and evaluation of appropriate arguments relating to a chosen topic through effective research. That is to understand different aspects and points of view pertaining to the topic.
2. Through presentations skills students will demonstrate they understand the basic process of audience analysis by addressing the following:
    a. Identify the target (and secondary) audience in terms of:
        i. Demographics.
        ii. Cultural concerns.
        iii. Gender.
        iv. Knowledge level of subject.
    b. Understand the needs of that audience as it pertains to the presentation.
3. Students will be knowledgeable and able to use, identify, and create speeches for different types of speaking purposes, including:
    a. Informing
    b. Persuading
    c. Entertaining
    d. Motivational
4. Demonstrate effective preparation skills in the organization of speeches into three appropriate sections and preparing each section using the appropriate information and transitions between information and sections. These sections are:
    a. Introduction
    b. Body
    c. Conclusion
5. Utilize and understand the patterns of organization to structure information for each specific type of speech. Students will use parallel ideas and information on different levels of abstraction in these patterns.
    a. Chronological order - the time order in which events took place.
    b. Cause to effect - show how your topic was the result of essential events.
    c. Climax order - work from the least important information to the most important.
    d. Anti-climax order - work from the most to least important information.
    e. Spatial order - describe the physical setup of your topic.
6. Students demonstrate effective skill at composing and developing arguments with appropriate support that is unified, coherent, and fully developed utilizing the tenets of good writing and research.
    a. Formulate a focused [manageable] topic sentence or thesis statement.
    b. Access appropriate sources.
    c. Evaluate and analyze information for credibility and accuracy.
    d. Synthesize information from a variety of sources and apply the synthesis to complex situations and problems.
    e. Use a variety of rhetorical strategies to analyze and respond to topics and texts.
    f. Support position using relevant evidence and a reasoned argument.
    g. Develop and employ a wide-ranging vocabulary appropriate for the argument's rhetorical purposes.

7. Students will understand the complex issue of good delivery and show improved personal confidence and the ability to manage communication apprehension. Increased competencies will be demonstrated in:
    a. Verbal skills.
    b. Non-verbal components.
    c. Articulation, vocal variety, rate, pitch, tone, and enthusiasm.
    d. Appropriate speaking persona.
    e. Credibility, confidence , managing apprehension.
    f. Tie speaking skills into audience listening.
    g. Critique of ones own speaking persona.
8. Students will demonstrate effective listening skills as it relates to critical understanding of speech topics and critique of that speaking, doing the following:
    a. Critical thinking and comprehension of speech topics.
    b. Attending and listening with an open mind free of judgment.
    c. Distinguishing between logical and emotional appeals.
    d. Recall of information.
    e. Evaluation of information and logical organization of presentations.
9. Students will demonstrate that they understand and take part in ethical speaking and listening during presentations. Understanding communication ethics for both speech preparation and critiquing of peer speeches by:
    a. Utilizing responsible research and citing sources.
    b. Preparing speeches with integrity when dealing with information and sources.
    c. Using emotional and logical appeals responsibly.
10. Students will demonstrate and understand the role of public speaking in citizenry and how public speaking can contribute to success in the classroom and society.

1. Students will identify the major areas of philosophy (e.g., metaphysics, epistemology, ethics and political philosophy, and logic) and explain and analyze (perhaps with reference to historical figures) some of the major philosophical problems in several of these areas.
2. Students will identify and evaluate arguments in general and on philosophical topics.
3. Students will develop and defend a thesis on philosophical topics.
4. Students will critically examine their own views, to try to understand those of others, and to appreciate that on complex matters reasonable people can disagree.

Entry-Level Competencies

Introduction to Psychology

The American Psychological Association's Guidelines for the Undergraduate Psychology Major was a primary resource in the development of these competencies. For all of the following, students should:

I. Knowledge Base of Psychology
   1. Explain why psychology is a science
   2. Identify the components of current perspectives in psychology and trace their historical roots.
   3. Gain awareness of ongoing themes in the field of psychology, for example:
      a. nature and nurture
      b. the interaction of mind and body
      c. free will and determinism

II. Research Methods in Psychology
   1. Distinguish between major methods of psychological research.
   2. Recite steps in conducting psychological research.
   3. Identify and critique research reported in popular literature.
   4. Recognize potential sources of bias.
   5. Recognize common descriptive statistics used in psychology.
   6. Identify ethical concerns in conducting psychological research.

III. Critical Thinking Skills in Psychology
   1. Identify limitations of generalizing research.
   2. Challenge claims that arise from myth, stereotype, or untested assumptions by using scientific principles and evidence.

IV. Application of Psychology
   1. Describe major applied areas of psychology.
   2. Identify practical applications of psychology.
   3. Identify applications of psychology as applied to areas such as:
      a. health and medicine
      b. environment
      c. education
      d. public policy

V. Sociocultural and International Awareness
   1. Recognize that psychology is an international discipline.
   2. Provide examples of how interaction among diverse people can challenge conventional understanding of psychological processes and behavior.

Students exiting a college level Introduction to Theatre class should be able to meet the following objectives:
In the case of the first objective, students will meet the requirement through actual physical participation in the making of a theatrical production. For the rest of the objectives students will demonstrate the requirements through the use of clear, correct, and properly cited writing. Students will:

1. Participate (in some way) in the production and/or presentation of a play.
2. Show in writing a familiarity with several playwrights' work.
3. Restate the through-line or theme of a play in writing.
4. Describe how you would complete one of the tasks in presenting live theatre.
5. Show through testing or writing a familiarity with the major movements in the history of theatre.
6. Compose and write a beginning, personal theatre aesthetic with which to evaluate a performance.

Entry-Level Competencies

Introductory to Biology

This document is designed to facilitate the transfer of general education credit for undergraduate, non-majors' biology lecture courses among institutions in the State of Missouri.

All biology lecture courses designed for non-science majors should help students:

1. Develop an understanding of how science is conducted.
2. Develop an understanding of basic biological concepts necessary for biological literacy.
3. Apply higher-level thinking to biology concepts, with emphasis placed on those skills and content needed by educated citizens.
4. Explore biological issues of concern to the public, forming a foundation for life-long learning on scientific issues.

It is expected that faculty teaching an introductory biology course for non-majors will address each of the eight concepts described below. Various approaches are appropriate for teaching each concept. This document provides suggested objectives, but it is not required that every objective be achieved for every concept.

These competencies are not designed to limit the topics in college biology to these eight concepts, but is rather a foundation upon which other topics may be added at the instructor's discretion.

Some aspects of this document were taken either directly or indirectly from the following sources:

- Summary of Group Goals for Introductory Biology from the Missouri Alignment Project: Life Sciences Discipline Workgroup, as summarized by Deborah Allen.
- MIT Hierarchical Introductory Biology Concept Framework (web.mit.edu/bioedgroup/HBCF/CBE-Summer2004.html)
- Quality in Undergraduate Education – Standards for a Non-Majors Biology Course (www2.gsu.edu/~wwwque/standards/biology/biologynonmajors.html)

1. Biology is a scientific discipline based on observations and experiments.
   Objectives to support this concept may include:
   a. Judge the validity of science found in popular media based on the source, methodology used to investigate the science, and the conclusions drawn from the results.
   b. Read and discuss scientific material written for the educated lay reader.
   c. Explain that scientific knowledge is cumulative and subject to changes in interpretation based on new evidence.
2. At the molecular level, biology is based on interactions of three-dimensional molecules and life processes are the result of regulated chemical reactions.
   Objectives to support this concept may include:
   a. Explain why each of the four major categories of organic molecules (carbohydrates, lipids, nucleic acids, proteins) is required for living systems.
   b. Recognize that the metabolism of living things is a series of chemical reactions that transfers energy and atoms between molecules.
   c. Apply an understanding of a molecule's 3-dimensional shape to molecule function (e.g. tertiary protein structure to enzyme function).
3. The cell is the basic unit of life.
   Objectives to support this concept may include:
   a. Determine if an object is living or non-living, prokaryotic or eukaryotic, plant cell or animal cell based on identifying characteristics.
   b. Explain how different parts of the cell contribute to characteristics common to all living things.
   c. Interpret the statement, "Cells arise from other cells," using cellular reproduction as evidence.

4. The structure of DNA guides its own replication, the production of proteins, and the transmission of information to future generations.
   Objectives to support this concept may include:
   a. Describe how the structure of DNA makes it possible for identical copies to be made when cells replicate.
   b. Draw and/or explain the relationship between DNA molecules, chromosomes, genes, alleles and genomes.
   c. Explain that genes are segments of DNA with information for making a protein and that the sequence of bases in that DNA segment dictates the sequence of amino acids in the protein.
   d. Apply an understanding of gene expression to explain why most somatic cells in an individual have the same genetic information, but are structurally and functionally different.
   e. Integrate an understanding of genes and protein synthesis to explain why a mutation can change the resulting protein.
   f. Explain that versions of genes (alleles) are sources of variation in a population and the source of inheritable genetic diseases.
   g. Relate gene expression and phenotype.

5. The physiology of multicellular organisms involves interactions among different levels of organization.
   Objectives to support this concept may include:
   a. Describe the relationship between the following levels of organization: molecule, organelle, cell, tissue, organ, organ system, and organism.
   b. Explain how changing a fundamental physiological process at the molecular level will impact the other levels in the organizational hierarchy (e.g., cystic fibrosis, photosynthesis, etc.)
   c. Define and give examples of homeostasis.
   d. Explain how physiological development is controlled by carefully synchronized chemical signals.

6. Organisms interact with each other and the environment.
   Objectives to support this concept may include:
   a. Give examples of the interdependency of biotic and abiotic components of ecosystems (e.g. nutrient cycling, energy flow, etc.).
   b. Describe the impact of human activity on the environment and how this impact may drive biological change, loss of habitat, and/or species extinction.
   c. Describe a) how human activities contribute to the greenhouse effect, b) the consequences of global climate change, and c) strategies for mitigating these effects.
   d. Explain the relationship between the following levels of organization: organism, population, communities, ecosystems and biosphere.

7. The Theory of Evolution is the central unifying theme of biology.
   Objectives to support this concept may include:
   a. Recognize that the Theory of Evolution explains both the universal characteristics of organisms as well as the diversity of life on Earth.
   b. Explain the importance of variation in a population.
   c. Identify sources of genetic variation (e.g., mutation, genetic recombination during meiosis, and sexual reproduction).
   d. Define evolution as a change in allele frequency.
   e. Explain and give examples of natural selection as the primary mechanism of evolution.
   f. Explain how various tools (e.g., fossil record, radiometric dating, gene modification, comparative morphology, etc.) are used to determine the relationships among species.
   g. Interpret the relationships among organisms in a phylogenetic tree.

8. Biology and society impact each other.
   Objectives to support this concept may include:
   a. Explain how science and technology impact society, as well as how scientists are influenced by the political, social, economic and cultural influences of the time.
   b. Demonstrate a basic understanding of common biotechnology tools (e.g., Recombinant DNA Technology, restriction enzymes, DNA Fingerprinting, Somatic Cell Nuclear Transfer) and explain how the use of these tools has influenced social, cultural, or political issues.
   c. Examine both sides of conflicting opinions on bioethical issues.

Entry-Level Competencies

U.S. History to/from 1877

These exit competencies are applicable for Introductory US History Courses, to or from 1877. Upon successful completion of the course, students should be able to:

1. Understand significant trends, movements, and events in American history.
2. Identify and interpret primary and secondary sources, placing them in the context of their time and place and assessing them for reliability and point of view.
3. Formulate historical arguments based on specific evidence from the sources
4. Demonstrate an understanding of historical chronology and respect the distinctive integrity of the past.
5. Appreciate the multiple political, social, economic, and cultural dimensions of the human experience.
6. Use historical analysis to evaluate cause and effect, comparisons and contrasts, and patterns of continuity and change over time.

Mathematics Entry Level Competencies for Engineering Program

Draft of Postsecondary Optimal Entry-Level Competencies
Curriculum Alignment Initiative
Missouri Department of Higher Education
June 23, 2008

The need for math skills above the general admission level is required for specific METS fields such as engineering. Students entering engineering programs will encounter courses requiring calculus as prerequisites and Calculus I is viewed as basic preparation for any student pursuing a major in engineering. Students are encouraged to arrive with mathematical skills and concepts to prepare them to successfully enter into a Calculus I course, otherwise the time needed to complete precalculus courses may add an extra semester or an extra year to complete the major. Geometry, College Algebra, and Trigonometry are therefore the core entrance competencies into Calculus I and the engineering programs. Geometry preparation must be at the level of learning associated with a college-track course; basic geometry courses are not sufficient.

The Engineering Workgroup deems the items below to be the fundamental concepts or the core entrance competencies that all entering students into engineering should possess in order to successfully matriculate into Calculus I.

Note: All calculations should be performed without the use of technology (i.e., calculator). Some examples of skills are provided in parentheses.

I. Algebra and Real Numbers

1. Use symbols and operators to represent ideas and objects and the relationships existing between them.
2. Understand the relationship between measures of the physical world. (Velocity, distance and time: On a 40-mile car trip to Middletown, NY, you drive the first twenty miles at 40 mph and the last twenty miles at 60 mph. What is your average speed during the trip?)
3. Know and apply the following algebraic properties of the real number system: identity, associative, commutative, inverse, and distributive.
4. Express numbers using scientific notation. (Express 0.004312 in scientific notation.)
5. Write a number as the product of factors. (Write 42 as the product of prime factors.)

II. Radicals and Exponents

1. Convert between radical and rational exponent form. (Transform to the rational exponent form .)
2. Manipulate algebraic expressions that contain integer and rational exponents. (Simplify .)

III. Algebraic Expressions

1. Add, subtract, multiply, and divide algebraic expressions. (Find the remainder when is divided by $x - 2$.)
2. Simplify algebraic expressions. (Expand and simplify $(x - 3)(x - 2)(x - 1)$.)

IV. Linear Equations, Inequalities and Absolute Values

1. Understand the meaning of solutions to linear and rational equations and be able to solve such equations whenever appropriate.
2. Determine the equation of a line. (Find the equation of a straight line passing through the points (2, 1) and (5, 4).)
3. Determine the equation of a line that is parallel or perpendicular to a given line. (Find the equation of a line parallel to the line $2y - 3x = 7$ and passing through the point (1, 2).)
4. Solve 2 simultaneous linear equations by graphing and by substitution. (Use a graph to estimate the point of intersection of the lines $2x + 3y = 7$ and $-x + y = 4$. Verify your result using back substitution.)
5. Solve linear equations and inequalities [graphically and algebraically]. (Solve for x.)
6. Understand the meaning of solutions to linear and absolute value inequalities. Solve linear equations and inequalities with absolute values. (Solve $| x - 4 | \geq 3$ for x.)
7. *Understand the meaning of solutions to linear systems of equations and be able to use effective ways to find and express possible solutions.
8. *Understand the concepts of matrices and their inverses (if exist), matrix operations, determinants, and be able to perform required computations. Understand how matrices are used to model and solve system of linear equations and be able to perform required appropriate computations.

* Recommended Topics

V. Polynomials, Roots of Polynomials, and Rational Inequalities

1. Understand the properties and graphs of polynomial functions.
2. Understand the meaning of zeros of polynomial functions and their connection to the graphs of these functions.
3. Solve for the roots of a polynomial by factoring. (Find the roots of .)
4. Understand the meaning of the Remainder Theorem and its application to evaluating polynomial functions.
5. Understand the meaning of the Factor Theorem and its application to solving polynomial equations.
6. Understand the meaning of solutions to polynomial and rational inequalities and be able to solve such inequalities whenever appropriate.
7. Solve simple polynomial inequalities. (Solve for x.)
8. Solve simple rational inequalities. (Solve for x.)
9. Understand the importance of the Fundamental Theorem of Algebra, its application to polynomial equations, and its connection to complex numbers.

VI. Functions, Graphs and Graphing

1. Identify the independent and dependent variables of a function.
2. Evaluate a function at a point. (Given f (x) = , find f (2a).)
3. Determine the domain and range of a real valued function. (Find the domain and range of the real valued function)
4. Understand the concept of combining functions and be able to perform these operations and recognize the resulted functions and their properties.
5. Evaluate composite functions. (Given h(r) = and g(s) = 2s, find h(a + 2) – g(2a).)
6. Understand the concept of piecewise-defined functions and be able to translate this knowledge to their properties and graphs.
7. Graph equations and inequalities. (Sketch a graph of the function f(x) = for 1<x<5.)
8. Understand the concept of transformation (e.g., shifting, reflecting, stretching, shrinking) of functions and be able to recognize and apply such knowledge when graphing functions.
9. Transform the graph of a known function. (From the graph of f (x), graph
10. g(x) = 2 f (x) – 3.)
11. Understand the invertibility of functions and the relationship between functions inverse to each other, and be able to determine inverse functions when appropriate.
12. Understand the properties and graphs of rational functions and be able to generate appropriate information, including axes, intercepts, asymptotes, and roots.
13. Know the general characteristics and shapes of the graphs of polynomial, logarithm, exponential and trigonometric functions.
14. Understand the properties and graphs of parabolas, ellipses, and/or hyperbolas and be able to perform basic related algebraic/graphing operations.

VII. Equations of Quadratic Type and Complex Numbers

1. Understand the concept of complex numbers and be able to perform operations involving them.
2. Calculate the sum, difference, product, and quotient of complex numbers and express the result in standard form.
3. Understand the meaning of solutions to quadratics equations and be able to solve such equations
4. Solve for real and complex roots using the quadratic formula. (Find the roots of .)
5. Solve a system of quadratic equations in 2 variables by substitution. (Solve the system and y = .)
6. Understand the relationship between quadratic functions and parabolas, and able to connect such knowledge to quadratics equations.

VIII. Logarithmic and Exponential Functions

1. Understand the meaning of solutions to exponential and logarithmic equations and be able to apply the inverse relationship between exponentials and logarithms to equations involving them whenever appropriate.
2. Apply the properties of logarithms and their relationship to exponentials. Be able to perform operations on logarithms. [, is the inverse of the function]. (Evaluate .)
3. Know the properties of the logarithmic and exponential functions and use them to simplify logarithmic expressions. (Express as a single logarithm: .)
4. Know how to solve simple logarithmic and exponential equations. (Solve the equation for x.)
5. Understand the properties and graphs of logarithmic and exponential functions and be able to evaluate and graph such functions.
6. Understand the meaning of exponential growth and decay and apply the knowledge of exponential and logarithmic functions model two applications.

IX. Analytic Geometry

1. Know and apply the distance formula between 2 points. (Find the distance between the two points A(1, 2) and B(–5, –3).)
2. Understand the geometric concepts of angle (e.g. initial side, terminal side, coterminal angles, degree, radian, central angle, circular arc length, circular sector area, and reference angle) and be able to apply appropriate properties.
3. Know and apply the circumference and area formulas for circles, triangles, and rectangles. (If you double the radius of a circle, what happens to its circumference?)
4. Know and apply the surface and volume formulas for cylinders, spheres and rectangular solids.
5. Know the relationship between similar triangles. (A rectangle with base x and height 5 is inscribed in an isosceles triangle with base 10 and height 20. Determine x.)
6. Know and apply the Pythagorean Theorem to simple geometric problems. (Given a rectangle that is 4 ft by 7 ft determine the length of the diagonal.)

X. Use of Mathematics to Solve Application from Various Fields

1. Apply the acquired understanding and knowledge of functions to model appropriate real-world situations and draw mathematical conclusions.
2. Understand the underlining principle of variation and how it is used to model many applications.
3. * Understand the meaning of solutions to systems of nonlinear equations and be able to use effective ways to find and express possible solutions.
4. Understand the meaning of compound interest and apply the knowledge of exponential functions to model this application.
5. * Be able to use trigonometry to model and solve basic applied problems.

*Recommended Topics

XI. Trigonometric Functions & Their Inverses

1. Define each of the 6 trigonometric functions (sin(θ), cos(θ), tan(θ), cot(θ), sec(θ), and csc(θ)) in terms of the sides of a right triangle. (cos(θ) = where x is the adjacent side and r is the hypotenuse.)
2. Define each of the 6 trigonometric functions in terms of sin(θ) and cos(θ). (tan(θ) = .)
3. Understand the concepts of the six trigonometric functions, both in terms of a unit circle and a right triangle, and be able to apply such knowledge.
4. Know the domain and ranges for the sine, cosine, and tangent functions.
5. Convert angle measures between degrees and radians. (Write 120 degrees as a radian measure.)
6. Memorize and use the 30/60/90 and 45/45/90 degree reference triangles.
7. Understand the graphs of the six trigonometric functions and be able to recognize and apply such knowledge (including incorporation of appropriate transformations: shifting, reflecting, stretching, and shrinking).

XII. Trigonometric Identities and Equations

1. Understand the general nature of proving trigonometric identities and be able to perform such task appropriately.
2. Know and apply the trigonometric identity = 1. (Simplify the expression 2)
3. Understand the general nature of trigonometric equations and be able to solve such equations whenever appropriate.
4. Be familiar with useful formulas (e.g. addition and subtraction, double-angle, half-angle, product-to sum, sum-to-product, law of sines, law of cosines, and Heron's) and able to use them appropriately.
5. Understand the concepts and graphs of inverse trigonometric functions and their related properties, and be able to perform appropriate operations.

XIII. Recommended Topics in Trigonometry

1. Understand the trigonometric form and its geometric interpretation for complex numbers, and be able to recognize and perform basic conversions.
2. Understand the multiplication and division of complex numbers in trigonometric form and their respective geometric interpretation.
3. Understand De Moivre's Theorem and its geometric interpretation, and be able to apply the concept to find roots of complex numbers.
4. Understand the basic concepts and operations of two-dimensional vectors, their respective geometric interpretation, and the trigonometric aspect of the inner (dot) product.
5. Geometry of complex numbers.

Engineering & Information Technology Entry-Level Competencies

Postsecondary Optimal Entry-Level Competencies
Curriculum Alignment Initiative
Missouri Department of Higher Education
June 23, 2008, Revised September 2008
With thanks to:
ISTE's National Educational Technology Standards for Students Project
The Missouri Developmental Education Consortium

I. Math
   1. Use the x/y/z coordinate system to depict results of mathematical operations
   2. Understand and apply the metric system
   3. Demonstrate proficiency in defining and referencing ratios
   4. Display skill in working with fractions
   5. Utilize associative, commutative, and distributive properties
   6. Simplify expressions using the order of operations
   7. Distinguish between elements of the sets of real numbers
   8. Distinguish between expressions, equations by type, and inequalities
   9. Solve expressions, equations by type, and inequalities
   10. Use graphs and number lines to depict results of equations and inequalities
   11. Identify, solve, and label systems of equations
   12. Use scientific notation to simplify exponential expressions
   13. Employ polynomial operations and terminology correctly
   14. Solve quadratic equations by factoring and quadratic methods
   15. Perform standard operations with rational expressions
   16. Perform standard operations with terms containing radicals
   17. Apply graphing skills to depict results of equations and inequalities
   18. Use a calculator to perform basic mathematical operations

II. Computer Literacy
Applications—demonstrate a standard proficiency in each of the following:
   1. Word processing
   2. Presentation graphics
   3. Spreadsheet
   4. Web browser
   5. E-mail client
   6. File transfer client
   7. Database fundamentals

III. Computer Savvy
   1. Recognize hardware devices by concept, features, and usage:
      a. Desktop computer—PC or Macintosh
      b. Printer—inkjet, laser, and dot-matrix
      c. Scanner—by type and image quality
      d. Digital camera—by image-capture type(still-shot / motion video)
      e. MP3 player—by make and quality
      f. Removable storage media – USB flash drives and optical discs
   2. Apply existing knowledge when learning new technologies
   3. Demonstrate or develop basic troubleshooting skills
   4. Identify basic networking concepts for local- and wide-area networks
   5. Demonstrate basics for computer security and safe computer use

IV. Computer Language Basics
   1. Identify prominent languages by type and usage
   2. Explain in basic terms how language compilers and interpreters function
   3. Describe basic concepts in logical program flow and control structures
   4. Demonstrate a basic understanding of variables and language syntax
   5. Show basic programming skills by successfully writing and running a simple program

V. Operating Systems Skills
   1. Use operating system features and functions
   2. Manage the operating system via graphical and command-line user interfaces
   3. Distinguish between file formats by type and related application
   4. Demonstrate skill with file management
   5. Explain basic interaction between applications and their parent operating systems

VI. Communication Skills
   1. Demonstrate comprehension skills in written, verbal, and graphic information structures
   2. Interact / collaborate / publish with peers, experts, and others through varied digital environments and media types
   3. Communicate ideas effectively via a variety of media and formats
   4. Contribute to project teams to produce and deliver original works or to solve problems
   5. Develop and demonstrate global cultural understanding and awareness by communicating with learners from non-native cultures
   6. Identify and explain how computers affect interaction in local society and between cultures

VII. Professionalism
   1. Positive Work Ethic
      a. Provide proof of punctual and reliable conduct
      b. Employ a positive mental attitude
      c. Demonstrate honesty in all actions
   2. Personal and Professional Ethics
      a. Embrace and exhibit honesty in personal and professional environments
      b. Understand and follow legal standards applicable to IT
      c. Understand and follow IT business accountability standards
      d. Acknowledge and abide by legal and ethical standards regarding intellectual property
   3. Digital Citizenship
      a. Understand human, cultural, and societal issues related to technology
      b. Advocate and practice safe, legal, and responsible information and technology use
      c. Exhibit a positive attitude for collaboration, learning, and productivity via technology
      d. Demonstrate personal responsibility for lifelong learning

VIII. Research and Information Gathering Skills
   1. Search Engine Usage
      a. Employ effective querying skills
      b. Demonstrate how to search within results
      c. Show how to store and consult search results
   2. Leveraging Digital Tools
      a. Plan strategies to guide inquiry
      b. Gather, organize, analyze, synthesize, and use information from media sources
      c. Consider and select appropriate methods for information delivery

International Benchmarking and the Common Core

The Common Core State Standards (CCSS) are designed to be **college- and career-ready** and **internationally benchmarked**. To that end, the development process included the review and consideration of many sources, including research studies, existing standards from the U.S and abroad, and the professional judgment of teachers, content area experts, and college faculty. This paper will briefly describe how international benchmarking was used to develop the CCSS.

What documents were used to ensure that the CCSS were internationally benchmarked?

To ensure that the standards prepare students to be globally competitive, the development team used a number of sources, including: the frameworks for PISA and TIMSS; the International Baccalaureate syllabi; the American Institutes for Research report , *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned From High-Performing Hong Kong, Korea, and Singapore* and; the A+ Composite found in *A Coherent Curriculum: The Case for Mathematics* by Bill Schmidt, Richard Houang, and Leland Cogan.

In addition, the development team looked to the standards of a number of individual countries and provinces to inform the content, structure and language of the CCSS. In *mathematics*, twelve set of standards were selected to help guide the writing of the standards: Belgium, Canada [Alberta], China, Chinese Taipei, England, Finland, Hong Kong, India, Ireland, Japan, Korea, and Singapore.[i] In *English language arts*, the writing team looked closely at ten sets of standards from Australia (New South Wales and Victoria), Canada (Alberta, British Columbia, and Ontario), England, Finland, Hong Kong, Ireland, and Singapore.[ii]

How were the international benchmarks used to inform the development of the CCSS?

The goal of the international benchmarking in the common core state standards development process was to ensure that the CCSS are as rigorous as comparable standards in the high-performing and other countries. However, the use of international benchmarks as evidence is no easy feat; it is not simply a matter of identifying the "best" source and copying it, or of aggregating all viable sources to find some set of shared expectations. Rather, international benchmarks were used to guide critical decisions in the following areas:

- *Whether particular content should be included:* One of the principal ways international standards were used in this development process was as a guide when making tough decisions about whether content should be included or excluded.
- *When content should be introduced and how that content should progress*: The progression of topics in the international mathematics standards helped the development team make decisions about when to introduce topics in the CCSS as well as when to stop focusing on them.
- *Ensuring focus and coherence*: Standards from other countries tend to be very focused, including only what is absolutely necessary.

- *Organizing and formatting the standards*: Certain organizational aspects or characteristics of international standards that promoted clarity and ease of reading and use served as a model for the CCSS.
- *Determining emphasis on particular topics in standards*: Where emphasis on particular topics was found repeatedly in international standard, this was instructive in determining their importance for inclusion in the CCSS.

* * * * *

When the final version of the K-12 Common Core State Standards is released, it will be accompanied by a discussion of the evidence that was used in their development. In the meantime, the evidence from the September 2009 draft of the College and Career Ready Standards is available: The URL for the ELA document is http://www.corestandards.org/Files/ELAEvidence.pdf, and the URL for the mathematics document is http://www.corestandards.org/Files/MathEvidence.pdf.

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[i] Eight of these were high-performers on either TIMSS, PISA or both: Belgium, Canada [Alberta], Chinese Taipei, Finland, Hong Kong, Japan, Korea, and Singapore. England and Ireland, which have uneven performances on international assessments, were included because of their cultural links to the United States. China and India were included because of their growing global competitiveness.

[ii] Differences in language have a greater impact on the teaching and learning of language arts than of mathematics, so the teams looked primarily at English-speaking countries. All were high-performers on PISA except Singapore, which did not participate, and England, which as in mathematics was selected partly for its cultural links to the United States.

English Language Arts

K–12

Introduction

The *Standards for English Language Arts K–12* are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of English language arts (ELA) standards. Its companion document, *Standards for Literacy in History and Science 6–12*, extends the same principle to communication skills in other content areas. The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The *Standards* also draw upon the most important international models as well as research and input from numerous sources, including scholars, assessment developers, professional organizations, and educators from kindergarten through college. In their design and content, the *Standards* represent a synthesis of the best elements of standards-related work to date and an important advance over that previous work.

As specified by CCSSO and NGA, the *Standards* are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked. A particular standard was to be included in the document only when the best available evidence indicated that its mastery was essential for students to be college and career ready in a twenty-first-century, globally competitive society. As new and better evidence emerges, the *Standards* will be revised accordingly.

The *Standards* are an extension of a prior initiative led by CCSSO and NGA to develop college and career readiness (CCR) standards in reading, writing, and speaking and listening as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, served as a touchstone for the present work. While the format, structure, content, and purpose of that earlier document differ in some ways from this document, the basic aims and concepts are clearly connected. The main difference is that while the earlier CCR document defined a goal toward which education efforts should aim—college and career readiness for all students—the current document describes the progressive development of skills and understandings across the grades necessary for all students to reach that goal. Just as feedback on the September 2009 CCR draft has greatly influenced the design and development of the K–12 standards, so too will the response to the K–12 standards help guide subsequent revisions to the CCR standards. In their final forms, both documents—CCR and K–12—will be tightly aligned and mutually supporting.

While the *Standards* treat college and career readiness for all students as the end point—an ambitious goal in its own right—many students will reach this point before the end of high school. For them, advanced work in literature, composition, language, history, science, and so on should be available. It is beyond the scope of the *Standards* to describe what such advanced work should consist of, but it needs to provide the next logical step up from the college and career readiness baseline established here.

As a natural outgrowth of meeting the charge to define college and career readiness, the *Standards* also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students must demonstrate have broad applicability outside of the classroom or workplace. The *Standards* insist upon the sort of close, attentive reading that is at the heart of understanding and appreciating the aesthetics of literature. They require the sort of critical reading that is necessary to sift carefully through the staggering amount of information available today in print and online. They demand the sort of wide, deep, and thoughtful engagement with high-quality literary and informational text that builds knowledge, enlarges experience, and broadens world views. They mandate the sort of cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, they promote the development of skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

Key design considerations

A blend of cross-cutting and specific standards

The Reading, Writing, and Speaking and Listening strands include two levels of standards. The cross-cutting Core Standards are the same across the two *Standards* documents, their commonality emphasizing the broad responsibility within the school for meeting the standards and also facilitating schoolwide professional development. Then there are specific Standards that are unique to a given content area, which respects the particular demands of reading, writing, speaking, and listening in ELA and in other disciplines.

A focus on results rather than means

The *Standards* define what all students must learn, not everything that teachers are allowed to teach. By focusing on required achievements, the *Standards* leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. The *Standards* require, for example, that all students be able to produce writing in a variety of situations, including those that allow time for revision. The *Standards* do not, however, specify a particular writing process that students must use (although certain elements common to process-writing approaches, particularly revision, are embedded in the requirements). Teachers are thus freed—and obligated—to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for those assignments that allow for multiple drafts. Similarly, the *Standards*, with their emphasis on observable outcomes, do not enumerate various metacognitive strategies that students may need to use to monitor and direct their thinking and learning.

Shared responsibility for literacy

The *Standards for English Language Arts K–12* and the *Standards for Literacy in History and Science 6–12* together establish the requirement that instruction in reading, writing, speaking, listening, and language use be a shared responsibility. The *Standards* present reading instruction in K–5 as fully integrative, including a rich blend of narratives, drama, poetry, and informational text. ELA-specific instruction in grades 6 and above includes fiction, poetry, and drama but also a particular form of informational text: literary exposition and argument (e.g., speeches, essays, and historical documents with significant cultural importance and literary merit). Teachers in other content areas must use their unique disciplinary expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language use in their respective field. Progress toward college and career readiness and building a rich knowledge base require that at least half of the reading students do must focus on history, science and related disciplines. This distributed approach honors the unique place of English language arts instruction in literacy development while ensuring that students have communication skills tailored to the demands of other disciplines. It also reflects the reality that students must communicate effectively in a wide range of disciplines, not just ELA.

Grade bands to describe growth, grades to focus instruction

Evidence consulted in creating the *Standards* suggests that beyond the earliest grades, major developments in students' literacy skills typically occur across spans of grades rather than within individual grades. This document stays true to that evidence by organizing standards after grade 3 into multiyear bands (grades 4–5, 6–8, 9–10, and 11–CCR). At the same time, the work of educating students does proceed on a day-to-day, year-to-year basis. Any standards document must therefore provide guidance to educators on what each year's instruction and assessment should look like. To make the grade specific focuses for instruction clear, after the descriptions of the standards in each area of ELA, we provide a one page summary of the grade specific focuses for each grade from fourth grade onwards, including how the grade specific focus in each area relates to the grade band requirements. The Standards offer that focus through several grade-specific elements:

- Single-grade standards in many areas of kindergarten and grades 1, 2, and 3
- Text complexity expectations in Reading, beginning at grade 2
- Areas of focus in Writing, beginning at grade 4

- Areas of focus in the Conventions section of Language Development, beginning at grade 4

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Research and media skills integrated into the standards as a whole

To be ready to meet the challenges of the twenty-first century, students need a mix of the communication skills that have served literate people for millennia and new competencies necessary in an information- and media-saturated world. To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, report on, and create a high volume and extensive range of print and nonprint texts in media forms old and new. Just as the need to research and to consume and produce media are embedded into every element of today's curriculum, so too are the associated skills and understandings embedded throughout the *Standards* rather than treated separately. Web links to sample media texts are included selectively among the reading text exemplars in Appendix B to reinforce the point that print and online materials can be used together instructionally to enhance students' understanding.

An integrated model of English language arts

Although the *Standards* divide the English language arts into Reading, Writing, Speaking and Listening, and Language Development strands for conceptual purposes, the processes of communication are in theory and practice an undivided whole. As illustrated in the graphic that introduces each grade or grade band and as embodied in the content of the standards themselves, reading, writing, speaking, listening, and language development are tightly interrelated and often reciprocal.

Central features of the document

Reading and Literature: Text complexity and the growth of comprehension

As students advance through the grades, they must be able to handle independently texts of steadily increasing complexity and be able to gain more from what they read. Beginning formally at grade 2, the *Standards* specify what proportion of texts students read should be within grade band and, at some grades, above grade band. (Additional material in Appendix A of the *Standards* defines and explains text complexity in more detail.) Whatever texts they are reading, students must also show a steadily increasing ability to discern more from and make fuller use of text. This means, for example, finding and making an increasing number of connections among ideas and between texts; considering a wider range of textual evidence; and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts. The *Standards* place growing demands on students' comprehension at each higher grade or grade band to ensure that all students are college- and career-ready readers no later than the end of high school.

Writing and Research: Text types, grade-level focuses, and research

While some writing skills, such as the ability to reflect audience, purpose, and task in what one writes, are important for many types of writing, others are more properly part of writing in specific text types: narrative, informative and explanatory text, and argument. Beginning at grade 4, the *Standards* specify the sorts of writing over extended and shorter timeframes that students in each grade must be able to produce in response to sources. Although conducting research calls upon reading, speaking, listening, and language skills, writing is typically central to analyzing information and presenting findings. The *Standards* pair writing and research to signal that close connection.

Speaking and Listening: Flexible communication

Including but not limited to skills necessary for formal presentations, the Speaking and Listening strand requires students to develop a range of broadly useful oral communication and interpersonal skills: listening attentively, participating productively, exchanging information, and speaking effectively. Students must learn to sift through and evaluate multiple points of view; listen thoughtfully in order to build on and constructively question the ideas of others while contributing their own ideas; and, where appropriate, reach agreement and common goals through teamwork.

Language Development: Conventions and vocabulary

The Conventions standards in the Language Development strand include the essential "rules" of formal written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. Thus, standards pertaining to grammar and usage, mechanics, and the fundamentals of language and writing are accompanied by standards on word choice and style. The Vocabulary standards focus both on understanding words and their nuances and on acquiring new words through conversation and reading and by being taught them directly. Rather than require that students use one particular skill or another to determine a word's meaning, the Vocabulary standards insist only that students get the proper meaning, with the means (context, word analysis, and so on) to be chosen flexibly based on the situation.

Appendices

The *Standards* include a range of supporting materials that help explain and enrich the main document:

- Appendix A contains a model of text complexity, including both qualitative and quantitative measures of how easy or hard a text is to read, as well as supplementary statements about instruction in writing, language conventions, and vocabulary
- Appendix B consists of text exemplars at all grades/bands to illustrate appropriate complexity and quality in the text types required by the Reading standards
- Appendix C consists of annotated writing samples to show how grade- or grade-band-appropriate writing embodies the relevant Writing standards

January 2010

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Student Practices in Reading, Writing, Speaking, Listening, and Language Use

The following Student Practices in reading, writing, speaking, listening, and language use undergird and help unify the rest of the *Standards*. The Student Practices are not themselves standards: every idea introduced here is subsequently represented in one or more places within the larger document. They are, rather, the "premises"—broad statements about the nature of college and career readiness in reading, writing, speaking, listening, and language use—that underlie the individual standards and cut across the various sections of the document.

* * *

As students progress toward being college and career ready, they exhibit with increasing fullness and regularity the following capacities in their reading, writing, speaking, listening, and language use:

1. They demonstrate independence as readers, writers, speakers, listeners, and language users.

Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions, build on others' ideas, and articulate their own ideas. They apply language conventions without prompting. On their own, they determine the meaning of words in context and acquire and use new words.

2. They build strong content knowledge.

Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the discipline-specific expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. They respond to the varying demands of audience, task, purpose, and discipline.

Students consider their reading, writing, speaking, listening, and language use in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the sciences).

4. They comprehend as well as critique.

Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and assess the veracity of claims.

5. They privilege evidence.

Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. They care about precision.

Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. They craft and look for structure.

Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. They use technology strategically and capably.

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

9. They come to understand other perspectives and cultures.

Students appreciate that the twenty-first-century classroom and workplace are diverse settings in which people from often widely divergent backgrounds must learn and work together. They actively seek to understand other perspectives and cultures through reading and listening. They do not simply adopt other points of view as their own but rather evaluate them critically and constructively. Literature can play a special role in expanding students' horizons in this way: through reading great classic and contemporary works, students can vicariously inhabit worlds and experiences much different than their own.

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English Language Learners

The *Standards* articulate rigorous grade-level expectations in the areas of speaking, listening, reading and writing to prepare students to be college and career ready. English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

To help ELLs meet high academic standards in reading, writing, speaking, listening and language use it is essential that ELLs have access to:

- The requisite coursework to prepare them for post-secondary education or the workplace;
- Coursework that is made comprehensible for students learning content in a second language, through specific pedagogical techniques and additional resources;
- Teachers, as well as school-level and district personnel, who are well prepared and qualified to support English-language learners;
- Well designed opportunities for classroom discourse and interaction to enable ELLs to develop communicative strengths in language arts
- Speakers of English who know the language well enough to provide the ELLs with models and support; and
- Ongoing assessment and feedback to guide learning.

It is also worth noting that instruction for these students is additionally guided by language proficiency standards that language arts teachers can use in conjunction with the English language arts standards to help ELLs become fully proficient and literate in English.

Access for Students with Disabilities

The *Standards* articulate rigorous expectations in the areas of reading, writing, speaking, listening, and language use in order to prepare students to be college and career ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. The vast majority of this population of students, including students with intellectual impairments,[1] *can* achieve proficiency when they receive high-level instruction and accommodations. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When acquiring the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations[2] or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),[3] to help them access information or demonstrate their knowledge. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the *Standards*.

Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, listening, and language use standards—given the nature of the standards themselves—often require accommodations for students with disabilities. For example, a standard that calls for "listening" should be interpreted to include reading sign language. "Speaking" should be read broadly to include "communication" or "self-expression." "Reading" should allow for students' use of Braille, screen reader technology, or other assistive devices to demonstrate comprehension skills. In a similar vein, "writing" should not preclude the use of a scribe, computer, or speech-to-text technology. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the *Standards*.

In short, while the *Standards* set and retain high expectations for all students, they may need to be translated and occasionally modified to apply appropriately to students with disabilities, including all levels of intellectual impairment. Promoting a culture of high expectations for all students is a fundamental goal of the *Standards*. Achieving this goal requires the inclusion of students with disabilities.

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[1] Less than two percent of the population of all students and less than 20% of the population of students with disabilities.

[2] See the Council of Chief State School Officers, (2003). *Training District and State Personnel on Accommodations: A Study of State Practices, Challenges, and Resources* at http://www.ccsso.org/publications/details.cfm?PublicationID=221 for further explanation and evidence around accommodations.

[3] According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

How to Read This Document

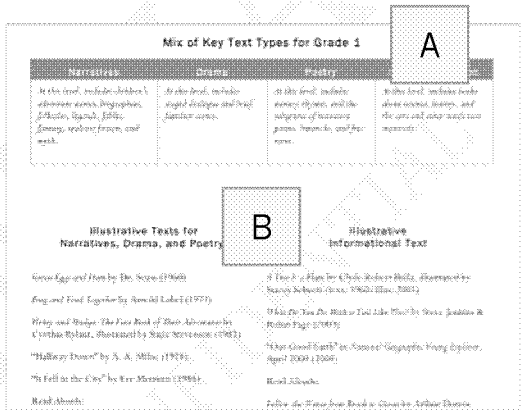
The *Standards* are divided into an ELA-specific document (*Standards for English Language Arts K–12*) and a literacy document for history and science (*Standards for Literacy in History and Science 6–12*). The ELA document includes standards for and examples of history and science reading in K–5.

The ELA-specific document is organized by grade (kindergarten and grades 1, 2, and 3) and grade band (grades 4–5, 6–8, 9–10, and 11–CCR). The *Standards for Literacy in History and Science* are organized by grade band (grades 4–5, 6–8, 9–10, and 11–CCR). Each grade/band is divided into strands—Reading, Writing, Speaking and Listening, and Language Development.

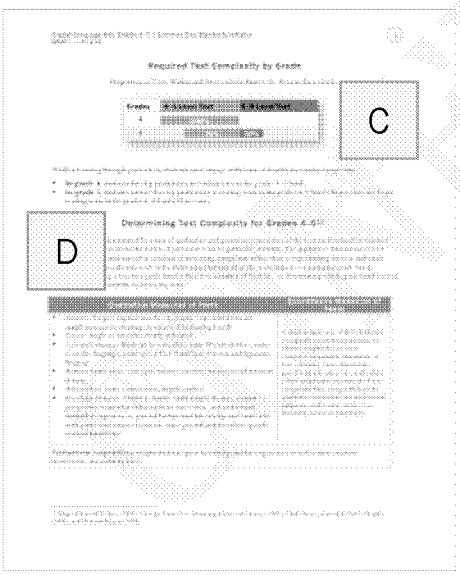
While all strands contain standards statements, each strand also has its own specific features.

Reading and Literature (ELA) / Reading (History / Science)

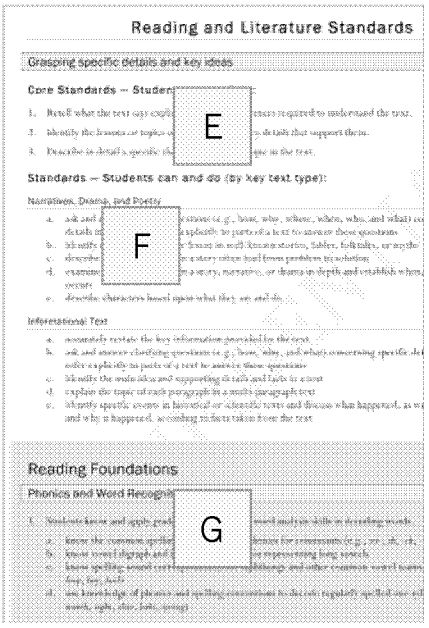
Kindergarten and grade 1 begin with the **mix of key text types (A)**, which identifies the genres and subgenres of reading material appropriate for each grade. This is followed by a list of **illustrative texts (B)** in the key text types. This list is suggestive of the sorts of texts appropriate for the grade in terms of complexity and quality; excerpts appear in Appendix B.



Grades 2, 3, 4–5, 6–8, 9–10, and 11–CCR include this information immediately after a graphic specifying **required text complexity by grade (C)**—in brief, the proportion of texts within and above grade band that students must read each year. (For example, 70% of the texts that grade 3 students read should come from the grades 2–3 text complexity band, while the other 30% should come from the grades 4–5 band.) An overview of the method for **determining text complexity (D)** in the particular grade band follows. (A fuller treatment is provided in Appendix A.)

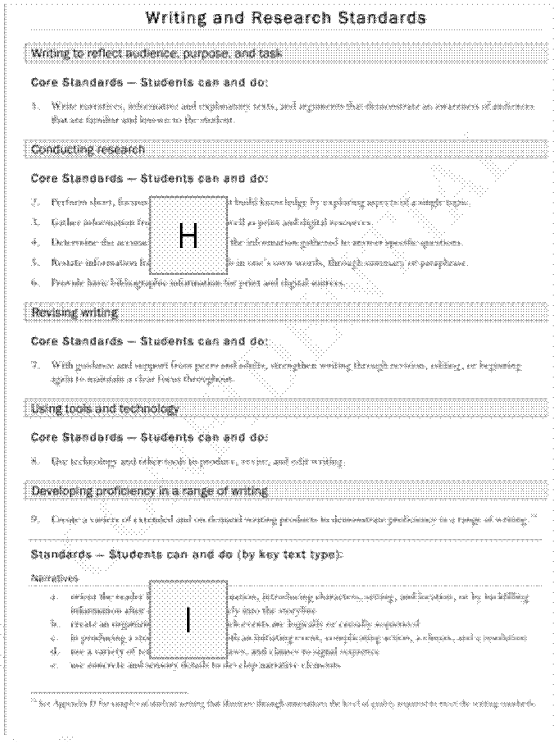


All grades/bands organize standards under a number of boxed subheadings (e.g., "Grasping specific details and key ideas"). The standards at all grade levels are divided into cross-cutting **Core Standards (E)**, which are numbered and applicable to many types of reading, and more specific **Standards (F)**, which are lettered and organized by text type (e.g., "Narratives, Drama, and Poetry"). Kindergarten and grades 1, 2, and 3 also include boxed sections of **reading foundations (G)**, which enumerate basic concepts of print and other foundational skills in reading that very young students must acquire.



Writing and Research

Cross-cutting **Core Standards (H)**, which are numbered and apply to many types of writing, are organized under a number of boxed subheadings (e.g., "Writing to reflect audience, purpose, and task"). **Standards (I)** specific to writing in particular text types—narrative, informative and explanatory text, and argument—are lettered and follow in a separate section. In kindergarten through grade 5, writing arguments takes the form of opinion writing, hence the parenthetical notation next to "Arguments" in those grades/bands.


Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards – Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audiences that are familiar and known to the student.

Conducting research

Core Standards – Students can and do:

2. Perform short, focus[illegible] build knowledge by exploring aspects of a single topic.
3. Gather information fro[illegible] well as print and digital resources.
4. Determine the accura[illegible] the information gathered to answer specific questions.
5. Restate information fr[illegible] in one's own words, through summary or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

Revising writing

Core Standards – Students can and do:

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

Using tools and technology

Core Standards – Students can and do:

8. Use technology and other tools to produce, revise, and edit writing.

Developing proficiency in a range of writing

9. Create a variety of extended and on demand writing products to demonstrate proficiency in a range of writing.[14]

Standards – Students can and do (by key text type):

Narratives

a. orient the reader [illegible] nation, introducing characters, setting, and location, or by backfilling information after [illegible] ly into the storyline
b. create an organiz[illegible] ch events are logically or causally sequenced
c. in producing a sto[illegible] th an initiating event, complicating action, a climax, and a resolution
d. use a variety of te[illegible] ows, and clauses to signal sequence
e. use concrete and sensory details to develop narrative elements

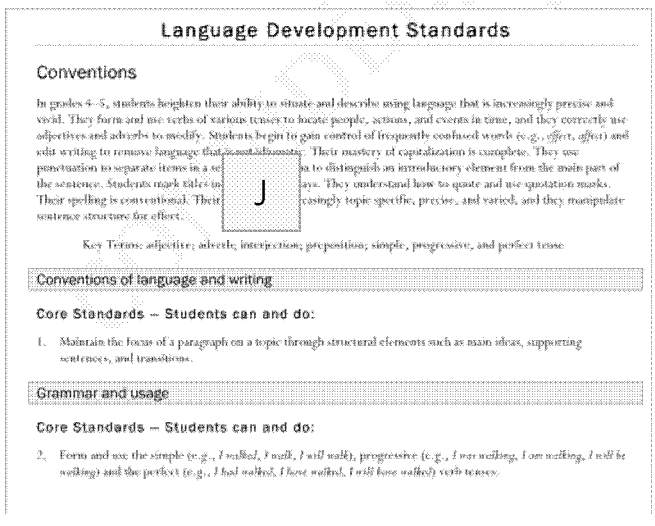
[14] See Appendix D for samples of student writing that illustrate through annotations the level of quality required to meet the writing numbers.

Speaking and Listening

Cross-cutting **Core Standards**, which are numbered and apply to speaking and listening in many situations, are grouped with lettered **Standards**, which set requirements for speaking and listening in key communication (e.g., "Presentation of Ideas and Information").

Language Development

This strand is organized differently in the ELA and history/science documents. The ELA strand comprises two full sections: Conventions and Vocabulary. Each section includes numbered **Core Standards** organized under a number of boxed subheadings (e.g., "Mechanics") and introduced by a brief summative paragraph and list of **key terms (J)** intended to be taught explicitly in grade-appropriate ways. ELA Vocabulary consists of three subsections—determining the meaning of words, understanding the nuances of words, and acquiring vocabulary—under each of which numbered Core Standards appear. Language Development in the history/science document consists of the summative paragraphs for Conventions and all of the Vocabulary section found in ELA except for nuances in word meaning.


Language Development Standards

Conventions

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently confused words (e.g., *effect*, *affect*) and edit writing to remove language that is not idiomatic. Their mastery of capitalization is complete. They use punctuation to separate items in a se[illegible] to distinguish an introductory element from the main part of the sentence. Students mark titles in [illegible] ays. They understand how to quote and use quotation marks. Their spelling is conventional. Their [illegible] easingly topic specific, precise, and varied, and they manipulate sentence structure for effect.

Key Terms: adjective; adverb; interjection; preposition; simple, progressive, and perfect tense

Conventions of language and writing

Core Standards – Students can and do:

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

Grammar and usage

Core Standards – Students can and do:

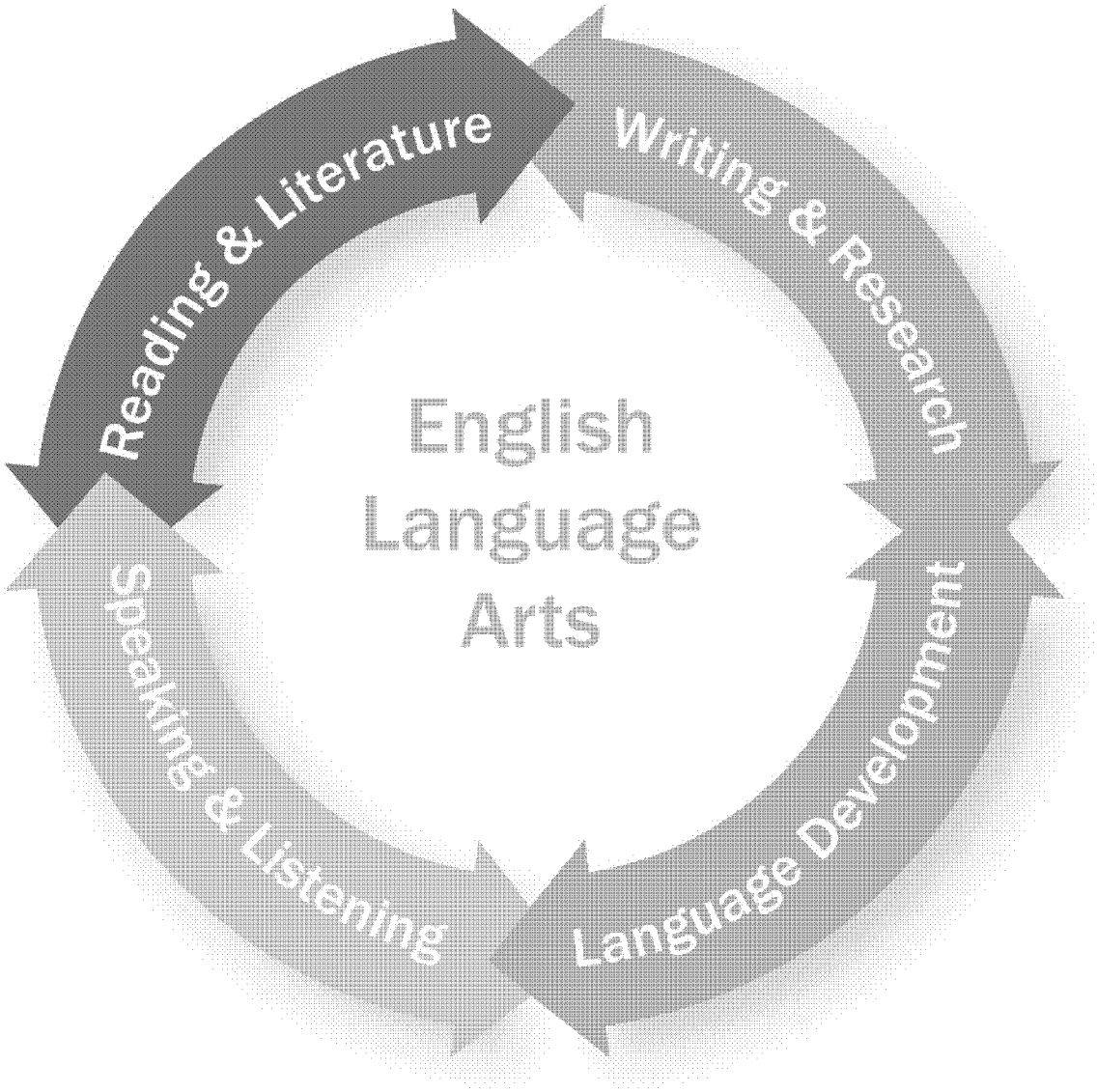
2. Form and use the simple (e.g., *I walked*, *I walk*, *I will walk*), progressive (e.g., *I was walking*, *I am walking*, *I will be walking*) and the perfect (e.g., *I had walked*, *I have walked*, *I will have walked*) verb tenses.

Focus for Instruction

Beginning with grade 4, a page summarizing grade-level responsibility, including grade-specific areas of focus, is provided to help distinguish responsibilities within multiyear bands.

English Language Arts

Kindergarten



Mix of Key Text Types for Kindergarten

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue and brief familiar scenes.*	*At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[4]

Are You My Mother? by P.D. Eastman (1960)

Put Me in the Zoo by Robert Lopshire (1960)

"Mix a Pancake" by Christina Rosetti (1986)

Wouldn't You?" by John Ciardi (1986)

Illustrative Informational Texts

My Five Senses by Aliki (1962)

Read Alouds:

Amazing Whales! by Sarah L. Thomson (2005)

The Year at Maple Hill Farm by Alice and Martin Provensen (1978)

CONFIDENTIAL

[4] See Appendix B for other texts illustrative of Kindergarten-Grade 1 text complexity. This list includes read-alouds.

Reading and Literature Standards[5]

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. retell the beginnings, middles, and endings of stories
b. ask and answer questions about details of a text
c. identify the problems that characters face in a story and the lessons learned
d. identify the feelings of characters and the reasons for their actions
e. differentiate between realistic and fantastical elements within a story

Informational Text

a. restate key information (e.g., events, subject, ideas) from a text
b. ask and answer questions about details of a text

Reading Foundations

Print Concepts

1. Students demonstrate understanding of the organization and basic features of print.
   a. identify basic features and conventions of books and other written texts (e.g., front cover, back cover, title, author)
   b. understand that print is left to right, top to bottom, and page by page
   c. understand that words are separated by spaces in print
   d. recognize and name all upper- and lowercase letters of the alphabet

Linguistic Awareness

2. Students gain awareness of spoken words, syllables, and phonemes.
   a. recognize, recite, and produce rhyming words
   b. count, pronounce, blend, and segment syllables in spoken words
   c. recognize, blend, and segment onset and rimes of spoken words [*/g/ - /oat/*; */bl/ - /ock/*)
   d. count or place tokens for individual words in spoken phrases or simple sentences
   e. orally blend and segment individual phonemes in simple, one-syllable words
   f. demonstrate phonemic awareness by isolating and pronouncing the initial and final phonemes (sounds) in three-phoneme /CVC/ words without consonant blends (e.g., */road/*, */save/*, */ham/*)
   g. add or substitute individual phonemes in simple, one-syllable words to make new words (e.g., */at/* → */sat/* → */mat/* → */map/*)

[5] The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

Observing craft and structure

Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify words and phrases that suggest feelings or appeal to the senses
b. identify similarities in beginning and ending sounds of words in children's poems and songs
c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

Informational Text

a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

Reading Foundations, continued

Phonics and Word Recognition

3. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant
   b. identify which letters represent the five major vowels and know the long and short sound of each
   c. blend letter-sounds to decode short-vowel CVC words (e.g., *cat*, *mop*, *sun*)
   d. read at least 25 very high frequency words by sight (e.g., *of*, *to*, *he*, *she*, *is*, *do*, *does*)

Developing Fluency

4. Students read with sufficient accuracy and fluency to support comprehension.
   a. read rebus and preprimer texts with purpose and understanding
   b. demonstrate increased accuracy and fluency on successive readings of a text

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. use pictures, illustrations, and context to make predictions about and confirm story content
b. identify words in a story that link events together (e.g., *first/second, then, next, before/after, later, finally*)
c. identify who is the speaker in a story or poem

Informational Text

a. identify words that link ideas together (e.g., *also, in addition, for example, but*)
b. identify the author and sources of information when provided by the text

Developing habits for reading text

Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[6]

Narratives

a. establish a situation in time and/or place
b. recount several loosely linked actions in a short, familiar event, controlling for chronological order
c. provide a reaction to what happened

Informative and Explanatory Texts

a. establish the topic in a title or first sentence
b. supply facts and information relevant to the topic

Arguments (opinions)

a. introduce the topic directly, or use the title of a book when writing about a text
b. express preferences or opinions (e.g., *My favorite book is . . .*) relevant to the topic
c. provide a reason for preference or opinion (e.g., *It reminded me of when I met my friend Carlos*)
d. use linking words that express causality (e.g., *I like . . . because . . .*)

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in group activities requiring speaking and listening.
2. Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
b. confirm understanding by restating information or answering questions about what has been discussed
c. ask questions to get information, ask for help, or clarify something that is not understood
d. follow norms for conversation, such as listening to others and taking turns to speak

Exchanging information and speaking effectively

Core Standards — Students can and do:

[6] See Appendix D for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. describe people, places, things, and events with relevant facts and examples
b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In kindergarten, students learn to form letters and words in print and to relate sounds (phonemes) to one or more letters. They understand the notion of a sentence, that a sentence performs one of a few basic functions (make a statement, ask a question, or issue a command), and that end punctuation can signal the sentence's function or intensity. With prompting and assistance, they form and expand basic sentences in order to express thoughts, beginning the sentence with a capital letter. Students have a sense of what a noun is, of what singular and plural nouns are, and of how plural nouns are often formed. They also know how to use the most frequently occurring prepositions.

Key Terms: exclamation point, capital/uppercase and lowercase letter, singular and plural noun, period, punctuation, question mark, sentence

Conventions of language and writing

Core Standards — Students can and do:

1. Print all upper- and lowercase letters.
2. Write a letter or letters for each consonant and short-vowel sound (phoneme).

Grammar and usage

Core Standards — Students can and do:

3. Produce and expand complete sentences in shared writing and language activities.
4. Use and understand question words (e.g., *what*, *where*, *when*, *who*, *which*, *how*).
5. Form regular plural nouns by adding /s/ or /es/ (e.g., *dog*, *dogs*; *wish*, *wishes*; *baby*, *babies*).
6. Demonstrate understanding of the most frequently occurring prepositions (e.g., *to/from*, *in/out*, *on/off*, *for*, *of*, *by*, *with*).

Mechanics

Core Standards — Students can and do:

7. Capitalize the first word in a sentence and the pronoun *I*.
8. Identify end punctuation, including periods, question marks, and exclamation points.

9. Spell simple words phonetically using knowledge of sound-letter relationships.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In kindergarten, students learn about words in terms of like versus unlike and "similar but not quite the same," using objects and movements as aids. They learn to use descriptive language to distinguish one object from another and order and position words to describe sequences and spatial relationships. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Sort common objects into categories (e.g., shapes, foods).

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

2. Act out the meaning of verbs describing the same general action (e.g., *walk*, *march*, *strut*, *prance*) to gain a sense of their different meanings.
3. Demonstrate understanding of common adjectives by relating them to their opposites (antonyms).
4. Use common adjectives to distinguish objects (e.g., the *small blue* square, the *shy white* rabbit).

Acquiring vocabulary

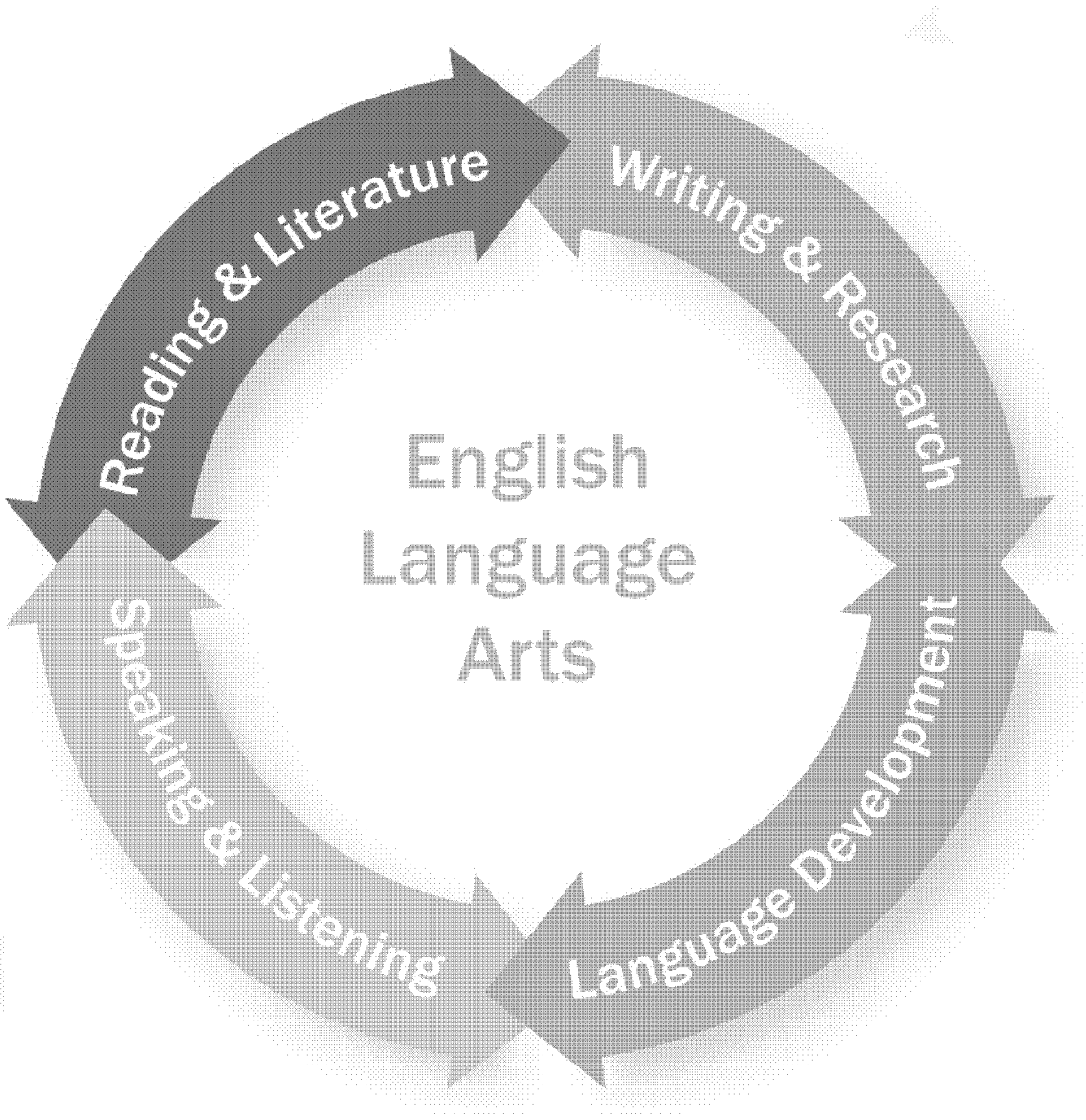
Core Standards — Students can and do:

5. Demonstrate meaning of new vocabulary taught directly and gained through conversations and hearing texts read aloud.
6. Demonstrate understanding of words that express order and position (e.g., *first*, *middle*, *last*; *before*, *after*; *under*, *over*).

Common Core Initiative

English Language Arts

Grade 1



Mix of Key Text Types for Grade 1

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue and brief, familiar scenes.*	*At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[7]

Green Eggs and Ham by Dr. Seuss (1960)

Frog and Toad Together by Arnold Lobel (1971)

Henry and Mudge: The First Book of Their Adventures by Cynthia Rylant, illustrated by Suçie Stevenson (1987)

"Halfway Down" by A. A. Milne (1924)

"It Fell in the City" by Eve Merriam (1986)

Read alouds:

Little House in the Big Woods by Laura Ingalls Wilder, illustrated by Garth Williams (1932)

Zin! Zin! Zin! a Violin by Lloyd Moss, illustrated by Marjorie Priceman (1995)

Illustrative Informational Texts

A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (text: 1960/illus: 2001)

What Do You Do With a Tail Like This? by Steve Jenkins & Robin Page (2003)

"Our Good Earth" in *National Geographic Young Explorer*, April (2009)

Read alouds:

Follow the Water from Brook to Ocean by Arthur Dorros (1991)

Living Sunlight: How Plants Bring the Earth to Life by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

[7] See Appendix C for other texts illustrative of Kindergarten-Grade 1 text complexity. This list includes read-alouds.

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Reading and Literature Standards[8]

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. retell the beginnings, middles, and endings of stories
b. ask and answer questions about details of a text
c. identify the problems that characters face in a story and the lessons learned
d. identify the feelings of characters and the reasons for their actions
e. differentiate between realistic and fantastical elements within a story

Informational Text

a. restate key information (e.g., events, subject, ideas) from a text
b. ask and answer questions about details of a text

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Reading Foundations

Linguistic Awareness

1. Students gain awareness of spoken words, syllables, and phonemes.
   a. aurally distinguish long from short vowel sounds in spoken single-syllable words (e.g., */tap/* vs. */tape/*; */sock/* vs. */soak/*; */sit/* vs. */sight/*)
   b. produce single-syllable words by orally blending phonemes, including consonant blends (e.g., */cats/*, */black/*, */blast/*)
   c. isolate and pronounce initial, medial vowel, and final phonemes (sounds) in single-syllable words (e.g., *f**a**st*, *f**a**s**t***)
   d. orally segment single-syllable words into their complete sequence of individual phonemes

[8] The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

Observing craft and structure

Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify words and phrases that suggest feelings or appeal to the senses
b. identify similarities in beginning and ending sounds of words in children's poems and songs
c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

Informational Text

a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

Reading Foundations, continued

Phonics and Word Recognition

2. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
   b. know vowel digraph and final-*e* conventions for representing long vowels
   c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
   d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)
   e. understand that every syllable must have a vowel sound and use that knowledge to determine the number of syllables in a word
   f. decode two-syllable words following basic patterns (e.g., *rabbit*, *magnet*, *napkin*, *pickle*, *butter*)
   g. read words with inflectional endings (e.g., *-s*, *-es*, *ies*, *-ed*, *ied*, *-ing*, *-er*, *-est*)
   h. use phonics to decode visually new words when reading
   i. recognize grade-appropriate, irregularly spelled words by sight

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. use pictures, illustrations, and context to make predictions about and confirm story content
b. identify words in a story that link events together (e.g., *first/second, then, next, before/after, later, finally*)
c. identify who is the speaker in a story or poem

Informational Text

a. identify words that link ideas together (e.g., *also, in addition, for example, but*)
b. identify the author and sources of information when provided by the text

Developing habits for reading text

Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

Reading Foundations, continued

Developing Fluency

3. Students read with sufficient accuracy and fluency to support comprehension.
   a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
   b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
   c. read aloud, alone, or with a partner at least 15 minutes each day, in school or out

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[9]

Narratives

a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
b. develop appropriately sequenced actions within one or more events using linking words, phrases, or clauses to signal chronological ordering
c. provide a reaction to what happened
d. include dialogue if appropriate, and some details
e. provide a sense of closure and/or a reflective statement

Informative and Explanatory Texts

a. include some sort of beginning to establish the topic (beyond using the title of the piece)
b. supply facts and information relevant to the topic
c. use simple additive linking words (e.g., *and, first, second*) to create connections between the facts
d. provide examples relevant to the topic
e. provide a sense of closure

Arguments (opinions)

a. introduce the topic or book directly, or use the title of the book as an introduction
b. state opinions (e.g., *My best friend is . . .*) relevant to the topic
c. provide reasons for opinions and details to support them

[9] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

d. use linking words that express causality (e.g., *I like . . . because . . .*)
e. refer to the content of the text when writing about literature

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in group activities requiring speaking and listening.
2. Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
b. confirm understanding by restating information or answering questions about what has been discussed
c. ask questions to get information, ask for help, or clarify something that is not understood
d. follow norms for conversation, such as listening to others and taking turns to speak

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. describe people, places, things, and events with relevant facts and examples
b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In grade 1, students gain increasing skill and independence in sentence formation and development. They have a sense of what a verb is and that its form changes to signal different time periods (past, present, and future). Their repertoire of prepositions continues to expand, and they use pronouns with regularity. Students capitalize names, places, and dates. They use end punctuation as well as commas in dates and in simple series of words. Their range of word-formation and spelling strategies grows.

Key Terms: comma, pronoun, verb

Grammar and usage

Core Standards — Students can and do:

1. Produce and expand complete sentences in response to questions and prompts.
2. Use subject, object, and possessive pronouns (e.g., *I*, *me*, *my*; *they*, *them*, *their*).
3. Use verbs to convey a sense of past, present, and future in writing and speaking (e.g., *Today I walk home*; *Yesterday I walked home*; *Tomorrow I will walk home*).
4. Demonstrate understanding of frequently occurring prepositions (e.g., *during*, *beyond*, *toward*).

Mechanics

Core Standards — Students can and do:

5. Capitalize names, places, and dates.
6. Use end punctuation for sentences, including periods, question marks, and exclamation points.
7. Use commas in dates and to separate single words in a series.
8. Form new words through addition, deletion, and substitution of sound and letters (e.g., *an* → *man* → *mat* → *mast* → *must* → *rust* → *crust*).
9. Use conventional spelling for words with common spelling patterns and common irregular words.
10. Use phonetic spellings for untaught words, drawing on phonemic awareness and spelling conventions.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 1, students begin to sort words themselves into categories rather than the objects that they name. They are able to define familiar words (e.g., *duck*) in a two-step process of identifying a category (bird) to which it belongs and naming one or more attributes that distinguish this category member from others (able to swim). Students grasp that many words they know can mean different things depending on how the word is used, and they make distinctions between and among closely related verbs and adjectives in terms of manner and intensity. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words direct.

Determining the meaning of words

Core Standards — Students can and do:

1. Sort words into categories (e.g., colors, clothing).
2. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
3. Demonstrate understanding of the concept of multiple-meaning words (e.g., *match*, *kind*, *play*) by identifying various meanings of some grade-appropriate examples of such words.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

4. Define, choose, or act out the meaning of closely related verbs that differ in manner (e.g., *look*, *peek*, *glance*, *stare*, *glare*, *scowl*; *speak*, *shout*, *mumble*, *whine*, *whimper*, *murmur*).
5. Distinguish among closely related adjectives that differ in intensity (e.g., *large*, *gigantic*; *hot*, *scalding*; *tasty*, *delicious*; *quiet*, *silent*).

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through conversations and hearing texts read aloud.

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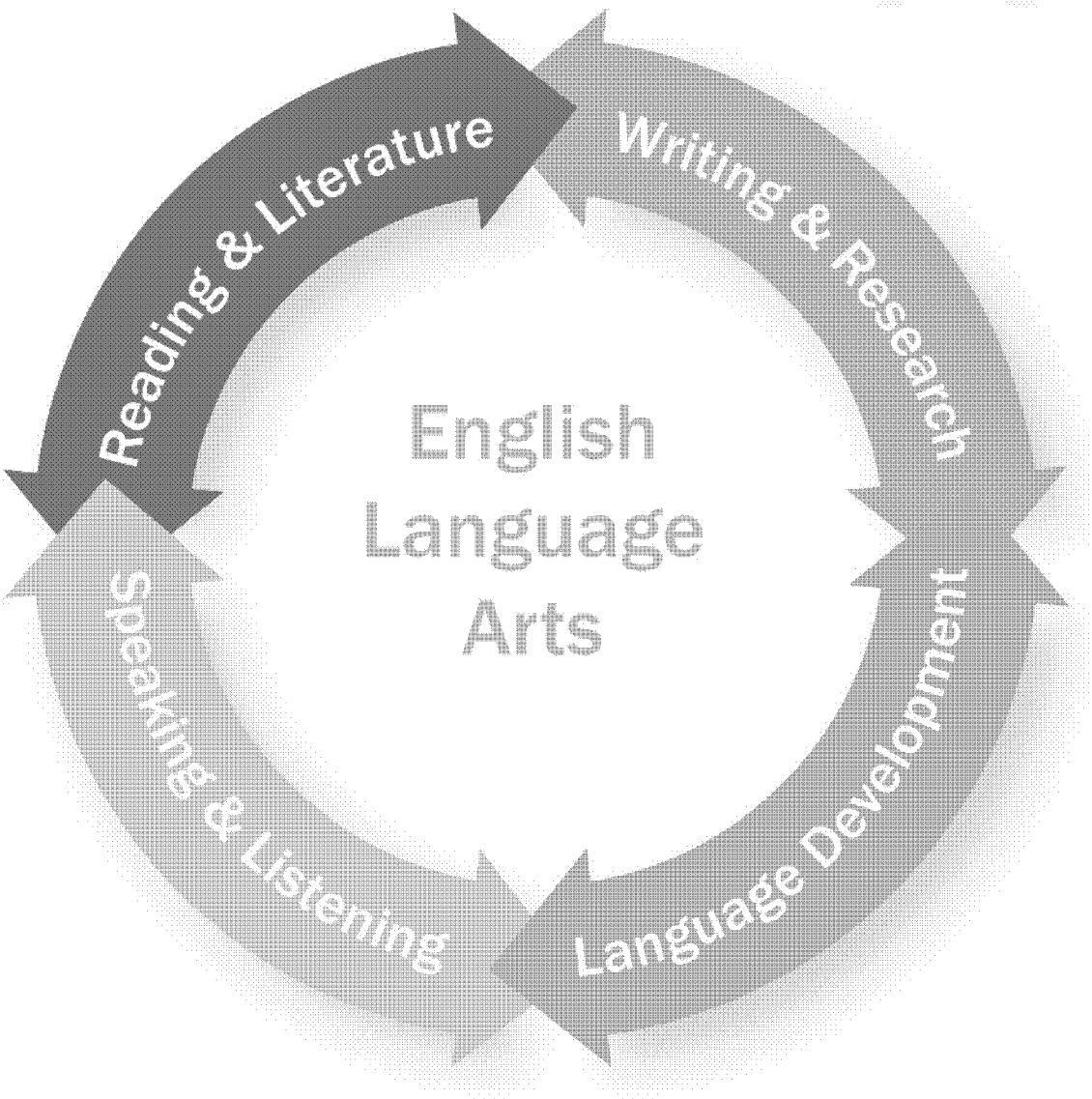
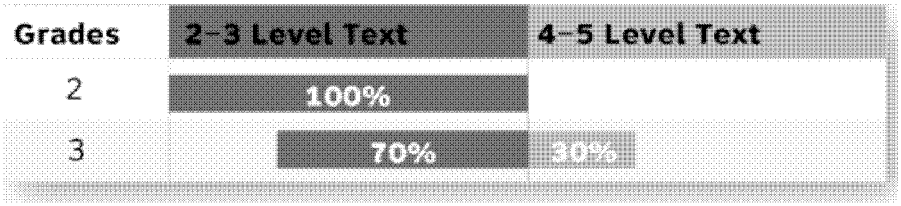
English Language Arts

Grade 2



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 2**, students focus on reading texts in the 2–3 grade band level with scaffolding likely required for texts at the high end of the range.

Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts[10]	Quantitative Measures of Texts
• *Structure:* Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short • *Purpose:* Single; explicitly stated • *Style and Language:* Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language • *Richness:* A few ideas/concepts; concrete; low information density • *Relationships:* A few connections; explicit • *Knowledge Demands:* Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[10] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grade 2

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue, scenes, and brie, familiar scenes.*	*At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[11]

Crow Boy by Taro Yashima (1955)

The Stories Julian Tells by Ann Cameron (1981)

Tops and Bottoms by Janet Stevens (1995)

"Grandpa's Stories" by Langston Hughes (1958)

"Weather" by Eve Merriam (1969)

Read alouds:

The Cricket in Times Square by George Selden, illustrated by Garth Williams (1960)

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Illustrative Informational Texts

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

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[11] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify the lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate the key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
   b. know vowel digraph and final-*e* conventions for representing long vowels
   c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
   d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.

a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
c. read alone or with a partner at least 20 minutes each day, in school or out

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[12]

Narratives

a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
b. recount a single well-elaborated event or sequence of events, managing chronological sequence with temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. include dialogue if appropriate and specific details
e. provide closure through reaction, commentary, or summation

Informative and Explanatory Texts

a. produce a brief introduction
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate and specific facts and definitions to develop points
d. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and headers to signal groupings
e. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly
b. state opinion(s) relative to the topic
c. provide reasons for opinions and details to support them
d. create a list-like structure for organization
e. use words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. close with a concluding statement or recommendation

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.

[12] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In grade 2, students create sentences of expanding length and complexity, though their control over these sentences is likely to be imperfect. Their command of noun and verb formation extends to common irregular forms. Students capitalize correctly in most situations. Their use of punctuation has grown to include commas in greetings and closings of letters as well as apostrophes to form contractions and to signal possession. Their spelling is increasingly conventional, and they now consult references, such as beginning dictionaries, to aid them when needed.

Key Terms: apostrophe, contraction, regular and irregular nouns and verb, possessive

Grammar and usage

Core Standards — Students can and do:

1. Generate and expand sentences with embedded, dependent, or conjoined clauses (e.g., *After we came home from school, I fed the gerbil and my sister cleaned the cage*).
2. Form common irregular plural nouns (e.g., *feet*, *children*, *teeth*, *mice*, *fish*, *women*).

3. Form the past tense of common irregular verbs (e.g., *sat*, *hid*, *told*).

Mechanics

Core Standards — Students can and do:

4. Capitalize holidays, product names, geographic names, and important words in titles.
5. Use commas in greetings and closings of letters.
6. Use apostrophes to punctuate contractions and to form common possessives.
7. Use conventional spelling for high-frequency and other studied words.
8. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*; *paper* → *copper*).
9. Use spelling rules for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*).
10. Consult reference materials, including beginning dictionaries, to check and correct spellings.

Vocabulary

In grade 2, students use a repertoire of strategies for dealing with unknown words. They can analyze the word itself, consider how it is used, consult reference materials, use the components of a compound word as clues to the word's meaning, or employ some combination of these strategies to determine or clarify word meanings. They figure out which meaning of a multiple-meaning word is most likely intended in a particular circumstance, and they differentiate among the connotations of related verbs and adjectives. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - identifying its base word when it has affixes (e.g., *happiness*, *finally*, *grimy*, *busily*)
   - determining how it is used in a sentence when reading, including whether it names or describes a thing or an action
   - consulting reference materials, including glossaries and beginning dictionaries, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Explain the meaning of grade-appropriate compound words (e.g., *birdhouse*, *lighthouse*, *housefly*; *bookshelf*, *notebook*, *bookmark*).

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

4. Distinguish among related verbs (e.g., *toss*, *throw*, *hurl*) to gain a sense of their shadings of meaning.
5. Distinguish among related adjectives (e.g., *thin*, *slender*, *skinny*, *scrawny*; *irritated*, *mad*, *angry*, *furious*) to gain a sense of their shadings of meaning.

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

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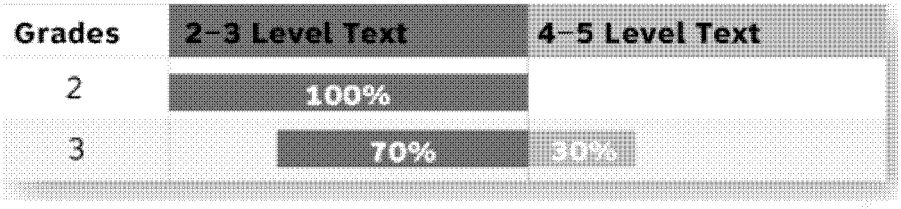
English Language Arts

Grade 3

Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 3**, students focus on reading texts in the 2–3 grade band level text (70 percent) independently and are introduced to texts in the 4–5 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts[13]	Quantitative Measures of Texts
• *Structure:* Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short • *Purpose:* Single; explicitly stated • *Style and Language:* Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language • *Richness:* A few ideas/concepts; concrete; low information density • *Relationships:* A few connections; explicit • *Knowledge Demands:* Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[13] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grade 3

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue, scenes, and brief familiar scenes.*	*At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[14]

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Eating While Reading" by Gary Soto (1995)

Read Alouds:

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

Illustrative Informational Text

A Medieval Feast by Aliki (1983)

So You Want to Be President? by Judith St.George, illustrated by David Small (2000)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

[14] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

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Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth, and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. identify and know the meaning of the most common prefixes and derivational suffixes (e.g., *un-*, *re-*, *mis-*, *-ful*, *-tion*, *-able)*
   b. decode regularly spelled single-syllable and multi-syllable words (e.g., *vocabulary*, *refrigerator*, *terrible*, *frightening*)
   c. read grade-appropriate irregularly spelled words by sight
   d. use phonics and word analysis to identify visually new words when reading

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.
   a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
   b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
   c. read at least 20 minutes each day, in school or out

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[15]

Narratives

a. set the time, indicate a location, introduce characters, or enter immediately into the story line to engage the reader
b. recount a single, well-elaborated event or a sequence of events that unfold naturally using temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. develop a focus, provide pacing, and include only relevant information
e. develop a character through the description of external behavior
f. provide descriptive details
g. employ dialogue and other narrative strategies
h. provide a satisfying conclusion that is reflective and/or that effectively ties up loose ends

Informative and Explanatory Texts

a. produce an introduction that names the topic and provides at least one general detail about it
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate, relevant, and specific facts and definitions to develop points
d. logically categorize details and facts drawn from personal experience and other sources
e. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and use headers to signal groupings
f. include only appropriate information
g. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly, and attempt to capture the reader's interest
b. state an opinion relative to the topic (e.g., *This is a good book* or *John is a good friend*)
c. provide facts and details to support the opinion
d. create a list-like organizing structure that provides reasons for the opinion
e. use appropriate words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. provide a concluding statement, reflection, and/or recommendation

[15] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Speaking and Listening Standards

Listening critically and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

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Language Development Standards

Conventions

By grade 3, students have learned the foundations of written and spoken language, including letter, word, and sentence formation and crucial forms of punctuation. They ensure agreement between subject and verb and between pronoun and antecedent in simple situations. Students use quotation marks to indicate dialogue. They know most of the conventions of spelling and consult references to look up words when they still have difficulty. They use precise everyday language to describe and begin to consider the effects of word choice in writing and speaking.

Key Terms: subject-verb and pronoun-antecedent agreement, comma splice, fragment, run-on, quotation mark

Conventions of language and writing

Core Standards — Students can and do:

1. Group related ideas into a paragraph.

Grammar and usage

Core Standards — Students can and do:

2. Generate complete sentences, avoiding fragments, comma splices, and run-ons.*
3. Ensure subject-verb and pronoun-antecedent agreement.*

Mechanics

Core Standards — Students can and do:

4. Use quotation marks in dialogue.
5. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing regular words.
6. Consult reference materials, including dictionaries, to check and correct spellings.

Word choice and style

Core Standards — Students can and do:

7. Use precise everyday language.
8. Choose words for effect.*[16]

[16] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a full listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 3, students use their repertoire of strategies to determine and clarify the meaning of unknown and multiple-meaning words. They know that words are sometimes used in nonliteral ways and can use that knowledge to help them understand common idioms. They learn and can paraphrase many common idioms and sayings. They recognize that words have nuances in meaning and rely on context and background knowledge to sort among related words that describe abstract concepts. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using prefixes and suffixes when it is a multimorpheme word (e.g., *thoughtless*, *recycle*, *unforgettable*)
   - determining how it is used in a sentence when reading
   - consulting reference materials, including glossaries and dictionaries, both print and digital
2. Determine the meaning of multiple-meaning words by using context.
3. Distinguish between literal and nonliteral uses of language.
4. Paraphrase the meaning of common idioms and sayings.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish among related words that describe states of mind, degrees of certainty, or other abstract concepts (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).

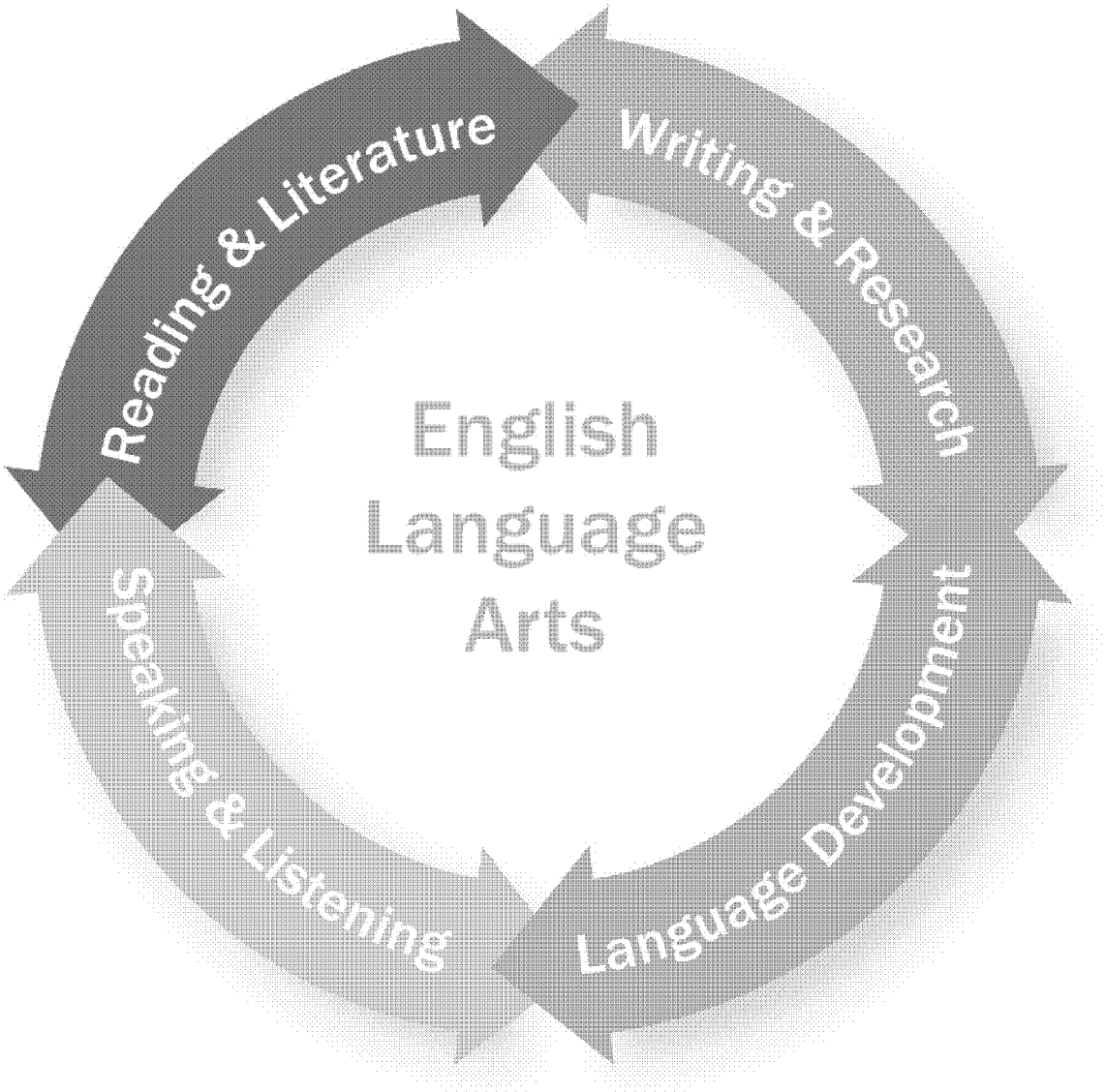
Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

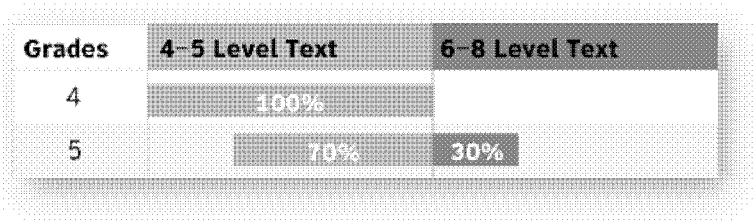
English Language Arts

Grades 4–5



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 4–5, students must engage with texts of steadily increasing complexity.

- **In grade 4**, students focus on reading texts in the 4–5 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 5**, students focus on reading in the 4–5 grade band level (70 percent) independently and are introduced to texts in the 6–8 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 4–5[17]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length • *Purpose:* Single or twofold; clearly indicated • *Style and Language:* Moderately accessible; some literary devices; some everyday language; some use of Tier 2 and Tier 3 words and figurative language • *Richness:* Some ideas/concepts; mostly concrete; moderate information density • *Relationships:* Some connections; largely explicit • *Knowledge Demands:* Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences; general background knowledge and familiarity with genre conventions required; some general and discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[17] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grades 4–5

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue and brief familiar scenes.*	*At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[18]	Illustrative Informational Texts
Alice in Wonderland by Lewis Carroll (1865)	*Discovering Mars* by Melvin Berger (1992)
The Little Prince by Antoine de Saint-Exupery (1943)	*Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996)
Bud, Not Buddy by Christopher Paul Curtis (1999)	"Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003)
"The Echoing Green" from *Songs of Innocence* by William Blake (1789)	*Volcanoes* by Seymour Simon (2006)
"Casey at the Bat" by Ernest Lawrence Thayer (1888)	"Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009)
"Words Free As Confetti" by Pat Mora (1996)	"Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)
Where the Mountain Meets the Moon by Grace Lin (2009)	

[18] See Appendix B for other texts illustrative of Grades 4-5 text complexity.

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Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Determine what the text says explicitly and make inferences required for understanding; explain how those inferences stem from the text.
2. Articulate the main ideas and themes of the text and provide a summary that captures the key supporting details.
3. Describe in detail two or more characters, events, or topics in the text and explain how they are related to one another.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. determine the theme of a story or drama, basing the understanding of theme on how characters adapt or change in response to the challenges posed in the plot
b. summarize accurately the significant events of a play or narrative in chronological order, describing where, when, why, and how specific actions take place
c. describe characters based on evidence from their thoughts, words, deeds, and interactions with others
d. describe the setting in detail, drawing on evidence of the time, place, and other cues
e. determine the theme of a poem, basing the understanding of theme on the key observations, images, or statements in a poem

Informational Text

a. outline the main and supporting ideas in the text and provide an accurate summary
b. identify the topic sentence and gist of each paragraph in a multi-paragraph text
c. describe related events in a history text or related topics in a science text and explain the relationships between the events or topics

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases in the text, distinguishing literal and figurative uses.
5. Comprehend literature and information presented in a range of structures.
6. Compare and contrast texts written on the same topic or theme and explain how they are different and similar.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. describe the sensory details in texts and distinguish the use of literal versus figurative language
b. observe and explain how words with similar meanings can have different connotations
c. identify the meaning of figurative phrases and culturally significant characters found in mythology that are integral to understanding other works of literature and texts (e.g., *Herculean*, *Pandora's box*)
d. identify how narratives and plays are structured to describe the progress of characters through a series of events and challenges

e. identify rhymes and other repetitions of sounds that supply rhythm and pattern in poems and narrative prose
f. compare a narrative or a play with a presentation in another format, such as film, stage, or interactive text, and note what is surprising or different about the alternative version
g. compare works of literature on the same topic or with a similar theme

Informational Text

a. explain the meaning of key words and terms as they are used in the text
b. understand information drawn from a variety of texts with different structures, such as chronological, compare-and-contrast, or as a chain of causes and effects
c. identify and use text features (e.g., bold print, key words, topic sentences, hyperlinks, electronic menus, and icons) to locate information quickly and aid in comprehension
d. compare and contrast related accounts on the same or similar topics by different authors, by analyzing their content and perspectives

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Explain and use information presented graphically or visually in print, videos, or electronic texts.
8. Outline the information or evidence used to support an explanation or argument, determining which points support which key statements.
9. Determine the point of view or purpose that guides how events or ideas are described.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify the narrator of a story and explain how different stories are narrated from different perspectives
b. compare accounts of historical events and figures or natural phenomena with their depiction in a fictional work

Informational Text

a. explain how factual information presented graphically or visually (e.g., maps, charts, diagrams, timelines, animations, and other interactive visual elements) aids in the comprehension of print and electronic texts
b. explain how authors support their specific claims with evidence, including which evidence supports which claims
c. determine the author's purpose and how that is reflected in the description of the events and ideas

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audiences that are familiar and known to the student.

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research tasks that build knowledge by exploring aspects of a single topic.
3. Gather information from experience, as well as print and digital resources.
4. Determine the accuracy and relevance of the information gathered to answer specific questions.
5. Restate information from source materials in one's own words, through summary or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

Revising writing

Core Standards — Students can and do:

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and edit writing.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 4: Describing the content of literary or informational sources at the 4-5 grade band level of text complexity and content

   Grade 5: Comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Standards — Students can and do (by key text type):[19]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with an initiating event, complicating action, a climax, and a resolution
d. use a variety of temporal words, phrases, and clauses to signal sequence
e. use concrete and sensory details to develop narrative elements
f. develop the narrative using techniques such as dialogue, pacing, and reporting the narrator's thoughts
g. show both external behaviors and the internal responses of characters to events
h. provide closure and a realistic outcome of the narrative's events

Informative and Explanatory Texts

a. state the topic clearly and provide a general observation and focus
b. develop the subject using relevant facts, concrete details, quotations, or other information and examples
c. group related information logically in basic structures (paragraphs, sections) and provide headings or illustrations when useful
d. employ specialized vocabulary and a formal, objective style when appropriate
e. use appropriate links to join ideas
f. include only relevant appropriate information to demonstrate focus
g. provide a conclusion related to the information or explanation offered

Arguments (opinions)

a. introduce an opinion about a concrete issue or topic
b. support opinions with relevant reasons
c. support reasons with specific details
d. link the reasons together using words, phrases, and clauses (e.g., *because*, *since*)
e. adopt a relatively formal style for sharing and defending an opinion when appropriate to the discipline or context
f. provide a concluding statement or section that offers reflections, restatement, or recommendations consistent with the opinion presented

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and making relevant points about what they have read, heard, or written.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by summarizing the main ideas and supporting details.

Standards — Students can and do (by key communication type):

[19] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Classroom discussions and collaboration

a. come to discussions having read required material and, in conversation, build upon background knowledge from that material and other information known about the topic
b. demonstrate understanding of the content and ideas presented or discussed by distilling them into an accurate summary
c. ask questions to clarify or follow up on ideas or information presented orally or through other media
d. respond to questions and make comments that contribute to the topic and ideas of previous speakers
e. explain information presented graphically or visually in conjunction with other information presented orally
f. engage productively and respectfully with others during discussions, including listening actively, gaining the floor respectfully, and qualifying or justifying what they think after listening to others' questions or accounts

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions or other information, choosing material that is relevant to the topic and to the listeners.

4. Speak audibly and clearly at an appropriate and understandable pace, using formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. speak coherently about events, topics, or texts that focus and organize ideas in a logical sequence and include facts, details, or other information that support the main ideas
b. use appropriate volume, phrasing, and pace for clarity
c. read aloud prose and poetry, with appropriate emotion and fidelity to the text

Language Development Standards

Conventions

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently confused words (e.g., *effect*, *affect*) and edit writing to remove language that is not idiomatic. Their mastery of capitalization is complete. They use punctuation to separate items in a series and a comma to distinguish an introductory element from the main part of the sentence. Students mark titles in conventional ways. They understand how to quote and use quotation marks. Their spelling is conventional. Their language is increasingly topic specific, precise, and varied, and they manipulate sentence structure for effect.

Key Terms: adjective; adverb; interjection; preposition; simple, progressive, and perfect tense

Conventions of language and writing

Core Standards — Students can and do:

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

Grammar and usage

Core Standards — Students can and do:

2. Form and use the simple (e.g., *I walked*, *I walk*, *I will walk*), progressive (e.g., *I was walking*, *I am walking*, *I will be walking*) and the perfect (e.g., *I had walked*, *I have walked*, *I will have walked*) verb tenses.
3. Recognize and correct inappropriate shifts in verb tense.*
4. Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.*
5. Correctly use frequently confused words.*
6. Use idiomatic language.*

Mechanics

Core Standards — Students can and do:

7. Capitalize the first word in quotations as appropriate and other important words, such as section headers.
8. Use punctuation to separate items in a series.*
9. Use a comma to separate an introductory element from the rest of the sentence.
10. Use underlining, quotation marks, or italics to indicate titles of works.
11. Use quotation marks to mark direct speech and quotations from a text.
12. Spell grade-appropriate words correctly, consulting references as needed.*

Word choice and style

Core Standards — Students can and do:

13. Use specialized, topic-specific language to convey ideas precisely.*
14. Use figurative language to create images or make comparisons and connections between people, objects, or ideas.*
15. Use punctuation for effect.*
16. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.*[20]

Focus by Grade-Level
Grade 4: Distinguish one idea or thing from another (Conventions Standards #'s1-3, #8, #9, #11)
Grade 5: Word choice (Conventions Standards #'s 4-6, #13, #14)

[20] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 4–5, students are capable of selecting among a wide range of strategies—analyzing the word itself, using localized context clues (particularly at the sentence level), and consulting reference materials—to determine and clarify the meaning of unknown and multiple-meaning words. They develop the habit of verifying their inferences of word meanings. They are able to interpret simple figurative language found in what they read. They learn and can paraphrase many common idioms, proverbs, and adages. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).[21]

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - analyzing the word's sounds, spelling, and meaningful word parts
   - using semantic clues in sentences, such as definitions, examples, or restatements included within the text
   - using syntactic clues, such as using its position within the sentence as a guide to whether it represents a thing or an action
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including simple similes and metaphors.
5. Paraphrase the meaning of common idioms, adages, and proverbs.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

6. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2[22] words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.
9. Know and use words and phrases that signal contrast, addition, or other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

[21] Beck I. L., McKeown, M.G. & Kucan, L. (2002). *Brining Words to Life; Robust Vocabulary Instruction*, New York; Guilford Press

Grade 4 English Language Arts: Focus for Instruction

Reading and Literature

In grade 4, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 4-5 grade band level

100%

Writing and Research

In grade 4, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by describing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Speaking and Listening

In grade 4, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information

Language Development

In grade 4, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Distinguish one idea or thing from another:
  - Maintain the focus of a paragraph on a topic… (Conventions Standard #1)
  - Form and use the simple, progressive and perfect verb tenses … (Conventions Standard #2)
  - Recognize and correct inappropriate shifts in verb tense. (Conventions Standard #3)
  - Use punctuation to separate items in a series … (Conventions Standard #8)
  - Use a comma to separate an introductory element … (Conventions Standard #9)
  - Use quotation marks to mark direct speech and quotations … (Conventions Standard #11)

Grade 5 English Language Arts: Focus for Instruction

Reading and Literature

In grade 5, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently and are introduced to 6-8 grade band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% text at the 4-5 grade band level, 30% text at the 6-8 grade band level

Writing and Research

In grade 5, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. There also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content.

Speaking and Listening

In grade 5, students apply the speaking and listening standards in different contexts.

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information.

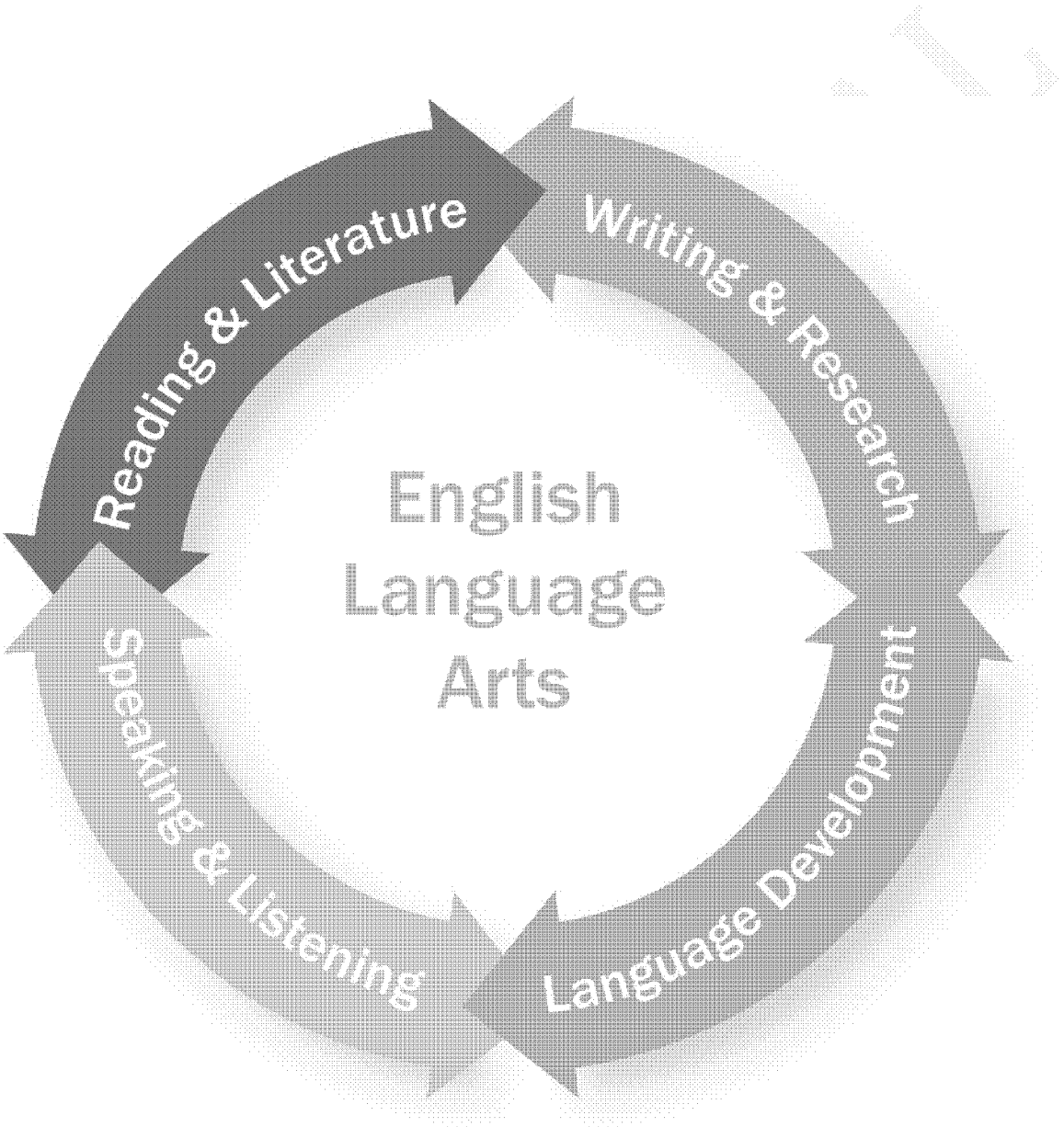
Language Development

In grade 5, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions,

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Word choice
  - Form and choose between adjectives and adverbs. (Conventions Standard #4)
  - Correctly use frequently confused words. (Conventions Standard #5)
  - Use idiomatic language. (Conventions Standard #6)
  - Use specialized, topic specific language to convey ideas precisely. (Conventions Standard #13)
  - Use figurative language to create images … (Conventions Standard #14)

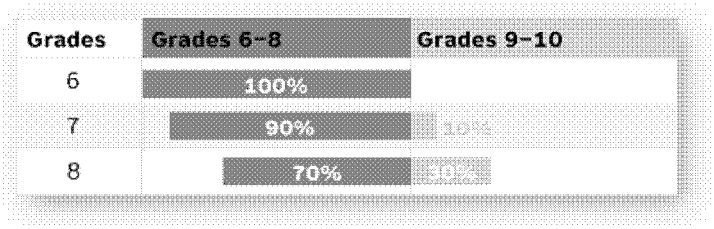
English Language Arts

Grades 6–8



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 6–8, students must engage with texts of steadily increasing complexity.

- **In grade 6**, students focus on reading texts in the 6–8 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 7**, students focus on reading texts in the 6–8 grade band level (90 percent) independently and are introduced to texts in the 9–10 grade band level as "stretch" texts (10 percent), which will likely require scaffolding.
- **In grade 8**, students focus on reading texts in the 6–8 grade band level (70 percent) independently as well as sustained practice with texts in the 9–10 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 6–8[23]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length • *Purpose:* Single or multiple; subtly stated • *Style and Language:* Moderately demanding; several literary devices; consistent use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; mostly abstract; moderate information density • *Relationships:* Several connections; largely implicit • *Knowledge Demands:* Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences; cultural and historical knowledge useful for understanding characters, settings, and allusions; some discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[23] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grades 6–8

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, folktales, legends, fables, tall tales, myths, fantasy, science fiction, realistic fiction, and graphic novels.	*At this level, includes one-act and multi-act plays both as text and film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, includes such subgenres as exposition and argument in the form of essays, opinion pieces, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[24]	Illustrative Informational Texts
Little Women by Louisa May Alcott (1869) *The Adventures of Tom Sawyer* by Mark Twain (1876) *A Wrinkle in Time* by Madeline L'Engle (1962) *The Dark Is Rising* by Susan Cooper (1973) *Black Ships before Troy: The Story of the Iliad* by Rosemary Sutcliff (1993) *A Midsummer Night's Dream* by William Shakespeare (1596) "Oh Captain, My Captain" by Walt Whitman (1865) "Stopping by a Wood on a Snowy Evening" by Robert Frost (1923) "I, Too" by Langston Hughes (1925)	*Preamble and First Amendment to the United States Constitution* by United States (1787, 1791) ** *Narrative of the Life of Frederick Douglass an American Slave* by Frederick Douglass (1845) "Gettysburg Address"** by Abraham Lincoln (1863) "Blood, Toil, Tears and Sweat" by Winston Churchill (1940) *Travels with Charley: In Search of America* by John Steinbeck (1962) *I Know Why the Caged Bird Sings* by Maya Angelou (1969)

Seminal historical texts that all students are expected to read

[24] See Appendix B for other texts illustrative of Grades 6-8 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support understanding in discussion and in writing.
2. Articulate the text's main ideas and themes and provide a summary that captures the key supporting details, without taking a position or expressing an opinion.
3. Explain in detail how events, ideas, and characters unfold in the text and interact with one another.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. infer themes when they are not explicitly stated and provide evidence on which those inferences are based
b. analyze the development of the narrative, describing how particular incidents advance or foreshadow the plot
c. recognize how the setting unfolds over the course of the text and describe its significance to the work
d. build on an author's explicit descriptions and other evidence to draw reasonable conclusions about characters and how they interact, change, and influence the central events
e. describe how a play unfolds and how particular lines of dialogue propel the action, reveal aspects of a character, or provoke a decision
f. analyze how patterns of imagery in a poem contribute to its overall theme or meaning

Informational Text

a. summarize a text without expressing a personal opinion by drawing on the author's specific description of events or information
b. determine how key ideas or concepts build on one another to reveal an overarching theme or idea

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning of the text.
5. Explain the text's structure, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast how two or more texts written on similar topics or themes differ in their focus and key details.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the author's choice of specific words or details contributes to the understanding of events and characters or to the tone of a narrative
b. trace the specific comparisons made by similes, metaphors, and analogies and explain how they contribute to the meaning of the text
c. compare similar ideas and themes as well as character types in myths, folktales, and legends from different cultures

d. analyze the impact of line breaks and stanzas on the meaning of a poem and acts, scenes, and stage directions on the meaning of a drama
e. compare the events, characters, ideas, and themes in texts written by the same author or on similar topics or themes

Informational Text

a. interpret the connotative meaning of closely related words and phrases as they are used in the text (e.g., *angry* versus *irate*)
b. describe how an author organizes the explanation or argument, as well as the ways in which the text's structure, language, and examples support its purpose
c. examine the structure of a Web site or other electronic text and describe how it organizes information and links to additional sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Interpret information presented graphically or visually in print, videos, or electronic texts and explain how this information clarifies and contributes to the text.
8. Analyze the structure and content of an argument, including its main claims or conclusions, supporting premises, and evidence.
9. Determine the point of view or purpose represented in the text, assessing how it shapes the content.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. compare the points of view from which different novels and poems are told, as well as the viewpoints of different characters in a drama
b. compare the fictional portrayal of a time, place, or character to historical sources from the period to determine which historical details have been emphasized, deleted, or changed in the fictional portrayal

Informational Text

a. interpret factual and quantitative data presented in diverse formats (including maps, charts, and diagrams as well as electronic media) and explain how this information clarifies or contributes to the text
b. distinguish between fact, opinion, and reasoned judgment presented in essays, speeches, and critiques
c. evaluate the strength of an argument's premises and specific claims as well as the degree to which each is supported by evidence
d. compare and contrast the viewpoints and use of evidence of two different authors writing about the same topic

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that match purpose to task and address familiar as well as somewhat distant audiences (e.g., mayor, readers of school or neighborhood newspaper).

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research projects that demonstrate understanding of the material under investigation and generate additional related questions for research.
3. Gather information independently using a variety of relevant print and digital resources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered.
5. Represent and cite accurately the data, conclusions, and opinions of others, quoting and paraphrasing them into one's own work while avoiding plagiarism.
6. Provide full bibliographic information for print and digital sources in a standard format and document quotations, paraphrases, and other information.

Revising writing

Core Standards — Students can and do:

7. With some guidance and support from peers and adults, strengthen writing through revising, editing, or beginning again to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as interact online with others about writing, including responding to and providing feedback

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 6: Conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of text complexity and content
   Grade 7: Analyzing the contents of literary or informational sources at the 6-8 grade band level of complexity and content
   Grade 8: Comparing or evaluating the contents of literary or informational sources at the 6-8 grade band level of complexity and content

Standards — Students can and do (by key text type):[25]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with well-structured episodes (e.g., initiating event, complicating action, resolution)
d. use a variety of temporal words, phrases, and clauses to convey sequence, to shift from one time frame to another, and to show the relationships among events
e. use relevant, specific details and literary devices, such as imagery and metaphor, purposefully to develop setting, plot, and character
f. use techniques such as pacing, dialogue, or foreshadowing to highlight the significance of events or create particular effects (e.g., tension or suspense)
g. show internal mental processes to develop complex characters and convey their needs, motives, and emotional responses
h. provide an engaging conclusion, such as a surprise ending, a reflection, or a conclusion that returns to the beginning

Informative and Explanatory Texts

a. establish the topic in an introduction that provides a sense of what's to follow
b. develop the subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize specific information under broader concepts or categories and provide headings, figures, tables, or diagrams when useful
d. use factual, precise language and maintain a formal, objective style when appropriate
e. use strategies appropriate to informational and explanatory texts such as defining, classifying, comparing/contrasting, and cause/effect
f. use appropriate links to join ideas and create cohesion
g. provide only accurate and relevant information
h. provide a conclusion that follows logically from the information or explanation presented

Arguments

a. introduce a claim about a topic or concept
b. support claims with logical reasons
c. support reasons with detailed and relevant evidence

[25] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

d. signal the relationship between reasons, or between reasons and evidence, using words, phrases, and clauses (e.g., *another reason, such as, therefore, in addition*)
e. sustain an objective style and tone appropriate for making a case when appropriate to the discipline or context
f. include only relevant information and evidence in support of claims
g. provide a concluding statement or section that offers reflections, a restatement, or recommendations that follow from the argument

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and remaining flexible and adaptable as participants.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by drawing well-supported inferences about the purpose and meaning of the information.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having completed reading or other preparation in advance and draw on that material explicitly in discussions
b. determine a speaker's attitude or point of view toward a topic presented orally or through other media
c. ask questions to check understanding to clarify the main ideas and the supporting evidence of material presented orally or through other media
d. advance a discussion by answering questions precisely and sharing specific factual knowledge and observations supported by credible evidence
e. interpret information presented in visual and digital formats and explain how this data clarifies and contributes to a discussion or information presented orally
f. support productive teamwork by setting clear goals and deadlines, monitoring progress and participation of each team member, and taking different views into account and modifying own views when indicated in light of what others say

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions, and other information, gaining and maintaining the interest and response of listeners.
4. Use appropriate tone and phrasing for emphasis, demonstrating a growing command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present information about situations, topics, or texts that emphasize salient points and clarify and support claims and findings with pertinent and specific descriptions, facts, and examples in ways that are accessible and verifiable to listeners
b. use gesture, tone, phrasing, and pace for emphasis
c. incorporate visual displays and electronic media when helpful and in a manner that strengthens the presentation
d. perform dramatic readings of various prose and poetry speaking with clarity, fidelity, and responsiveness to the text, noting changes in the situation, mood, or tone of text

Language Development Standards

Conventions

In grades 6–8, students develop a firm command of sentence structure. They are able to form sentences of varying structures, place phrases and clauses properly within a sentence, and use a variety of coordinating and subordinating conjunctions to express relationships between sentence parts. Students have also mastered pronoun use, ensuring proper case, number, and person and avoiding vagueness. They understand and use verb voice and mood, and identify and correct inappropriate shifts in pronouns and verbs. Students set off nonrestrictive or parenthetical elements from the rest of the sentence with proper punctuation and use a comma before a coordinating conjunction in a compound sentence. They vary sentence patterns for effect and edit writing for redundancy and wordiness.

Key Terms: conjunction; dash; nonrestrictive/parenthetical element; indicative, imperative, interrogative, conditional, and subjunctive mood; parentheses; phrase and clause; pronoun case, number, and person; simple, compound, complex, and compound-complex sentence; active and passive voice

Grammar and usage

Core Standards — Students can and do:

1. Form compound, complex, and compound-complex sentences.
2. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.*
3. Ensure that pronouns are in the proper case (subjective, objective, possessive).
4. Recognize and correct inappropriate shifts in pronoun number and person.*
5. Recognize and correct vague pronouns with unclear or ambiguous antecedents.*
6. Form and use verbs in the active and passive voice.
7. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
8. Avoid inappropriate shifts in verb voice and mood.*

Mechanics

Core Standards — Students can and do:

9. Use punctuation to set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.*
10. Use a comma before a coordinating conjunction in a compound sentence.

Word choice and style

Core Standards — Students can and do:

11. Use verbs in the active and passive voice and in the conditional and subjunctive moods to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).
12. Vary sentence patterns for meaning, reader/listener interest, and style.*
13. Choose words and phrases to express ideas precisely and concisely, avoiding wordiness and redundancy.*[26]

Grade-Level Focus
Focus by Grade-Level
Grade 6: Pronouns (Conventions Standards #s 3-5)
Grade 7: Sentence structure (Conventions Standards #1, #2, #12)
Grade 8: Verb voice and mood (Conventions Standards #s 6-8, #11)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 6–8, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering the word's use in a broader context that includes the content of the paragraph in which the word appears and the overarching structure of the text. They habitually verify their inferences of word meanings. They interpret a variety of figurative language found in what they read. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using semantic clues, such as sentence and paragraph context as well as the organizational structure of the text (e.g., cause and effect, comparison and contrast)
   - using syntactic clues, such as using its position within the sentence as a guide to whether it is a subject, verb, or object
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including metaphors, similes, and idioms.

[26] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
7. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

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Grade 6 English Language Arts: Focus for Instruction

Reading and Literature

In grade 6, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 6-8 grade band level

Writing and Research

In grade 6, students apply the writing standards to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of complexity and content.

Speaking and Listening

In grade 6, students apply the core speaking and listening standards in different contexts.

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 6, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions

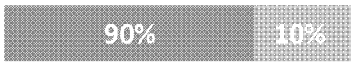
- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Pronouns
  - Ensure that pronouns are in the proper case… (Conventions Standard #3)
  - Recognize and correct inappropriate shifts… (Conventions Standard #4)
  - Recognize and correct vague pronouns… (Conventions Standard #5)

Grade 7 English Language Arts: Focus for Instruction

Reading and Literature

In grade 7, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently and are introduced to 9-10 grade band level "stretch" texts, which will likely require scaffolding.

- Reading Standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 90% at the 6-8 grade band level, 10% at the 9-10 grade band level



Writing and Research

In grade 7, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 7, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 7, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

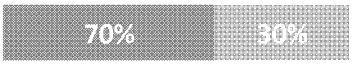
- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Sentence structure
  - Form compound, complex… (Conventions Standard #1)
  - Place phrases and clauses… (Conventions Standard #2)
  - Vary sentence patterns… (Conventions Standard #12)

Grade 8 English Language Arts: Focus for Instruction

Reading and Literature

In grade 8, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on reading text at the 6-8 grade band level independently as well as on sustained practice with 9-10 grade band level "stretch" texts, which may require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% at the 6-8 grade band level, 30% at the 9-10 grade band level



Writing and Research

In grade 8, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 8, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 8, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Verb voice and mood
  - Form and use verbs in the active and passive voice (Conventions Standard #6)
  - Form and use verbs in the indicative… (Conventions Standard #7)
  - Avoid inappropriate shifts… (Conventions Standard #8)
  - Use verbs in the …voice …mood… (Conventions standard #11)

English Language Arts

Grades 9–10

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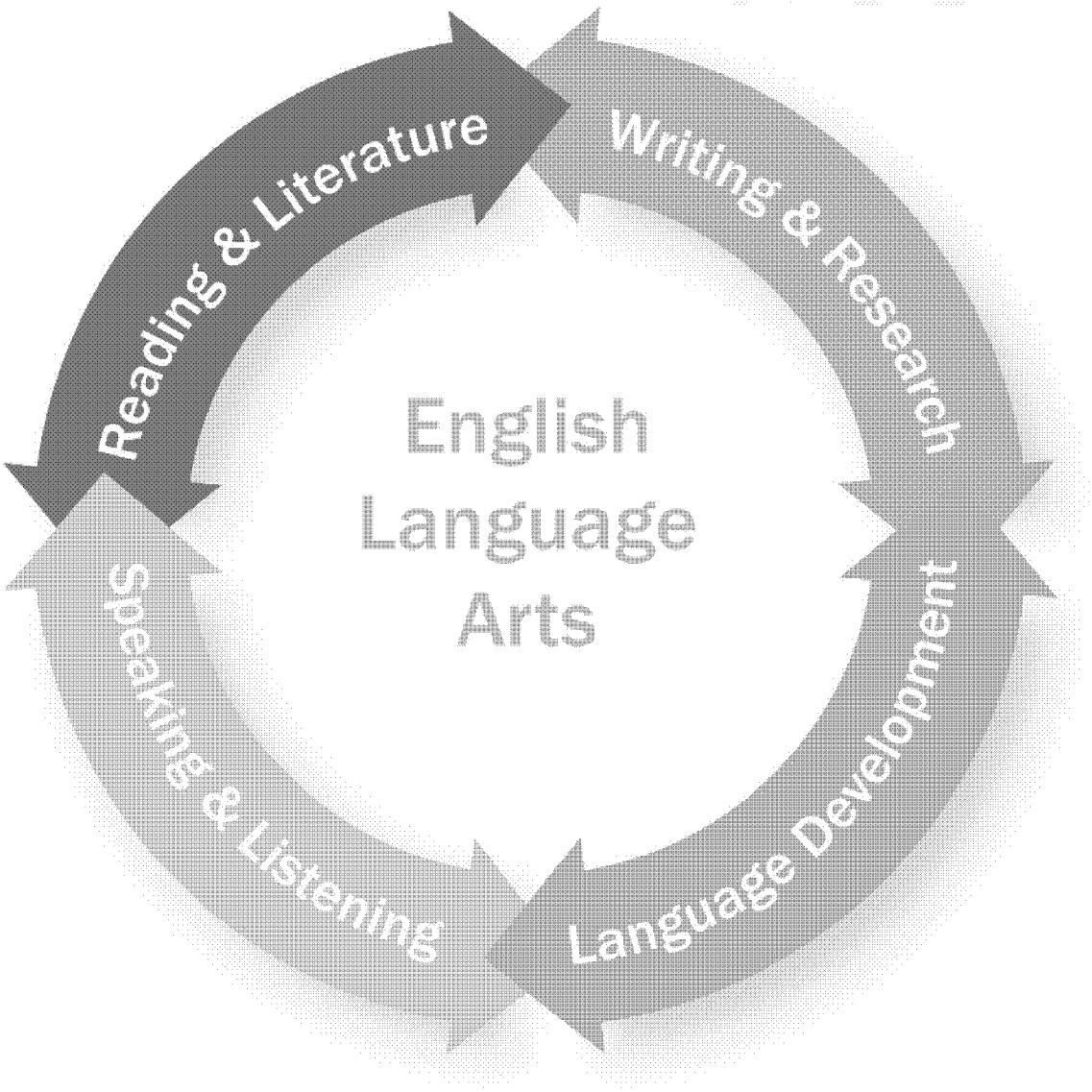
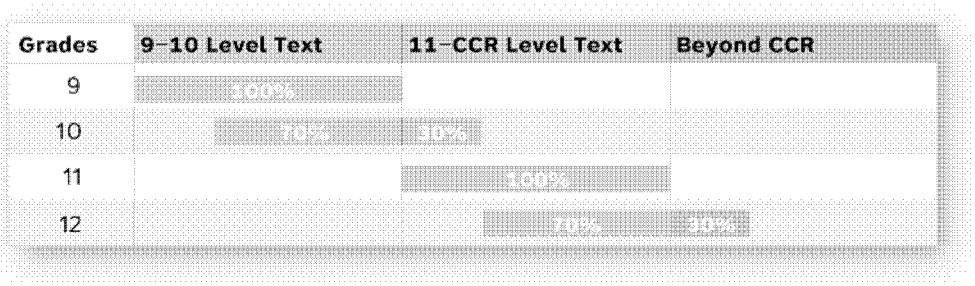


Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 9–10, students must engage with texts of steadily increasing complexity.

- **In grade 9**, students focus on reading texts in the 9–10 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 10**, students focus on reading texts in the 9–10 grade band level (70 percent) independently and are introduced to texts in the 11–CCR grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 9–10[27]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, subtle; graphic representations are essential to meaning; texts of increasing length • *Purpose:* Multiple; often implicit • *Style and Language:* Demanding; many literary devices; extensive use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; abstract • *Relationships:* Several connections; implicit • *Knowledge Demands:* Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[27] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for 9–10

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[28]

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

The Grapes of Wrath by John Steinbeck (1939)

The Killer Angels by Michael Shaara (1975)

In the Time of the Butterflies by Julia Alvarez (1994)

The Glass Menagerie by Tennessee Williams (1944)

"Song" by John Donne (1635)

"The Raven" by Edgar Allen Poe (1845)

"Loveliest of Trees" by A.E. Houseman (1896)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Illustrative Informational Texts

"Second Inaugural Address" by Abraham Lincoln (1865)**

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)**

"A Quilt of a Country" by Anna Quindlen (2001)

Seminal historical texts that all students are expected to read

[28] See Appendix B for other texts illustrative of Grades 9–10 text complexity.

Common Core Initiative

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support analyses in discussion and in writing.
2. Articulate the theses and themes and summarize how they develop over the course of the text and how they are expressed by the key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and interact over the course of the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. draw on specific details to describe how the events, characters, or setting develops over the course of the drama, narrative poem, or story
b. summarize the development of a theme and describe how that theme resonates throughout the text
c. weave together the details of texts to form a comprehensive understanding of its characters, including their overlapping or competing motivations
d. describe how the accumulation of specific phrases and images within poems contributes to a theme as a whole

Informational Text

a. demonstrate a command of the precise details of the exposition or argument, drawing on specific points to support an understanding of a part or the text as a whole
b. analyze the development of theses or explanations in texts and summarize succinctly the key relationships among ideas and supporting details

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning and tone of the text.
5. Analyze the structure of complex text and its parts, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast the content and style of two or more texts written on similar topics or themes.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the precise choice of words and phrases creates vivid images and sets the tone, mood, and theme of the text; compare the impact of words selected by the author to similar words with different connotations

b. explain how authors manipulate time (e.g., flashbacks, foreshadowing, pacing) to create suspense, mystery, or humor
c. evaluate how playwrights use soliloquies to portray the internal thinking and feeling of characters
d. compare and contrast similarities and differences in styles and forms of poems on a similar theme or topic

Informational Text

a. analyze how the author uses specific words and metaphors to establish tone or to make illuminating comparisons in an argument, explanation, or description
b. explain how the author structures information or an argument to emphasize key points and advance a point of view
c. analyze how different authors organize and categorize similar information and describe the impact of those different approaches

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts with the information provided by the text.
8. Follow and evaluate the logic and reasoning of the text, including assessing whether the evidence provided is sufficient to support the claims.
9. Analyze the point of view or purpose represented in the text, assessing how it shapes the content, style, and tone.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. explain how a story unfolds when it is told by alternating or multiple narrators with different points of view
b. analyze literature in terms of its connection to related historical and cultural events and contexts

Informational Text

a. interpret complex, multifaceted, quantitative, or technical information presented in maps, charts, illustrations, graphs, and time lines
b. provide an account of an author's precise claims, including how specific assertions are defined and distinguished from opposing statements
c. analyze the explicit and implicit premises of an argument and determine if the conclusions reached are logically justified by the evidence presented in the text
d. compare how different authors construct and develop different points of views or perspectives on similar events or issues by assessing their assumptions, evidence, and reasoning

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and address familiar as well as more distant, unknown and general audiences (e.g., peers, elected officials and policy makers, community members).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that demonstrate an increasing command of the subject under investigation.
3. Assemble evidence independently from authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine the strengths and limitations of each source and avoiding over-reliance on any one source.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 9: Analyzing the content of literary or informational sources at the 9-10 grade band level of text complexity and content

   Grade 10: Comparing or evaluating the contents of literary or informational sources at the 9-10 grade band level of complexity and content

Standards — Students can and do (by key text type):[29]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop a complex subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize complex information into categories that make clear distinctions and provide headings, figures, tables, and diagrams when useful
d. employ discipline-specific and technical vocabulary and maintain a formal, objective style
e. adapt strategies to present information and explanations (e.g., if/then, extended definitions, classification, comparison/contrast, and cause/effect) and employ them to manage the complexity of a topic
f. link ideas with transitions and by varying sentence structures to express relationships between ideas and create cohesion
g. emphasize the most significant information and confirm the accuracy of key points
h. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish a substantive claim and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant and sufficient evidence from credible sources in support of the reasons
d. explain how the evidence links to the claim
e. develop the argument in part based on knowledge of the audience (e.g., building bridges by opening with areas of agreement)
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases, and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because, therefore, in addition*).
g. maintain a formal style when appropriate to the discipline or context
h. enhance the reliability of the argument by employing strategies such as paraphrasing or quoting explicitly from a credible, authoritative source
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence.

[29] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by summarizing, analyzing, and elaborating on key ideas.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having researched, studied, and taken notes on topics or issues under study and draw upon that preparation in discussions
b. determine the key ideas as well as the tone and mood of communications presented orally or through other media
c. ask questions to test the evidence that supports a speaker's claims and conclusions presented orally or through other media
d. build on essential information from others' input and respond constructively by making cogent and verifiable comments that aid in the furthering and deepening of discussions
e. integrate multiple streams of data presented through a variety of multi-modal media into a cohesive, meaningful understanding of the information
f. support productive teamwork by identifying the comments and claims made on all sides of an issue; evaluating the degree to which each claim is supported by evidence; sifting, summarizing, and putting to use the most important ideas developed by the group; and determining what additional information, research, and tasks are required in order to move the group towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information and points of view, structuring and organizing comments to support their purposes and guide the listener.
4. Vary intonation and phrasing for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present complex information about situations, topics, or texts so that listeners can follow the line of thought by grouping related ideas, using transitional markers, and clarifying one's claims with evidence that is verifiable and accessible
b. align verbal (tone, phrasing, pacing) and nonverbal strategies (gestures and facial expressions) for emphasis and effect
c. make strategic use of multimedia elements and visual displays of data to enhance understanding
d. perform dramatic readings of various prose and poetry, speaking with clarity, fidelity, and responsiveness to the text, reflecting on syntax and diction for cues regarding emphasis and rhythm

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons,

colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

1. Use parallel structure in writing.
2. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

3. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light*[,] *blue suit*).
4. Use a comma, ellipses, or dash to indicate a pause or break.
5. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
6. Use a colon to introduce a list or a quotation.
7. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

8. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
9. Maintain consistency in style and tone.
10. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 9: Style (Conventions Standards #9, #10)
Grade 10: Advanced punctuation use (Conventions Standards #s 3-7)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations,

they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
   - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
6. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

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Grade 9 English Language Arts: Focus for Instruction

Reading and Literature

In grade 9, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 9-10 Band Text

Writing and Research

In grade 9, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus: Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 9, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 9, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Style
  - Maintain consistency … (Conventions Standard #9)
  - (Style manual)… (Conventions Standard #10)

Grade 10 English Language Arts: Focus for Instruction

Reading and Literature

In grade 10, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently as well as on sustained practice with 11-CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 9-10 Band Text; 30% 11-CCR text

Writing and Research

In grade 10, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 10, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

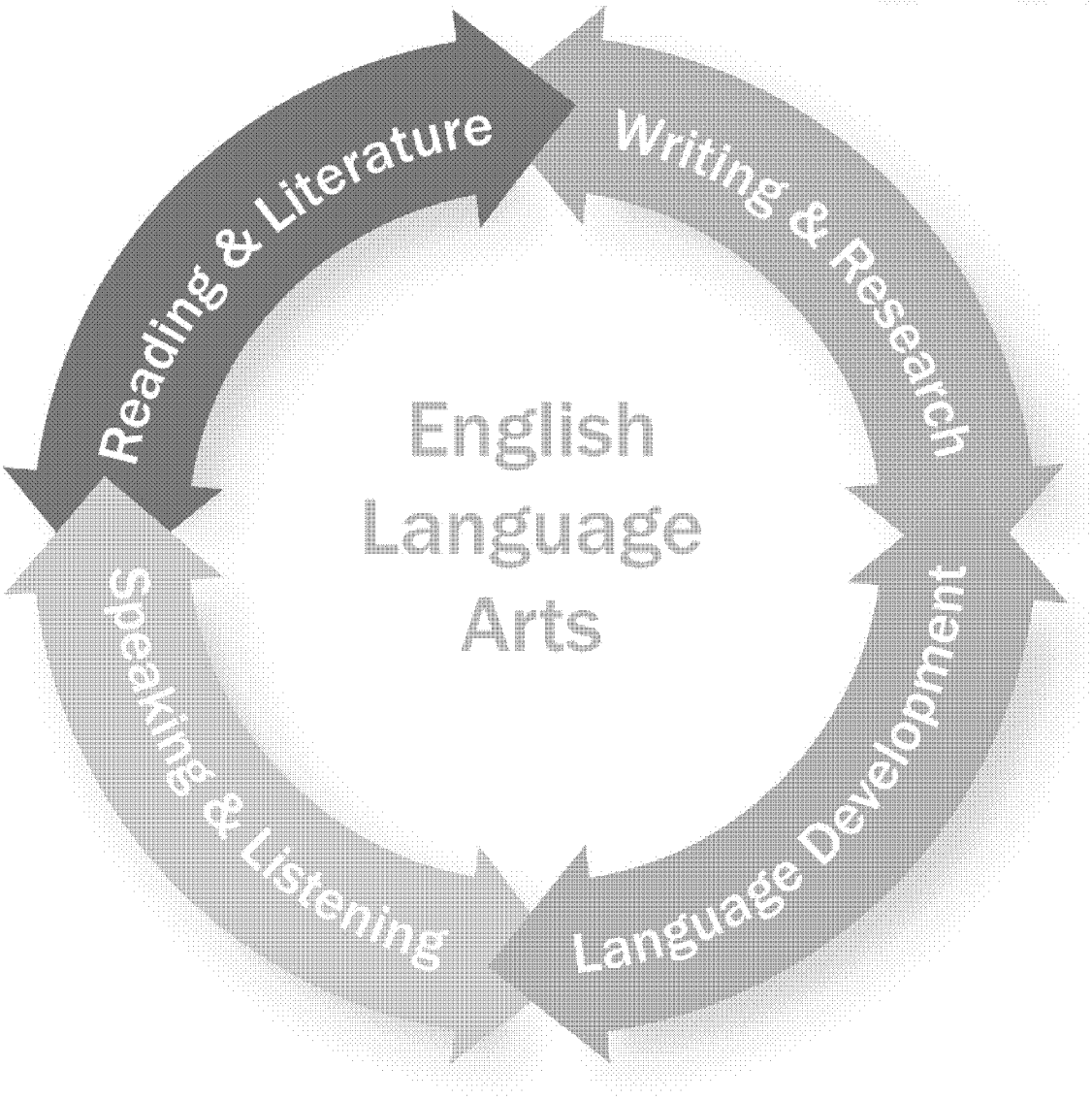
Language Development

In grade 10, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Advanced Punctuation Use
  - Coordinate adjectives … (Conventions Standard #3)
  - Comma/dash/ellipsis… (Conventions Standard #4)
  - Semicolon … (Conventions Standard #5)
  - Colon … (Conventions Standard #6)
  - Hyphen … (Conventions Standard #7)

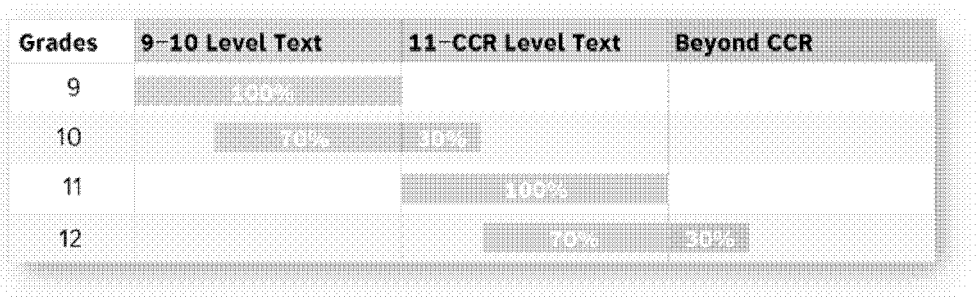
English Language Arts

Grades 11–CCR



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grad



While advancing through grades 11-12, students must engage with texts of steadily increasing complexity.

- **In grade 11**, students focus on reading texts in the 11-CCR grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 12**, students focus on reading texts in the 11-CCR grade band level (70 percent) independently and are introduced to texts in the "Beyond CCR" grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 11–CCR[30]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects • *Purpose:* Multiple; often implicit and may be hidden or obscure • *Style and Language:* Unfamiliar, demanding, complex; many literary devices; extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous • *Richness:* Many ideas/concepts; highly abstract; high information density • *Relationships:* Many implicit, complex, interwoven connections • *Knowledge Demands:* Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive, perhaps specialized discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences, students' interests, motivations, and maturity level.	

[30] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for 11–CCR

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[31]

Pride and Prejudice by Jane Austen (1813)

Black Boy by Richard Wright (1945)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

The Bluest Eye by Toni Morrison (1970)

The Namesake by Jhumpa Lahiri (2003)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

"Ode on a Grecian Urn" by John Keats (1820)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

Illustrative Informational Texts

The Declaration of Independence by Thomas Jefferson (1776)**

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Politics and the English Language" by George Orwell (1946)

"Letter from a Birmingham Jail" by Martin Luther King (1963)**

"Mother Tongue" by Amy Tan (1990)

Seminal historical texts that all students are expected to read

[31] See Appendix B for other texts illustrative of Grades 11–CCR text complexity.

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Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to defend and challenge analyses in discussion and in writing.
2. Articulate the text's theses and themes and provide a summary that clarifies the relationships among ideas and the connections between key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and influence one another over the course of the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze where the author chooses to focus and which details the author chooses to emphasize
b. analyze how multiple themes and ideas in the text interact and build on one another
c. evaluate the extent to which setting shapes the course of events and sets the mood
d. trace the origins and evolution of the traits, motivations, and relationships among characters and how they interact to influence the plot and its resolution
e. describe how the poet develops a central image, preoccupation, or idea through the accumulation of specific phrases and images

Informational Text

a. demonstrate an understanding of the precise elements of an author's explanation or argument, including the distinctions the author makes between different ideas or information
b. scrutinize the details within specific portions of texts and connect the insights gained to develop an understanding of the text as a whole
c. analyze how the text captures the interaction between complex ideas or multifaceted events

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and analyze how word choices have a significant effect on the meaning and tone of the text.
5. Analyze the ways the author chooses to structure the text, including how to present complex ideas and events and where to begin and end.
6. Compare and contrast the choices different authors make in treating similar topics or themes, including content, style, and tone.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the author's use of language impacts the text, including the degree of formality of the diction and how it is evocative of a particular setting (e.g., a courtroom, a rural town)
b. evaluate how authors create meaningful ambiguity and multiple layers of meaning in poetry, drama, and other narratives
c. analyze how an author choice of where to begin a story, poem, or drama impacts the overall plot structure
d. contrast alternative treatments of the same dramatic work in different stage productions and evaluate how the directors' different interpretations relate to evidence within the script
e. analyze how the author draws upon and transforms fictional or historical source material (e.g., how Shakespeare draws on Plutarch or a story in Ovid)

Informational Text

a. describe how the choice of a particular word, phrase, or series of words can impact significantly the meaning of a document (e.g., contract, court opinion, essay)
b. evaluate how the author's choice of structure contributes to the effectiveness of the exposition or argument
c. compare and contrast presentations of the same topic in different media and describe the differences in focus, organization, and links to other sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts and, when appropriate, note discrepancies of fact or interpretation (e.g., data in a table inconsistent with the author's analysis).
8. Rigorously evaluate the logic and reasoning of the text, including assessing whether the evidence provided is relevant and sufficient.
9. Analyze how the point of view or purpose develops in the text and explain how it is revealed in the key details.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. compare points of view from which different stories are told and trace how they shift within a story and influence characterization and plot
b. explain how dramatic irony created by the differences between what the audience or reader knows and what the characters know in a drama or narrative fiction creates suspense, anxiety, or humor

Informational Text

a. synthesize ideas and data presented graphically and determine their purpose and relationship to the rest of the text (print or digital), noting any inconsistencies or discrepancies between the two
b. evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the sufficiency and relevance of the evidence as well as identifying any unsubstantiated statements or fallacious reasoning
c. analyze documents of historical and literary significance for their premises, perspectives, and logical structure

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and are tailored to audiences with specific requirements (e.g., admissions officer, human resources officer, skeptical audience).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that synthesize multiple authoritative sources on a subject.
3. Analyze evidence independently gathered from multiple authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine their usefulness and relevance for the specific audience, purpose, and task.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Demonstrate command of technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 11: Analyzing the content of literary or informational sources at the 11-CCR grade band level of text complexity and content

   Grade 12: Synthesizing or evaluating the contents of literary or informational sources at the 11-CCR grade band level of complexity and content

Standards — Students can and do (by key text type):[32]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop complex subjects through judicious use of relevant and specific facts, details, quotations, examples, or other information
c. organize and present information so that each new piece of information builds upon what precedes it to create a unified whole
d. demonstrate command of discipline-specific and technical vocabulary when appropriate and adjust style as appropriate to the situation
e. demonstrate control of a range of strategies to present complex information or explanations and employ them effectively to manage the complexity of the topic and accomplish the writer's purpose
f. link ideas with transitions and by varying sentence structures to express the precise relationships among ideas and create cohesion
g. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish the importance of the issue, make a substantive claim, and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant, sufficient, and convincing evidence from credible sources in support of the reasons
d. make logical connections between the evidence and the claim
e. develop the argument in part based on an awareness of the audience's values, knowledge of the issue, and possible biases
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*)
g. maintain a formal style when appropriate to the discipline or context
h. enhance the credibility of the argument by demonstrating control of strategies, including paraphrasing or quoting from authoritative sources and citing logical consequences
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

[32] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence, adapting to different levels of formality.
2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by challenging or defending key ideas and supporting evidence.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having formulated considered judgments on the topics or issues under study and draw upon that preparation in discussions
b. evaluate the content and rhetoric of a speaker, noting when evidence is exaggerated or distorted
c. ask questions that probe the reasoning and evidence that support the claims and conclusions made orally or through other media, including offering counter examples or other points of view
d. propel conversations forward by providing essential information and sharing findings that clarify, accommodate, or challenge ideas
e. synthesize information presented visually or digitally with other information presented orally, noting the effect on meaning of any discrepancies between the two presentations
f. assist in the formulation and productive functioning of both formal and informal self-directed work groups by identifying and assigning tasks and maintaining conversational norms as well as evaluating the progress of the team towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information clearly and persuasively to others, selecting the most appropriate way to structure comments for clarity and effect.
4. Adapt delivery, tone, and mood for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present complex information about topics, situations, or texts, providing reliable and credible evidence from authoritative sources in support of findings and claims such that the line of reasoning is clear and alternative perspectives are addressed
b. shape delivery and message to the occasion and the audience's values, knowledge of the issue, and possible biases
c. engage an audience and improve comprehension through visual aids in presentations, including multimedia platforms

d. portray and explain various ways to perform dramatic readings of various prose and poetry, citing text evidence for the alternative readings

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons, colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

11. Use parallel structure in writing.
12. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

13. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light*[,] *blue suit*).
14. Use a comma, ellipses, or dash to indicate a pause or break.
15. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
16. Use a colon to introduce a list or a quotation.
17. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

18. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
19. Maintain consistency in style and tone.
20. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 11: Parallel structure and phrasing (Conventions Standards #1, #8)
Grade 12: Usage (Conventions Standard #2)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations, they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
    - using knowledge of roots, prefixes, and suffixes
    - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
    - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
    - using the word's history (etymology)
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

7. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
8. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use an extensive vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 11 English Language Arts: Focus for Instruction

Reading and Literature

In grade 11, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 11-CCR Band Text

Writing and Research

In grade 11, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 11-CCR grade band level of complexity and content.

Speaking and Listening

In grade 11, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 11, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

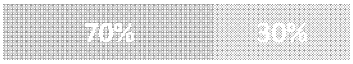
- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Parallel Structure and Phrasing
  - Use parallel structure in writing … (Conventions Standard #1)
  - Use various types of phrases… (Conventions Standard #8)

Grade 12 English Language Arts: Focus for Instruction

Reading and Literature

In grade 12, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently as well as on sustained practice with Beyond CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 11-CCR Band Text; 30% Beyond CCR text



Writing and Research

In grade 12, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by synthesizing or evaluating the contents of literary of informational sources of 11-CCR grade band level complexity and content.

Speaking and Listening

In grade 12, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 12, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Usage
  - Consult references … (Conventions Standard #2)

APPENDIX A

Text Complexity Next Steps

A key requirement of the Core Standards in Reading is that all students engage with texts of steadily increasing complexity as they advance through school. The Core Standards' model of *text complexity*—in the simplest terms, how easy or difficult a text is to read—blends qualitative and quantitative measures of inherent text difficulty with educators' knowledge of their students. All three elements should be considered together when evaluating a text's appropriateness for particular students.

Qualitative dimensions are aspects of text best measured by readers applying trained judgment to the evaluation task. These dimensions include the text's structure, format, and length; its purpose; its style and language; the quality, nature, and density of its ideas, concepts, and information; relationships among ideas, information, and characters in it; and the knowledge and experience demands it places upon readers.

Quantitative dimensions include not only those aspects of text traditionally measured by readability formulas—word length and sentence length—but also computer-assessable aspects of text cohesion. These include referential cohesion (the degree to which a text refers back to previous points) and word frequency.

The qualitative and quantitative measures of a text are balanced in the model by educators' *professional judgment* of the appropriateness of the text for particular students given their background knowledge, interests, and motivation. Harder texts may be appropriate for highly knowledgeable or motivated students, and easier texts may be suitable as a means for building struggling readers' skills up to required levels.

While the tools included in this draft and the forthcoming ones described below represent an important advance over those previously available, no measure or set of measures is perfectly accurate. The mandate is that the body of works that students study in a given year represent an appropriate level of complexity as defined by these standards.

Current and next steps

A qualitative rubric, derived from prior studies and refined through feedback from trained teacher-raters, is included in this draft to define some ways in which text complexity should increase as students move through the grades. The rubric can be used (in conjunction with forthcoming quantitative measures) to place individual texts into grade bands by complexity. The qualitative dimensions are best understood, however, as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

The Core Standards work team is presently conducting a study with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity. Graphically, these three elements will appear together in a "label" defining complexity for a given text.

Following the completion of that study in early 2010, the work team will oversee the development of a Web site designed to make the text complexity tools more user-friendly and broadly available. The site will contain a database of complexity information for a range of widely used texts, including links to texts and test passages of similar complexity. Educators will be able to input additional texts for evaluation and comment on the suitability of particular texts for particular groups of students. The overarching goal is to make text complexity a vital and easy-to-incorporate element of reading instruction.

Text Complexity Qualitative Scheme

Dimension of Text		Grade Span 2–3	4–5	6–8	9–10	11–12
Structure		Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short	Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length	Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects
Purpose		Single; explicitly stated	Single or twofold; clearly indicated	Single or multiple; subtly stated	Multiple; often implicit	Multiple; often implicit and may be hidden or obscure
Style and Language	Style	Familiar, accessible, plain; few literary devices	Moderately accessible; some literary devices	Moderately demanding; several literary devices	Demanding; many literary devices	Unfamiliar, demanding, complex; many literary devices
	Language	Mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language	Some everyday language; some use of Tier 2 and 3 words and figurative language	Consistent use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous
Richness		A few ideas/concepts; concrete; low information density	Some ideas/concepts; mostly concrete; moderate information density	Several ideas/concepts; mostly abstract; moderate information density	Several ideas/concepts; abstract; high information density	Many ideas/concepts; highly abstract; high information density
Relationships		A few connections; explicit; simple	Some connections; largely explicit	Several connections; largely implicit	Several connections; implicit	Many connections; implicit; complex and interwoven
Knowledge Demands	Life experiences (literary texts)	Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences	Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences	Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences	Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own	Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own
	Cultural/literary knowledge (chiefly literary texts)	General background knowledge and familiarity with genre conventions required		Cultural and historical knowledge useful for understanding characters, settings, and allusions		
	Content/discipline knowledge (chiefly informational texts)	Some everyday and general content knowledge	Some general and discipline-specific content knowledge	Some discipline-specific content knowledge	Extensive discipline-specific content knowledge	Extensive, perhaps specialized discipline-specific content knowledge

Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Structure

- Explicit, simple, conventional → Implicit, complex, unconventional
- Simple graphic representations → Sophisticated graphic representations
- Graphic representations supplementary to meaning → Graphic representations essential to meaning
- Relatively short texts → Texts sufficiently long to address complex subjects

Purpose

- Single purpose → Multiple purposes
- Explicitly stated → Often implicit and may be hidden or obscure

Style

- Familiar, accessible, plain → Unfamiliar, demanding, complex
- Few literary devices → Many literary devices

Language

- Mostly everyday language → Extensive use of Tier 2 and 3 words
- Limited use of figurative language → Extensive use of figurative language
- Clear language → Potentially ambiguous language

Richness

- A few ideas/concepts → Many ideas/concepts
- Concrete ideas/concepts → Abstract ideas/concepts
- Low information density → High information density

Relationships

- A few connections → Many connections
- Explicit connections → Implicit connections
- Simple connections → Complex, interwoven connections

Knowledge Demands: Life Experiences

- Simple themes → Complex themes
- Single theme → Multiple themes
- Common, everyday experiences and fantastical elements → Experiences distinctly different from one's own
- Single perspective like one's own → Multiple and unusual perspectives

Knowledge Demands: Cultural Knowledge

- General background knowledge and familiarity with genre conventions required → Cultural and historical knowledge useful

Knowledge Demands: Content/Discipline Knowledge

- Some everyday and general content knowledge → Extensive, perhaps specialized discipline-specific content knowledge

Definitions of Key Writing Types

Narrative

Narrative writing is organized by time. Time is central because narrative writing depicts events, whether real or imagined. Narrative writing is fundamental to novels, short stories, biographies, autobiographies, historical accounts, and plays. With practice, students' repertoire of narrative strategies expands and their control of them increases. Students learn to provide visual details of scenes, objects, or people; to depict specific actions (movements, gestures, postures, and expressions); to use dialogue and interior monologue in order to provide insight into the narrator's and characters' personalities and motives; and to manipulate pace in order to highlight the significance of certain events and create tension and suspense. Narrative writing serves a variety of purposes; frequently it is embedded in other kinds of writing, such as writing intended to inform, instruct, or persuade.

Informative/Explanatory Text

Informative/explanatory writing conveys information accurately. This kind of writing can serve one or more of several closely related purposes: to increase readers' knowledge of a subject, to help readers better understand a procedure or process, or to enhance readers' comprehension of a concept. Informative/explanatory writing addresses questions, such as questions about types (What are the different types of whales?), about components (What are the parts of a motor?), about aspects of a subject such as its size, function, or behavior (How big is the United States? What is an x-ray used for? How do penguins find food?), about how things work (How does a camera work?), and about why things happen (Why is Earth warming?). To produce this kind of writing, students draw on what they already know and on primary and secondary sources. With practice, students become better able to develop a controlling idea that supports coherence and focus, and they can select examples, facts, and details that are relevant. They are also able to employ a variety of techniques that writers use to convey information, such as naming, describing, or differentiating different types or parts; comparing or contrasting one subject with another; and relating an anecdote or scenario to illustrate a point.

Argument

The purpose of argument is to persuade in order to change the reader's point of view or to bring about some action on the reader's part. There are many techniques employed by writers to persuade readers—for example, appeals to emotions, appeals to common beliefs, and the creation of a believable authorial voice. However, the core of argument is logic and evidence. A logical argument convinces its audience of the merit and reasonableness of the claims and the proof offered in support of the claims. Writers of logical arguments provide credible evidence (facts and details) to support their assertions. Although young children are not able to produce fully developed logical arguments, they are developing a variety of ways to extend and elaborate their work around opinions or judgments. They provide examples, they offer reasons for their assertions, and they explain cause and effect. These kinds of expository structures are steps on the road to argument.

Conventions

Three goals undergird the Conventions standards:

(1) Students should have a carefully specified range of broadly useful terms in order to be precise in their discussions about language. Such key terms (noted below) should be defined in grade-appropriate ways for younger students and fleshed out more fully in later grades. (For guidance on this matter, see, for example, Brock Haussamen with Amy Benjamin, Martha Kolln, and Rebecca S. Wheeler, *Grammar Alive!: A Guide for Teachers* [Urbana, IL: NCTE, 2003] and Amy Benjamin with Tom Oliva, *Engaging Grammar: Practical Advice for Real Classrooms* [Urbana, IL: NCTE, 2007].) Additional terminology may be helpful in particular instructional situations; avoiding terminology altogether may be appropriate in others.
(2) Students must be able to observe the conventions of standard English in their formal writing and speaking for the sake of having their efforts widely understood and taken seriously.
(3) Students need to understand that effective language use is more than simply observing a series of rules but also about making careful choices among alternatives, considering those choices in relation to task, purpose, audience, occasion, and discipline.

Many conventions-related issues are likely to arise in students' writing and speaking prior to their formal appearance in the sequence below. For example, students in kindergarten are expected to know what a complete sentence is even though the concept of a fragment is not mentioned specifically in the standards until grade 3.

Conversely, many skills and understandings introduced at lower grades will require continued attention as students advance in the grades. Students in grade 3, for instance, can ensure subject-verb agreement in simple situations, such as when the subject and verb appear next to each other in a sentence. As students' writing and speaking become more complex, however, new agreement challenges arise, such as intervening phrases suggesting a different number for the verb than the subject calls for. "Errors" with applying previously mastered skills and understandings are thus often a sign of progress in that students are stretching their ability to communicate. "Relearning" is then a matter of students becoming able to apply old skills and understandings in new, more sophisticated ways.

While all the Conventions standards should be considered cumulative, certain ones, noted with an asterisk (*), are particularly likely to need to be revisited by older students as they convey ever more elaborate ideas in writing and speech.

ELA Conventions Progressive Skills: By Standard

The following standards, marked with an asterisk (*) in the standards document, are skills and understandings that require continued attention in higher grades (after their introduction in lower grades) as they are applied to increasingly sophisticated writing and speaking.

Grade 3	Grades 4–5	Grades 6–8	(Grade/band in which the standard is introduced)
3.1 Generate complete sentences, avoiding sentence fragments, comma splices, and run-ons.			
3.2 Ensure subject-verb and pronoun-antecedent agreement.			
3.7 Choose words for effect.			
	4–5.2 Recognize and correct inappropriate shifts in verb tense.		
	4–5.3 Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.		
	4–5.4 Correctly use frequently confused words.		
	4–5.5 Use idiomatic language.		
	4–5.7 Use punctuation to separate items in a series.		
	4–5.11 Spell grade-appropriate words correctly, consulting references as needed.		
	4–5.12 Use specialized, topic-specific language to convey ideas precisely.		
	4–5.13 Use figurative language to create images or make comparisons and connections between people, objects, or ideas.		
	4–5.14 Use punctuation for effect.		
	4–5.15 Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.		
		6-8.2 Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.	
		6-8.4 Recognize and correct inappropriate shifts in pronoun number and person.	
		6.8.5 Recognize and correct vague pronouns with unclear or ambiguous antecedents.	
		6-8.8 Recognize and correct inappropriate shifts in verb voice and mood.	
		6-8.9 Set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.	
		6-8.12 Vary sentence patterns for meaning, reader/listener interest, and style.	
		6-8.13 Choose words and phrases to express ideas precisely and concisely, avoiding redundancy and wordiness.	

Vocabulary Instruction

> Words are not just words. They are the nexus — the interface — between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.
>
> Marilyn Adams[33]

The importance of students acquiring a rich and varied vocabulary cannot be overstated. Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure to words they are trying to learn in a variety of contexts. When students make multiple connections between new words and their own experiences they develop a nuanced and flexible understanding of the word. In this way, students learn not only what a word means, but how to use that word in a variety of contexts and apply appropriate senses of the word's meaning in order to understand different contexts.[34]

Initially children readily learn words from oral conversation because oral conversations are context rich in ways that aid in vocabulary acquisition: in discussion a small set of words (accompanied by gesture and intonation) is used with great frequency to talk about a narrow range of situations children are exposed to on a day to day basis. Yet as children reach school age, new words are less frequently introduced in conversation, and consequently vocabulary acquisition eventually stagnates by fourth or fifth grade unless students acquire additional words from written context.[35]

Written language, by contrast, contains hundreds of times as many different words as are typically used in conversational language. Yet writing lacks the interactive opportunities and nonverbal context provided by oral conversation so it presents a special challenge towards successful vocabulary acquisition without purposeful and ongoing concentration on vocabulary.[36] In fact, at most, between five and fifteen percent of new words encountered when reading are retained.[37] The weaker a student's vocabulary is, the slighter the gain.[38] Yet research shows that if students are going to understand what they read, they must understand upward of 95 percent of the words. [39]

As this "tipping point" for lexical dexterity is quite challenging for students to reach, every classroom needs to focus on providing students with high quality contextual encounters with vocabulary words that epitomize what they encounter in written texts. The aim should be to expose students to words that have the widest application—concepts that students are likely to meet again and again not just in classroom settings but outside the school walls as well. Some of these highly transferable academic words, often referred to as Tier 2 words, such as qualifying adjectives and adverbs (e.g., important, typically) are used broadly across domains and indeed in contexts that

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[33]Adams, M. (2009). "The Challenge of Advanced Texts: The Interdependence of Reading and Learning," in Hiebert (Ed.), Reading more, reading better: Are American students reading enough of the right stuff?, New York: Guilford Publications.

[34]Landauer, TK, McNamara, DS, Dennis, S and Kintsch, W (2007) Handbook of Latent Semantic Analysis; Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review, 104(2)*, 211-240; Nagy, W. E., Herman, P., & Anderson, R. C. (1985). Learning words from context. *Reading* Research Quarterly, 20, 233-253.

[35] Hayes, D and Ahrens, M: "Vocabulary simplification for children: A special case of "motherese?" Journal of Child Language. Vol 15(2), Jun 1988, 395-410

[36] Ibid.

[37] Ibid.

[38] Daneman & Green, 1986; Herman, Anderson, Person &Nagy, 1987; Sternberg & Powell

[39] Betts, E. A. (1946). *Foundations of reading instruction.* New York, NY: American Book Company; Carver, R. P. (1994). Percentage of unknown vocabulary words in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Reading Behavior, 26,* 413-437; Hu, M., & Nation, P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language, 13(1),* 403-430; Laufer, B. (1988). What percentage of text-lexis is essential for comprehension. In C. Lauren & M. Nordmann (Eds.), *Special language: From humans to thinking machines,* pp. 316-323. Clevedon, UK: Multilingual Matters.

transcend the classroom.[40] However, the meanings of most words are specific to their domains—often referred to as Tier 3 words—including those that arise in multiple domains (e.g., chemical constituents, constituent voting patterns). To learn words, students have to read multiple selections from multiple authors within key domains of learning.

The problem is that, in any given instance, it is not the entire spectrum of a word's history, meanings, usages, and features that matters, but only those aspects that are relevant to the surrounding context. That means, first, that the reader's internal representation of the word must be sufficiently complete and well-articulated so that the intended meaning is available and, second, that the reader must understand the context well enough to select the intended meaning – which, in turn, depends on good understanding of the surrounding words of the passage.

Key to students' vocabulary development is building rich and flexible word knowledge. Students need plentiful opportunities to use and respond to the words they learn, through playful informal talk, discussion, and reading or being read to and responding to what is read. Along with attention to academic (Tier 2 words) and content-specific words (Tier 3 words), students benefit from instruction about the connections and patterns in language. Developing in students an analytical attitude toward the logic and sentence structure of their texts alongside an awareness of word parts, word origins, and word relationships provides students with a sense of how language works so that syntax, morphology and etymology can become useful cues to word in building meaning as students encounter new words and concepts in their reading.[41] As students are exposed to and interact with language throughout their school careers, they are able to acquire understandings of word meanings, build awareness of the workings of language, and apply word meanings to comprehend and produce language.

[40] Indeed, the fact that these words transcend specific disciplines argues for them being taught and used across the curriculum by all teachers.

[41] Beck, I. L., McKeown, M. & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples.*

APPENDIX B

Exemplars of Reading Text Complexity and Quality, ELA K–12

Selecting Text Samples

The following text samples primarily serve to exemplify the level of complexity and quality that the *Standards* require all students in a given grade band to engage with while additionally suggesting the breadth of text types that students should encounter. The choices should serve as useful guideposts in helping educators select texts of similar **complexity**, **quality**, and **breadth** for their own classrooms. The process of text selection was guided by these criteria in the following fashion:

- *Complexity*. Appendix A describes in detail a three-part model of measuring text complexity based on qualitative and quantitative indices of inherent text difficulty balanced with educators' professional judgment. In selecting texts to serve as exemplars, the work group began by soliciting contributions from teachers, educational leaders, and researchers who have experience working with students in the grades for which the texts have been selected. These contributors were asked to propose texts that they or their colleagues have used successfully with students in a given grade band. The work group made final selections based in part on whether qualitative and quantitative measures identified by the *Standards* indicated that the proposed texts were of sufficient complexity for the grade band. For those types of texts—particularly poetry and multimedia sources—for which these measures are not as well suited, professional judgment necessarily played a greater role in selection.

- *Quality*. While it is possible to have high-complexity texts of low inherent quality, the work group solicited only texts of recognized value. From the pool of submissions gathered from outside contributors, the work group selected classic or historically significant texts as well as contemporary works of comparable literary merit, cultural significance, and/or content richness.

- *Breadth*. After identifying texts of appropriate complexity and quality, the work group applied a range of secondary criteria to ensure that the samples presented in each band represented as broad a range of sufficiently complex, high-quality texts as possible. Among the factors considered were initial publication date, authorship, and subject matter.

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Please note that these texts are included solely as exemplars in support of the *Standards*. Any additional use of those texts that are not in the public domain, such as for classroom use or curriculum development, requires independent permission from the rights holders. The texts may not be copied or distributed in any way other than as part of the overall Common Core Standards Initiative document.

Organization and Excerpting

Texts are organized first by category, with narrative texts followed by drama and poetry and then the informational texts. Within each category, the texts are organized by date, usually of first publication, beginning with the oldest and ending with the most recent. In some cases, the date of any given work may be open to debate.

The excerpts given here are meant to stand in for the full work in most instances. Works that are not in the public domain may be represented by short excerpts or snippets while the work group awaits permission from the rights holders for full use.

Media Texts

Selected excerpts are accompanied by annotated links to related media texts available online at the time of the publication of this document.

Kindergarten to Grade 1 Exemplar Texts

Narratives

Little Bear by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)

Are You My Mother? by P. D. Eastman (1960)

The Fire Cat by Esther Averill (1960)

Green Eggs and Ham by Dr. Seuss (1960)

Put Me in the Zoo by Robert Lopshire (1960)

Frog and Toad Together by Arnold Lobel (1971)

Owl at Home by Arnold Lobel (1975)

Henry and Mudge: The First Book of Their Adventures by Cynthia Rylant, illustrated by Suçie Stevenson (1987)

Poppleton in Winter by Cynthia Rylant, illustrated by Mark Teague (2001)

Cowgirl Kate and Cocoa by Erica Silverman, illustrated by Betsy Lewin (2005)

Poetry

"Mix a Pancake" by Christina G. Rossetti (1893)

"Singing-Time" by Rose Fyleman (1919)

"Halfway Down" by A. A. Milne (1924)

"As I Was Going to St. Ives" by Unknown, collected by Peter and Iona Opie (1951)

"Drinking Fountain" by Marchette Chute (1957)

"Poem" by Langston Hughes (1958)

"Wouldn't You?" by John Ciardi (1961)

"In the Falling Snow" by Richard Wright (1973)

"Covers" by Nikki Giovanni (1980)

"It Fell in the City" by Eve Merriam (1985)

"Celebration" by Alonzo Lopez (1993)

"Two Tree Toads" by Jon Agee (2009)

Informational Texts

A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)

My Five Senses by Aliki (1962)

Starfish by Edith Thacher Hurd, illustrated by Robin Brickman (1962)

What Do You Do With a Tail Like This? by Steve Jenkins & Robin Page (2003)

From Seed to Pumpkin by Wendy Pfeffer, illustrated by James Graham Hale (2004)

Mouse in a Meadow by John Himmelman (2005)

Petting Zoo by Dorling Kindersley (2005)

Meet the Meerkat by Darrin Lunde, illustrated by Patricia J. Wynne (2007)

"The Forest in Spring" in National Geographic Young Explorer! April 2009 (2009)

"Our Good Earth" in National Geographic Young Explorer, April 2009 (2009)

Read-Aloud Narratives

The Wonderful Wizard of Oz by L. Frank Baum (1900)

Little House in the Big Woods by Laura Ingalls Wilder, illustrated by Garth Williams (1932)

Mr. Popper's Penguins by Richard Atwater (1938)

Finn Family Moomintroll by Tove Jansson, translated by Elizabeth Portch (1948)

A Story A Story by Gail E. Haley (1970)

The Paper Crane by Molly Bang (1985)

Read-Aloud Poetry

"The Owl and the Pussycat" by Edward Lear (1871)

"April Rain Song" by Langston Hughes (1932)

"The Fox's Foray" – Traditional rhyme in Opie / *The Oxford Nursery Rhyme Book* (1955)

Over in the Meadow by John Langstaff, illustrated by Feodor Rojankovsky (1957)

Zin! Zin! Zin! a Violin by Lloyd Moss, illustrated by Marjorie Priceman (1995)

Read-Aloud Informational Texts

The Year at Maple Hill Farm by Alice and Martin Provensen (1978)

Fire! Fire! by Gail Gibbons (1984)

Follow the Water from Brook to Ocean by Arthur Dorros (1991)

Amazing Whales! by Sarah L. Thomson (2005)

Living Sunlight: How Plants Bring the Earth to Life by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

Grades 2–3 Exemplar Texts

Narratives

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Crow Boy by Taro Yashima (1955)

Amos & Boris by William Steig (1971)

The Treasure by Uri Shulevitz (1978)

The Stories Julian Tells by Ann Cameron (1981)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

Tops and Bottoms by Janet Stevens (1995)

The Raft by Jim LaMarche (2000)

The Lighthouse Family: The Storm by Cynthia Rylant, illustrated by Preston McDaniels (2002)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

Poetry

"Autumn" by Emily Dickinson (1893)

"Who Has Seen the Wind" by Christina G. Rossetti (1893)

"Afternoon on a Hill" by Edna St. Vincent Millay (1917)

"Stopping by Woods on a Snowy Evening" by Robert Frost (1923)

"Something Told the Wild Geese" by Rachel Field (1934)

"Grandpa's Stories" by Langston Hughes (1958)

"A Bat Is Born" by Randall Jarrell (1964)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Weather" by Eve Merriam (1969)

"Eating While Reading" by Gary Soto (1995)

Informational Texts

A Medieval Feast by Aliki (1983)

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Throw Your Teeth on the Roof: Tooth Traditions Around the World by Selby B. Beeler, illustrated by G. Brian Karas (1998)

So You Want to Be President? By Judith St.George, illustrated by David Small (2000)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

Where Do Polar Bears Live? by Sarah L. Thomson, illustrated by Jason Chin (2010)

Read-Aloud Narratives

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

The Thirteen Clocks by James Thurber (1950)

The Cricket in Times Square by George Selden, illustrated by Garth Williams (1960)

The Search for Delicious by Natalie Babbitt (1969)

Bud, Not Buddy by Christopher Paul Curtis (1999)

Read-Aloud Poetry

"The Jumblies" by Edward Lear (1871)

"The Pied Piper of Hamelin" by Robert Browning (1888)

"Your World" by Georgia Douglas Johnson (1918)

"The Song of the Jellicles" by T.S. Eliot (1939)

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Read-Aloud Informational Texts

Lincoln: A Photobiography by Russell Freedman (1987)

A Drop of Water: A Book of Science and Wonder by Walter Wick (1997)

The Museum Book: A Guide to Strange and Wonderful Collections by Jan Mark, illustrated by Richard Holland (2007)

What the World Eats by Faith D'Aluisio, photographed by Peter Menzel (2008)

Wild Tracks! A Guide to Nature's Footprints by Jim Arnosky (2008)

Grades 4–5 Exemplar Texts

Narratives

Alice in Wonderland by Lewis Carroll (1865)

The Secret Garden by Frances Hodgson Burnett (1911)

The Black Stallion by Walter Farley (1941)

The Little Prince by Antoine de Saint-Exupery (1943)

Tuck Everlasting by Natalie Babbitt (1975)

"Zlateh the Goat" by Isaac Bashevis Singer (1984)

M. C. Higgins, the Great by Virginia Hamilton (1993)

The Birchbark House by Louise Erdrich (1999)

Bud, Not Buddy by Christopher Paul Curtis (1999)

[Also a read-aloud narrative at Grades 2–3]

Where the Mountain Meets the Moon by Grace Lin (2009)

Poetry

"The Echoing Green" from *Songs of Innocence* by William Blake (1789)

"The New Colossus" by Emma Lazarus (1883)

"Casey at the Bat" by Ernest Lawrence Thayer (1888)

"A Bird Came Down the Walk" by Emily Dickinson (1893)

"Fog" by Carl Sandburg (1916)

"Dust of Snow" by Robert Frost (1923)

"Little Red Riding Hood and the Wolf" by Roald Dahl (1982)

"They Were My People" by Grace Nichols (1988)

"Words Free As Confetti" by Pat Mora (1996)

Informational Texts

Discovering Mars by Melvin Berger (1992)

Let's Investigate Marvelously Meaningful Maps by Madelyn Wood Carlisle (1992)

Hurricanes: Earth's Mightiest Storms by Patricia Lauber (1996)

The Kid's Guide to Money by Steve Otfinoski (1996)

Toys: Amazing Stories behind Some Great Inventions by Don Wulffson (2000)

"Good Pet, Bad Pet" by Elizabeth Schleichert from *Ranger Rick* (2002)

"Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003)

About Time: A First Look at Time and Clocks by Bruce Koscielniak (2004)

England the Land by Erinn Banting (2004)

A History of US by Joy Hakim (2005)

My Librarian Is a Camel by Margriet Ruurs (2005)

Horses by Seymour Simon (2006)

Quest for the Tree Kangaroo by Sy Montgomery (2006)

Volcanoes by Seymour Simon (2006)

We Are the Ship: The Story of Negro League Baseball by Kadir Nelson (2008)

"Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009)

"Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)

"Computer" from *Britannica Junior Encyclopedia* (2010)

"Telescopes" by Ronan, Colin A. from *The New Book of Knowledge* (2010)

"Underground Railroad" by Henrietta Buckmaster from *The New Book of Knowledge* (2010)

Grades 6–8 Exemplar Texts

Narratives

Little Women by Louisa May Alcott (1869)

The Adventures of Tom Sawyer by Mark Twain (1876)

A Wrinkle in Time by Madeline L'Engle (1962)

The Dark is Rising by Susan Cooper (1973)

Dragonwings by Laurence Yep (1975)

Roll of Thunder, Hear My Cry by Mildred Taylor (1976)

"The People Could Fly" from *The People Could Fly: American Black Folktales* by Virginia Hamilton (1985)

The Tale of the Mandarin Ducks by Katherine Paterson (1990)

"Eleven" from *Woman Hollering Creek: And Other Stories* by Sandra Cisneros (1992)

Black Ships Before Troy: The Story of the Iliad by Rosemary Sutcliff (1993)

Drama

A Midsummer Night's Dream by William Shakespeare (1596)

The Diary of Anne Frank by Frances Goodrich and Albert Hackett (1958)

Poetry

"Paul Revere's Ride" by Henry Wadsworth Longfellow (1861)

"O Captain, My Captain" by Walt Whitman (1865)

"Jabberwocky" by Lewis Carroll (1872)

"Twelfth Song of Thunder" from *The Mountain Chant: A Navajo Ceremony* Navajo tradition (1887)

"The Railway Train" by Emily Dickinson (1893)

"The Song of Wandering Aengus" by W. B. Yeats (1899)

"Chicago" from *Chicago Poems* (1914) by Carl Sandburg

"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)

"I, Too" by Langston Hughes (1925)

"The Book of Questions" by Pablo Neruda (1973) translated by William O'Daly

"Oranges" from *Black Hair* (1985) by Gary Soto

"A Poem for My Librarian, Mrs. Long" from *Acolytes* (2007) by Nikki Giovanni

Informational Texts (English Language Arts)

"Allegory of the Cave" from *The Republic* by Plato (380 BCE) translated by G.M.A. Grube

"Letter on Thomas Jefferson" by John Adams (1822)

Narrative of the Life of Frederick Douglass an American Slave by Frederick Douglass (1845)

"Gettysburg Address" by Abraham Lincoln (1863)

"Lee Surrenders to Grant" by Horace Porter (1865)

"Blood, Toil, Tears and Sweat" by Winston Churchill (1940)

Travels with Charley: In Search of America by John Steinbeck (1962)

"Address to the Nation on Civil Rights" by John F. Kennedy (1963)

I Know Why the Caged Bird Sings by Maya Angelou (1969)

"Address to Students at Moscow State University" by Ronald Reagan (1988)

Grades 9-10 Exemplar Texts

Narratives

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

"The Nose" by Nikolai Gogol (1836) translated by Ronald Wilks

"The Gift of the Magi" by O. Henry (1906)

The Grapes of Wrath by John Steinbeck (1939)

Fahrenheit 451 by Ray Bradbury (1953)

"I Stand Here Ironing" by Tillie Olsen (1956)

The Killer Angels by Michael Shaara (1975)

The Joy Luck Club by Amy Tan (1989)

In the Time of the Butterflies by Julia Alvarez (1994)

The Book Thief by Marcus Zusak (2005)

Drama

The Tragedy of Romeo and Juliet by William Shakespeare (1592)

The Glass Menagerie by Tennessee Williams (1944)

Rhinoceros by Eugene Ionesco (1959) translated by Derek Prouse

Master Harold…and the Boys by Athol Fugard (1982)

Poetry

"Song" by John Donne (1635)

"Ozymandias" by Percy Bysshe Shelley (1810)

"The Raven" by Edgar Allen Poe (1845)

"We Grow Accustomed to the Dark" by Emily Dickinson (1893)

"Loveliest of Trees" by A. E. Houseman (1896)

"Lift Ev'ry Voice and Sing" by James Weldon Johnson (1900)

"Domination of Black" by Wallace Stevens (1916)

"Yet Do I Marvel" by Countee Cullen (1925)

"Women" by Alice Walker (1970)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Informational Texts (English Language Arts)

"Preface to Lyrical Ballads" by William Wordsworth (1800)

"Speech to the Second Virginia Convention" by Patrick Henry (1775)

"Second Inaugural Address" by Abraham Lincoln (1865)

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"I Am an American Day Address" by Learned Hand (1944)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)

"Nobel Prize Acceptance Speech" by Elie Wiesel (1986)

"A Quilt of a Country" by Anna Quindlen (2001)

Grades 11-12 Exemplar Texts

Narratives

Pride and Prejudice by Jane Austen (1813)

Jane Eyre by Charlotte Brontë (1848)

"At Home" by Anton Chekov (1887) translated by Constance Garnett

The Great Gatsby by F. Scott Fitzgerald (1925)

As I Lay Dying by William Faulkner (1930)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

Black Boy by Richard Wright (1945)

The Adventures of Augie March by Saul Bellow (1949)

The Bluest Eye by Toni Morrison (1970)

Dreaming in Cuban by Cristina García (1992)

The Namesake by Jhumpa Lahiri (2003)

Drama

Macbeth by William Shakespeare (c1611)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

A Raisin in the Sun by Lorraine Hansberry (1959)

Poetry

"A Valediction Forbidding Mourning" by John Donne (1633)

"Ode on a Grecian Urn" by John Keats (1820)

"Song of Myself" from *Leaves of Grass* by Walt Whitman (c1860)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

"Mending Wall" by Robert Frost (1914)

"Ode to My Suit" by Pablo Neruda (1954) translated by Margaret Sayers Peden

"Sestina" by Elizabeth Bishop (1983)

"The Latin Deli: An Ars Poetica" by Judith Ortiz Cofer (1988)

"Demeter's Prayer to Hades" by Rita Dove (1995)

"Man Listening to Disc" by Billy Collins (2001)

Informational Texts (English Language Arts)

The Declaration of Independence by Thomas Jefferson (1776)

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Society and Solitude" by Ralph Waldo Emerson (1857)

"The Fallacy of Success" by G.K. Chesterton (1909)

The American Language by H.L. Mencken (1938)

"Politics and the English Language" by George Orwell (1946)

"Abraham Lincoln and the Self-Made Myth" by Richard Hofstadter (1948)

"Letter from Birmingham City Jail" by Martin Luther King, Jr. (1963)

"Mother Tongue" by Amy Tan (1990)

"Take the Tortillas Out of Your Poetry" by Rudolfo Anaya (1995)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

What follows is a sample of sources consulted in the drafting of the Core Standards for Reading, Writing, and Speaking and Listening. Citations are organized by the standard to which they pertain. For example, all sources with specific relevance to reading standard #1 are listed below that standard. Each citation contains a link to the section of the source document that is relevant to the core reading, writing, or speaking and listening standard to which it corresponds. For more information on sources and how they were used in the drafting of the core standards, please refer to the "College and Career Readiness Standards for Reading, Writing, and Speaking and Listening."

Reading Evidence

Reading 1. Determine both what the text says explicitly and what can be inferred logically from the text.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #2 "Making inferences and drawing conclusions")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4 and #15).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College Board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")
- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see sample task "Review Commercial Real Estate Loan Application," Banking/Loan Officer; see sample task "Review claim letter," Insurance/Claims Agent)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.a)

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B6, B7)
3. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.4.a, Higher; 5.5.a, Ordinary)
4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (see 1.4, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.d, 8.2.d, 8.3.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Levels 2 and 4) (PISA 2006, Vol. 1, full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*. Paris, France: Organization for Economic Cooperation and Development. (pgs. 112-115, esp. pg.114 "Retrieving Information")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention, bullet 14)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see 1.A.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.5, Grades 11-12, 2.0 Reading Comprehension Grades 11-12, 2.2.a-e Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text, General Standard 12: Fiction, General Standard 13: Nonfiction)

U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009*. Washington, DC: National Assessment Governing Board. (see "Locate and Recall," see "Integrate and Interpret," see Basic and Advanced – Literary; Proficient – Informational)

Reading 2. Support or challenge assertions about the text by citing evidence in the text explicitly and accurately.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #6, pgs. 102-103)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #7 "Justifying a personal interpretation of a text through specific references")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4 and #15).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP 5 high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30 2.3.2.b and 30.3.2.3.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B8)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (see 1.4 &1.7, Grade 12 Reading & Literature Studies)
    4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 4; Unit 3, Outcome 1, Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.d)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (see pg. 115, "Reflecting on and Evaluating the Content of a Text")

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2009). *Reading Framework for the 2009 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Proficient-Informational bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.4, Reading Comprehension Grades 11-12; 2.2.b, Grades 9-10, 3.2 Literary Response and Analysis Grades 11-12, 2.2.c Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework,* June 2001. (see 8.30, General Standard 11: Theme, 11.5, 11.7; General Standard 13: Nonfiction;General Standard 15: Style and Language)

Reading 3. Discern the most important ideas, events, or information, and summarize them accurately and concisely.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- *Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices. New York, NY: College Entrance Examination Board* (see pg. 7- skills rated by importance to post-secondary instructors- skill #1 "Identifying and/or summarizing the theme or central argument of a text," skill #4 "Understanding and paraphrasing points made in a text")
- ACT (2006), *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #6).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Task #5, pg. 82-83)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 3 on pg. 13; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B6, B7)
3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullet 2)
4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a; 4.1.1.c)
5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.b, 8.2.b, 8.3.a)

- Organization for Economic Cooperation and Development. (2006). PISA 2006: *Science Competencies for Tomorrow's World, Vol. 1* (see pg. 291, example PISA item "Runners") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (see pg. 114, "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Making the Reading/Writing Connection bullet 2; Reading Competencies, Comprehension and Retention bullets 1, 2 and 5)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall", see Basic-Informational bullet 1)

Reading 4. Delineate the main ideas or themes in the text and the details that elaborate them.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- ACT (2006), *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #6).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Task #5, pg. 82-83)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.b; 10/20/30.2.3.2.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see B6, B7)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullet 2)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3 and 1.6, Grade 12 Reading & Literature Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Knowledge 1; Unit 2, Outcome 1, Key Skill 2; Unit 3, Outcome 2, Key Knowledge 2)
- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.a-b)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11)
    (Did not participate in PISA) (see 8.1.b-c, 8.2.b; 9.1.c)

- Organization for Economic Cooperation and Development. (2006). PISA 2006: *Science Competencies for Tomorrow's World, Vol. 1* (see pg. 291, example PISA item "Runners") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris,

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

France: Organization for Economic Cooperation and Development. (see pg. 114, "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F2 - in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Reading Competencies, Comprehension and Retention bullets 5 and 6, Listening bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** English Language Arts Curriculum Framework, June 2001. (see General Standard 8: Understanding a Text, 8.30; General Standard 11: Theme, 11.5, 11.6, 11.7)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall")

Reading 5. Determine when, where, and why events unfold in the text, and explain how they relate to one another.

College Readiness

- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #11, #14, #21, #24).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 6. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10.)
- *Florida American Diploma Project Survey Results.* (see row 20. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Sequential, Comparative, and Cause-Effect Relationships")
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see points 1 and 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.b)
2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1)
3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullets 3 and 10; Language Development bullet 2, dash 2)
4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.b, Higher Level)
5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.a; 2.2.k)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Level 3)(PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Developing an Interpretation")

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2009). *Reading Framework for the 2009 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Proficient – Literary bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.4)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 3.6, Reading Comprehension Grades 9-10)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 13: Nonfiction, 13.25, 13.27)

Reading 6. Analyze the traits, motivations, and thoughts of individuals in fiction and nonfiction based on how they are described, what they say and do, and how they interact.

College Readiness

- ACT (2008) *College Readiness Standards.* Iowa City IA (see p. 21: Sequential, Comparative, and Cause-Effect Relationships)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.d; 30.2.3.1.c; 20/30.2.3.2.d; 10/20/30.5.1.1.c)
    2. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Knowledge 1)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.d; 8.2.d)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, H8– in 9 of 12 states analyzed)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.4)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient bullets 1 and 3 and Advanced bullet 3- Literary, see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see Reading 3.3, 3.4, grades 9-10)

Reading 7. Determine what is meant by words and phrases in context, including connotative meanings and figurative language.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #6, pgs. 102-103)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional*

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Practices. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #8 "Determining the meaning of unfamiliar words from context," skill #18 "Understanding figurative language…")

- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted to clarify which skills are most important to post-secondary instructors, see skill #7, skill #19).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Language 4. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Meaning of Words")
- ACT (2009) See ACT WorkKeys "Reading for Information" Level 5 requirements (Level 5 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pg. 11, point d; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see B6; B13)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (Listening, bullet 8; Reading, bullets 1 and 12)
    5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12, see 3.1-3.3, Reading and Literature Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 1, Key Knowledge 4)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.d)

Illustrative Alignment with State and Other Standards

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention bullet 15; Listening bullet 3)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.B.3)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Vocabulary Assessment on the 2009 Reading Assessment," see pg. 47 "Preliminary Achievment Levels: Vocabulary")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (General Standard 4: Vocabulary and Concept Development, 4.23)

Reading 8. Analyze how specific word choices shape the meaning and tone of the text.

College Readiness

- *Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices. New York, NY: College Entrance Examination Board* (see pg. 7- skills rated by importance to post-secondary instructors- skill #14: "Understanding words that have multiple definitions," skill #17: "Distinguishing between connotative and denotative meanings of words," skill #20: "Identifying the tone of the the text.")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #7, #10, and #19).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.f; 20.2.1.2.e; 30.2.2.2.b and c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B13)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1; AI 5.CC.3)
    4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.3.1.a; 4.1.1.h)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) Outcome 4; C-4, 4.1, 4.2, 4.3, HSC; C-4, 4.1, 4.2, Preliminary and C-7.1, Preliminary)
6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Reading and Literature)
7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 2, Key Knowledge 1)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.j; 2.2.m)
2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 6.b)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF).

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, A6- in 11 of 12 states analyzed)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.2 Reading Comprehension Grades 11-12; 3.3 Literary Response and Analysis Grades 11-12, 2.2.d Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 14.6; and General Standard 15: Style and Language, 15.7, 15.10)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient - Literary bullet 4, see "Critique and Evaluate")

Reading 9. Analyze how the text's organizational structure presents the argument, explanation, or narrative.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional*

Practices. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #3 "Understanding organizational strategies such as introduction, supporting examples, summary")

- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #6, #10, #12).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.2.1.a; 30.2.2.1.c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B12)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1)
    4. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading, bullet 10)
    5. **Ireland**: *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.b; 4.4.1.c; 4.1.1.h; 5.5.b, Ordinary Level; 5.4.c, Higher Level)
    6. **New South Wales, Australia**: *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-4, 4.1, 4.2)
    7. **Ontario, Canada**: *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.6, Grade 12 Reading and Literature)
    8. **Victoria, Australia**: *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 4, Outcome 2, Key Knowledge 1 and Skill 1; Unit 1, Outcome 1, Key Skills 1 and 4; Unit 1, Outcome 2, Key Knowledge 1 and 2; Unit 2, Outcome 1, Key Knowledge 2 and 4 and Skill 1; Unit 3, Outcome 1, Key Knowledge 2 and Skill 1; Unit 2, Outcome 3, Key Knowledge 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England**: *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.k)
    2. **Singapore**: *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 6.b, 7.c)

- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*. Paris, France: Organization for Economic Cooperation and Development. (pg. 116, "Reflecting on and Evaluating the Form of a Text")
- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (See pg. 289, example PISA item "Graffiti") (PISA

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2006, Vol. 1 full PDF)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools* (see Reading 2.2, grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 13: Nonfiction 13.25, 13.27)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Critique and Evaluate")

Reading 10. Analyze how specific details and larger portions of the text contribute to the meaning of the text.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #6 "Identifying the purpose of a portion of the text")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #10, #12, #16).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.b; 10/20/30.2.3.2.f)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1)
    3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.a)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Level 3) (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills. Paris, France: Organization for Economic Cooperation and Development.* (see pgs. 112-115, esp. pg.114 "Retrieving Information," and "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F2- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention bullet 6; Reading Competencies, Depth of Understanding bullet 4)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall", see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.2.a-e, Writing Applications Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text, 8.33, 8.34, General Standard 15: Style and Language, 15.8)

Reading 11. Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension.

College Readiness

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #2, pgs. 92-93; sample post-secondary assignment #3, pgs. 94-97)
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Informational Text 5. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see Row 28. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Tasks #1-4, pgs. 74-81.)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See point 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 3 "Data Representation and Statistical Thinking"- WorkKeys Column, Skill 3)
- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see sample task "Build wall frame and building ramp," Construction/Carpenter; sample task "Draft memo to all employees," Hotel/Guest Services Manager; see also F5 for the occupational tasks for which this skill is important.)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B12)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Numeracy Skills, Senior Secondary, bullet 2 and 1 and 2)
    3. **Ontario, Canada**: *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.1, Grade 12 Reading and Literature)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore**: *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.a)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 290, example PISA item "Lake Chad," and pg. 288 example PISA item "Labour") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris,

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

France: Organization for Economic Cooperation and Development. (pgs. 110-111, "Non-Continuous Texts")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F5- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.F.1 and I.F.2)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Procedural Texts and Documents", see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.1, Reading Comprehension Grades 9-10)

Reading 12. Extract key information efficiently in print and online using text features and search techniques.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Research 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see Row 10. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10/20/30.3.2.1.b, 10/20/30.2.1.4.a)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see B6)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4)
- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.a, 8.1.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.1, Reading Comprehension Grades 9-10)

Reading 13. Ascertain the origin, credibility, and accuracy of print and online sources.

College Readiness

- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #5).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Research 3. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see row 18. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (see sample Workplace Task #5, see sample Workplace Task #6, pg. 82-85)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 13; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.2.a, 10/20/30.3.2.2.c, 10/20/30.3.2.2.d)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4)
    3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.5, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.f)

2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.f)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, E4- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies – Style/Expression bullet 4 and Technological Competencies bullet 7)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.B.5 and III.B.7*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.3, Reading Comprehension, Grades 11-12, 2.4, Writing Applications Grades 11-12)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Multiple Texts")

Reading 14. Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #5, pgs. 100-101)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #5 "Distinguish fact from opinion," skill #10 "Identifying logical flaws or discrepancies in an author's argument)
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #5, #8, #9, #12, #17, #18, #20).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Logic 4. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP European and World History Course Descriptions* (2009), New York, NY: College Board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample workplace task #6, pg. 84-85)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 13 and point 2 on pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.2.2.d, 10/20/30/3.2.2.c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B9)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.CC.1 and 3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullets 4, 6, 7 and 13; Critical Thinking bullets 1 and 5)
    5. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.a-c)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Knowledge 1 and Skills 1 and 2; Unit 3, Outcome 2, Key Knowledge 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.c and 2.2.f)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.e, 7.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (See pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Reflecting on and Evaluating the Content of a Text")

Illustrative Alignment with State and Other Standards

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, E4– in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success bullet 5)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.B.7*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see Reading 2.8, grades 9-10; Reading 2.6, grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 8.31 and 8.34, and 13.24, 13.26; and General Standard 13: Nonfiction)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient bullet 5 and Advanced bullets 1, 3 and 5 – Informational, see "Critique and Evaluate")

Reading 15. Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #19 "Comparing and contrasting two texts")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #25).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.
- *Florida American Diploma Project Survey Results.* (see row 23. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.5.d, Ordinary; 4.4.1.f and 5.4.d, Higher)

2. **New South Wales, Australia:** *English Stage 6 Syllabus,* 1999 (Grades 11-12) (see Outcome 2; C-2, 2.1, 2.2, 2.3, Preliminary; C-1.1, C-2, 2.1, 2.2, 2.3, HSC)
3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.m and 2.2.n, 1.4.b)

- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Developing an Interpretation")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection bullet 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.5)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 3.5, Reading Comprehension grades 9-10, 2.4.b Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 10.5, 11.7, 15.10)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Advanced - Literary bullet 4, see "Multiple Texts", see"Integrate and Interpret")

Reading 16. Draw upon relevant prior knowledge to enhance comprehension, and note when the text expands on or challenges that knowledge.

College Readiness

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10/20/30.2.1.3.a , 20.2.1.3.a, 30.2.1.3.b, 30.3.2.3.a, 10/20/30.2.1.1.d)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007 (Grade 12) (see B5)
3. **Ontario, Canada:** *The Ontario Curriculum,* English, 2007 (see 1.2 and 1.5 Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.e, 8.1.d and 8.2.e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection bullet 3)

Reading 17. Apply knowledge and concepts gained through reading to build a more coherent understanding of a subject, inform reading of additional texts, and to solve problems.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted to clarify which skills are most important to post-secondary instructors, see skill #9, #22, #23, #25).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2, "Sequential, Comparative, and Cause-Effect Relationships," WorkKeys Column, Points 1 and 2)
- ACT (2009) See ACT WorkKeys "Reading for Information" Level 5 requirements (Level 5 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 1, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.e)
2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.f)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. (see pg. 17, E8– in 10 of 12 states analyzed)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (2.3, Reading Comprehension Grades 11-12)

Reading 18. Demonstrate facility with the specific reading demands of texts drawn from different disciplines, including history, literature, science, and mathematics.

Disciplinary Literacy Research

The following are a few seminal works of research on disciplinary literacy, which is at the heart of this standard. The sources below cannot be categorized as college or career readiness materials or evidence from a set of standards. Rather, it is general research that provides insight into the field of disciplinary literacy.

- Carnegie Council on Advancing Adolescent Literacy. (2010). *Time to act: An agenda for advancing adolescent literacy for college and career success*. New York, NY: Carnegie Corporation of New York.
- Fang, Z., & Schleppegrell, M. J. (2008). *Reading in secondary content areas.* Ann Arbor: University of Michigan Press.
- Lee, C.D., Spratley, A. (2010). *Reading in the disciplines: The challenges of adolescent literacy.* New York, NY: Carnegie Corporation of New York.
- Moje, E. B., Young, J. P., Readence, J. E., & Moore, D. W. (2000). Reinventing adolescent literacy for new times: Perennial and millennial issues. *Journal of Adolescent and Adult Literacy, 43*, 400–410.
- Schleppegrell, M. J. (2004). *The language of schooling: A functional linguistics perspective.* Mahwah, NJ: Lawrence Erlbaum Associates.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review, 78,* 40–59.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Writing Evidence

Writing 1. Establish and refine a topic or thesis that addresses the specific task and audience.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #12, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15, #23).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Research 1 and Writing 3; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see rows 5 and 12; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point *b* on pg. 24; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.1.1.a and 10/20/30.3.1.1.c)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 5.O.3 and AI 8.CC.3)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.1 and 1.2, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- *Intersegmental Committee of the Academic Senates (ICAS).* (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Writing Competencies, Invention, bullet 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.1 & III.A.1)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (1.0, Writing Strategies Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 2. Gather the information needed to build an argument, provide an explanation, or address a research question.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Research 2; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 10; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pgs. 22-25; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.b)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see C6)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4 and AI 2.CC.3; AI 5.O.3)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-10.3, HSC)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection, bullet 6)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.A.2, III.B)

Writing 3. Sustain focus on a specific topic or argument.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #12).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #1).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.4.1.3.c and 20.4.1.3.e; 20/30.4.2.1.a; 10/20.4.2.2.d)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 8.O.2)
    3. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 4, Outcome 1, Key Skill 1)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.d-e)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b; 4.e; 5.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2007). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guides Level 6 "To Persuade"; "To Explain"; "To Convey Experience")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 4. Support and illustrate arguments and explanations with relevant details, examples, and evidence.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #4).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #3).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.4.1.3.e and 20/30.4.1.3.g)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C7; C8)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide, 2007*. (≈Grades 10-11) (see bullet 4, Writing)
    5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.4 & 1.5, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skill 3; Unit 4, Outcome 1, Key Skill 1)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b-c and 5.c; 9.1.d)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Proficient Achievement Level, Grade 12, box 3, Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Arrangement, bullet 1; Fostering Habits of Mind Essential for Success, bullet 16)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2 and IV.B.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: English-Language Arts Content Standards for California Public Schools, 1997. (see 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**, English Language Arts Curriculum Framework, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 5. Create a logical progression of ideas or events, and convey the relationships among them.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #7, #9, #21, #26).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #9, #12, #17, #19, #22, #29, #30).

Career Readiness

- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.d; 20/30.4.2.2.b; 10/20.4.2.2.d-e)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C6; C13)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 5.O.3; AI 8.O.2; AI 8.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullets 1-3 and 8-9, Writing; bullet 2, Senior Secondary)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 9.2 Preliminary)
    6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4, 2.6, Grade 12 Writing)
    7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 2, Key Skill 5)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.c; 2.3.e-f)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (See 4.a-b; 4.e-f; 5.b; 5.g)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see C3 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box three, Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Arrangement, bullets 3 and 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.2 and II.D.4, II.F.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30; General Standard 23: Organizing Ideas in Writing, 23.13, 23.14, 23.15)

Writing 6. Choose words and phrases to express ideas precisely and concisely.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #5, #27).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #28).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Language 6 and Writing 2; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.3.b)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C12)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1, AI 5.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 9, Writing; point 5, Senior Secondary)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Writing)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see C2- in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 5; Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (Writing Competencies, Style/Expression, bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.5 & II.E.5)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.5, Writing Strategies Grades 11-12)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 7. Use varied sentence structures to engage the reader and achieve cohesion between sentences.

College Readiness

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.3.c; 20/30.4.2.4.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see C12)
    3. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.3)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.4, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.g, 2.3.m)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2007). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience"; Advanced Achievement Level, Grade 12, box four)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Style/Expression, bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.1, Written and Oral Language Conventions Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 19.26, 19.27)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Writing 8. Develop and maintain a style and tone appropriate to the task, purpose, and audience.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3, #12, #23, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15, #20).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Writing 2 and 5; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see rows 22 and 26; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see pgs. 36-38 sample task "Draft memo to all employees," Hotel/Guest Services Manager)
- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20.4.1.1.c; 10/20/30.4.2.3.a and 20.4.2.3.d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C12)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1; AI 5.O.3; AI 8.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (See bullets 9 and 12, Writing)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.2, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Knowledge 4; Unit 3, Outcome 2, Key Knowledge 1)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.b)
    2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.e and 5.g)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see C2 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 6; Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Invention, bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.4-6 and II.D.6*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.2, 1.5, and 1.9, Writing Strategies Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 9. Demonstrate command of the conventions of standard written English, including grammar, usage, and mechanics.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #6, #8, #11, #13, #16, #18, #19, #20, #25, #26, #28, #31, #32, #34, #39, #40, #41, #43, #44).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- Conley, D. (2003) *Understanding University Success: English Work Samples.* Eugene, OR: Center for Educational Policy Research.
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #2, #5, #6, #7, #8, #10, #11, #14, #16, #18, #20, #21, #24, #25, #26, #28).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Language 1; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 3; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see pgs. 22-24 sample task "Pass entrance exams for apprenticeship," Military/Navy Shipyard Apprenticeship)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see top half, pg. 10; pg. 17; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 4.2.4.b-g)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C14)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 8.C.4)
    4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.3)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 3.3 and 3.4, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 7)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.1.c; 2.3.n-o)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.d; 6.c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see A1 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 7; Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Style/Expression, bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.A & II.B)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.1 and 1.2, Written and Oral English Language Conventions Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. see 5.28, 5.30; 21.8; General Standard 22: Standard English Conventions, 22.9, 22.10)

Writing 10. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #13).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Writing 6; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (See row 21; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 25; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 3.2.1.c; 3.2.1.e)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C14)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (1.3, Grade 12 Writing)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 3, Key Skill 5)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, "Students will be assigned writing tasks…," bullet 14; Technology Competencies, bullet 8)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.D.7; III.B.4; III.B.6)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.7, Writing Strategies Grades 9-10)
2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see 24.5)

Writing 11. Assess the quality of one's own writing, and, when necessary, strengthen it through revision.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #7, #12, #16, #24, #33, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #15).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Writing 4 and 5; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see rows 16 and 22; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.1.a-d; 30.4.2.2.a, 20/30.4.2.2.b-c, 10/20.4.2.2.d-e)
2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C7)
3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (AI 2.O.2; AI 2.CC.3; AI 5.O.3; AI 8.CC.3)
4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 7, Writing; see Senior Secondary, bullet 2)
5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-12.1-12.4, Preliminary)
6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.7, Grade 12 Writing)
7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 5; Unit 1, Outcomes 2, Key Knowledge 4; Unit 1, Outcome 3, Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.l; 4.3.e)
2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.f)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.F)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Arrangement, bullet 6 and Style/Expression, bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.9, Writing Strategies Grades 9-12)
2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 12. Use technology as a tool to produce, edit, and distribute writing.

College Readiness

Career Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Writing 8; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Information Technology, Senior Secondary, bullet 4)
    2. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-9.1, HSC)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 3.5-3.6, Grade 12 Writing)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Technology Competencies, bullets 1-2)

Writing 13. Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #2, #5, #15, #29).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3).
- *Florida American Diploma Project Survey Results*. (see row 24; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (See pgs. 18-19 sample task "Review claim letter," Insurance/Claims Agent)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see pgs. 22-23; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.2.3.a)
    2. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see C8 and C10)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 2, Writing; Information Technology Skills, Senior Secondary 1;Study Skills, Senior Secondary, bullet 1)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 10.1, Preliminary; Outcome 7, HSC)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.e)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.b)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see F7 - in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Fostering Habits of Mind Essential for Success, bullet 4; Writing Competencies, "Students will be assigned writing tasks…," bullet 5)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.8*, and III.B.6)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.6 and 1.8, Writing Strategies Grades 11-12; 2.4.b-d, Writing Applications Grades 11-12)

Writing 14. Convey complex information clearly and coherently to the audience through purposeful selection and organization of content.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #5, #12, #15, #29, #37).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #4, #12, #15).

Career Readiness

- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 2 on pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C4)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see "Work with others", dash 1, Language Development)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 5.5.e, Ordinary Level; 5.4.e, Higher Level)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see Outcome 7, HSC; 10.3, Preliminary)
    6. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.4 & 2.1, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.1.a; 2.3.c)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.b)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Explain" Level 6)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Invention, bullet 2; Arrangement, bullets 3 & 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.8*, II.D.2, II.D.4)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.3 and 2.6.a, Writing Applications Grades 9-10)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.30)

Writing 15. Demonstrate understanding of content by reporting facts accurately and anticipating reader misconceptions.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #5, #12, #15, #29, #37).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3, #15).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

  1.**British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C2; C4)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, "Students will be assigned writing tasks…," bullets 6 & 7)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.8*)
- A counterpart of this standard appears in the English language arts standards from the following states:

  1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.3 & 2.6.d, Writing Applications Grades 9-10)

Writing 16. Establish a substantive claim, distinguishing it from alternate or opposing claims.

College Readiness

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #5, #10, #12, #14, #29).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #23).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Logic 9; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see row 7; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point *f3* on pg. 21; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see A2, C2, C4)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.CC.3-5)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullets 3 and 11, Writing, see Communication Skills, Senior Secondary, bullet 2)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.2.2.a-b; 5.4.e, Higher Level)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus,* 1999 (Grades 11-12) (see 6.2, HSC)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 3, Outcome 3, Key Knowledge 4 & Skill 3)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see E9 - in 11 of 12 states analyzed)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade" Level 6)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.4, Writing Applications Grades 9-10)
    2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see 19.30)

Writing 17. Link claims and evidence with clear reasons, and ensure that the evidence is relevant and sufficient to support the claims.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #5, #10, #14, #29, #30).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- Conley, D. (2003) *Understanding University Success: English Work Samples*. Eugene, OR: Center for Educational Policy Research.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #4, #12, #15).

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see f3, pg. 21; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20.4.1.3.f; 20/30.4.2.1.c)
    2. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 6.2, HSC; 10.2 and 10.3, HSC)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4 and 1.5, Grade 12 Writing)

4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skill 3; Unit 4, Outcome 2, Key Skills 2-3; Unit 3, Outcome 3, Key Knowledge 4 & Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following:

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h-i)
2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.d)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade" Level 6)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Fostering Habits of Mind Essential for Success, bullet 16)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2; II.E.3; IV.B.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (2.2.c and 2.4.a-e, Writing Applications Grades 11-12; 1.3, Writing Strategies Grades 11-12)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.30)

Writing 18. Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4, #5, #10, #12, #14, #29).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15).

Career Readiness

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B9)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see "Plan…", dash five, Language Development)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.4)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade"Level 6)

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.4.d, Writing Applications Grades 9-10)
    2. **Massachusetts**, *English Language Arts Curriculum Framework,* June 2001. (see 19.30)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Speaking & Listening Evidence

Speaking 1. Select and use a format, organization, and style appropriate to the topic, purpose, and audience.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 3)
- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Knowledge skill 2)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10.4.1.4.b, 10/20/30.4.1.4.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see A6, A12)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, bullets 1, 4, and 5)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.1 - 2.6, Grade 12 Oral Communication)
    5. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 1, Key Skills 6-7)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.a-c)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 3.a-f, 4.a-f)

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 3: Oral Presentation, 3.17)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Speaking, A.1-2)

Speaking 2. Present information, findings, and supporting evidence clearly and concisely.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- Casner-Lotto, J., Rosenblum, E., and Wright, M., *The Ill-Prepared Workforce*. (2009). The Conference Board. (see pg. 22, Oral Communications)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 2)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see A8, A9)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.O.2)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, bullets 1-2)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Oral Communication)
    5. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Knowledge, bullet 5)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (2.1.b)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b and 4.e)

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2, 2.5)
2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Speaking, B.3)

Speaking 3. Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding.

College Readiness

Career Readiness

- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Performance skill 4)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10.4.1.4.b, 20.4.1.4.b and 10/20/30.4.1.4.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A6)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Information Technology, Senior Secondary, bullets 3-5)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-5, 5.3, Preliminary)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.7, Grade 12 Oral Communication; 3.4, Grade 12 Media Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skills 1 and 4; Unit 2, Outcome 3, Key Knowledge 5 and Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.a, 4.c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see G4, in 12 of 12 states analyzed)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.6, Grades 11-12; 2.4, Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 27: Media Production, 27.6)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Speaking 4. Demonstrate command of formal Standard English when appropriate to task and audience.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Language 1; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 3; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pgs. 16-17, 19); data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A12)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, "Present Information…" bullet 4)
    3. **Victoria, Australia***: Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 1, Key Skill 6)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.a)
    2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 3.e)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see A1, in 12 of 12 states analyzed)

Speaking 5. Listen to complex information, and discern the main ideas, the significant details, and the relationships among them.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Communication 2 and 3; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Florida American Diploma Project Survey Results.* (See rows 11 and 27; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 1, pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Knowledge skill 3 and Performance skill 5)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 1)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20.2.1.2.b)
    2. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see A3, A7, A8)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 1.CC.3 and 1.CC.5)
    4. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Listening, bullets 1 and 2)
    5. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a, 4.1.1.c)
    6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4-1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** English Programme of Study for Key stage 4, 2005 (≈ Grades 10-11) (see 2.1.f)
    2. **Singapore:** English Language Syllabus 2001, Learning Outcomes for O-Levels (≈ Grades 10-11) (See 2.c, 2.e, 8.3.a-c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see B4, in 11 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (Listening, bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states: S

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2, 2.5)
2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, A.2-3, B.1-3)

Speaking 6. Follow the progression of the speaker's message, and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See point 2, pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 30.2.2.2.f, 30.3.2.2.a-d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007 (Grade 12) (see A9)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1, AI 7.O.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Listening, bullets 6-7; Critical Thinking Skills, number 2 and bullets 1-4)
    5. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.d-f, 4.2.1.a-g, 4.3.1.a)
    6. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.7 & 1.8, Grade 12 Oral Communication)
    7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Skill bullets 1 and 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study* for Key stage 4, 2005 (≈ Grades 10-11) (see 1.4.c-d, 2.1.g)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.c, 9.3.b)

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- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools.* (see 1.12, 1.13, Grades 9-10)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see 3.15)
    3. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, A.1-3)

Speaking 7. Ask relevant questions to clarify points and challenge ideas.

College Readiness

Career Readiness

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- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A7)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success, bullet 7; Listening and Speaking, Speaking, bullets 1 and 3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2: Questioning, Listening, and Contributing)

Speaking 8. Respond constructively to advance a discussion and build on the input of others.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

College Readiness

Career Readiness

- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening-Performance skill 2)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullets 1 and 4)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, "Participate Effectively…", bullets 3-4 and 6)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England**: *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.d-e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success, bullet 7; Listening and Speaking, Speaking, bullets 1-4)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 1: Discussion; General Standard 2: Questioning, Listening, and Contributing)
    2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, B.1)

Core Standards for Reading, Writing, and Speaking and Listening

The Core Standards identify essential college- and career-ready skills and knowledge in reading, writing, and speaking and listening across the disciplines. While the English language arts classroom has often been seen as the proper site for literacy instruction, this document acknowledges that the responsibility for teaching such skills must also extend to the other content areas. Teachers in the social and natural sciences, the humanities, and mathematics need to use their content-area expertise to help students acquire the discipline-specific skills necessary to comprehend challenging texts and develop deep knowledge in those fields. At the same time, English language arts teachers not only must engage their students in a rich array of literature but also must help develop their students' ability to read complex works of nonfiction independently.

What is taught is just as important as how it is taught; the Core Standards should be accompanied by a comprehensive, content-rich curriculum. While this document defines the outcomes all students need to reach to be college and career ready, many important decisions about curriculum will necessarily be left to states, districts, schools, teachers, professional organizations, and parents. For example, while the standards require that students read texts of sufficient complexity, quality, and range, this document does not contain a required reading list. If states and districts choose to develop one, they should look at the Reading Exemplars provided here to get a sense of the level of complexity students must be able to handle independently when they read. Educators can also model their efforts on reading lists from around the nation and the world as long as the texts ultimately included meet the range and content standards in this document.

Standards today must ready students for competition and collaboration in a global, media-saturated environment. Colleges and universities have become international meetinghouses where people from across the globe learn with and from one another. At the same time, business today is truly a worldwide enterprise. Media-related technology helps shape what goes on in both college and the workplace; indeed, it has in some important ways reshaped the very nature of communication. Students who meet the Core Standards will have the reading, writing, speaking, and listening skills to flourish in the diverse, rapidly changing environments of college and careers.

Although reading, writing, and speaking and listening are articulated separately in the standards that follow, these divisions are made for the sake of clarity and manageability. In reality, the processes of communication are tightly interrelated and often reciprocal. The act of reading can no more be separated from the written word than the act of listening can be from the spoken word. When reading, students demonstrate their comprehension most commonly through a spoken or written interpretation of the text. As students solve problems, share insights, and build the

knowledge they need for college and career success, they draw simultaneously on their capacities to read, write, speak, and listen.

Student Practices in Reading, Writing, and Speaking and Listening

The following practices in reading, writing, and speaking and listening undergird and help unify the rest of the standards document. They are the "premises"—broad statements about the nature of college and career readiness in reading, writing, and speaking and listening—that underlie the individual standards statements and cut across the various sections of the document. Every idea introduced here is subsequently represented in one or more places within the larger document.

* * *

Students who are college and career ready exhibit the following capacities in their reading, writing, and speaking and listening:

1. *They demonstrate independence as readers, writers, speakers, and listeners.*

   Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions and articulate their own ideas.

2. *They build strong content knowledge.*

   Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the specific in-depth expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. *They respond to the varying demands of audience, task, purpose, and discipline.*

   Students consider their reading, writing, and speaking and listening in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the natural sciences).

4. *They comprehend as well as critique.*

   Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and assess the veracity of claims.

5. *They privilege evidence.*

   Students cite specific textual evidence when offering an oral or written interpretation of a piece of writing. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. *They care about precision.*

   Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. *They craft and look for structure.*

   Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. *They use technology strategically and capably.*

   Students employ technology thoughtfully to enhance their reading, writing, speaking, and listening. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

Introductory Evidence Statement for Reading, Writing, Speaking and Listening Standards

To develop college- and career-ready standards for Reading, Writing, and Speaking and Listening that are rigorous, relevant, and internationally benchmarked, the work group consulted evidence from a wide array of sources. These included standards documents from high-performing states and nations; student performance data (including assessment scores and college grades); academic research; frameworks for assessments, such as NAEP; and results of surveys of postsecondary instructors and employers regarding what is most important for college and career readiness.

The evidence strongly suggests that similar reading, writing, speaking, and listening skills are necessary for success in both college and the workplace. A review of the standards of high-performing nations also suggests that many of these skills are already required in secondary schools internationally. The work group has endeavored to articulate these skills in the Core Standards, focusing educators, students, parents, and resources on what matters most.

Given that a set of standards cannot be simplistically "derived" from any body of evidence, the work group sometimes relied on reasoned judgment to interpret where the evidence was most compelling. For example, there is not a consensus among college faculty about the need for incoming students to be able to comprehend graphs, charts, and tables and to integrate information in these data displays with the information in the accompanying text. Although some evidence suggests that this skill is critical in the workplace and in some entry-level courses, college faculties from the various disciplines disagree on its value (with science and economics faculty rating it more highly than English and humanities professors do). The work group ultimately included a standard on the integration of text and data because the preponderance of the evidence suggests the skill's importance in meeting the demands of the twenty-first-century workplace and some college classrooms.

In most cases, the evidence is clearer. In writing, for example, there is unequivocal value placed on the logical progression of ideas. The expectation that high school graduates will be able to produce writing that is logical and coherent is found throughout the standards of top-performing countries and states. This ability is also valued highly by college faculty and employers. In response to such clear evidence, the work group included Writing student performance standard #5: "Create a logical progression of ideas or events and convey the relationships among them."

A bibliography of some of the sources we drew upon most is included at the end of this document. We also refer the reader to the Core Standards Web site (http://www.corestandards.org), which contains a similar bibliography (with links

to full documents where available) as well as lists of standards linked to relevant sources of evidence.

Finally, while the standards reflect the best evidence available to date, the decisions the work group made are necessarily provisional. The core should be reexamined periodically as additional research on college and career readiness emerges. Indeed, this document may serve as an agenda for such research.

How to Read the Document

This document is divided into three main sections: strands, applications, and supporting materials.

Strands

There are three *strands*: Reading, Writing, and Speaking and Listening. Although each strand is presented discretely for ease of understanding, the document should be considered a coherent whole.

The three strands are each in turn divided into two sections: S*tandards for Range and Content* and S*tandards for Student Performance*.

Standards for Range and Content

The Standards for Range and Content in each strand describe the contexts in which college- and career-ready students must be able to read, write, speak, and listen. Rather than merely supplement or illustrate the numbered list of Standards for Student Performance, the Standards for Range and Content are themselves required and carry equal force.

Standards for Student Performance

The Standards for Student Performance in each strand enumerate the essential skills and understandings that students who are college and career ready in reading, writing, and speaking and listening must have no later than the end of high school.

Applications

The clearest examples of the integrated nature of communication are the *Applications of the Core* for Research and Media. The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks, such as research and media. Rather than having an additional set of standards that would largely duplicate those already in Reading, Writing, and Speaking and Listening, the document includes the Research and Media applications that draw upon standards already in those strands. This both reaffirms the centrality of the core processes of reading, writing, speaking, and listening and shows how those processes can be combined and extended to describe key communicative acts in the classroom and workplace.

In the Research and Media applications, specific Reading, Writing, and Speaking and Listening standards are identified with a letter corresponding to the relevant strand (R for Reading, W for Writing, and S&L for Speaking and Listening) and a number or letter corresponding to the statement within that strand. For example, R-14 refers to the fourteenth statement in the Standards for Student Performance in Reading,

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College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

Draft for Review and Comment

September 21, 2009

College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

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Performance in Reading, and W-A refers to the first statement of the Standards for Range and Content in Writing.

Supporting Materials: Reading and Writing Exemplars
Reading and Writing exemplars, and their accompanying annotations, are used to lend further specificity to the standards.

Reading Exemplars
The Reading exemplars, representing a range of subject areas, time periods, cultures, and formats, illustrate the level of text complexity students ready for college and careers must be able to handle on their own. The exemplars are mostly excerpts or representations of larger works. To be truly college and career ready, students must be able to handle full texts—poems, short stories, novels, technical manuals, research reports, and the like. Annotations accompanying the exemplars explain how each text meets the criterion of high text complexity. The annotations also provide brief performance examples that further clarify the meaning and application of the standards.

~~Writing Exemplars~~ - Coming in the next draft
~~The Writing exemplars are authentic samples of student writing created across the nation under a variety of conditions and for a variety of purposes and audiences. Annotations accompanying the exemplars indicate how these samples meet the Standards for Student Performance in Writing.~~

Core Standards for Reading Informational and Literary Texts

Standards for the Range and Content of Student Reading

A. **Complexity:** A crucial factor in readiness for college and careers is students' ability to comprehend complex texts independently. In college and careers, students will need to read texts characterized by demanding vocabulary, subtle relationships among ideas or characters, a nuanced rhetorical style and tone, and elaborate structures or formats. These challenging texts require the reader's close attention and often demand rereading in order to be fully understood.

B. **Quality:** The literary and informational texts chosen for study should be rich in content and in a variety of disciplines. All students should have access to and grapple with works of exceptional craft and thought both for the insights those works offer and as models for students' own thinking and writing. These texts should include classic works that have broad resonance and are alluded to and quoted often, such as influential political documents, foundational literary works, and seminal historical and scientific texts. Texts should also be selected from among the best contemporary fiction and nonfiction and from a diverse range of authors and perspectives.

C. **Vocabulary:** To be college and career ready, students must encounter and master a rich vocabulary. Complex texts often use challenging words, phrases, and terms that students typically do not encounter in their daily lives. Specific disciplines and careers have vocabularies of their own. Attentive reading of sophisticated works in a wide range of fields, combined with close attention to vocabulary, is essential to building comprehension and knowledge.

D. **Range:** Students must be able to read a variety of literature, informational texts, and multimedia sources in order to gain the knowledge base they need for college and career readiness.

> ***Literature:*** Literature enables students to access through imagination a wide range of experiences. By immersing themselves in literature, students enlarge their experiences and deepen their understanding of their own and other cultures. Careful reading of literature entails attentiveness to craft and details of design, which has broad value for students' work in college and career environments.
>
> ***Informational Text:*** Because most college and workplace reading is nonfiction, students need to hone their ability to acquire knowledge from informational texts. Workplace and discipline-specific reading will often require students to demonstrate persistence as they encounter a large amount of unfamiliar and often technical vocabulary and concepts. Students must demonstrate facility with the features of texts particular to a variety of disciplines, such as history, science, and mathematics.
>
> ***Multimedia Sources:*** Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects.

E. **Quantity***:* Students must have the capacity to handle independently the quantity of reading material, both in print and online, required in college and workforce training. Studies show that the amount of reading students face in high school is often far lower than that required for typical first-year college courses. Students need to be able to perform a close reading of a much higher volume of texts and to sort efficiently through large amounts of print and online information in search of specific facts or ideas.

Note: *The essential role of independence in college and career readiness:* The significant scaffolding that often accompanies reading in high school usually disappears in college and workforce training environments. Students must therefore have developed their ability to read texts of sufficient complexity, quality, and range on their own. To become independent, students must encounter unfamiliar texts presented without supporting materials.

Core Standards for Reading Informational and Literary Texts

Standards for Student Performance

1. Determine both what the text says explicitly and what can be inferred logically from the text.
2. Support or challenge assertions about the text by citing evidence in the text explicitly and accurately.
3. Discern the most important ideas, events, or information, and summarize them accurately and concisely.
4. Delineate the main ideas or themes in the text and the details that elaborate and support them.
5. Determine when, where, and why events unfold in the text, and explain how they relate to one another.
6. Analyze the traits, motivations, and thoughts of individuals in fiction and nonfiction based on how they are described, what they say and do, and how they interact.
7. Determine what is meant by words and phrases in context, including connotative meanings and figurative language.
8. Analyze how specific word choices shape the meaning and tone of the text.
9. Analyze how the text's organizational structure presents the argument, explanation, or narrative.
10. Analyze how specific details and larger portions of the text contribute to the meaning of the text.
11. Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension.
12. Extract key information efficiently in print and online using text features and search techniques.
13. Ascertain the origin, credibility, and accuracy of print and online sources.
14. Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient.
15. Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes.
16. Draw upon relevant prior knowledge to enhance comprehension, and note when the text expands on or challenges that knowledge.
17. Apply knowledge and concepts gained through reading to build a more coherent understanding of a subject, inform reading of additional texts, and solve problems.
18. Demonstrate facility with the specific reading demands of texts drawn from different disciplines, including history, literature, science, and mathematics.

Note: *These Standards for Student Performance, as is the case for every strand, must be demonstrated across the range and content from the preceding page.* They are meant to apply to fiction and nonfiction. For example:

- "Determine when, where, and why events unfold" applies to plot and setting in literature as well as the sequence of a scientific procedure.
- "Analyze the traits, motivations, and thoughts of individuals" applies to studying characters in fiction and figures in historical texts.

Core Standards for Writing

Standards for the Range and Content of Student Writing

A. **Purpose:**

Make an Argument: While many high school students have experience presenting their opinions, they need to be able to make arguments supported by evidence in order to be ready for careers and college. Students must be able to frame the debate over a claim, present the reasoning and evidence for the argument, and acknowledge and address its limitations. In some cases, students will make arguments to gain entry to college or to obtain a job, laying out their qualifications or experience. In college, students might defend an interpretation of a work of literature or of history; in the workplace, employees might write to recommend a course of action.

Inform or Explain: In college and in workforce training, writing is a key means for students to show what they know and to share what they have seen. Writing to inform or explain often requires students to integrate complex information from multiple sources in a lucid fashion. Explanations can take the form of laying out facts about a new technology or documenting findings from historical research; well-crafted explanations often make fresh connections and express ideas creatively.

B. **Audience:** Students must adapt their writing so that it is appropriate to the audience by choosing words, information, structures, and formats that conform to the conventions of the discipline in which they are writing. The form and use of evidence in literary analysis, for example, are likely to be quite different from those in geology or business. Students must also be able to consider their audience's background knowledge and potential objections to an argument.

C. **Situation:**

On-demand Writing: Students must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline. College and career readiness requires that students be able to write effectively to a prompt on an exam or respond quickly yet thoughtfully to a supervisor's urgent request for information.

Writing over Time: Students must be able to revisit and make improvements to a piece of their writing over multiple drafts when circumstances encourage or require it. To improve writing through revision, students must be capable of distinguishing good changes from ones that would weaken the writing.

D. **Technology and Collaboration:** Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback.

E. **Quantity:** The evidence is clear that, in order to become better writers, students must devote significant time to producing writing. Students must practice writing several analytical pieces each term if they are to achieve the deep analysis and interpretation of content expected for college and careers.

Note on narrative writing:

Narrative writing is an important mode of writing; it is also a component of making an argument and writing to inform or explain. Telling an interesting story effectively or providing an accurate account of a historical incident requires the skillful use of narrative techniques. Narrative writing requires that students present vivid, relevant details to situate events in a time and place and also craft a structure that lends a larger shape and significance to those details. As an easily grasped and widely used way to share information and ideas with others, narrative writing is a principal stepping-stone to writing forms directly relevant to college and career readiness.

Core Standards for Writing

Standards for Student Performance

1. Establish and refine a topic or thesis that addresses the specific task and audience.
2. Gather the information needed to build an argument, provide an explanation, or address a research question.
3. Sustain focus on a specific topic or argument.
4. Support and illustrate arguments and explanations with relevant details, examples, and evidence.
5. Create a logical progression of ideas or events, and convey the relationships among them.
6. Choose words and phrases to express ideas precisely and concisely.
7. Use varied sentence structures to engage the reader and achieve cohesion between sentences.
8. Develop and maintain a style and tone appropriate to the task, purpose, and audience.
9. Demonstrate command of the conventions of standard written English, including grammar, usage, and mechanics.
10. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
11. Assess the quality of one's own writing, and, when necessary, strengthen it through revision.
12. Use technology as a tool to produce, edit, and distribute writing.

When **writing to inform or explain**, students must also do the following:

13. Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information.
14. Convey complex information clearly and coherently to the audience through purposeful selection and organization of content.
15. Demonstrate understanding of content by reporting facts accurately and anticipating reader misconceptions.

When **writing arguments**, students must also do the following:

16. Establish a substantive claim, distinguishing it from alternate or opposing claims.
17. Link claims and evidence with clear reasons, and ensure that the evidence is relevant and sufficient to support the claims.
18. Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate.

Note: "The conventions of standard written English" encompass a range of commonly accepted language practices designed to make writing clear and widely understood. When formal writing contains errors in grammar, usage, and mechanics, its meaning is obscured, its message is too easily dismissed, and its author is often judged negatively. Proper sentence structure, correct verb formation, careful use of verb tense, clear subject-verb and pronoun-antecedent agreement, conventional usage, and appropriate punctuation are of particular importance to formal writing.

Core Standards for Speaking and Listening

Standards for the Range and Content of Student Speaking and Listening

A. **Group and One-to-One Situations:** Students are expected to be able to speak and listen effectively in both groups and one-to-one. Success in credit-bearing college coursework, whether in the humanities, mathematics, or the sciences, depends heavily on being able to take in and respond to the concepts and information conveyed in lectures and class discussions. Success in the workplace is similarly dependent on listening attentively to colleagues and customers and expressing ideas clearly and persuasively.

These speaking and listening skills may need to be applied differently in different settings. The immediate communication between two people might be replaced by formal turn taking in large-group discussions. When working in classroom or workplace teams, students should be able to ask questions that initiate thoughtful discussions, gain the floor in respectful ways, and build on the contributions of others to complete tasks or reach consensus.

B. **Varied Disciplinary Content:** Students must adapt their speaking and listening to a range of disciplines to communicate effectively. Each academic discipline and industry has its own vocabulary and conventions; for instance, evidence is handled and discussed differently in literary analysis than in history or medicine or the sciences. College- and career-ready students must develop a foundation of disciplinary knowledge and conventions in order not only to comprehend the complexity of information and ideas but also to present and explain them.

C. **Multimedia Comprehension:** New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and also must integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audience. Multimedia accelerates the speed at which connections between reading, writing, speaking, and listening can be made, requiring students to be ready to use these skills nearly simultaneously.

Core Standards for Speaking and Listening

Standards for Student Performance

1. Select and use a format, organization, and style appropriate to the topic, purpose, and audience.
2. Present information, findings, and supporting evidence clearly and concisely.
3. Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding.
4. Demonstrate command of formal Standard English when appropriate to task and audience.
5. Listen to complex information, and discern the main ideas, the significant details, and the relationships among them.
6. Follow the progression of the speaker's message, and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.
7. Ask relevant questions to clarify points and challenge ideas.
8. Respond constructively to advance a discussion and build on the input of others.

Note: "Style appropriate to the topic, purpose, and audience" includes word choice specific to the demands of the discipline as well as delivery techniques such as gestures and eye contact that contribute to effective message delivery.

"Evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric" includes distinguishing facts from opinions and determining whether the speaker is biased and evidence has been distorted.

Application of the Core: Research

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as research. This section shows how standards in the core incorporate the skills of research.

To be college and career ready, students must engage in research and present their findings in writing and orally, in print and online. The ability to conduct research independently and effectively plays a fundamental role in gaining knowledge and insight in college and the workplace.

Research as described here is not limited to the formal, extended research paper nor simply to gathering information from books; rather, research encompasses a flexible yet systematic approach to resolving questions and investigating issues through the careful collection, analysis, synthesis, and presentation of information from a wide range of print and digital sources, such as historical archives and online interviews. With well-developed research skills, students have the tools to engage in sustained inquiry as well as the sort of short, focused research projects that typify many assignments in college and the workplace.

Research in the digital age offers new possibilities as well as new or heightened challenges. While the Internet provides ready access to unprecedented amounts of primary and secondary source material (such as oral histories, historical documents, maps, and scientific reports), students sorting through this wealth of data must be skilled at and vigilant in determining the origin and credibility of these sources.

The following Core Standards pertain to elements of the research process and particular research skills required for college and career readiness:

Formulate research questions:

- Establish and refine a topic or thesis that addresses the specific task and audience. (W-1)
- Establish a substantive claim, distinguishing it from alternate or opposing claims. (W-16)

Gather and evaluate relevant information from a range of sources:

- Gather the information needed to build an argument, provide an explanation or address a research question. (W-2)
- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Analyze research sources:

- Delineate the main ideas or themes in the text and the details that elaborate and support them. (R-4)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)
- Discern the most important ideas, events, or information and summarize them accurately and concisely. (R-3)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes. (R-15)
- Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate. (W-18)

Report findings:

- Link claims and evidence with clear reasons and ensure that the evidence is relevant and sufficient to support the claims. (W-17)
- Convey complex information clearly and coherently to the audience through purposeful selection and organization of the content. (W-14)
- Demonstrate understanding of the content by reporting the facts accurately and anticipating reader misconceptions. (W-15)
- Present information, findings, and supporting evidence, clearly and concisely. (S&L-2)
- Support and illustrate arguments and explanations with relevant details, examples, and evidence. (W-4)
- Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism. (W-10)

Application of the Core: Media

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as media analysis and creation. This section shows how standards in the core apply to media.

Rapidly evolving technologies are powerful tools—but only for those who have the skills to put them to work. As the capability of the technology grows, students' command of these skills must only increase.

At the core of media mastery are the same fundamental capacities as are required offline in traditional print forms: an ability to access, understand, and evaluate complex materials and messages and to produce clear, effective communications. Media mastery does, however, call upon students to apply these core skills in new ways and contexts. Media enable students to communicate quickly with a large, often unknown, and broadly diverse audience. Whereas in the past, students may have had days or weeks to digest new information and formulate a response, the online environment pushes students to exercise judgment and present their responses in a matter of minutes.

Speed is not the only new factor. In the electronic world, reading, writing, speaking, and listening are uniquely intertwined. Multimedia forms force students to engage with constantly changing combinations of elements, such as graphics, images, hyperlinks, and embedded video and audio. The technology itself is changing quickly, creating new urgency for adaptation and flexibility on the part of students.

The following Core Standards describe the particular reading, writing, speaking, and listening skills that students will need in order to use media effectively in college and careers:

Standards for Range and Content drawn from each strand

Multimedia Sources: Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects. [R-D]

Technology and Collaboration: Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback. [W-D]

Multimedia Comprehension: New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audiences. Multimedia accelerates the speed at which connections between reading, writing, and speaking and listening can be made, requiring students to be ready to use these skills nearly simultaneously. [S&L-C]

Standards for Student Performance drawn from each strand

Gather information from a wide array of electronic sources and multimedia:

- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)

Evaluate information from digital media:

- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Create and distribute media communications:

- Use technology as a tool to produce, edit, and distribute writing. (W-12)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding. (S&L-3)

Illustrative Texts

Exemplars of Reading Text Complexity

As described in the Standards for the Range and Content of Student Reading, college- and career-ready students must be able to read texts of sufficient complexity on their own. Studies show that many students who are unable to read sufficiently challenging texts independently by the end of high school struggle with the reading demands of college; many twenty-first-century careers likewise demand that people be able to obtain, search through, and comprehend large amounts of often technical information.

To develop that ability, students should engage with high-quality texts that provide strong models of thinking and writing, that challenge them intellectually, and that introduce them to rich content, sophisticated vocabulary, and examples of exceptional craft. The reading students do should be broad and deep, allowing them to extend their knowledge of particular subjects as well as learn about the features of texts written for different disciplines, audiences, and purposes. While no sampling can do justice to the numerous ways in which different authors craft complex prose, as a collection the exemplar texts below illustrate the level of complexity that college- and career-ready students should be able to handle independently by the end of high school. Texts in translation have not been included in this draft but will be part of future drafts.

How Text Complexity was Determined

In addition to surveys of required reading in twelfth grade and the first year of college as well as consultations with experts, two leading measurement systems were used to help make the selections below. The first system—a methodology described by Jeanne Chall and her coauthors in *The Qualitative Assessment of Text Difficulty*—employs trained raters to measure the sophistication of vocabulary, density of ideas, and syntactic complexity in a text as well as the general and subject-specific knowledge and the level of reasoning required for understanding it. The second system, Coh-Metrix, incorporates into its computer-based analysis more than sixty specific indices of syntax, semantics, readability, and cohesion to assess text complexity. Central to its assessment are measures of text cohesiveness, which is the degree to which the text uses explicit markers to link ideas. By analyzing the degree to which those links are missing in a text—and therefore the degree to which a reader must make inferences to connect ideas—this measure gauges a key factor in the comprehension demand of a text.

The two methods described above have limitations. The complexity of poems (such as "O Captain! My Captain!") cannot be assessed by Coh-Metrix because poetry adheres to different rules of construction than does prose. Similarly, while individual stories in the sample *New York Times* front pages can be measured for complexity by Coh-Metrix, the method does not capture how the electronic environment enhances or detracts from readability. However, for those exemplar texts whose complexity could be measured by both systems, comparable results were yielded by Coh-Metrix and the Chall method.

Note: The samples of complex text are supplemented by brief performance examples that further clarify the meaning of the standards. These illustrate specifically the application of the performance standards to texts of sufficient complexity, quality, and range. Relevant standards are noted in brackets following each sample performance.

Notes on Illustrative Text #1

Pride and Prejudice by Jane Austen

Jane Austen's *Pride and Prejudice* is a sophisticated literary text featuring multiple plotlines, a style and word choice reflective of its time period and setting, and subtle relationships among characters; the excerpt here can only illustrate some of the complexities that readers of the full work will encounter. The novel's opening sentence—"It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife"—signals that today's readers will need to employ literary imagination and historical context to re-create for themselves a world largely in the past. The novel's style is elaborate, with many lengthy and, to the modern ear, formal-sounding sentences typical of the period during which the novel was written. While the dialogue is less formal than much of the surrounding text, words and phrases such as *let* (to mean "rent" or "lease") and *chaise and four* (referring to a type of carriage) mark the novel's setting. The excerpt suggests also the kind of close reading of the subtleties of character that readers must perform. The banter between Mr. and Mrs. Bennet reveals both affection and difference of opinion, and it offers clues to the mores of well-to-do English society in the early nineteenth century.

Sample performance aligned with the Core Standards

Students analyze the first impressions given of Mr. and Mrs. Bennet in the first chapter of *Pride and Prejudice* based on how the characters are described, what they say and do, and how they interact. Students compare these first impressions with their later understanding based on how the characters develop throughout the novel. [R-6]

Illustrative Text #1

from *Pride and Prejudice*

Chapter 1

It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families that he is considered as the rightful property of some one or other of their daughters.

"My dear Mr. Bennet," said his lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she; "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do not you want to know who has taken it?" cried his wife impatiently.

"*You* want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? how can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! nonsense, how can you talk so! But it is very likely that he *may* fall in love with one of them, and therefore you must visit him as soon as he comes."

"I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly *have* had my share of beauty, but I do not pretend to be any thing extraordinary now. When a woman has five grown-up daughters she ought to give over thinking of her own beauty."

"In such cases a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no new-comers. Indeed you must go, for it will be impossible for us to visit him if you do not."

"You are over-scrupulous surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chuses of the girls: though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving *her* the preference."

"They have none of them much to recommend them," replied he; "they are all silly and ignorant, like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way! You take delight in vexing me. You have no compassion on my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration these twenty years at least."

"Ah! you do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

"It will be no use to us if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

Mr. Bennet was so odd a mixture of quick parts, sarcastic humour, reserve, and caprice, that the experience of three-and-twenty years had been insufficient to make his wife understand his character. *Her* mind was less difficult to develope. She was a woman of mean understanding, little information, and uncertain temper. When she was discontented she fancied herself nervous. The business of her life was to get her daughters married; its solace was visiting and news.

Notes on Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

Though poetry's complexity cannot be assessed by the measures of readability used for the prose exemplars, "O Captain! My Captain!" by Walt Whitman clearly has many of the features of complex texts listed in the Standards for the Range and Content of Student Reading. Modern readers must work to understand what would have been obvious to readers in 1865: "O Captain! My Captain!" is an extended-metaphor poem intended to convey Whitman's and the North's grief over the assassination of Abraham Lincoln so near the conclusion of hostilities in the Civil War. Every element in the poem stands for something else, with the captain representing Lincoln, the ship representing the Union (or the "ship of state"), the voyage representing the war, and so on. Historical context, along with skill in reading literature, is thus particularly important to interpreting this text.

Sample performance aligned with the Core Standards

Students apply knowledge gained from reading the *New York Times* articles on Lincoln's assassination to their understanding of the poem "O Captain! My Captain!" Specifically, students draw on the description of the crowd's response to the attack on Lincoln to inform their understanding of Whitman's poem. [R-17]

Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

O Captain! my Captain! our fearful trip is done,
The ship has weather'd every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting,
While follow eyes the steady keel, the vessel grim and daring,
But O heart! heart! heart!
O the bleeding drops of red,
Where on the deck my Captain lies,
Fallen cold and dead.

O Captain! my Captain! rise up and hear the bells;
Rise up—for you the flag is flung—for you the bugle trills,
For you bouquets and ribbon'd wreaths—for you the shores a-crowding,
For you they call, the swaying mass, their eager faces turning,
Here, Captain! dear father!
This arm beneath your head;
It is some dream that on the deck
You've fallen cold and dead.

My Captain does not answer, his lips are pale and still
My father does not feel my arm, he has no pulse nor will,
The ship is anchor'd safe and sound, its voyage closed and done,
From fearful trip, the victor ship comes in with object won;
Exult, O shores, and ring O bells!
But I with mournful tread
Walk the deck my Captain lies,
Fallen cold and dead.

Notes on Illustrative Text #3

The front page of the *New York Times*, April 15, 1865

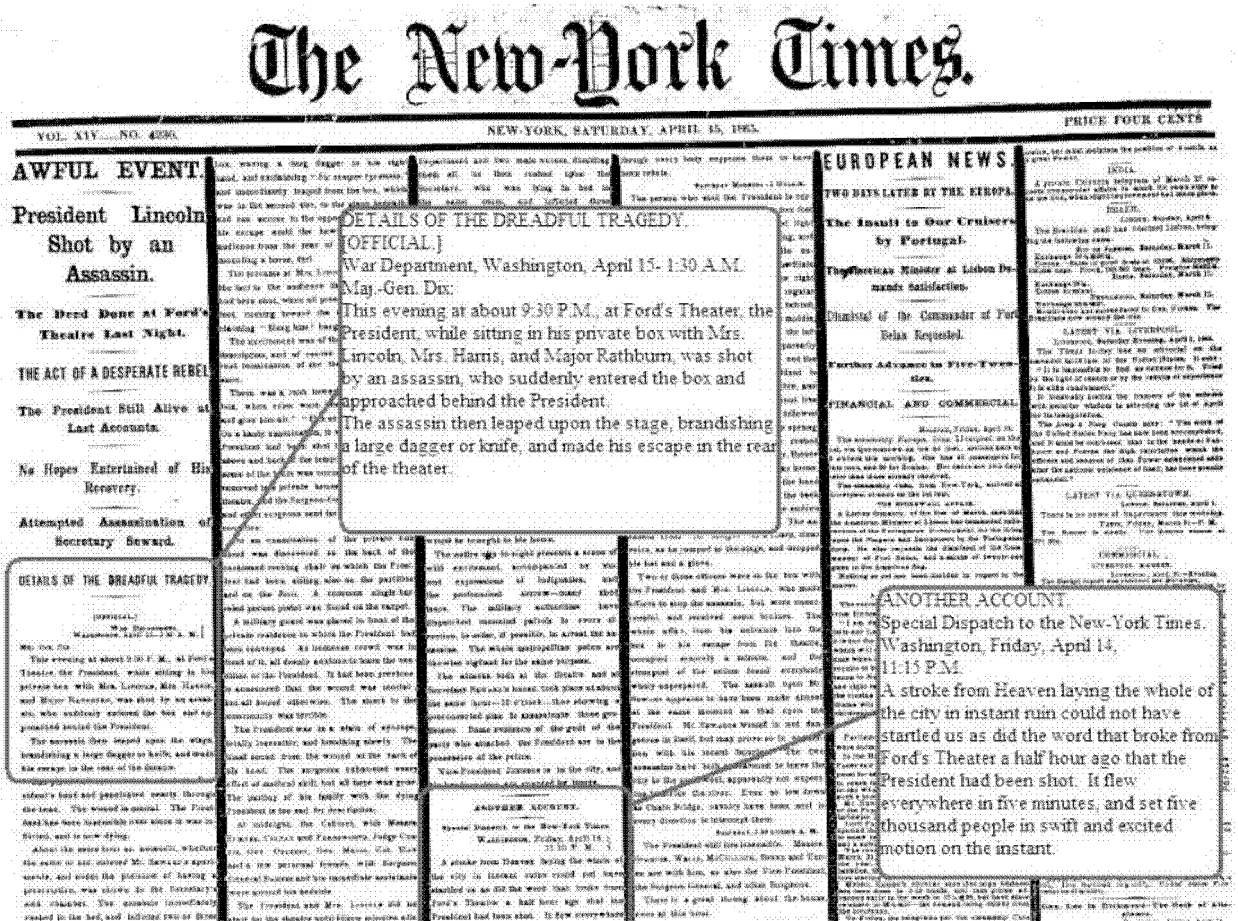
The challenge posed to a modern reader by the front page of the *New York Times* on April 15, 1865, is significant in terms of format, timeliness, and point of view. Unlike the graphically heavy front page of modern newspapers, this 1865 *New York Times* front page is mostly uninterrupted columns of text. The reader is obviously expected to proceed from top to bottom and left to right across the page, but little other guidance is provided. Because the assassination of Lincoln was still "breaking news" as this edition of the *Times* would have gone to press, some details of the event would have not yet been known; readers will have to sort out what they know about the assassination from what the people reading the paper on that Saturday morning would just have been learning. Three accounts of the events rather than one are provided here, and the sourcing and tone vary greatly. Certain details found in one place are contradicted in another: the "Detail of the Occurrence," for example, suggests that Lincoln may not have been mortally wounded, but the main headline in the top left-hand corner of the page states "No Hopes Entertained of His Recovery." While the first two accounts aim at a certain objectivity, the third begins with a flourish that may surprise readers more used to a restrained style of journalism: "A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theatre a half hour ago that the President had been shot."

Sample performance aligned with the Core Standards

Students analyze how the three different accounts on the front page portray Lincoln's assassination, including which details are similar or different. [R-15]

Illustrative Text #3: The front page of the *New York Times*, April 15, 1865

http://timesmachine.nytimes.com/browser/1865/04/15/P1



The New-York Times.

VOL. XIV.....NO. 4230. NEW-YORK, SATURDAY, APRIL 15, 1865. PRICE FOUR CENTS

AWFUL EVENT.

President Lincoln Shot by an Assassin.

The Deed Done at Ford's Theatre Last Night.

THE ACT OF A DESPERATE REBEL

The President Still Alive at Last Accounts.

No Hopes Entertained of His Recovery.

Attempted Assassination of Secretary Seward.

DETAILS OF THE DREADFUL TRAGEDY.

EUROPEAN NEWS.

TWO DAYS LATER BY THE EUROPA.

The Insult to Our Cruisers by Portugal.

The Portuguese Minister at Lisbon Demands Satisfaction.

Dismissal of the Commander of Forts Relax Requested.

Further Advances in Five-Twenties.

FINANCIAL AND COMMERCIAL.

DETAILS OF THE DREADFUL TRAGEDY.

[OFFICIAL.]

War Department, Washington, April 15- 1:30 A.M.

Maj.-Gen. Dix:

This evening at about 9:30 P.M., at Ford's Theater, the President, while sitting in his private box with Mrs. Lincoln, Mrs. Harris, and Major Rathbum, was shot by an assassn, who suddenly entered the box and approached behind the President.

The assassin then leaped upon the stage, brandishing a large dagger or knife, and made his escape in the rear of the theater.

ANOTHER ACCOUNT.

Special Dispatch to the New-York Times.

Washington, Friday, April 14, 11:15 P.M.

A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theater a half hour ago that the President had been shot. It flew everywhere in five minutes, and set five thousand people in swift and excited motion on the instant.

DETAIL OF THE OCCURRENCE.

Washington, Friday, April 14- 12:30 A.M.

The President was shot in a theater tonight, and is, perhaps, mortally wounded. Secretary Seward was also assassinated.

SECOND DISPATCH.

Washington, Friday, April 14. President Lincoln and wife, with other friends, this evening visited Ford's Theater for the purpose of witnessing the performance of the "American Cousin."

Notes on Illustrative Text #4

The Declaration of Independence

The Declaration of Independence represents the kind of rich primary source material students should be able to read on their own by the end of high school. Though some of the lines ("We hold these truths . . .") are familiar to most American readers, the case against Great Britain that the Declaration lays out, expressed in elevated, sometimes archaic language (*unalienable*, *hath*, *usurpations*), requires careful examination to follow in its particulars. The beginning of the document, excerpted here, poses a reading challenge partly because of its philosophical abstractness. The first three sentences, although formally divided, are one continuous list of propositions ("truths") about the nature of government and the rights of the people. Further complicating the reading is that there is little explicit cohesion between sentences—links supplied by words and phrases such as "for example," "moreover," or "in addition"—to help readers understand the relationship between the ideas being expressed.

Sample performance aligned with the Core Standards

Students compare the argument that the Declaration makes justifying revolution to Martin Luther King, Jr.'s defense of civil disobedience in *Letter from Birmingham Jail*. [R-15]

Illustrative Text #4

from The Declaration of Independence

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. —That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, —That whenever any Form of Government becomes destructive to these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new guards for their future security. —Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

Notes on Illustrative Text #5

Letter from Birmingham Jail by Martin Luther King, Jr.

Martin Luther King, Jr.'s, *Letter from Birmingham Jail* presents many challenges to the reader in terms of its format, purpose, tone, use of allusions, and language. Apart from letters to the editor (most of which are relatively short), public letters such as King's are uncommon today. The purpose of the text may also be confusing: King is ostensibly addressing his "Fellow Clergymen," but skilled readers will reasonably infer that King's message is intended for a broader audience. Though the tone of the text is measured, King's passion for his cause comes through. The author frequently points outside the *Letter* itself through allusions to other texts, including the Hebrew and Christian scriptures. Moreover, King uses sophisticated vocabulary (*cognizant*, *mutuality*, *provincial*, *gainsaying*) and figurative language (*garment of destiny*) throughout his text. However, the piece is both coherent in that its sequence is signaled ("While confined here . . . But more basically . . . Moreover, I am cognizant . . .") and cohesive in that its clauses and sentences are logically linked for the reader ("Just as the prophets . . . and just as the Apostle Paul . . . so am I compelled . . .").

Sample performance aligned with the Core Standards

Students evaluate the reasoning and rhetoric of the three very different arguments King makes to defend his being in Birmingham. Students assess the different kinds of evidence he uses to support each argument. [R-14]

Illustrative Text #5

from *Letter from Birmingham Jail**

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My Dear Fellow Clergymen:

While confined here in the Birmingham city jail, I came across your recent statement calling my present activities "unwise and untimely." Seldom do I pause to answer criticism of my work and ideas. If I sought to answer all the criticisms that cross my desk, my secretaries would have little time for anything other than such correspondence in the course of the day, and I would have no time for constructive work. But since I feel that you are men of genuine good will and that your criticisms are sincerely set forth, I want to try to answer your statements in what I hope will be patient and reasonable terms.

I think I should indicate why I am here In Birmingham, since you have been influenced by the view which argues against "outsiders coming in." I have the honor of serving as president of the Southern Christian Leadership Conference, an organization operating in every southern state, with headquarters in Atlanta, Georgia. We have some eighty-five affiliated organizations across the South, and one of them is the Alabama Christian Movement for Human Rights. Frequently we share staff, educational and financial resources with our affiliates. Several months ago the affiliate here in Birmingham asked us to be on call to engage in a nonviolent direct-action program if such were deemed necessary. We readily consented, and when the hour came we lived up to our promise. So I, along with several members of my staff, am here because I was invited here I am here because I have organizational ties here.

But more basically, I am in Birmingham because injustice is here. Just as the prophets of the eighth century B.C. left their villages and carried their "thus saith the Lord" far beyond the boundaries of their home towns, and just as the Apostle Paul left his village of Tarsus and carried the gospel of Jesus Christ to the far corners of the Greco-Roman world, so am I. compelled to carry the gospel of freedom beyond my own home town. Like Paul, I must constantly respond to the Macedonian call for aid.

Moreover, I am cognizant of the interrelatedness of all communities and states. I cannot sit idly by in Atlanta and not be concerned about what happens in Birmingham. Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. Never again can we afford to live with the narrow, provincial "outside agitator" idea. Anyone who lives inside the United States can never be considered an outsider anywhere within its bounds.

*As reprinted in *Why We Can't Wait* by King, Jr., M. L. (2000). New York City: Signet Classics.

Notes on Illustrative Text #6

Toni Morrison's Nobel lecture, 1993

Toni Morrison's Nobel lecture, though originally delivered orally, can be read on the page as a complex work of analysis and criticism. Its structure, syntax, imagery, language, and density of ideas contribute to the challenge of studying it in this manner. As this excerpt shows, Morrison begins with a folktale. While the "once upon a time" opening may lead readers into thinking that the lecture will primarily be in narrative form, Morrison uses the tale mainly as a springboard for an abstract, allegorical discussion of language, writing, and those who have no voice in society. Morrison often employs sophisticated sentences that require patience and concentration to follow. Readers may recognize places where Morrison varies sentence patterns to change pace and rhythm—particularly important to the oral delivery of the text. The images Morrison creates are powerful and poetic, the diction is elevated and academic, and the word choice is metaphorical and unconventional: "Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago." The richness and abstractness of the ideas in the lecture mean that rereadings may be necessary to comprehend and evaluate the ideas fully.

Sample performance aligned with the Core Standards

Students determine what Morrison means when she compares language to "a bird in the hand," including the different connotations of this phrase that she develops throughout the lecture. Students also explore what Morrison means by saying that both the bird and language can be "dead or alive." [R-7]

Illustrative Text #6

from Toni Morrison's Nobel lecture, 1993

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"Once upon a time there was an old woman. Blind but wise." Or was it an old man? A guru, perhaps. Or a griot soothing restless children. I have heard this story, or one exactly like it, in the lore of several cultures.

"Once upon a time there was an old woman. Blind. Wise."

In the version I know the woman is the daughter of slaves, black, American, and lives alone in a small house outside of town. Her reputation for wisdom is without peer and without question. Among her people she is both the law and its transgression. The honor she is paid and the awe in which she is held reach beyond her neighborhood to places far away; to the city where the intelligence of rural prophets is the source of much amusement.

One day the woman is visited by some young people who seem to be bent on disproving her clairvoyance and showing her up for the fraud they believe she is. Their plan is simple: they enter her house and ask the one question the answer to which rides solely on her difference from them, a difference they regard as a profound disability: her blindness. They stand before her, and one of them says, "Old woman, I hold in my hand a bird. Tell me whether it is living or dead."

She does not answer, and the question is repeated. "Is the bird I am holding living or dead?"

Still she doesn't answer. She is blind and cannot see her visitors, let alone what is in their hands. She does not know their color, gender or homeland. She only knows their motive.

The old woman's silence is so long, the young people have trouble holding their laughter.

Finally she speaks and her voice is soft but stern. "I don't know", she says. "I don't know whether the bird you are holding is dead or alive, but what I do know is that it is in your hands. It is in your hands."

Her answer can be taken to mean: if it is dead, you have either found it that way or you have killed it. If it is alive, you can still kill it. Whether it is to stay alive, it is your decision.

Whatever the case, it is your responsibility.

For parading their power and her helplessness, the young visitors are reprimanded, told they are responsible not only for the act of mockery but also for the small bundle of life sacrificed to achieve its aims. The blind woman shifts attention away from assertions of power to the instrument through which that power is exercised.

Speculation on what (other than its own frail body) that bird-in-the-hand might signify has always been attractive to me, but especially so now thinking, as I have been, about the work I do that has brought me to this company. So I choose to read the bird as language and the woman as a practiced writer. She is worried about how the language she dreams in, given to her at birth, is handled, put into service, even withheld from her for certain nefarious purposes. Being a writer she thinks of language partly as a system, partly as a living thing over which one has control, but mostly as agency—as an act with consequences. So the question the children put to her: "Is it living or dead?" is not unreal because she thinks of language as susceptible to death, erasure; certainly imperiled and salvageable only by an effort of the will. She believes that if the bird in the hands of her visitors is dead the custodians are responsible for the corpse. For her a dead language is not only one no longer spoken or written, it is unyielding language content to admire its own paralysis. Like statist language, censored and censoring. Ruthless in its policing duties, it has no desire or purpose other than maintaining the free range of its own narcotic narcissism, its own exclusivity and dominance. However moribund, it is not without effect for it actively thwarts the intellect, stalls conscience, suppresses human potential. Unreceptive to interrogation, it cannot form or tolerate new ideas, shape other thoughts, tell another story, fill baffling silences. Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago. Yet there it is: dumb, predatory, sentimental. Exciting reverence in schoolchildren, providing shelter for despots, summoning false memories of stability, harmony among the public.

Notes on Illustrative Text #7

Inquiry into Life, 12th edition, by Sylvia S. Mader

These excerpts, and the prominent college-level biology textbook from which they are drawn, represent some of the challenges presented by complex writing in natural science, including discipline-specific terms (*covalent bond*, *plasma membrane*, *neurotransmitter*), everyday language used in specialized ways (*shell*, *channel*), abbreviations (H^+, *AChE*), and chains of cause-effect relationships that together describe sometimes elaborate processes. Although the figures the author, Sylvia S. Mader, refers to in the text are not included with these excerpts, students reading the larger work will have to integrate words, illustrations, and diagrams to make full sense of the ideas and concepts she describes. For these reasons and others, comprehension may be difficult for readers who have not had experience independently reading similar kinds of text and who lack a knowledge base in the subject. The author does employ a number of cohesive features to help readers understand the terminology and to link ideas. She repeats content words to let readers follow the flow of ideas; she sets up contrastive situations to illustrate the ideas (within, for example, the first and the third paragraphs below); and she uses transitional links ("In some synapses . . . In other synapses . . .") to help readers construct meaning.

Sample performance aligned with the Core Standards

Students discern the most important information in the description of covalent bonding and provide an accurate summary of the concept. [R-3]

Illustrative Text #7

from *Inquiry into Life*, 12th edition

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A **covalent bond** results when two atoms share electrons in such a way that each atom has an octet of electrons in the outer shell. In a hydrogen atom, the outer shell is complete when it contains two electrons. If hydrogen is in the presence of a strong electron acceptor, it gives up its electron to become a hydrogen ion (H^+). But if this is not possible, hydrogen can share with another atom and thereby have a completed outer shell. For example, one hydrogen atom will share with another hydrogen atom. Their two orbitals overlap, and the electrons are shared between them. Because they share the electron pair, each atom has a completed outer shell.

* * * * * * * *

The passage of salt (NaCl) across a plasma membrane is of primary importance to most cells. The chloride ion (Cl^-) usually crosses the plasma membrane because it is attracted by positively charged sodium ions (Na^+). First sodium ions are pumped across a membrane, and then chloride ions simply diffuse through channels that allow their passage.

As noted in Figure 4.2*a*, the genetic disorder cystic fibrosis results from a faulty chloride channel. Ordinarily, after chloride ions have passed though the membrane, sodium ions (Na^+) and water follow. In cystic fibrosis, Cl^- transport is reduced, and so is the flow of Na^+ and water.

* * * * * * * *

Once a neurotransmitter has been released into a synaptic cleft and has initiated a response, it is removed from the cleft. In some synapses, the postsynaptic membrane contains enzymes that rapidly inactivate the neurotransmitter. For example, the enzyme **acetylcholinesterase (AChE)** breaks down acetylcholine. In other synapses, the presynaptic membrane rapidly reabsorbs the neurotransmitter, possibly for repackaging in synaptic vesicles or for molecular breakdown. The short existence of neurotransmitters at a synapse prevents continuous stimulation (or inhibition) of postsynaptic membranes.

Notes on Illustrative Text #8

Sample business memo (ACT WorkKeys Reading for Information Test)

Though not a typical kind of reading in high school classrooms, the business communication, such as the one sampled here, is a form that career-ready students will need to be able to comprehend independently. This text, taken from ACT's WorkKeys Reading for Information Test, is challenging in large part because, like many such communications, it contains important, detailed information intended for a specialized audience. Structurally, the text offers little guidance on how it should be read. Potentially vital details appear throughout and are mingled with other details irrelevant to some readers (e.g., those without children). Even the paragraphing is somewhat inconsistent, especially between the first and second paragraphs. While the sentences are not particularly long and the language is not overly technical, the density of information and its lack of prioritization make this a complex text.

Sample performance aligned with the Core Standards

Students infer from the memo the conditions under which children who are under nineteen are not covered by the health plan. [R-1]

Illustrative Text #8

Sample business memo

WorkKeys Reading for Information Test has been reproduced with permission of ACT, Inc.

DETERMINING ELIGIBILITY FOR MEDICAL COVERAGE

All full-time employees of the company who work an average of at least 30 hours per week are eligible under this plan. Coverage begins on the first day of the month following the 30 days of active full-time employment. If employees enroll within 31 days of the date they are eligible, medical evidence of good health is not required. Temporary and part-time employees are not eligible. Employees are no longer eligible under this plan one month after the date they begin active duty in the armed forces of any country and continuing for the duration of their service.

If employees enroll their dependents within 31 days of the date they become eligible, medical evidence of good health is not required. If they do not, they will be required to submit evidence of good health for each dependent, at their expense, which is satisfactory to the company.

The following dependents are eligible under this plan: employees' spouses, employees' unmarried children under age 19, employees' unmarried dependent children under age 23 who are attending trade school, college, or university on a full-time basis, or employees' unmarried disabled children age 19 and over. Coverage ceases when spouses or children cease to be dependent upon employees for support. In the case of employees' spouses this is if they are legally separated or divorced. In the case of disabled children, this is when they are no longer disabled. Coverage will cease when dependents have served in the armed forces of any country for more than one month, or when maximum benefits have been paid.

Notes on Illustrative Text #9

FedViews, July 9, 2009, by Mary C. Daly (The Federal Reserve Bank of San Francisco's Web site)

This text illustrates some of the difficulties posed by integrating information gained from words and graphics. This sort of challenge is common in writing designed to inform or explain, including writing in the workplace. The bullet point format used here means that the kind of explicit transitions between ideas typically found in prose are missing; readers will have to infer relationships between the points made by the author, Mary C. Daly, and synthesize the information into a coherent whole. Readers will furthermore have to analyze both the words and the graphics, integrate the information, and check to see whether each source of information supports the other. Daly also uses a great deal of specialized language; the terms *feedback loop*, *credit availability*, and *barriers to credit* all appear in just the first bullet point here.

Sample performance aligned with the Core Standards

Students synthesize information drawn from the text as well as the graphs in order to gain an overarching view of the economy on July 9, 2009. [R-11]

Illustrative Text #9

from FedViews, July 9, 2009

Reprinted from the Federal Reserve Bank of San Francisco's FedViews of July 9, 2009. The opinions expressed in this article do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

Mary C. Daly, vice president and director of the Center for the Study of Innovation and Productivity at the Federal Reserve Bank of San Francisco, states her views on the current economy and the outlook.

- Financial markets are improving, and the crisis mode that has characterized the past year is subsiding. The adverse feedback loop, in which losses by banks and other lenders lead to tighter credit availability, which then leads to lower spending by households and businesses, has begun to slow. As such, investors' appetite for risk is returning, and some of the barriers to credit that have been constraining businesses and households are diminishing.

- Income from the federal fiscal stimulus, as well as some improvement in confidence, has helped stabilize consumer spending. Since consumer spending accounts for two-thirds of all economic activity, this is a key factor affecting our forecast of growth in the third quarter.

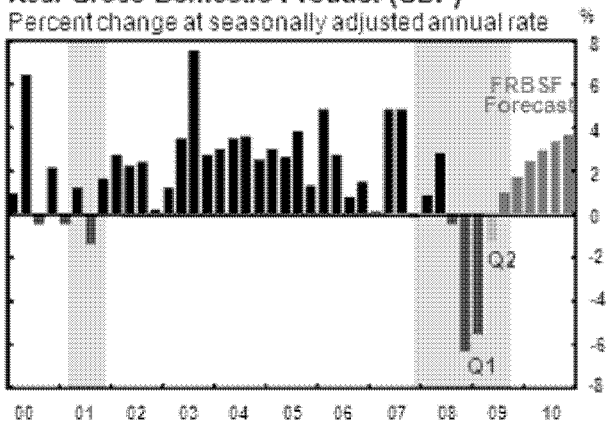
- The gradual nature of the recovery will put additional pressure on state and local budgets. Following a difficult 2009, especially in the West, most states began the 2010 fiscal year on July 1 with even larger budget gaps to solve.

- Still, many remain worried that large fiscal deficits will eventually be inflationary. However, a look at the empirical link between fiscal deficits and inflation in the United States shows no correlation between the two. Indeed, during the 1980s, when the United States was running large deficits, inflation was coming down.

Modest recovery to begin in Q3

Real Gross Domestic Product (GDP)

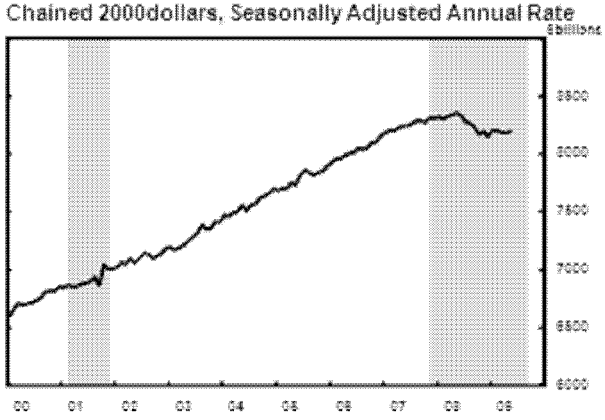
Percent change at seasonally adjusted annual rate



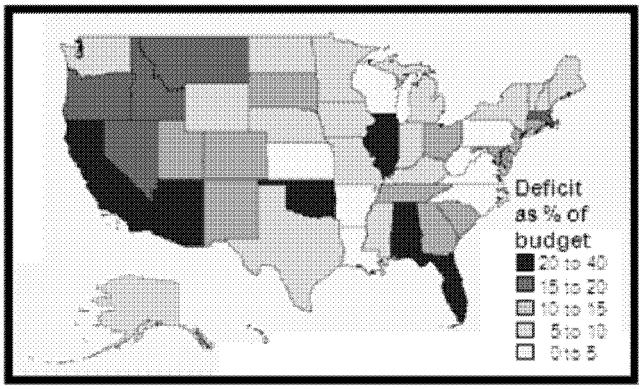
Consumers hanging on

Real Personal Consumption Expenditures

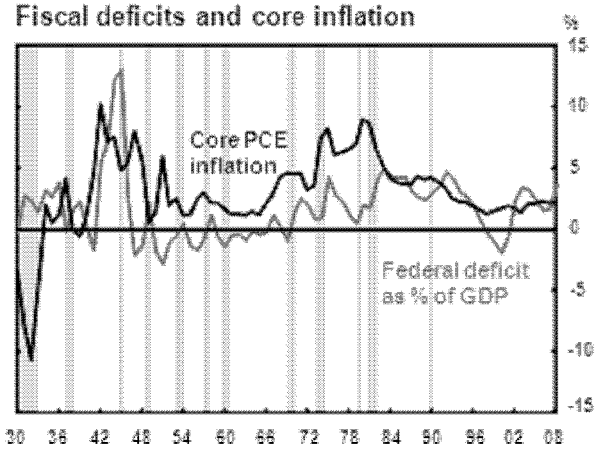
Chained 2000dollars, Seasonally Adjusted Annual Rate



State budget gaps pervasive in 2009



No link between deficits and inflation



Notes on Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

The challenge offered by this online text and others like it is very different from that offered by a complex continuous text in, say, the sciences. The brief passages are not conceptually difficult, the language is not technical or esoteric, and the sentences are not particularly complex. But these characteristics belie the complexity of the reading task. An online text of this kind requires readers to apply their print-reading skills in tandem with their knowledge of how to use online periodicals. The editors and designers have assigned levels of importance to individual stories and images, as measured by their size and position in the layout. The page itself uses words, numbers, icons, and other visual elements (e.g., line, color, and shape) to guide readers further. Headings in various colors direct readers to particular sections (OPINION, MARKETS, HEALTH), while links direct readers to particular stories ("Taliban Talks Are Key Issue in Afghan Vote"). Time markers ("3 minutes ago") help readers assess how new the information in a given story is. The text requires readers to make choices about which links to follow based on their understanding of how online text is typically structured and on a minimum of additional information (e.g., an icon of a camera, a drop-down menu in an ad).

Sample performance aligned with the Core Standards

Students select an article and use search terms and other features of the online text to research a specific aspect of the subject in more depth. [R-12]

Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

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Sample of Works Consulted

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A. Achieve, Inc. (2004). The American Diploma Project, *Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (PDF)

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Readiness.

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B. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007. (PDF)

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The Common Core K–12 Mathematics Standards

This document provides grade level standards for mathematics in grades K–8, and high school standards organized under the headings of the *College and Career Readiness Standards in Mathematics*. Students reaching the readiness level described in that document (adjusted in response to feedback) will be prepared for non-remedial college mathematics courses and for training programs for career-level jobs. Recognizing that most students and parents have higher aspirations, and that ready for college is not the same as ready for mathematics-intensive majors and careers, we have included in this document standards going beyond the readiness level. Most students will cover these additional standards. Students who want the option of entering STEM fields will reach the readiness level by grade 10 or 11 and take precalculus or calculus before graduating from high school. Other students will go beyond readiness through statistics to college. Other pathways can be designed and available as long as they include the readiness level. The final draft of the K–12 standards will indicate which concepts and skills are needed to reach the readiness level and which go beyond. We welcome feedback from states on where that line should be drawn.

English Language Learners in Mathematics Classrooms

English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

Language proficiency is a complex construct that can reflect proficiency in multiple contexts, modes, and academic disciplines. Current measures of language proficiency may not give an accurate picture of an individual's language competence. In particular, we do not have measures or assessments for language proficiency related to competence in mathematics for different ages or mathematical topics. These two facts can confuse discussions of mathematics instruction for ELLs. In particular, because of the complexity of language proficiency and the limitations of the label "English Language Learner" as currently implemented, instructional decisions should not be made solely based on that label. However, research on language and mathematics education for this student population does provide a few clear results to guide practices for teaching ELLs mathematics:

- English learners can participate in mathematical discussions as they learn English (Moschkovich, 1999a, 2002, 2007a, 2007b, 2007d).

- Mathematics instruction for students who are learning English should draw on multiple resources and modes available in classrooms—such as objects, drawings, inscriptions, and gestures—as well as home languages and mathematical experiences outside of school.

- While mathematics instruction for ELLs should address mathematical discourse and academic language, this involves much more than vocabulary instruction.

Basic principles for improving the mathematics achievement of ELLs

Language is a resource for learning mathematics, it is not only a tool for communicating, but also a tool for thinking and reasoning mathematically. All languages (English, Spanish, Tagalog,etc.) and language varieties (different dialects, home or everyday ways of talking, vernacular, slang, etc.) provide resources for mathematical thinking, reasoning, and communicating.

Regular and active participation in the classroom—not only reading and listening but also discussing, explaining, writing, representing, and presenting—is crucial to ELLs' success in mathematics, and that ELLS can produce explanations, presentations, etc. and participate in classroom discussions *as they are learning English* (Moschkovich, 1999 and 2007).

- ELLs, like English-speaking students, require regular access to teaching practices that are most effective for improving student achievement. These practices include: a) Keeping mathematical tasks at high-cognitive demand (Henningsen & Stein, 1997; Silver & Stein, 1996); b) teachers and students attend explicitly to concepts (Hiebert & Grouws, 2007), and c) students wrestle with important mathematics (Hiebert & Grouws, 2007).
- See the evidence of ELLs' mathematical thinking, hear how ELLs use language to communicate about mathematics, understand the competence that ELLS bring to the classroom, build on this competence, and provide access to opportunities for advancing their mathematics learning.

Overall, research suggests that:

- Classroom instruction should allow bilingual students to choose the language they prefer for arithmetic computation. Language switching can be swift, highly automatic, and facilitate rather than inhibit solving word problems in the second language, as long as the student's language proficiency is sufficient for understanding the text of the word problem.
- Instruction should ensure that students understand the text of word problems before they attempt to solve them.
- Instruction should include a focus on "mathematical discourse" and "academic language" because these are important for English learners. Although it is crucial that students who are learning English have opportunities to communicate mathematically, this is not primarily a matter of learning vocabulary. Students learn to participate in mathematical reasoning, not by learning vocabulary, but by making conjectures, presenting explanations, and/or constructing arguments.
- While vocabulary instruction is important, it is not sufficient for supporting mathematical communication. Furthermore, vocabulary drill and practice are not the most effective instructional practices for learning vocabulary. Instead, research has demonstrated that vocabulary learning occurs most successfully through instructional environments that are language-rich, actively involve students in using language, require that students both understand spoken or written words and also express that understanding orally and in writing, and require students to use words in multiple ways over extended periods of time (Blachowicz, Camille, and Peter Fisher, 2000). To develop written and oral communication skills, students need to participate in negotiating meaning for mathematical situations and in mathematical practices that require output from students (Moschkovich, 2009).

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Access for Students with Disabilities

The Common Core Standards articulate rigorous expectations in the areas of mathematics, reading, writing, and speaking and listening in order to prepare students to be college- and career-ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.[1]

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When learning the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),[2] to help them access information or demonstrate their knowledge. Students might be precluded from reaching particular standards given the nature of the standard itself. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the Core.

Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, and listening standards often require accommodations for students with disabilities. In the case of students who are deaf, a standard that calls for "listening" should be interpreted to include reading sign language. In a similar vein, "speaking" as it occurs in standards for certain students with speech impairments should be read broadly to include "communication" or "self-expression." Students who are blind or have low vision should be able to read via Braille, screen reader technology, or other assistive technology to demonstrate their comprehension

[1] Research suggests that the vast majority of the population of students with intellectual impairments *can* achieve proficiency when they receive high quality instruction in the grade-level content and appropriate accommodations.
[2] According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

skills. "Writing" should not preclude the use of a scribe, computer, or speech-to-text technology for students with disabilities that interfere with putting pen to paper. In the case of students with intellectual impairments—less than 2 percent of the total population of all students and less than 20 percent of students with disabilities—accommodations should allow them to demonstrate their knowledge and skills through alternative modes like text to speech software or reading aloud. For these students, writing may involve the use of pictures to assist in illustrating plot or argument, or offering them the opportunity to "choose words and phrases" by selecting from options rather than generating direct answers. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the Core.

Meeting Mathematics Standards

In curriculum for students with disabilities, ELA skills often take precedence over mathematics understanding. However, most of these students can master mathematical concepts with accommodations in instructional delivery and the use of specialized technology, including computers and calculators. For example, students with visual disabilities might require enhanced verbal descriptions from teachers and the use of large-print to demonstrate subsequent knowledge. Students who are deaf might require visual aids such as charts, diagrams, and mental images and increased reliance on computers and calculators. Manipulatives can enable students with intellectual impairments to grasp abstract concepts and continue learning. Evidence suggests that students with disabilities, even those with full intellectual abilities, tend to lag behind their peers in mathematics achievement; strong curriculum that gives equal priority to mathematics and ELA will help these students succeed.

In short, while the standards remain and retain high expectations of students, they may need to be translated and occasionally modified to appropriately apply to students with disabilities, including all levels of intellectual impairment. Every student deserves to be treated with respect, and every student deserves an outstanding education. Promoting a culture of high expectations for all students is a fundamental goal of the Core Standards. Reaching students with disabilities requires broadening our understanding of what the standards say and being ready to make appropriate accommodations and/or modifications to meet individual students' needs.

How to read this document

The K–8 standards are organized by grade level. Within each grade level there are several headings, each one the title of a single progression having significant presence in the grade in question. Under each of these progression headings, there appear **core standards**, divided into standards describing concepts students should understand and standards describing skills students should acquire. A typical progression spans a number of grades, but does not span all of K-8. The progressions and their grade spans are listed at the end of the document.

The high school standards are not organized by grade level or by course, but rather are organized under headings of the *College and Career Ready Standards for Mathematics*: Expressions, Equations, Functions, Coordinates, Modeling, Statistics, Probability, and Geometry.[3] Subheadings under each heading refer either to mathematical practices or to principle topics, and core standards are listed under each subheading, as in the K-8 standards. The subheadings are not necessarily curricular units, but rather can describe concepts and skills that are revisited throughout a student's high school career. This design necessitates a future effort to develop course sequences (either traditional or integrated).

[3] Number and Quantity are not included, since they are principally the domain of K–8. In response to feedback, the headings have been reordered and Shape has been renamed to Geometry.

Mathematical Practice[4]

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Standards · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x$

[4] Slated for review and editing, based on feedback to the College and Career Readiness Standards, and in order to apply more naturally to elementary school as well.

$-y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Reason quantitatively.

Quantitative reasoning is a way of thinking by which one reasons with quantities and about relations among quantities. It entails habits of creating a coherent image of the problem at hand; considering the units involved; continually attending to the meaning of quantities, not just how to compute them; and having multiple images of a concept and being flexible in transitioning among them. In problems dealing with quantitative relationships, students exercise two inseparable abilities: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referential meanings for the symbols involved in the manipulation.

7 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

Mathematics: Kindergarten[5]

Developing Coherent Understanding

[Temporarily removed for editing.]

Counting and Cardinality

Core Standards · Students understand that:

1. The number words have a standard order.
2. In counting, each object receives one and only one number word.
3. The last number word tells the number of objects.
4. Numbers said later in the count refer to larger quantities.
5. Counting on 1 more is the same as adding 1. That is, one more than a number is the next number in the count.

Core Standards · Students can and do:

a. Count by ones from 1 to 100; count by tens to 100.[6]
b. Count forward from a given number within the known sequence (instead of always counting forward from 1).[7]
c. See collections of up to 10 objects as being composed of subgroups.
d. Count to answer "how many?" questions with up to 10 things in various arrangements (e.g., array, circular, scattered), or up to 25 things if in a row.
e. Write numerals from 1 to at least 30.

Base Ten Computation

Core Standards · Students understand that:

1. Ten ones make a tens unit (ten things can be thought of as bundled into a single unit).
2. Decade words refer to groups of tens units. For example, thirty refers to a group of three tens units.
3. A teen number[8] is a ten and some ones. The number 10 can be thought of as a ten and no ones.
4. Any teen number is larger than any single digit number. Teen numbers are ordered according to their ones digits.
5. A two-digit number is some tens and some ones. For example, 29 is two tens and nine ones.

Core Standards · Students can and do:

a. Make 10 with each number from 1 to 9 (i.e., know the number that makes 10 with the given number).
b. Show each teen number as a ten and some ones.

Early Relations and Operations

Core Standards · Students understand that:

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[5] Some material is used verbatim from National Research Council. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*. Committee on Early Childhood Mathematics, Christopher T. Cross, Taniesha A. Woods, and Heidi Schweingruber, Editors. Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

[6] To "count" here means only to say the number words, not to determine how many objects are in a collection.

[7] To "count" here means only to say the number words, not to determine how many objects are in a collection.

[8] Glossary: Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

1. Adding is putting two groups together or putting some more with a group, and subtracting is taking some from a group.
2. Addition and subtraction can be represented with physical or mental objects (including fingers), pictures, drawings, sounds (e.g. number words), motions, or equations.
3. Adding can be recorded by an expression, as when "three more than six" is recorded as 6 + 3, or by an equation that also shows the answer (6 + 3 = 9). Likewise, subtracting can be recorded by an expression, as when "how much more than 9 is 5" is recorded as 9 – 5, or by an equation that also shows the answer (9 – 5 = 4).
4. Breaking apart a group can be recorded in an equation such as 8 = 5 + 3. Breaking apart a group in more than one way can be recorded in an equation such as 7 + 6 = 10 + 3.
5. In all equations, the equals sign indicates that the values on either side are the same.

Core Standards · Students can and do:

a. Use matching and counting strategies to decide whether one set is more than, less than, or equal to another set in number of objects (less than or equal to 10).
b. Compare and order numbers less than or equal to 10.
c. Use concrete objects to determine the answer to addition and subtraction word problems and additions and subtractions with totals less than or equal to 10.
d. Experience enough problem situations so that additions to five and the corresponding subtractions and some additions and subtractions within ten become well known.

Quantity and Measurement

Core Standards · Students understand that:

1. Things have attributes—such as length, weight, capacity, loudness, softness, and so on. A single thing might have several attributes of interest (as when we focus on a child's height and gender).

Core Standards · Students can and do:

a. Directly compare two objects to see which one has "more of" a shared attribute.
b. Rank three objects by a shared attribute (especially length), and use transitivity[9] to compare two objects indirectly.
c. ♦ Classify objects or people into predetermined categories, and count the numbers in each category. List the categories and counts in order by count. (Each category count less than or equal to 10.)[10]

Shapes

Core Standards · Students understand that:

1. Names refer to shapes regardless of orientation or overall size.[11]

Core Standards · Students can and do:

a. Study a range of 2D and 3D shapes, in different sizes and orientations, and discuss their properties, similarities, and differences using informal language.

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[9] Glossary: Transitive property of measurement order: If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.

[10] The symbol ♦ indicates material in data analysis and statistics that appears under another progression heading in order to make an important connection.

[11] For example, a square rotated to form a "diamond" is still a square, even though it is rotated. Students at this grade might need to physically rotate a shape until it is "level" before they can correctly name it.

b. Move shapes using translations, reflections and rotations.[12]

[12] This is not meant to be assessed by showing students a picture of a shape and asking them to draw or select a translated, reflected or rotated version of it.

Mathematics: First Grade[13]

Developing Coherent Understanding

[Temporarily removed for editing.]

Early Relations and Operations

Core Standards · Students understand that:

1. Counting on is an efficient method of counting all, in which the initial count of the first addend is omitted.
2. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[14] These situations can be represented by addition and subtraction equations such as $7 + 5 = 12$, $10 = 5 + 5$, and so on.
3. Addition and subtraction are inverse operations; that is $10 - 8$ can be found by thinking $8 + 2 = 10$.
4. When any two of the numbers in an addition or subtraction equation are known, the unknown number can be found.
5. One-to-one dealing of objects in a collection (e.g., "One for you, one for me, one for him, …") creates fair shares.

Core Standards · Students can and do:

a. Use counting on strategies or decomposing strategies for additions and subtractions within 20.
b. Solve addition problems containing three addends.
c. Use objects, pictures and story contexts to explain what happens when the order of addends in a sum is changed, when 0 is added to a number, and when one addend in a sum is increased by 1 and another decreased by 1.
d. Experience enough problem situations so that many or all sums and differences within 20 become well known.
e. Use drawings and equations to represent and solve word problems involving addition and subtraction.[15]
f. ♦ Organize, represent and interpret data with several categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another
g. Create *n* fair shares from a collection of objects. Identify the size of one share, and recognize the original collection as *n* copies of a single share.

Quantity and Measurement

Core Standards · Students understand that:

1. Lengths can be added by placing long objects, rods, or unit cubes end to end in a straight line. The total length is the same in whatever order the rods are placed.

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[13] Some material is used verbatim from National Research Council. (2009, op. cit.)

[14] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

[15] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

2. Lengths can be compared by placing rods side by side, with one end lined up. The difference in length is how far the longer extends beyond the end of the shorter.
3. Lengths are measured (assigned numerical values) by comparing them to other lengths—that is, by using another object as a length unit. The length of an object can be expressed numerically by counting the number of length units that span it with no gaps or overlaps.
4. When an object or figure is decomposed into several pieces, the length of the whole can be found by placing the pieces end to end in any order.
5. A sum of two whole numbers represents a total length; a difference of two whole numbers represents a difference in length.
6. Durations of time are measured by comparing them to other durations of time, such as the earth's rotation period, or the time a minute hand takes to complete a circle around a clock face.

Core Standards · Students can and do:

a. Using an object as a length unit, measure, compare and estimate length.[16]
b. Using an object as a length unit, determine total length by adding lengths of two parts.[17] Compare lengths using addition and subtraction.
c. Decompose circles and rectangles into 2 and 4 equal parts. Describe the parts using the words "halves" and "quarters," and using the phrases "half of" and "quarter of." Describe the wholes as twice or four times as large as the parts.
d. Tell time in hours from clocks; subtract to find whole-hour durations on a clock (within AM or within PM).

Base Ten Computation

Core Standards · Students understand that:

1. In comparing two-digit numbers, the number with more tens units is larger; if the number of tens units is the same in each, the number of ones units decides.
2. In adding or subtracting 2-digit numbers, one adds or subtract like units (tens units and tens units, or ones units and ones units).

Core Standards · Students can and do:

a. Count to 100 or beyond, switching appropriately to the new decade after a 9 has been said in the ones place.
b. Compare and order numbers to 100 based on meanings of the tens and ones places.
c. Easily write numerals to 20; write numerals to 100.
d. Use break-apart and make-a-ten strategies to add and subtract with teen totals as in $7 + 6 = 10 + 3$ and $17 - 9 = 17 - 7 - 2$.
e. Find 10 more or 10 less than a number without having to count.
f. Add one-digit numbers to two-digit numbers, and add multiples of 10 to one-digit and two-digit numbers.
g. Represent addition of two-digit numbers using 10-rods and unit cubes,[18] including rearranging rods and cubes to show regrouping when needed.
h. Add two-digit numbers to two-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.

Shapes

[16] Select and iterate units, partition into equal parts, and compare lengths indirectly by using a reference length.
[17] Restrict to whole-unit lengths.
[18] Any concrete model that can show individual units and ten connected units will do.

Core Standards · Students understand that:

1. Several shapes can be joined together to form a larger shape. A single shape can also be visualized as a collection of smaller shapes joined together.
2. Decomposing larger shapes into equal-sized parts creates fair shares.
3. When an identical figure is decomposed into more fair shares, the shares are smaller than in the first instance.

Core Standards · Students can and do:

a. Form different 2D figures with cutouts of rectangles, squares, triangles, semicircles, and quarter-circles.[19]
b. Form different 3D figures with concrete models of cubes, rectangular prisms, cones, and cylinders.[20]
c. Decompose 2D shapes into rectangles, squares, triangles, semicircles, and quarter-circles, including decomposing into fair shares.

[19] From Singapore Primary 2
[20] From Singapore Primary 2

Mathematics: Second Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[21] These situations can be represented by addition and subtraction equations such as 17 + 5 = 22, 36 = 56 – 26, and so on.
2. Addition and subtraction are inverse operations; that is 100 – 98 can be found by thinking 98 + 2 = 100.
3. Numbers can be added and subtracted only when they refer to the same underlying unit.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of addition and subtraction.[22]
b. Produce full sets of related equations for addition and subtraction, as in the set 5 + 3 = 8, 3 + 5 = 8, 8 = 5 + 3, 8 = 3 + 5, 8 – 5 = 3, 8 – 3 = 5, 3 = 8 – 5, 5 = 8 – 3.
c. Solve up to two-step addition/subtraction word problems with whole numbers and whole number quantities within 100.[23]

Base Ten Computation

Core Standards · Students understand that:

1. A three-digit number is made up of hundreds, tens and ones units. Digits in each place are worth ten times as much as digits in the place to the right.
2. Comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
3. Three-digit numbers can be expanded into sums of hundreds, tens and ones units. In adding or subtracting, one adds or subtracts the units of each size; regrouping might be needed to write a total in standard form if there are too many of a unit, or to get enough of a unit to subtract from it.
4. The scheme for regrouping is the same at each place, because each unit is composed of ten of the smaller unit.

Core Standards · Students can and do:

a. Compare and order numbers to 1,000.

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[21] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

[22] Include properties such as that the sum is the same when multiple addends are added in a different order; if adding two numbers gives a certain sum, then subtracting one of the addends from the sum results in the other addend; that if more is subtracted from a number, the difference is decreased and if less is subtracted the difference is increased; that in an addition problem, each addend can be taken apart and the parts can be recombined in any order without changing the sum.

[23] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

b. Given a three-digit number, quickly find 10 more or 10 less than the number, and quickly find 100 more or 100 less than the number.
c. Rapidly add and subtract within 20.[24]
d. Add and subtract three-digit numbers to three-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.
e. Add and subtract three-digit numbers using an algorithm[25] based on place value and regrouping, such as the standard algorithm.
f. Explain why addition and subtraction strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. 1 inch, 1 foot, 1 centimeter and 1 meter are conventionally defined lengths that allow standardized length measurements.
2. When measuring a length, if a smaller unit is chosen, more units must be iterated to measure the length in those units. But the length of an object itself does not depend on the choice of unit.
3. Units can be decomposed into smaller units, e.g. a foot contains 12 inches and a meter contains 100 centimeters. A small number of long units might form a greater total length than a large number of small units.
4. Sharing a circle or rectangle fairly among 2-6 shares creates equal parts, each of which is a single unit. Copying one unit by the number of pieces measures the whole in terms of the units.
5. A half, a third, or a quarter of a given rectangle encloses the same amount of space regardless of its shape.

Core Standards · Students can and do:

a. Measure, compare and estimate whole-unit lengths in units of inches, feet centimeters and meters.
b. Construct a number line with an origin (0) and a unit (1), marking off whole numbers one unit distance apart. Use a number line to represent sums and differences; determine lengths of intervals on the number line.
c. Decompose circles and rectangles into 2-6 equal parts. Describe the parts using the words "halves," "thirds," "half of," "a third of," etc. Describe the wholes as 2-6 times as large as the parts.
d. Construct a number line to 100 using tens-unit lengths, showing ones-unit lengths within a decade of interest. Explain regrouping by composing and decomposing concrete lengths.
e. ♦ Draw a bar graph (with single-unit scale) to represent a data set with several categories. Solve simple part-part-whole and compare problems using information presented in a bar graph.[26]
f. ♦ Identify correspondences in different representations of a data set with several categories.
g. Solve word problems involving dollar bills, quarters, dimes, nickels and pennies.

Shapes

Core Standards · Students understand that:

[24] Acceptable strategies include: mental strategies such as making a ten, use of fingers to assist in rapid counting-on, and producing sums or differences from memory.
[25] Glossary: Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia's "effective procedure," from which this definition is adapted.
[26] For part-part-whole problems, only sum-unknown problems are required to meet this standard. For compare problems, only difference-unknown problems are required to meet the standard.

1. A given category of shapes (e.g., triangles) can be divided into subcategories (e.g., isosceles triangles) on the basis of special properties. Conversely, different classes of shapes (e.g., squares and rectangles) can be united into a larger category (e.g., quadrilaterals) on the basis of shared properties.

Core Standards · Students can and do:

a. Draw and identify equilateral triangles, isosceles triangles,[27] squares and rectangles.[28]
b. Recognize squares and rectangles as examples of quadrilaterals; draw examples of quadrilaterals that are neither squares nor rectangles.
c. Draw and identify radii and diameters of a circle.
d. Recognize objects that resemble spheres, cylinders and rectangular prisms.

[27] Students at this grade need not understand that equilateral triangles are isosceles.

[28] Students at this grade need not understand that squares are rectangles.

Mathematics: Third Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Multiplication and division apply to situations of equal grouping, fair sharing, measuring, and comparing ("times as much").

   - An equation of the form $a \times b = n$ applies to a situation in which a groups of b things each make n things in all, or in which a copies of a continuous quantity of size b form a continuous quantity of size n. (See table for examples.)

   - An equation of the form $n \div a = b$ tells how many things, b, are in each group when n things are divided equally into a groups, or tells how large a quantity b results when a continuous quantity of size n is shared fairly into a shares. (See table for examples.)

   - An equation of the form $n \div b = a$ tells how many groups, a, result when n things are divided into equal groups of b things each, or tells how many fair shares, a, a quantity of size n yields when each share has size b. (See table for examples.)

   - Two quantities can be compared by multiplication or division. An equation of the form $a \times b = n$ means n is a times as much as b and b times as much as a.

2. Multiplication is commutative: The total number of things in a groups of b things each is the same as the total number of things in b groups of a things each, that is, $a \times b = b \times a$. Likewise, a copies of a continuous quantity of size b are equal in size to b copies of a continuous quantity of size a.

3. The area of a rectangle with whole number side lengths can be calculated by multiplying because the rectangle can be decomposed into equal rows (or columns) of unit squares.

4. Multiplication and division are inverse operations; that is $35 \div 7$ can be found by thinking $5 \times 7 = 35$. When any two of the numbers in a multiplication or division equation are known, the unknown number can be found.

	$3 \times 6 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
Collections	3 rows of apples with 6 apples in each row are 18 apples.	If 18 apples are arranged into 3 equal rows, each row will have 6 apples in it.	If 18 apples are arranged into equal rows of 3 apples, there will be 6 rows.
Continuous Quantities	If you have enough ribbon to make 6 bows, then 3 times as much ribbon will make 18 bows.	If you have enough ribbon to make 18 bows and share the ribbon fairly among 3 kids, then each kid has enough ribbon to make 6 bows.	If each kid wants to make 6 bows and there's enough ribbon to make 18 bows, then 3 kids can make bows.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of multiplication and division.[29]
b. Solve simple multiplication and division word problems involving equal groups, length and area.
c. Solve up to two-step word problems involving the four operations with whole numbers and whole number quantities. (Whole number quotients only)
d. Solve multiplicative comparison problems with whole numbers (problems involving the notion of "times as much").
e. ♦ Draw a scaled bar graph to represent a data set with several categories. Solve "how many more"/"how many less" problems (two-step problems) using information presented in scaled bar graphs.[30]

Base Ten Computation

Core Standards · Students understand that:

1. Patterns in the multiplication table can be explained by the Properties of Arithmetic. For example, the distributive property explains why, for any row, the entries in the 7 column are the sums of the entries in the 5 and 2 columns.
2. The Properties of Arithmetic can be used to derive new multiplications and divisions from known ones.

Core Standards · Students can and do:

a. Explain strategies for multiplying and dividing that use the Properties of Arithmetic and properties of the base ten system.
b. Rapidly multiply and divide within 100.[31]
c. Produce full sets of fact families for multiplication and division, as in the set $6 \times 7 = 42$, $7 \times 6 = 42$, $42 = 7 \times 6$, $42 = 6 \times 7$, $42 \div 7 = 6$, $42 \div 6 = 7$, $6 = 42 \div 7$, $7 = 42 \div 6$.
d. Find the factor pairs for a given number, as in the factor pairs for the number 42: {42, 1}, {21, 2}, {14, 3}, {7, 6}.

Fractions

Core Standards · Students understand that:

1. When a whole, 1, is divided into b equal parts, the size of the parts is written $1/b$. To show $1/b$ of something, divide the thing into b equal parts.
2. For a whole number a and a positive whole number b, a/b is defined as a copies of $1/b$.[32] This can be thought of as the sum $1/b + 1/b + \ldots + 1/b$ (with a summands).
3. Whole numbers can be written as fractions, as in $b/b = 1$, $n/1 = n$, and cases such as $(4 \times 7)/4 = 7$.
4. Fractions are numbers and can be seen as lengths on a number line.[33]

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[29] Include properties such as that the product is the same when the order of the factors is changed; that multiplication problems involving 1-digit numbers can be solved by breaking one factor apart additively and multiplying each part by the other factor; and that multiplying a quantity by a number, then dividing by the same number, leaves the original quantity unchanged.

[30] Include single-unit scales and multiple-unit scales. For multiple-unit scales, all counts should be evenly divisible by the scale factor. No count should represent more than ten of the scale unit, and no scale unit should represent more than ten counts.

[31] A variety of mental strategies are acceptable, including derived fact strategies and producing products or quotients from memory.

[32] This includes fractions greater than 1. For example, $17/5$ is 17 copies of $1/5$.

[33] For example, $17/5$ is 17 copies of the subinterval $1/5$ laid end to end.

5. Two fractions are equal when they represent the same portion of a whole, or when they have the same length on a number line. One fraction is greater than another when it represents a greater portion of the whole than the other, or lies to the right of the other on the number line.
6. Given two unit fractions, the fraction with the larger denominator is smaller, because dividing a whole into a larger number of parts leads to smaller parts.
7. Fractions with the same denominator can be added or subtracted by adding or subtracting the units indicated by the unit fraction. For example, $^2/_3 + {}^4/_3$ is 2 copies of $^1/_3$ plus 4 copies of $^1/_3$, or 6 copies of $^1/_3$ in all, that is $^6/_3$.
8. The decimal 0.1 denotes the fraction $^1/_{10}$, 0.2 denotes $^2/_{10}$, and so on through 0.9, which denotes $^9/_{10}$.

Core Standards · Students can and do:

a. Use fractions to describe quantities and parts of wholes.
b. Compare and order fractions with equal numerators or equal denominators, including in contextual situations, using the fractions themselves, bar strip drawings, number line representations, and area models.
c. Reason about fractions to establish equivalences between fractions with unlike denominators 2, 3, 4 and 6 (e.g. $^1/_2 = {}^2/_4$, $^4/_6 = {}^2/_3$).
d. Add and subtract fractions with like denominators.
e. Solve word problems that involve adding, subtracting, ordering and comparing fractions.
f. Represent fractions of the form $^a/_{10}$ in decimal notation; compare and order to tenths in decimal notation.

Quantity and Measurement

Core Standards · Students understand that:

1. A unit of measure can be partitioned into equal-sized parts, whose sizes can be represented as fractions of the unit.
2. The area of a closed plane figure is a measure of how much space it encloses. A square with side length 1 unit is said to enclose "one square unit" of area.
3. The area of a closed plane figure can be measured (expressed numerically) by the number of square units that fit inside it with no gaps or overlaps.
4. Area is a model for multiplication because tiling a rectangle with unit squares shows that a rectangle a units long by b units wide encloses an area of $a \times b$ square units.

Core Standards · Students can and do:

a. Measure lengths using rulers marked with halves and fourths of inches. Make a dot plot to show repeated measurements.
b. Convert compound units to a smaller or a larger unit, and solve problems involving mixed units (feet and inches, yards and feet).
c. Using customary units, demonstrate and justify correct processes for measuring, comparing, and estimating length, mass, capacity, and durations of time, including unit selection, partitioning and iterating units, and transitivity.
d. Compute perimeters of polygons by adding given side lengths, and find an unknown length in a polygon given the perimeter and all other side lengths. Represent these problems with equations involving a symbol for the unknown quantity.
e. Determine and compare areas by counting square units (improvised units, cm^2, m^2, in^2, ft^2).
f. Compute elapsed time and solve problems involving elapsed time (to the nearest minute).

Mathematics: Fourth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Quantities in a problem might be described with whole numbers, fractions or decimals; the operations used to solve the problem depend on the relationships between the quantities whatever numbers are involved.
2. The distributive property (of multiplication over addition) relates addition and multiplication. The distributive property can be shown numerically and visually, using arrays and area models.

Core Standards · Students can and do:

a. Solve multistep word problems involving the four operations with whole numbers.[34]
b. Estimate answers to computations and compute mentally to assess reasonableness of results.
c. Solve problems that involve comparing, ordering, adding and subtracting fractions with like denominators. Compare fractions to benchmark fractions.
d. Solve problems that involve comparing and ordering decimal numbers to hundredths. Compare decimals to benchmark decimals.
e. ♦Make a table from given data, ask and answer questions about data in a table, solve multi-step problems using information presented in tables, and find patterns in tables.[35]

Fractions

Core Standards · Students understand that:

1. The fraction a/b can be written as $a \times 1/b$ because a/b is a copies of $1/b$.
2. When a identical things are divided into b equal parts, each of a things contributes $1/b$. So $a \div b = a/b$.[36]
3. A fraction can be multiplied by a whole number as $n \times a/b = n \times a/b$. For example, $3 \times 2/5$ can be seen as 3 groups of 2 unit fractions $1/5$.[37]
4. A decimal of two digits stands for a sum of fractions whose denominators are 10 and 100. For example, 0.34 stands for $3/10 + 4/100$.

Core Standards · Students can and do:

a. Reason about fractions to establish equivalences between related fractions[38] (e.g. $3/10 = 30/100$, $9/12 = 3/4$).

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[34] Use the properties of multiplication (commutative, associative, identity) or the inverse relationship between multiplication and division (multiplying a number by b then dividing by b, and vice versa, leaves the number unchanged) to make sense of single digit multiplication and division situations and solve problems.

[35] Include tables with data from proportional relationships.

[36] This definition agrees with previous understandings of division in cases like 28 ÷ 7 (i.e., when a is a multiple of b), but also gives meaning to quotients such as 3 ÷ 4 or 7 ÷ 2.

[37] Using the Properties of Arithmetic, $n \times a/b = n \times (a \times 1/b) = (n \times a) \times 1/b = (n \times a)/b$.

b. Add and subtract related fractions in simple cases within one whole (e.g. $1/2 + 1/4$, $3/10 + 4/100$).
c. Solve word problems posed with whole numbers that have fractional answers.
d. Represent multiplication of whole numbers by fractions and fractions by whole numbers, using length and area models.
e. Solve word problems involving multiplying fractions by whole numbers and multiplying whole numbers by fractions.[39]
f. Use decimals to hundredths to describe quantities and parts of wholes, compare and order decimals to hundredths, and write fractions of the form $a/10$ or $a/100$ in decimal notation.
g. Round decimals (to hundredths) to the nearest whole number.
h. Solve addition and subtraction story problems involving fractions with related denominators (situations familiar from whole number work).

Base Ten Computation

Core Standards · Students understand that:

1. The product of a one-digit number times a multidigit number is the sum of the products of the one-digit number times each place value component. This is an instance of the distributive property.
2. Multi-digit multiplication algorithms can be derived and explained by decomposing numbers into their place value components and applying the distributive property.
3. Digits in each place are worth ten times as much as digits in the place to the right and a tenth as much as digits to the left; comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
4. Given whole numbers a and b, find whole numbers Q and R so that $a = Q \times b + R$. For example, given 325 and 7, express 325 in the form $325 = 46 \times 7 + 3$.

Core Standards · Students can and do:

a. Demonstrate place value understanding for whole numbers to 1,000,000 and compare numbers within this range.
b. Round whole numbers to the nearest 10 or 100 and use rounding to estimate computations.
c. Multiply single place numbers (to 9000) by single digit numbers.[40]
d. Multiply two-, three- and four-digit numbers by single-digit whole numbers, and multiply two-digit numbers by two-digit numbers, using strategies based on place value, Properties of Arithmetic, or the inverse relationship between multiplication and division.
e. Multiply two-digit numbers by two-digit numbers using an algorithm based on place value and regrouping, such as the standard algorithm.
f. Divide two-, three- and four-digit numbers by single-digit numbers, with or without remainder. In the case of remainders, express results in the form of an equation, as in $325 = 46 \times 7 + 3$.
g. Explain why multiplication and division strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

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[38] Glossary: Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)

[39] Include sharing multiple continuous wholes a fairly among b people, naming an individual share as a/b. For example 5 meters of pink ribbon shared among 3 people results in $5/3$ meters each.

[40] Glossary: Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

1. Area is additive: If a figure is decomposed into several pieces, then the area of the whole figure can be found by adding the areas of the pieces (expressed in common units).
2. An angle is two rays with a common endpoint, and is measured by the relative amount of a circle that you trace when turning from one ray to the other.
3. A one-degree angle turns through 1/360 of a circle, where the circle is centered at the origin of the rays; the measure of an angle is the number of one-degree angle turned with no gaps or overlaps.

Core Standards · Students can and do:

a. Apply the formula for area of squares and rectangles. Measure and compute whole-square-unit areas of objects and geometric figures decomposable into rectangles.[41]
b. ♦ Make a dot plot to show repeated measurements in common fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in dot plots (e.g., finding the difference in length between the longest and shortest specimens in an insect collection).
c. Draw scales (number line representations) of problem situations involving length, height and distance including fractional units or decimal numbers.
d. Find one dimension of a rectangle given the other dimension and its area or perimeter; find the length of one side of a square given its area or perimeter. Represent these problems with equations involving a symbol for the unknown quantity.
e. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure. Find the measure of a missing part of an angle, given the measure of the angle and the measure of a part of it; represent these problems with equations involving a symbol for the unknown quantity.

Shapes

Core Standards · Students understand that:

1. Shapes can be analyzed and classified using concepts of parallelism, perpendicularity and angle measure.

Core Standards · Students can and do:

a. Draw points, lines, line segments, rays and angles; identify these in geometric figures.
b. Associate angles of a quarter turn (subtending ¼ of a circle) with angle measure 90°, a half turn (½ of a circle) with angle measure 180°, ¾ turn (¾ of a circle) with angle measure 270°, and a full turn (complete circle) with angle measure 360°.[42]
c. Draw perpendicular and parallel lines; identify these in geometric figures.
d. Identify right angles and angles smaller than/greater than a right angle in geometric figures; recognize right triangles.
e. Given a quadrilateral, say whether it is a square, whether it is a rectangle, and whether it is a parallelogram (with an understanding that a given shape may fit more than one category).

[41] using one-digit or two-digit numbers times two-digit numbers
[42] From Singapore Primary 4

Mathematics: Fifth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Fractions

Core Standards · Students understand that:

1. Fractions a/b and $(n\times a)/(n\times b)$ are equal: for $1/b$ is n copies of $1/(n\times b)$, so a/b is $n \times a$ copies of $1/(n\times b)$. Example: $1/3$ is 4 copies of $1/12$, so $2/3$ is 8 copies of $1/12$; thus $2/3 = 8/12$.
2. Fractions can be added or subtracted by replacing each with an equal fraction so that the resulting fractions have the same denominator. Example: $2/3 + 5/4 = 8/12 + 15/12 = 23/12$.
3. Multiplying unit fractions gives a new unit fraction with denominator equal to the product of the initial denominators. For example, $1/3 \times 1/2 = 1/(3\times 2)$. The product $1/3 \times 1/2$ is 1 part when a whole of size $1/2$ is divided into 3 parts, i.e. it is "$1/3$ of $1/2$."[43]
4. Multiplying unit fractions can be extended to multiplying fractions in general. For example, $2/3 \times 4/5$ can be seen as 2 groups of 4 unit fractions $1/15$, hence the product is $8/15$.[44] The product $2/3 \times 4/5$ is 2 parts when a whole of size $4/5$ is divided into 3 parts, i.e. it is "$2/3$ of $4/5$."[45]
5. Dividing a unit fraction $1/b$ by a whole number n gives a unit fraction with denominator $n \times b$, because when $1/b$ is divided into n equal parts, the size of each part is $1/(n\times b)$. For example, $1/3 \div 2 = 1/6$.
6. Dividing a whole number n by a unit fraction $1/b$ gives a whole number $n \times b$, because, as there are b units of $1/b$ in 1, there are $n \times b$ units of $1/b$ in n. For example, $2 \div 1/3 = 6$.
7. A mixed number stands for the sum of its whole number part and a fractional part less than 1. A mixed number can be written as a fraction greater than 1, such as $17/5$. This equivalence can be shown using area, length, and number line models.
8. The ratio of two whole number quantities a and b, written $a{:}b$ or a/b, is a multiplicative comparison telling how much of one quantity there is for a given amount of the other, or how many times as much one is than the other.[46]

Core Standards · Students can and do:

a. Use area models and length models (such as strip drawings or the number line) to represent multiplication of fractions, division of unit fractions by whole numbers, and division of whole numbers by unit fractions.
b. Multiply fractions, divide unit fractions by whole numbers, and divide whole numbers by unit fractions, and solve word problems involving these operations.
c. Divide whole numbers by single digit decimals by seeing that they are fractions with denominator 10 or 100.
d. Rename fractions and mixed numbers to equivalent forms and identify equivalent fractions.
e. Compare and order fractions and mixed numbers with like or unlike denominators, including in contextual situations, using the fractions themselves, strip drawings or number line representations, and area models. Describe the size of fractional quantities with reference to the problem situation.
f. Make tables of equal ratios relating whole number quantities, and find missing values in the tables. Plot pairs of values on the coordinate plane. Example

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[43] On the number line, $1/n \times 1/d$ is 1 part when the interval from 0 to $1/d$ is divided into n parts. This is the same as 1 part when the interval from 0 to 1 is divided into $n \times d$ parts, and thus $1/n \times 1/d = 1/n\times d$.

[44] Using the Properties of Arithmetic, $2/3 \times 4/5 = (2 \times 1/3) \times (4 \times 1/5) = (2 \times 4) \times (1/3 \times 1/5) = (2 \times 4) \times 1/3\times 5 = 2\times 4/3\times 5$.

[45] On a number line, $m/n \times c/d$ means m parts when the interval from 0 to c/d is divided into n parts.

[46] For example, in a mixture of 5 cups of flour and 2 cups of sugar, the ratio is 5 cups flour to 2 cups sugar. There is $5/2$ times as much flour as sugar (equivalently, $2\ 1/2$ times as much or 2.5 times as much).

Cups of Flour	5	10	?	20
Cups of Sugar	2	?	6	8
Flour:Sugar (fraction form)	$5/2$	$10/4$	?	$20/8$
Flour:Sugar (decimal form)	?	?	?	?

Hours of Snowfall	5	10	?	20
Inches of Snow	2	?	6	8
Inches:Hours (fraction form)	$2/5$	$4/10$	?	$8/20$
Inches:Hours (decimal form)	?	?	?	?

Base Ten Computation

Core Standards · Students understand that:

1. The standard division algorithm is based on successively finding the largest single digit multiple of the divisor that is less than the dividend, regrouping to the next lower unit if necessary, and then subtracting the multiple and repeating to find the next digit in the quotient.
2. The division algorithm can be used to express a fraction in decimal form by carrying the division into the decimal places.
3. The features of the place value system for whole numbers extend to the decimal positions and the combined system is symmetric around the ones place.
4. In adding or subtracting decimal numbers, one operates separately with the units of each size, except when regrouping is needed; the scheme for regrouping is the same at each place, because each unit is composed of ten of the next smaller unit.
5. Numbers in decimal notation can be shown on the number line by dividing and sub-dividing the unit intervals as many times as needed to locate the number. This process can be visualized as zooming in on the number line.

Core Standards · Students can and do:

a. Divide two, three and four digit numbers by two digit numbers, with remainder, using an algorithm based on place value and regrouping, such as the standard algorithm. In the case of remainders, express results in the form of an equation, as in $145 = 11 \times 13 + 2$.
b. Understand very large and very small numbers (from millionths to hundreds of millions); round very large numbers.
c. Quickly find 0.1 more than a number and less than a number; 0.01 more than a number and less than a number; and 0.001 more than a number and less than a number.
d. Add and subtract decimals using an algorithm based on place value and regrouping, such as the standard algorithm, and solve problems involving these operations.
e. Write fractions in decimal notation for denominators 2, 3, 4, 5, 6, 8, 10 and 100.
f. Explain why strategies and algorithms for decimals work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. The volume of a solid figure is a measure of how much space it encloses. A cube with side length 1 unit is said to contain "one cubic unit" of volume. The volume of a solid figure can be measured (expressed numerically) by the number of cubic units that fit inside it with no gaps or overlaps.

2. Packing a rectangular prism with unit cubes and decomposing the prism into layers shows that a rectangular

prism ℓ units long by w units wide by h units tall contains a volume $V = \ell \times w \times h$ cubic units. The base of the

prism has area $A = \ell \times w$ square units, and the prism can be viewed as h layers, each containing $\ell \times w$ cubic units,

so the volume of the prism can also be expressed as $V = A \times h$ cubic units.

3. Volume is additive: If a solid figure is decomposed into several pieces, then the volume of the whole figure can be found by adding the volumes of the pieces (expressed in common units).
4. Quantities with like units can be added or subtracted giving a sum or difference with the same unit; quantities with unlike units can be multiplied or divided giving products or quotients with derived units.
5. The ratio of a length, area or amount to another length, area or amount is the same regardless of the size of the unit used for measurement.
6. The number line is a scale that can be used to show units such as pounds, liters, etc.

Core Standards · Students can and do:

a. Measure and compute whole-cubic-unit volumes for rectangular prisms and for objects well described as rectangular prisms.
b. Convert among different-sized standard measurement units within a given measurement system (e.g. feet to yards, centimeters to meters) and use conversion to solve story problems.
c. Form ratios of lengths, areas, and other quantities, including when quantities being compared are measured in different units.
d. Solve word problems involving addition, subtraction, multiplication and/or division using quantities expressed as whole numbers, fractions, or decimals with measurement units.
e. Solve multi-step problems involving units of weight, capacity, money, volume and area.

Coordinate Geometry

Core Standards · Students understand that:

1. A pair of perpendicular number lines ("axes") defines a coordinate system. A given point in the plane has a separate position along each of the two axes; the two positions of the point are called its coordinates.
2. Graphs on coordinate axes can be used to make sense of relationships among quantities in complex problems.

Core Standards · Students can and do:

a. Graph points in the first quadrant the coordinate plane, and read off the coordinates of graphed points.[47]
b. Determine the lengths of horizontal and vertical segments in the plane, given the coordinates of their endpoints.
c. ♦ Collect data on continuous covarying quantities and display the data in a line graph with broken lines; distinguish bar graphs from line graphs; ask and answer questions from line graphs, including comparisons of ratios.

Statistics

Core Standards · Students understand that:

[47] The axes should sometimes represent dimensioned quantities, and the units of measure should not always be the same for both axes. Coordinates may be whole numbers, fractions or decimals.

1. Data are collected purposefully to answer a predefined question (e.g., "How tall are the fifth graders in our school?")
2. A set of data typically shows variability—not all of the values are the same—and yet the values also typically show some tendency to cluster. Identifying a "center" for a data set is a way to describe its many values using a single number.
3. The median is a measure of center in the sense that approximately half the data values are less than median, while approximately half are greater.
4. Variation in a data set can be measured by the range and by typical deviations from the center.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using the median and typical deviations from the it.

Mathematics: Sixth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Multiplicative comparisons can be extended from whole numbers to fractions and decimals. When the ratio q/m is formed, or when q is r times as much as m, the numbers q, r and m can be fractions or decimals.
2. p% of a quantity means $p/100$ times as much as the quantity. The number p can be a fraction or decimal, as in 3.75%.
3. A unit rate is the multiplicative factor relating the two quantities in a ratio. Two quantities q and m can be compared by $q = r \times m$, where the unit rate r tells how much q per m.
4. Given two quantities in a ratio (e.g. distance and time), finding the unit rate produces a new type of quantity (e.g. speed).

Core Standards · Students can and do:

a. Solve for an unknown quantity in a problem involving two equal ratios.
b. Find a percentage of a quantity; solve problems involving finding the whole given a part and the percentage.
c. Solve unit rate problems including unit pricing and constant speed. (See table.)

$D = s \times T$	$D \div T = s$	$D \div s = T$
A car driving at a speed of 30 miles per hour for 6 hours travels a distance of 180 miles.	If a car drives 180 miles for 6 hours at a constant speed, that speed is 30 miles per hour.	When a car drives 180 miles at a speed of 30 miles per hour, the trip takes 6 hours.

d. Represent unit rate problems on a coordinate plane where each axis represents one of the two quantities involved, and find unit rates from a graph. Explain what a point (x, y) means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.

The Number System

Core Standards · Students understand that:

1. The Properties of Arithmetic govern operations on all numbers.
2. Division of fractions follows the "invert and multiply" rule because multiplication and division are inverse operations. For example, $(2/3) \div (5/7) = 14/15$ because $(14/15) \times (5/7) = 2/3$.
3. Every nonzero fraction has a unique multiplicative inverse,[48] namely its reciprocal. Division can be defined as "multiplying by the multiplicative inverse." Then $(2/3) \div (5/7) = 14/15$ because the division symbol indicates multiplication by the multiplicative inverse.
4. A two-sided number line can be created by reflecting the fractions across zero. Numbers located to the left of zero on the number line are called negative numbers and are labeled with a negative sign.

[48] Glossary: Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

5. Two different numbers, such as 7 and –7, that are equidistant from zero are said to be opposites of one another. The opposite of 7 is –7 and the opposite of –7 is 7. The opposite of the opposite of a number is the number itself. The opposite of 0 is 0. The operation of attaching a negative sign to a number can be interpreted as reflecting the number across zero on the number line.
6. The absolute value of a number is its distance from zero on the number line. For any positive number q, there are two numbers whose absolute value is q, namely q and $-q$.
7. The absolute value of a signed quantity (e.g. account balance, elevation) tells the size of the quantity irrespective of its sense (debit or credit; above or below sea level).
8. Comparison of numbers can be extended to the full number system. The statement $p > q$ means that p is located to the right of q on the number line, while $p < q$ means that p is located to the left of q on the number line. The statement $p > q$ does not mean $|p| > |q|$.

Core Standards · Students can and do:

a. Divide fractions, and divide finite decimals by expressing them as fractions.
b. Solve problems requiring arithmetic with fractions presented in various forms, converting between forms as appropriate and estimating to check reasonableness of answers.
c. Find and position rational numbers[49] on the number line.
d. Use rational numbers to describe quantities such as elevation, temperature,[50] account balance and so on. Compare these quantities using > and < symbols and also in terms of absolute value.
e. Graph points and identify coordinates of points on the Cartesian coordinate plane in all four quadrants.

Statistics

Core Standards · Students understand that:

1. The mean is a measure of center in the sense that it is the balance point; the mean is the value each data point would take on if the total value of all the data points were redistributed fairly.
2. When the mean and median of a data set differ substantially, both measures should be provided, and the difference explained in terms of the data values.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using measures of center and measures of variation.[51]

Geometry

Core Standards · Students understand that:

1. Triangles and parallelograms can be dissected and reassembled into rectangles with the same area; this leads to a formula for area in terms of base and height.
2. Polygons can be dissected into triangles in order to find their area.

Core Standards · Students can and do:

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[49] Glossary: Rational number. A number expressible in the form $^a/_b$ for integers a and $b \neq 0$. The rational numbers include positive and negative integers, positive and negative fractions, and 0.

[50] A caution for temperature problems: The rational numbers are not a good model for a temperature scale. There is no temperature that solves the equation $T + 1000^{\circ}C = 0$.

[51] Data sets should include fractional values at this grade but not negative values.

a. Find the area of right triangles, other triangles, special quadrilaterals, and polygons (by dissection into triangles and other shapes).
b. Find surface area of cubes, prisms and pyramids (include the use of nets to represent these figures).
c. Solve problems involving area, volume and surface area of objects.
d. Examine the relationship between volume and surface area. Exhibit rectangular prisms with the same surface area and different volume, and with the same volume and different surface area.
e. Use exponents and symbols for square roots and cube roots to express the area of a square and volume of a cube in terms of the side length, and to express the side length in terms of the area or volume.

Expressions and Equations

Core Standards · Students understand that:

1. A number that is the result of a sequence of operations with other numbers can be expressed in different ways using conventions about order of operations and parentheses, rules for working with fractions, and the Properties of Arithmetic. All such expressions are equivalent.
2. A letter is used to stand for a number in an expression in cases where one doesn't know what the number is, or where, for the purpose at hand, it can be any number in the domain of interest. Such a letter is called a variable.
3. An equation is a statement that two expressions are equal, and a solution to an equation is a value of the variable (or a set of values for each variable if there is more than one variable) that makes the equation true.

Core Standards · Students can and do:

a. Represent an unknown number using a letter in simple expressions such as $y + 2$, $y - 3$, $6 + y$, $5 - y$, $3y$, $y/2$, and $(3 \pm y)/5$.
b. Interpret $3y$ as $y + y + y$ or $3 \times y$, $y/2$ as $y \div 2$ or $1/2 \times y$, $(3 \pm y)/5$ as $(3 \pm y) \div 5$ or $1/5 \times (3 \pm y)$.[52]
c. Evaluate simple expressions when values for the variables in them are specified (exclude expressions with a variable in denominator).
d. Choose variables to represent quantities in a word problem and construct simple equations to solve the problem by reasoning about the quantities.
e. Solve equations of the form $x + p = q$ (for $p < q$) and $px = q$ where p and q are fractions.

[52] From Singapore Secondary 1

Mathematics: Seventh Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Two variable quantities x and y are said to be proportional to one another if the ratio x/y is always equal to the same quantity k, so that $y = kx$. The constant k is the unit rate, and tells how much of y per unit of x.

Core Standards · Students can and do:

a. Compare proportional relationships represented in different ways (e.g. compare a graph to an equation to determine which of two objects has greater speed).
b. Decide whether two quantities that vary together have a proportional relationship, analyze proportional relationships using the unit rates that characterize them, and solve word problems involving proportional relationships.
c. Plot pairs (x, y) from a proportional relationship $y = kx$, and pass a straight line through them and the origin. Observe that increases in y are proportional to increases in x, and calculate [increase in y]/[increase in x] = k.

The Number System

Core Standards · Students understand that:

1. On the number line, the sum $p + q$ is defined to be the number lying distance $|q|$ from p, to the right of p if q is positive and to the left of p if q is negative. A number and its opposite are additive inverses (add to zero).[53]
2. Sums of signed numbers can be computed using the Properties of Arithmetic.[54]
3. The additive inverse of a sum is the sum of the additive inverses.[55]
4. Subtraction is defined as adding the additive inverse. This definition of subtraction allows subtraction of rational numbers and agrees with previous understandings of subtraction with positive numbers.[56] On the number line, the difference $p - q$ lies distance $|q|$ from p, to the left of p if q is positive and to the right of p if q is negative.
5. The absolute value of $p - q$ equals the distance between p and q on the number line.
6. Products of signed numbers can be computed using the Properties of Arithmetic.[57] In particular, multiplying a number by –1 produces its additive inverse.[58]

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[53] Glossary: Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.

[54] For example, 7 + (–3) = 4 because 7 + (-3) = (4 + 3) + (–3) = 4 + [3 + (–3)] = 4 + [0] = 4. And (–2) + (–3) = –5 because 5 + [(-2) + (-3)] = (2 + 3) + [(-2) + (-3)] = [2 + (-2)] + [3 + (-3)] = [0] + [0] = 0 so (-2) + (-3) is the additive inverse of 5, that is –5.

[55] For example, –(6 + –2) = (–6) + 2 because [6 + (–2)] + [(–6) + 2] = [6 + (–6)] + [(–2) + 2] = [0] + [0] = 0.

[56] For example, the subtraction 7 – 3 means 7 plus the additive inverse of 3, i.e. 7 + (–3), which equals 4. The subtraction 9 – (–4) means 9 plus the additive inverse of –4, i.e. 9 + 4, which equals 13.

[57] For example, (–1) × (–1) = 1 because (–1) + (–1) × (–1) = 1 × (–1) + (–1) × (–1) = [1 + (–1)] × (–1) = 0 × (–1) = 0.

[58] Because (–1) × a + a = (–1) × a + (1) × a = [(–1) + (1)] × a = 0 × a = 0.

7. Every nonzero rational number has a multiplicative inverse. Division of rational numbers is defined as multiplying by the multiplicative inverse.
8. The operation of adding the rational number q to points on the number line is a translation; it shifts points to the right if $q > 0$, to the left if $q < 0$, and not at all if $q = 0$. The operation of adding $-q$ undoes the operation of adding q.
9. The operation of multiplying points on the number line by a positive rational number k is a dilation; it scales points further away from zero if $k > 1$, closer to zero if $k < 1$, and not at all if $k = 1$. The operation of multiplying by $1/k$ undoes the operation of multiplying by k.

Core Standards · Students can and do:

a. Explore and explain with number lines the rules for adding rational numbers, e.g., $r + s = s + r$; $r + (-s) = r - s$; $p - (q + r) = p - q - r$.
b. Use the rules of arithmetic to explore and explain with specific numbers the rules for multiplying rational numbers, e.g., 4×-5 is -5 added to itself 4 times, so equal to -20; $-3 \times (-2 + 2) = -3 \times 0 = 0$, so $-3 \times -2 = -(-3) \times 2 = -(-6) = 6$.
c. Add and subtract rational numbers, and use these operations to solve word problems (including signed quantities such as elevation, temperature, account balance, and so on).
d. Multiply and divide rational numbers, and use these operations to solve word problems (including signed quantities).

Expressions and Equations

Core Standards · Students understand that:

1. Expressing a quantity in different forms serves a purpose in analyzing quantitative situations.
2. The distributive property can be used in two directions, both to expand linear expressions, and to factor a sum of terms with a common factor.

Core Standards · Students can and do:

a. Construct algebraic expressions for simple real-world situations and generate equivalent expressions to interpret their meaning (e.g., $P + 0.05P = 1.05P$ means that "increase by 5%" is the same as "multiply by 1.05").
b. Generate equivalent expressions from a given expression, including putting linear expressions in standard form and taking out a common factor. Include expressions involving negative numbers and exponents 2 and 3.
c. Solve multi-step word problems that lead to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are rational numbers, by undoing the operations involved in producing the expression on the left, using additive and multiplicative inverses.
d. Solve simple absolute value equations of the form $|x + h| = j$ and $|x - h| = j$, where h and j are integers.
e. Read the structure in a numerical expression at a level necessary to enter it into a calculator or spreadsheet, making use of parentheses and the conventions on order of operations.

Statistics

Core Standards · Students understand that:

1. In addition to measurement variability, another source of variation in data is randomness.

Core Standards · Students can and do:

a. Collect experimental or simulation data from repeated random trials. Make a histogram showing absolute frequencies and a bar graph of relative frequencies. Discuss the patterns and make predictions for further experiments or simulations.

Probability

Core Standards · Students understand that:

1. Chance events fall along a spectrum: nearly impossible | unlikely | neither likely nor unlikely | likely | nearly certain.
2. Probability is a quantitative measure of likelihood. Probabilities are numbers lying between 0 and 1, with 0 representing impossible and 1 representing certain (in the case of a finite sample space).
3. The experimental probability of a specified outcome is the observed fraction of the outcome in a data set collected from a process involving randomness or chance.
4. In a random process, the individual outcomes are unpredictable, but patterns may emerge after repeated trials. Experimental probabilities in random experiments tend to approach stable values as more and more data is generated.
5. In a theoretical probability model, the set of distinct possible outcomes for a random experiment is called the sample space. An event is a set of sample points; a sample point may belong to several events. A specified event occurs in some fraction of the sample space. This fraction is called the theoretical probability of the event.
6. When computing theoretical probabilities, all members of the sample space are assumed equally probable. Theoretical probabilities will not match long-run experimental probabilities if this assumption is inappropriate (e.g., as in the case of a loaded die).

Core Standards · Students can and do:

a. Compute experimental probabilities from data sets, including data sets generated by simulations or sampling experiments.
b. Compute experimental probabilities to estimate theoretical probabilities when no theoretical probability model is apparent.
c. Represent sample spaces for one-stage random experiments; identify members of the sample space in which specified events occur.
d. Use a theoretical probability model to compute theoretical probabilities for one-stage random experiments, expressing theoretical probabilities as fractions, decimals and percents.
e. Compare experimental probabilities to theoretical probabilities for one-stage random experiments, examining and if feasible revising the assumptions of the theoretical model when the two conflict.

Geometry

Core Standards · Students understand that:

1. Two polygons are congruent[59] if and only if there is a correspondence between vertices so that the corresponding sides are equal and the corresponding angles are equal.
2. A plane or solid figure is similar to another if the second can be obtained from the first by a similarity transformation.[60] All ratios of lengths in the second figure to corresponding lengths in the first figure are equal to the scale factor of the dilation.

[59] Glossary: Congruent. Two plane or solid figures are *congruent* if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).
[60] Glossary: Similarity transformation. A rigid motion followed by a dilation. Glossary: Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

3. Congruent figures have the same area or volume. A similarity transformation with a scale factor of k leaves angle measures unchanged, changes lengths by a factor of k, changes areas by a factor of k^2, and changes volumes by a factor of k^3.

4. Given a line in the coordinate plane not parallel to either axis, any two right triangles with legs parallel to the axes and hypotenuse on the given line are similar, and so the slope of the line (rise over run) is the same regardless of which two distinct points are used to compute it.

Core Standards· Students can & do:

a. Solve problems involving similar triangles and scale drawings (including computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale).
b. Explore using hands-on activities the area of non-rectangular figures and the perimeter of curvilinear figures, and the fact that a dilation of the plane changes areas by the square of the scale factor.[61]
c. Use scale factors to find lengths and areas of similar figures, including an informal derivation of the formulas relating the area, radius and circumference of a circle.
d. Give an explanation of why the volume of a cylinder is the area of the base times the height, using informal arguments involving slices.
e. Use coordinate grids to transform figures and to predict the effect of dilations, translations, rotations and reflections.
f. Use two-dimensional representations of three-dimensional objects (schematics, assembly instructions, perspective drawings and multiple views) to solve problems.
g. Explore three-dimensional figures formed by translations and rotations of plane figures through space.
h. Sketch and describe cross-sections of cones, cylinders, pyramids and prisms.

[61] Include using grids of squares with fractional side lengths to estimate area, and measuring the length of strings wrapped around the perimter.

Mathematics: Eighth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Functions and the Situations They Model

Core Standards · Students understand that:

1. A function is a rule, often defined by an expression, that states a relationship between the values of two variable quantities.
2. A linear function models a situation where the change in one quantity is proportional to the corresponding change in the other quantity. The constant of proportionality, m, is the rate of change of the function. If x is the input and y is the output then the function is defined by $y = mx + b$ for some constant b, which is called the initial value of the function (the value of the function when x is 0).
3. The graph of a linear function $y = mx + b$ is a straight line, and the slope of the line is the function's rate of change.
4. The problem of finding where two linear functions have the same output value for a common input value leads to an equation in one variable; the solution or solutions (if any) can be visualized as the input value(s) where the graphs of the functions intersect.
5. A linear equation in one variable can be solved by successively transforming it into simpler equations with the same solutions using the Properties of Arithmetic and the Properties of Equality, until an equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

Core Standards · Students can and do:

a. Compare features of two or more functions that may be presented in different representations (as formulas, graphs, tables of values, or verbally).
b. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship; from two (x, y) values (including reading these from a table); or from a graph.
c. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
d. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive law and collecting like terms.

The Number System

Core Standards · Students understand that:

1. The number line has numbers that are not rational, such as 2π or $2 + \sqrt{3}$, called irrational numbers.
2. An irrational number can be approximated to arbitrary precision by rational numbers.
3. If $n > 0$ is an integer and $\sqrt{n}$ is not an integer, then $\sqrt{n}$ is irrational. If q is rational and r is irrational, then $q + r$ is irrational, and so is qr provided $q \neq 0$.

Core Standards · Students can and do:

a. Use rational approximations to compare the size of irrational numbers, locate them approximately on a number line and estimate the value of expressions (e.g. π^2).

Geometry

Core Standards · Students understand that:

1. Angle measures formed by a configuration of lines in a plane can often be deduced from other angle measures (e.g., vertically opposite angles, angles produced when a transversal line cuts two parallel lines).
2. The side lengths of a right triangle are related by the Pythagorean theorem.

Core Standards · Students can and do:

a. Explore and explain by hands-on activities facts about the angle sum of triangles, exterior angles, and alternate interior angles of parallel lines. Use these facts to determine the angle sum of interior angles of convex polygons, and the angle sum of exterior angles of convex polygons.[62]
b. Explore and explain using hands-on activities: parallel lines in space, line perpendicular to a line through a given point, lines perpendicular to a plane, lines parallel to a plane, the plane passing through three given points, and the plane perpendicular to a given line at a given point.
c. Use facts about angles to write and solve simple equations for an unknown angle in a figure.
d. Explain a proof of the Pythagorean theorem.[63]
e. Use the Pythagorean theorem to determine missing side lengths in right triangles and to solve problems in two and three dimensions.
f. Use the Pythagorean theorem to find the distance between two points in a coordinate system.
g. Draw (freehand, with ruler and protractor, and with technology) geometric shapes from given conditions. (Focus on constructing triangles from three measures of angles or sides, noticing when the triangle is uniquely defined, ambiguous, or impossible.)
h. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc): copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
i. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Statistics

Core Standards · Students understand that:

1. Scatterplots for bivariate continuous data may reveal patterns of association between two quantities. This kind of relationship between quantities is not a functional relationship—and yet, a function might be a valuable way to describe a statistical relationship.

Core Standards · Students can and do:

a. Construct and interpret scatterplots for bivariate measurement data.
b. Describe patterns that appear in scatterplots, such as clustering, outliers, positive/negative association, linear association, nonlinear association.
c. For scatterplots that suggest a linear association, model the relationship with a linear function using an informal fitting procedure. Use the model function to solve problems in the context of the data,

[62] Use physical models, transparencies, or dynamic geometry software to make rigid motions and give informal arguments, for example, arrange three copies of the same triangle so that the three angles form a line, and give an argument in terms of transversals why this is so.
[63] For example, by the method of right triangles in a square.

interpreting the slope/rate of change and intercept/initial value. Informally assess the goodness of the model by judging the closeness of the data points to the graph of the function.

Probability

Core Standards · Students understand that:

1. The framework for theoretical probability models is the same for compound events as for simple events: the theoretical probability is the fraction of the sample space in which the compound event occurs.

Core Standards · Students can and do:

a. Compute experimental probabilities from data sets, including data sets generated by simulations or repeated sampling experiments.
b. Compute experimental probabilities to estimate theoretical probabilities of compound events when no theoretical probability model is apparent.
c. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams; identify members of the sample space in which specified events occur.
d. Compute theoretical probabilities for compound events by counting members of the sample space.
e. Compare experimental probabilities to theoretical probabilities for multi-stage random experiments, examining the assumptions of the theoretical model when the two conflict.

Mathematics: High School—Expressions

A Coherent Understanding of Expressions

[Final draft of CCR narrative goes here.]

Seeing structure in expressions

Core Standards · Students understand that:

1. Different forms of expression for functions reveal different properties of the function; a purpose in transforming expressions is to find those properties.

   For example, factoring a quadratic expression reveals the zeros of the function it defines, and putting the expression in vertex form reveals the maximum or minimum of the function; the expression 1.15^t can be rewritten in the form $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate monthly interest rate if the annual rate is 15%.

2. The laws of exponents for whole number exponents follow from an understanding of exponents as indicating repeated multiplication, and from the associative property of multiplication.

3. The interpretation of zero, fractional and negative exponents follows from extending the laws of exponents to those values.

   For example, since $(x^{1/3})^3 = x^{(1/3)\cdot 3} = x^1 = x$, $x^{1/3}$ is the cube root of x.

4. Complex expressions can be interpreted by "chunking": temporarily viewing a part of the expression as a single entity.

Core Standards · Students can and do:

a. Factor, expand, and complete the square in quadratic expressions.

b. Use chunking to see expressions in different ways that suggest ways of rewriting them.

   For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.

c. Rewrite expressions using the laws of exponents.

   For example $(x^{1/2})^3 = x^{3/2}$ and $1/x = x^{-1}$.

d. Use the laws of exponents to interpret expressions for exponential functions, recognizing fractional exponents as indicating roots of the base and negative exponents as indicating the reciprocal of a power.

   For example, identify the relative rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.2)^{10t}$, $y = (1.01)^{t/12}$, and recognize that any non-zero number raised to the 0 power is 1 (for example, $12(1.05)^0 = 12$). Avoid common errors such as confusing as $6(1.05)^t$ with $(6\cdot 1.05)^t$ and $5(0.03)^t$ with $5(1.03)^t$.

e. Given an expression for an exponential function, identify whether it represents exponential growth or decay.

f. Using a method such as the factorization $(x^n - 1) = (x-1)(x^{n-1} + \ldots + 1)$ where n is a whole number, prove the formula for the sum of a geometric series, and use the formula to solve problems.

   Include problems involving compound interest and mortgage payments.

The arithmetic of polynomials and rational functions

Core Standards · Students understand that:

1. Polynomials form a system analogous to the integers, closed under the operations of addition, subtraction, and multiplication.

2. A polynomial of degree n has n complex roots, where roots are counted according to multiplicity.
3. For a polynomial $p(x)$, $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.
4. The Binomial Theorem gives the expansion of $(x + a)^n$ in powers of x for a whole number n and a real number a, with coefficients determined for example by Pascal's triangle. The Binomial Theorem can be proved by mathematical induction.
5. Rational functions are fractions whose numerator and denominator are polynomials, and the rational functions are closed under the operation of division by a nonzero rational function.

Core Standards · Students can and do:

a. Add, subtract and multiply polynomials.
b. Identify zeros of polynomials when suitable factorizations are available, and graph polynomials.
c. Transform simple rational functions using the Properties of Arithmetic and the rules for operations on fractions.
d. Identify zeros and asymptotes of rational functions, when suitable factorizations are available, and graph rational functions.
e. Divide polynomials by monomials

Mathematics: High School—Equations

A Coherent Understanding of Equations

[Final draft of CCR narrative goes here.]

Building equations to model relations between quantities

Core Standards · Students understand that:

1. Choosing a unit for a general quantity (e.g. length) establishes a correspondence between specific instances of the quantity (e.g. lengths of specific objects) and numbers called coordinates.
2. A relation between two quantities can be represented by an equation in variables representing coordinates for the quantities; by a graph on a pair of axes marked with units for the quantities; and by a table of coordinate pairs from the relation. The graph and the table show pairs that are solutions to the equation.

Core Standards · Students can and do:

a. Build equations to express relations between quantities and solve problems.

   Include equations arising from situations involving linear, quadratic, simple rational, and exponential functions.

b. Rearrange formulas to isolate a quantity of interest.
c. Build systems of equations and solve problems involving systems of equations.

Reasoning with equations and inequalities

Core Standards · Students understand that:

1. To solve an equation algebraically, one assumes it is true and deduces the solutions, often in steps that replace it with a simpler equation whose solutions include the solutions of the original one.
2. Adding a number to both sides of an equation, or multiplying both sides by a nonzero number, leads to an equation that has exactly the same solutions as the original.
3. If the product of two numbers is zero, then at least one equals zero, and conversely. This principle is the basis for solving equations by factoring.
4. Multiplying both sides of an equation by an expression that can be zero for certain values of the variables in it, or squaring both sides of an equation, can lead to an equation that has more solutions than the original. Evaluating these in the original equation eliminates extraneous solutions.
5. The method of completing the square can transform any quadratic equation in x into an equivalent equation of the form $(x - p)^2 = q$. This leads to the quadratic formula.
6. Equations not solvable in one number system may have solutions in a larger number system.
7. Equations of the form $f(x) = g(x)$ can be solved graphically by finding the intersections (if any) of the graphs of $f(x)$ and $g(x)$.
8. The relationship between a function f and its inverse (if it has one) can be used to solve equations of the form $f(x) = c$. For example, a logarithmic function can help solve exponential equations, and an inverse trigonometric function can help solve trigonometric equations.
9. Given a system of linear equations, adding a multiple of one equation to another produces a system with the same solutions. This principle, combined with principles already encountered with equations in one variable, allows for the simplification of systems.

10. The solutions to an equation in two variables form a graph—a set of points, often a curve or a line, in the coordinate plane.
11. The solutions to two equations in two variables (if any) can be visualized as the points of intersection of their graphs, because those points satisfy both equations simultaneously.
12. The solution to a system of inequalities in two variables can be visualized as the intersection of the regions in the plane defined by the inequalities.

Core Standards · Students can and do:

a. Solve simple rational and radical equations, noting and explaining extraneous solutions.
b. Solve quadratic equations over the real numbers by completing the square, using the quadratic formula and factoring.
c. Solve linear inequalities in one variable and graph the solution set on a number line.

   Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

d. Solve linear systems of equations algebraically, focusing on pairs of linear equations in two variables.
e. Graph a system of two linear or quadratic equations in two unknowns and estimate the solution from a graph.
f. Graph the solution set of a linear inequality in two variables.
g. Use the properties of logarithms to solve equations involving exponential functions.
h. Use inverse trigonometric functions to solve equations of the form $A\sin(Bx + C) = D$.
i. Find complex roots of quadratic equations.
j. Solve a system of two quadratic equations in two unknowns.

Mathematics: High School—Functions

A Coherent Understanding of Functions

[Final draft of CCR narrative goes here.]

Interpreting functions

Core Standards · Students understand that:

1. The domain of a function is the set of its inputs, and the range is the set of its outputs.
2. Function notation uses a letter to stand for a function. If f is a function and x is a number in its domain, then $f(x)$ indicates the output of f corresponding to the input x.
3. Functions can be described by key characteristics, including: zeros; vertical intercept; extreme points; average rates of change (over intervals); intervals of increasing, decreasing and/or constant behavior; and end behavior.
4. Linear, quadratic and exponential functions are defined by expressions that have forms specific to each type, in which the parameters can often be interpreted in terms of characteristics of the graph.
5. An equation in two variables implicitly expresses one variable as a function of the other if there are no points on the graph having the same value of the first variable but different values of the second.
6. When x is a power of ten, the common logarithm $\log(x)$ tells the exponent. When x lies between 10^n and 10^{n+1}, $\log(x)$ lies between n and $n+1$.

Core Standards · Students can and do:

a. Describe qualitatively the functional relationship between two quantities by reading a graph; e.g., where the function is increasing or decreasing, what its long run behavior appears to be, and whether it appears to be periodic.
b. Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
c. Compare values and properties of two functions represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions).
d. Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes.
e. Describe the qualitative behavior of common types of functions using graphs and tables.

   Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, square root and cube root, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

f. Interpret the parameters in the general expressions for linear, quadratic, and exponential functions, and draw conclusions about the parameters by inspection of the graph.
g. Given a function f, and given a constant c, evaluate $f(c)$ if possible and find solutions to $f(x) = c$ (if they exist). Where appropriate, relate the possibility of evaluation to the domain and the existence or nonexistence of solutions to the range.

Building functions

Core Standards · Students understand that:

1. Varying a parameter in the general expression for a linear, quadratic or exponential function can (often) be interpreted as performing a geometric transformation on the graph. This can be used to adjust a function to model a particular situation.

2. Composing a function f with a function g creates a new function called the composite function—for an input number x, the output of the composite function is $f(g(x))$.
3. The inverse of a function "undoes" what the function does; that is, composing the function with its inverse in either order returns the original input.
4. Sequences are functions whose domain is the whole numbers, and they can be defined recursively as well as explicitly. Arithmetic sequences are linear functions and geometric sequences are exponential functions.

Core Standards · Students can and do:

a. Make graphs of linear, quadratic, cubic, absolute value and exponential functions, and, given the graph of one of these types, identify the type.
b. Sketch graphs of quadratic functions presented in the form $y = ax^2+bx+c$, $y = a(x-h)^2+k$ and $y = a(x-p)(x-q)$ (without plotting points).
c. Solve problems involving quadratic functions, such as analyzing projectile motion and maximizing profit.
d. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$. Include both positive and negative k; find the value of k given the graphs.
e. Write an expression of the form $a(1+r)^t$ or ab^t for an exponential function to express a constant percent growth rate or a constant growth factor.
f. Evaluate composite functions and compose functions symbolically in simple cases (e.g. one or both functions linear).
g. Read values of an inverse function from a graph or a table, given that the function has an inverse.
h. For linear or simple exponential functions, find a formula for an inverse function by solving an equation.
i. For linear functions or simple exponential functions, verify symbolically by composition that one function is the inverse of another.
j. Write arithmetic and geometric sequences both recursively and in closed form, and translate between the two forms.

Linear vs. exponential behavior

Core Standards · Students understand that:

1. Linear functions grow by equal differences in equal time periods; exponential functions grow by equal factors in equal time periods.
2. The rate of change of a linear function is constant; the rate of change of an exponential function is proportional to the value of the function.
3. Exponential growth eventually outstrips polynomial growth (including, in particular, linear growth).

Students can and do:

a. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
b. Interpret absolute and relative rates of change and use them to make predictions.
c. Identify the initial value and growth or decay rate from a table or graph of an exponential function.
d. Calculate and interpret the growth factor for an exponential function (presented symbolically or as a table) given a fixed time interval. Estimate the growth factor from a graph.
e. Recognize a quantitative relationship as linear or exponential from description of a situation.

Trigonometric functions

Core Standards · Students understand that:

1. The unit circle in the coordinate plane enables one to extend the domains of the sine, cosine and tangent functions of right-triangle trigonometry to the real numbers.
2. Trigonometric functions are periodic by definition, and sums and products of these functions are periodic.
3. Restricting trigonometric functions to a domain on which they are always increasing or always decreasing allows for the construction of an inverse function.

Core Standards · Students can and do:

a. Use radian measure and revisit graphs of trigonometric functions in terms of radians.
b. Use the unit circle to determine geometrically the values of sine, cosine, tangent for multiples of $\pi/4$ and $\pi/3$; commit sines and cosines of principal angles to memory.
c. Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.
d. Solve simple trigonometric equations formally using inverse trigonometric functions;[64] evaluate solutions using technology.
e. Explain relationships between the identity $\sin^2 x + \cos^2 x = 1$, the equation of a circle, and the Pythagorean theorem.
f. Explain proofs of the sine and cosine addition and subtraction formulas.
g. Use trigonometric identities to simplify expressions.
h. Use trigonometric functions to solve problems in science, economics or other fields where periodic phenomena occur.

[64] Solving trigonometric equations by means of the quadratic formula is optional.

Mathematics: High School—Coordinates

A Coherent Understanding of Coordinates.

[Final draft of CCR narrative goes here.]

Expressing geometric properties with equations

Core Standards · Students understand that:

1. The graph of a linear equation is the straight line through any two of its solutions. Conversely, any line is the set of solutions to some linear equation.
2. Two lines with well-defined slopes are parallel if their slopes are equal and perpendicular if their slopes multiply to –1.
3. The equation of a circle can be found using its definition and the Pythagorean theorem.
4. Transforming the graph of an equation by reflecting in the axes, translating parallel to the axes, or applying a dilation to one of the axes correspond to substitutions in the equation.

   For example, reflection in the y axis corresponds to $(x,y) \rightarrow (-x,y)$, translation vertically down by three units corresponds to $(x,y) \rightarrow (x,y+3)$, and dilating by a factor of 2 parallel to the x-axis corresponds to $(x, y) \rightarrow (x/2, y)$.
5. An ellipse is obtained by stretching a circle, leading to an equation of the form $x^2/a^2 + y^2/b^2 = 1$.
6. The formula $A = \pi ab$ for the area of an ellipse can be derived from the formula for the area of a circle.

Core Standards · Students can and do:

a. Write the equation of a line in point-slope form, slope-intercept form, or standard form.
b. Identify parallel and perpendicular lines in a coordinate plane, and use the relationship between slopes of parallel and perpendicular lines to solve problems. Know the equations of vertical and horizontal lines.
c. Find the point on the segment between two given points that divides the segment in a given ratio.
d. Complete the square to find the center and radius of a circle given by an equation.
e. Find an equation for an ellipse given the lengths of its major and minor axes; calculate the area of an ellipse.
f. Use coordinates to solve geometric problems.

   Include proving simple geometric theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

Vectors and matrices[65]

Core Standards · Students understand that:

1. Vectors are quantities having both magnitude and direction. They are typically represented by directed line segments.
2. On a coordinate plane, vectors are determined by the coordinates of their initial and terminal points or by their x- and y-components.

[65] Limit to vectors in the plane and 2x2 matrices.

3. Vectors can be added end-to-end, component-wise, or by the parallelogram rule. The length of the sum of two vectors is typically not the sum of the lengths.
4. Translations of the plane can be represented by vectors.
5. Vectors are often used to describe "directed quantities" in physics, such as position, velocity, acceleration and force. Vector addition is used to find resultant forces or compute displacements.
6. Multiplying a 2x2 matrix into a vector produces another vector. This can be viewed as a transformation of the plane.
7. A system of two linear equations in two variables can be represented as a single matrix equation in a vector variable.
8. Matrices can be added, subtracted and multiplied.
9. The zero and identify matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a 2x2 matrix determines whether it has a multiplicative inverse.

Core Standards · Students can and do:

a. Represent vectors graphically.
b. Perform basic vector operations (addition, subtraction, scalar multiplication) both graphically and algebraically.
c. Use vectors to model and solve problems.
d. Use trigonometry to decompose a vector into perpendicular components.
e. Add, subtract and multiply matrices.
f. Represent systems of equations as matrix equations.
g. Find the inverse of a matrix if it exists and use it to solve equations.

Complex Numbers

Core Standards · Students understand that:

1. To solve quadratic equations that have no solutions in the real numbers, the number system can be extended to include the square roots of –1, creating a closed number system called the complex numbers.
2. The Properties of Arithmetic and the relation $i^2 = -1$ can be used to perform operations on complex numbers.
3. All polynomials can be factored over the complex numbers, e.g. as in $x^2 + 4 = (x + 2i)(x - 2i)$.
4. Complex numbers can be visualized on the complex plane. Real numbers fall on the horizontal (real) axis, and imaginary numbers fall on the vertical axis.
5. On the complex plane, arithmetic of complex numbers can be interpreted geometrically: addition is analogous to vector addition, and multiplication can be understood as rotation and dilation about the origin. Complex conjugation is reflection across the real axis.
6. The absolute value (or modulus) of a complex number is defined as its distance from the origin in the complex plane. On the complex plane, as on the real line, the distance between numbers is the absolute value of the difference, and the midpoint of a segment is the average of the numbers at its endpoints.
7. Euler's formula $e^{i\theta} = \cos\theta + i\sin\theta$ links complex numbers to trigonometry.

Core Standards · Students can and do:

a. Add, subtract and multiply complex numbers.
b. Find the conjugate of complex a number and use it to find absolute values and divide complex numbers.
c. Graph complex numbers in both rectangular and polar form and interpret arithmetic of complex numbers geometrically.

d. Solve quadratic equations over the complex numbers.
e. Convert complex numbers between rectangular and polar form.
f. Re-derive trigonometric identities using complex methods.

Mathematics: High School—Modeling

A Coherent Understanding of Modeling.

Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

The modeling cycle and general tools

Core Standards · Students understand that:

1. The behavior of quantities in physical, economic, public policy, social and everyday situations can be modeled using mathematics. Mathematics is used to model relationships among quantities, constraints and objectives.
2. Models are formulated to answer questions about the world based on an analysis of the situation and a conceptual model that involves assumptions and choices.
3. Quantities in the situation are represented by variables in the model, usually through measurement. Modeling includes decisions about what to measure and how, and how well the measurements work for the purpose.
4. Mathematical knowledge and skill are required in order to get results from a mathematical model—even to devise a model in the first place. Areas of mathematics commonly used in modeling include linear, quadratic, exponential or other functions; probability and statistics; and geometry (solid, plane and coordinate). In active modeling, fluency with math content is required in order to focus on the larger problem.
5. Technology is often required in order to obtain results from a model.
6. The results of a mathematical model must be evaluated against evidence and the phenomena at hand. If the mathematics is correct, then unreasonable results point to unreasonable assumptions and the need to revise the model.
7. Real-world problems do not announce that they are amenable to mathematical analysis and solution; bringing mathematics to bear on such a problem is a highly creative act.

Core Standards · Students can and do:

a. Creatively apply the mathematics they know to situations in which it only imperfectly applies—and achieve useful results by doing so.

For example, independently choose to describe HIV transmission as a random event with a fixed probability per sexual encounter.

b. Decide what measures are relevant to a problem.

For example, given the purpose at hand, is traffic safety best measured in terms of fatalities per year or fatalities per vehicle-mile? (or fatalities per 100 million vehicle-miles?)

c. Use network diagrams or other techniques to visualize complex situations with many factors, causes or agents.

For example, what agents and factors are responsible for setting the price of gasoline? How do they interact?

d. In situations with many factors, causes or agents, organize the factors/causes/agents into a hierarchy of importance.

For example, what are the primary, secondary, and relatively rare causes of lung cancer?

e. Use order of magnitude estimates, unprompted, to identify important effects, disregard unimportant effects and predict results of a more detailed model.

f. Use 2-by-2 tables, flowcharts, and other strategies to organize information and manage scenarios.

Modeling with geometry, equations, functions, probability, and statistics

Core Standards · Students can and do:

a. Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

b. Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

c. Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

d. Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

Mathematics: High School—Statistics

A Coherent Understanding of Statistics.

[Final draft of CCR narrative goes here.]

Summarizing and interpreting categorical, count and measurement data

Core Standards · Students understand that:

1. Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.
2. Visual displays and summary statistics condense the information in data sets into usable knowledge.

Core Standards · Students can and do:

a. Summarize comparative or bivariate categorical data in two-way frequency tables; interpret joint, marginal and conditional relative frequencies in the context of the data.
b. Compare data on two or more count or measurement variables by using plots on the real number line (dot plots, histograms and box plots); use appropriate statistics to summarize center (median, mean) and spread (interquartile range, standard deviation) of the data sets; interpret changes in shape, center and spread in the context of the data sets, accounting for possible effects of extreme data points.
c. Summarize bivariate quantitative data by giving a regression line and a measure of goodness of fit.

Making inferences and justifying conclusions drawn from data

Core Standards · Students understand that:

1. Statistics is a process for making inferences about population parameters based on a sample from that population; randomness is the foundation for statistical inference.
2. The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

Core Standards · Students can and do:

a. Use probabilistic reasoning to decide if a specified model is consistent with a given data-generating process.
b. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.
c. Use data from a sample survey to estimate a population parameter.
d. Use data from a randomized experiment to compare two treatments.
e. Evaluate reports based on data.

Mathematics: High School—Probability

A Coherent Understanding of Probability.

[Final draft of CCR narrative goes here.]

Modeling random events with finite sample spaces

Core Standards · Students understand that:

1. Random phenomena can be modeled mathematically using a sample space in which sample points represent distinct outcomes, and in which each sample point is assumed to have the same probability.
2. Events are subsets of a sample space that can be defined using characteristics (or categories) of the sample points, as well as unions, intersections, or complements thereof ('and', 'or', 'not'). A sample point may belong to several events (categories).
3. If A and B are two events (categories), then the conditional probability of A given B, denoted by $p(A \mid B)$, is the fraction of sample points in B that also lie in A.
4. The laws of probability can be used to generate new probabilities from known probabilities.

Core Standards · Students can and do:

a. Compute theoretical probabilities of compound events by constructing and analyzing representations, including tree diagrams, systematic lists, and Venn diagrams
b. Use the addition and multiplication laws of probability to compute probabilities of complementary, disjunctive, and compound events.
c. Apply concepts such as intersections, unions and complements of events, and conditional probability and independence, to define or analyze compound events, calculate probabilities, and solve problems.
d. Construct and interpret two way tables to show probabilities when two characteristics (or categories) are associated with each sample point. Use a two way table to determine conditional probabilities.
e. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.
f. Use permutations and combinations to compute probabilities of compound events and solve problems.

Experimenting and simulating to model probabilities

Core Standards · Students understand that:

1. Sets of data obtained from surveys, simulations, or other means, can be used as probability models, by treating the data set itself as a sample space, in which the sample points are the individual pieces of data. The probability of an event within the data set is its relative frequency.
2. The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.
3. The probability of an outcome can be interpreted as an assertion about the long-run proportion of the time the outcome will occur if the random experiment is repeated a large number of times. The observed proportion of occurrence for the outcome of interest can be used as an estimate of the relevant probability.

Core Standards · Students can and do:

a. Calculate experimental probabilities by performing simulations or experiments involving a probability model and using relative frequencies of outcomes.

b. Compare the results of simulations (e.g., random number tables, random functions, and area models) with predicted probabilities. When there are substantial discrepancies between predicted and observed probabilities, explain them in terms of the assumptions of the probability model.
c. Use the relationship between conditional probabilities and relative frequencies in contingency tables to analyze decision problems.
d. Use the mean and standard deviation of a data set to fit it to a normal distribution (bell-shaped curve) and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets and tables to estimate areas under the normal curve.
e. Apply the binomial theorem to solve probability problems.

Using probability to make decisions

Core Standards · Students understand that:

1. A probability distribution is a collection of probabilities $\{p_1, \ldots, p_n\}$ for a set of mutually exclusive and jointly exhaustive events $\{E_1, \ldots, E_n\}$. The probabilities in a probability distribution sum to unity.
2. A random variable attaches a value to each event in a probability distribution. The expected value of the random variable is the weighted average of its possible values, with weights given by their respective probabilities.
3. When the possible outcomes of a decision can be assigned probabilities and payoff values, the decision can be analyzed as a random variable with an expected value, e.g. of a wager. If possible, this is the first thing to compute in a decision context.

Core Standards · Students can and do:

a. Calculate expected value to analyze mathematical fairness, payoff.
b. Evaluate and compare options in situations where all of the available options share the same expected value but carry different levels of risk.
c. Analyze each of two options and make a quantitatively informed decision in situations where one option has both a higher expected return and a higher level of risk. Include both low-stakes and high-stakes decisions.
d. Analyze decision problems using probability concepts.

Mathematics: High School—Geometry

A Coherent Understanding of Geometry.

[Final draft of CCR narrative goes here.]

Triangle Congruence

Core Standards · Students understand that:

1. Rigid motions move lines to lines and segments to segments; preserve the distance between points; and preserve measures of angles.
2. Two geometric figures are congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition.
3. Criteria for triangle congruence can be thought of as answers to the following question: What information about the measures in a triangle ensures that all triangles drawn with those measures are congruent?
4. Criteria for triangle congruence can be established using rigid motions.

Core Standards · Students can and do:

a. Use (in reasoning and problem solving) precise definitions of angles, polygons, parallel and perpendicular lines, rigid motions (rotations, reflections, translations), parallelograms and rectangles; commit these definitions to memory.

b. Prove theorems about lines and angles; test conjectures and identify logical errors in fallacious proofs.

Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints.

c. Prove theorems about triangles; test conjectures and identify logical errors in fallacious proofs.

Theorems include: measures of interior angles of a triangle sum to 180°, base angles of isosceles triangles are equal, the triangle inequality, the longest side of a triangle faces the largest side and vice-versa, the exterior-angle inequality, and the segment joining midpoints of two sides of a triangle parallel to the third side and half the length.

d. Use and prove properties of and relationships among special quadrilaterals: parallelogram, rectangle, rhombus, square, trapezoid and kite.

e. Characterize parallelograms in terms of equality of opposite sides, in terms of equality of opposite angles, and in terms of bisection of diagonals; characterize rectangles as parallelograms with equal diagonals.

Similarity, Right Triangles and Trigonometry

Core Standards · Students understand that:

1. The dilation of a given line is parallel to the given line. (In particular, lines passing through the center remain unchanged.)
2. The dilation of a given segment is parallel to the given segment and longer or shorter in the ratio given by the scale factor. A dilation leaves a segment unchanged if and only if the scale factor is 1.
3. The assumed properties of dilations can be used to establish the AA, SAS and SSS criteria for similarity of triangles.
4. Similarity allows one to view side ratios in right triangles as properties of the angles themselves, leading to elementary definitions of sine, cosine and tangent.

Core Standards · Students can and do:

a. Use triangle similarity criteria to solve problems and to prove relationships in geometric figures.
b. Prove that two lines with well-defined slopes are parallel if and only if they have the same slope, and perpendicular if and only if the product of their slopes is equal to –1.
c. Give an informal explanation using successive approximation that a dilation of scale factor r changes the length of a curve by a factor of r and the area of a region by a factor of r^2.
d. Use and explain the relationship between the trigonometric ratios of complementary angles.
e. Use trigonometric ratios and the Pythagorean theorem to solve right triangles[66] in applied problems.

Circles

Core Standards · Students understand that:

1. All circles are similar.
2. There is a unique circle through three non-collinear points, or tangent to three non-concurrent lines.

Core Standards · Students can and do:

a. Identify and describe relationships among angles, radii, and chords.

   Include the relationship between central, inscribed and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

b. Identify and define radius, diameter, chord, tangent, secant and circumference.
c. Determine the arc lengths and the areas of sectors of circles, using proportions.
d. Construct a tangent line from a point outside a given circle to the circle.
e. Prove and use basic theorems about circles, and use these theorems to solve problems. Include:

   - Symmetries of a circle
   - Similarity of a circle to any other
   - Tangent line, perpendicularity to a radius
   - Inscribed angles in a circle, relationship to central angles, and equality of inscribed angles
   - Properties of chords, tangents and secants as an application of triangle similarity.

Axiomatic Systems

Core Standards · Students understand that:

1. Mathematical statements are proven or disproven by deductive reasoning. Conjectures can arise from inductive reasoning, but they cannot be proven that way.
2. Precise definitions make possible rigorous logical reasoning, and definitions shared in common make possible the objective evaluation of one's own reasoning by others.
3. Logical reasoning requires avoiding common fallacies, such as using an example to prove the rule or confusing a statement with its converse.
4. Axiomatic systems require precise definitions, but some terms must be left "undefined." The axioms specify how the undefined terms behave.
5. The first three postulates of the *Elements* are models of straightedge and compass construction.
6. Hilbert and other mathematicians improved on the *Elements* by identifying its hidden assumptions and making them explicit with additional axioms.

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[66] A right triangle has five parameters, its three lengths and two acute angles. Given a length and any other parameter, "solving a right triangle" means finding the remaining three parameters. (It is worth reflecting on why this problem is well-posed.)

7. Three classical construction problems (trisecting an angle, duplicating a cube and squaring a circle) inspired the development of much important mathematics.
8. The Parallel Postulate (axiom) distinguishes Euclidean geometry from other geometries. Other geometries, such as spherical and hyperbolic geometry, use alternatives to the Parallel Postulate. Many theorems of Euclidean geometry are not theorems in other geometries.

Core Standards · Students can and do:

a. Use the terms point, line and plane to define other geometric terms as line segments, angles and rays.
b. With ruler and compass:
   - Divide a segment into any number of equal parts.
   - Given two segments of lengths r and s, construct a segment of length rs and one of length r/s.
   - Given a segment of length r, construct a segment of length $\sqrt{r}$.

Trigonometry of General Triangles

Core Standards · Students understand that:

1. The Law of Sines generalizes the side-angle inequality.
2. The Law of Cosines generalizes the Pythagorean theorem.
3. The Laws of Sines and Cosines embody the triangle congruence criteria, in that three pieces of information are usually sufficient to completely solve a triangle. Furthermore, these laws yield two possible solutions in the ambiguous case, illustrating that "Side-Side-Angle" is not a congruence criterion.

Core Standards · Students can and do:

a. Explain proofs of the Law of Sines and the Law of Cosines.
b. Use the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Geometric Measurement and Dimension

Core Standards · Students understand that:

1. Congruence plays a fundamental role defining the concepts of length, area and volume.
2. Areas of polygons can be computed by dissecting them into triangles and using the fundamental property of area, that the area of a dissected figure is the sum of the areas of its components.
3. Lengths of curves and areas of curved regions can be defined informally using the concept of "limit."
4. Cavalieri's principle allows one to understand volume formulas informally by visualizing volumes as stacks of thin slices.

Core Standards · Students can and do:

a. Give definitions of rectangular prism, (right) pyramid, (right circular) cone, (right circular) cylinder and sphere.
b. For a pyramid or a cone, give an heuristic argument to show why its volume is (1/3) its height times the area of its base.
c. Use the behavior of length and area under dilations to prove the formulas for the circumference and area of a circle.

d. Apply formulas and solve problems involving volume and surface area of right prisms, right circular cylinders and right pyramids, cones, spheres and composite figures.

e. Identify and apply the 3:2:1 relationship among volumes of circular cylinders, hemispheres and cones with same height and circular base and 3:1 relationship between volume of a prism and pyramid with same base area and height.

f. Identify cross-sectional shapes of slices of three-dimensional objects, and identify three-dimensional objects traced out by rotations of two-dimensional objects.

Mathematics: High School—Calculus

Calculus is an important part of the high school curriculum for a large and growing number of students. To see well-established standards for this course, please see course descriptions such as those of the College Board, International Baccalaureate Organization, or any of the following states: California, Florida, Hawaii, Indiana, Mississippi, Pennsylvania, South Carolina, Tennessee, Utah, and Virginia. We invite feedback from states as to whether they would like to see Calculus in future drafts of the Common Core Standards.

Progressions in Grades K–8

Note, a progression may appear in more than one band.

Grades K-5

Number

Counting and Cardinality
Base Ten Computation
Early Relations and Operations
Quantity and Measurement
Operations and the Problems They Solve
Fractions

Geometry

Shapes
Coordinates
Geometry

Data

Statistics

Grades 6-8

Number

The Number System

Algebra

Ratios and Proportional Relationships
Expressions and Equations
Functions and the Situations They Model

Geometry

Geometry

Data

Statistics
Probability

List of Progressions and Grade Ranges

Strand	Progression	Start	End
Number	Counting and Cardinality	K	K
	Early Relations and Operations	K	1
	Base Ten Computation	K	5
	Quantity and Measurement	K	5
	Operations and the Problems They Solve	2	4
	Fractions	3	5
	Ratios and Proportional Relationships	6	7
	The Number System	6	8
Geometry	Shapes	K	4
	Coordinate Geometry	5	5
	Geometry	6	8
Algebra*	Expressions and Equations	6	7
	Functions & The Situations They Model	8	8
Data*	Statistics	5	8
	Probability	7	8

* The Algebra and Data strands have concepts and skills in earlier grades that progressions in the Number strand.

GLOSSARY

Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.

Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia's "effective procedure," from which this definition is adapted.

Common logarithm. The common logarithm of x is the power to which you raise 10 in order to get x.

Congruent. Two plane or solid figures are congruent if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).

Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

Integer. A positive whole number, a negative whole number, or 0.

Mean. The sum of the values in a list divided by the number of values in the list. (To be more precise, this defines the *arithmetic mean*.)

Median. In a list of values, the value appearing at the center of a sorted version of the list—or the mean of the two central values, if the list contains an even number of values.

Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

Range. The difference between the greatest and smallest values in a list of numbers.

Rational number. A number expressible in the form a/b for integers a and $b \neq 0$. The rational numbers include positive and negative integers, positive and negative fractions, and 0.

Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)

Similarity transformation. A rigid motion followed by a dilation.

Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

Transitive property of measurement order. If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.

Evidence for Individual Math Standards

What follows is a sample of sources consulted in the drafting of the core math standards. Citations are organized by the standard to which they pertain. For example, all sources with specific relevance to standard #2 (Number) are listed below that standard. Each citation contains a link to the section of the source document that is relevant to the core math standard to which it corresponds. For more information on sources and how they were used in the drafting of the math standards, please refer to the "College and Career Readiness Standards for Mathematics."

1. Mathematical Practice

2. Number

National Reports

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow)
- AMATYC, *Crossroads* - Standard C-1 Number Sense
- NCTM, *Focal Points* - Number and Operations Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard

College Readiness

- ACT *College Readiness Standards* - Basic Operations and Applications; Numbers: Concepts & Properties
- *Advanced Placement Computer Science*, Statistics and Computer Science Course Descriptions - Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32), Mathematical Reasoning (p. 35-37)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Middle School Math Standards p.iii
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Number sense and Numerical Operations Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Number Strand p. 3
- **Belgium** - 2 Number theory and algebra strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 1. Numbers and Coordinate system, pgs. 31-32
- **England** - Number and Algebra
- **Hong Kong** - Number and Algebra Dimension
- **India** - Number Systems Unit, Grade 9
- **Ireland** – Leaving Certificate - Arithmetic
- **Japan** - Math I course
- **Korea** - Strand A Numbers and Operations
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Quantity Overarching Idea (p. 89-92)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Number
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra)

Evidence for Individual Math Standards

- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards - Number and Operations (throughout)
- **Massachusetts** - State Standards - Number Sense and Operations
- **Minnesota** - State Standards - Algebra Strand

3. Quantity

National Reports

- *NAEP Math Framework 2009* – Measurement Strand (p. 13-14 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Number and Operations and Measurement Focal Points
- NCTM *Principles and Standards* - Measurement Standard

College Readiness

- ACT *College Readiness Standards* - Numbers: Concepts & Properties; Measurement
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - General Foundation Skills (Natural Science Standards) (p.44)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Number sense and Numerical Operations

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Number Strand
- **China** - Numbers and Algebra ; Space and Figures Strands
- **England** - Geometry and Measures Strand
- **Hong Kong** - Measures, Shape and Space Dimension
- **Singapore** - Topic 1 Numbers and Algebra; Topic 2 Geometry and Measurement
- Program for International Student Assessment (PISA), (2006) - Quantity Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Number
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Shape, space and measures

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Throughout Measurement and Geometry strand in K-7 (e.g. p. 32)
- **Florida** - State Standards – Algebra; Financial Literacy
- **Massachusetts** - State Standards - Measurement
- **Minnesota** - State Standards - Geometry and Measurement Strand

4. Expressions

Evidence for Individual Math Standards

National Reports

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-2: Symbolism and Algebra
- NCTM, *Focal Points* - Number and Operations and Algebra Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard; Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32); Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **Belgium** - 2 Number theory and algebra Strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 3. Polynomials, pgs. 32-33
- **England** - Number and Algebra
- **Finland** - MAB1 Expressions and equations
- **Hong Kong** - Number and Algebra Dimension
- **India** - Algebra Unit, Grade 10
- **Ireland** – Leaving Certificate - Algebra
- **Japan** - Math I course p. 59
- **Korea** - Strand B Variables and Expressions
- **Singapore** - Topic 1 Numbers and Algebra
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra)
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards –Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

5. Equations

National Reports

Evidence for Individual Math Standards

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-2: Symbolism and Algebra
- NCTM, *Focal Points* - Number and Operations and Algebra Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard; Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32); Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes – Patterns and Relations Strand
- **Belgium** - 2 Number theory and algebra Strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 3. Polynomials, pgs. 32-33
- **England** - Number and Algebra
- **Finland** - MAB1 Expressions and equations
- **Hong Kong** - Number and Algebra Dimension
- **India** - Algebra Unit
- **Ireland** – Leaving Certificate - Algebra
- **Japan** – Math I course; Math II course
- **Korea** - Strand B Variables and Expressions
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea (p. 86-89)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Functions and Equations, pgs. 4-5; Prior Knowledge (Number and Algebra), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards – Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

6. Functions

National Reports

Evidence for Individual Math Standards

- NAEP *Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-4: Function
- NCTM, *Focal Points* - Algebra Focal Points
- NCTM *Principles and Standards* - Algebra Standard

College Readiness

- ACT *College Readiness Standards* – Functions
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **Belgium** - 3 Real functions
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 4. Exponent and logarithm; 5. The basic concept of trigonometric functions, pgs. 33-34
- **England** - Number and Algebra
- **Finland** - MAB3 Mathematical Models 1; MAB4 Mathematical analysis; MAB6 Mathematical Models II
- **Hong Kong** - Number and Algebra Dimension
- **India** - Sets and Function, Grade 11
- **Ireland** – Leaving Certficate, Functions and Calculus
- **Japan** - Math I course; Math II course
- **Korea** - Strand D Functions
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Functions and Equations, pgs. 4-5
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards – Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

7. Modeling

National Reports

Evidence for Individual Math Standards

- NAEP *Math Framework 2009* - Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-4: Function
- NCTM, *Focal Points* - Algebra Focal Points
- NCTM Principles and Standards - Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra II (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **China** - Numbers and Algebra Strand
- **England** - Number and Algebra
- **Finland** - MAB3 Mathematical Models 1; MAB6 Mathematical Models II
- **India** - Mathematical Modeling
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea (p. 86-89)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I
- **Florida** - State Standards - Algebra
- **Georgia** - State Standards - Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

8. Shape

National Reports

- *NAEP Math Framework 2009* – Geometry Strand (p. 17-19 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Geometry and Measurement Focal Points
- NCTM *Principles and Standards* - Geometry Standard

College Readiness

- ACT *College Readiness Standards* - Properties of Plane Figures; Measurement
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Geometry (p.34-35)

Evidence for Individual Math Standards

- *College Board Standards for College Success:* Mathematics and Statistics. College Board, (2006) - Geometry Standards (p. vi)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Geometry Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Shape and Space Strand
- **Belgium** - 4 Geometry
- **China** - Mathematics 2; Space and Figures Strand
- **Chinese Taipei** – 6. Characters and application of trigonometric (sic), pg. 34; 2. Straight line and plane of space; 4. Conic section, pgs. 35-36
- **England** - Geometry and Measures Strand
- **Finland** - MAB2 Geometry
- **Hong Kong** - Measures, Shape and Space Dimension
- **India** - Geometry Unit
- **Ireland** - Geometry
- **Japan** - Math II Course; Math A Course
- **Korea** - Strand C Geometry
- **Singapore** - Topic 2 Geometry and Measurement (starting on page 7)
- Program for International Student Assessment (PISA), (2006) - Space and Shape Overarching Idea (p.83-86)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Geometry
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Geometry), pgs. 3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Shape, space and measures

Illustrative Alignment with State and Other Standards

- **California** - State Standards – Geometry
- **Florida** - State Standards – Geometry
- **Georgia** - State Standards -Mathematics 2, Geometry
- **Massachusetts** - State Standards - Geometry
- **Minnesota** - State Standards - Geometry and Measurement Strand

9. Coordinates

National Reports

- *NAEP Math Framework 2009* – Geometry Strand (p. 17-19 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Geometry and Measurement Focal Points
- NCTM *Principles and Standards* - Geometry Standard

College Readiness

- ACT *College Readiness Standards* - Graphical Representations
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Geometry (p.34-35)

Evidence for Individual Math Standards

- College Board Standards for College Success: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- Ready or Not: Creating a High School Diploma That Counts. American Diploma Project, (2004) - Geometry Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Shape and Space Strand
- **Belgium** - 4 Geometry
- **China** - Mathematics 2; Space and Figures Strand
- **Chinese Taipei** – First Year, 1. Numbers and Coordinate system, pgs. 31-32; Second Year, 1. Vector, pg. 35
- **England** - Geometry and Measures Strand ; Number and Algebra
- **Finland** - MAB2 Geometry
- **Hong Kong** - Measures, Shape and Space Dimension
- **India** - Geometry and Mensuration Units
- **Ireland** - Coordinate Geometry
- **Japan** – Math II Course; Math B Course
- **Korea** - Strand C Geometry
- **Singapore** - Topic 2 Geometry and Measurement
- Program for International Student Assessment (PISA), (2006) - Space and Shape Overarching Idea; Change and Relationships Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra; Geometry
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra, and Geometry), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra; Geometry

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Geometry
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards - Geometry
- **Massachusetts** - State Standards - Geometry
- **Minnesota** - State Standards - Geometry and Measurement Strand

10. Probability

National Reports

- *NAEP Math Framework 2009* – Data Analysis, Statistics and Probability Strand (p. 24-25 description, standards follow)
- AMATYC, *Crossroads* - Standard C-5: Discrete Mathematics, Standard C-6: Probability and Statistics
- NCTM *Principles and Standards* - Data Analysis & Probability Standard

College Readiness

- ACT College Readiness Standards - Probability, Statistics & Data Analysis [link to ACT_CollegeReadinessStandards_p10-17.pdf]
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Research & Analysis (Social Science Standards), section B (p.64)

Evidence for Individual Math Standards

- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Geometry Standards (p. vi); Algebra II Standards (p. vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Data Interpretation, Statistics and Probability Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Statistics and Probability Strand
- **Belgium** - 5 Statistics
- **China** - Mathematics 3; Statistics and Probability Strand
- **Chinese Taipei** – Second Year, 5 Permutation and Combination, p. 37
- **England** - Statistics Strand
- **Finland** - MAB5 Statistics and Probability
- **Hong Kong** - Data Handling Dimension
- **India** - Statistics and Probability Unit, Grade 11
- **Ireland** Discrete Mathematics and Counting
- **Japan** - Math A Course; Math C Course
- **Korea** - Strand E Probability and Statistics
- **Singapore** - Topic 3 Statistics and Probability
- Program for International Student Assessment (PISA), (2006) - Uncertainty Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Data and Chance
- International Baccalaureate, Mathematics Standard Level, (2006) - Statistics and Probability, pgs. 6-8
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Handling Data

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra II; Probability and Statistics
- **Florida** - State Standards – Probability
- **Georgia** - State Standards – Mathematics 3, Data Analysis and Probability
- **Massachusetts** - State Standards - Data Analysis, Statistics, and Probability
- **Minnesota** - State Standards - Data Analysis & Probability

11.Statistics

National Reports

- NAEP *Math Framework 2009* – Data Analysis, Statistics and Probability Strand (p. 24-25 description, standards follow)
- AMATYC, *Crossroads* - Standard C-6: Probability and Statistics
- NCTM, *Focal Points* - Data Analysis Focal Points
- NCTM Principles and Standards - Data Analysis & Probability Standard

College Readiness

- ACT *College Readiness Standards* - Probability, Statistics & Data Analysis
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Statistics (p.37)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Middle School Math Standards (p.iii); Algebra I Standards (p.v); Precalculus Standards (p.viii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Data Interpretation, Statistics and Probability Strand

Evidence for Individual Math Standards

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Statistics and Probability Strand
- **Belgium** - 5 Statistics
- **China** - Mathematics 3; Statistics and Probability Strand
- **Chinese Taipei** – Second Year, 6 Probability and Statistic, pg. 37-38
- **England** - Statistics Strand
- **Finland** - MAB5 Statistics and Probability
- **Hong Kong** - Data Handling Dimension
- **India** - Statistics and Probability Unit, Grade 11
- **Ireland** - Discrete Mathematics and Counting (p.27 and 28)
- **Japan** - Math B Course; Math C Course
- **Korea** - Strand E Probability and Statistics
- **Singapore** - Topic 3 Statistics and Probability
- Program for International Student Assessment (PISA), (2006) - Uncertainty Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Data and Chance
- International Baccalaureate, Mathematics Standard Level, (2006) - Statistics and Probability, pgs. 6-8
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Handling Data

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Probability and Statistics
- **Florida** - State Standards – Statistics
- **Georgia** - State Standards - Mathematics 3, Data Analysis and Probability
- **Massachusetts** - State Standards - Data Analysis, Statistics, and Probability
- **Minnesota** - State Standards - Data Analysis & Probability

Introduction

The *College and Career Readiness Standards for Mathematics* consist of three interconnected parts: a Standard for Mathematical Practice, ten Standards for Mathematical Content, and a set of Example Tasks.

The Standard for Mathematical Practice has six Core Practices that describe the way proficient students approach mathematics. Proficient students attend to precision, construct viable arguments, make sense of complex problems and persevere in solving them, look for hidden structure, note regularity in repeated reasoning, and use technology intelligently. This approach to mathematics is an essential part of being ready for college and career.

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Together, these three components establish an evidence-based standard for college and career readiness. The *College and Career Readiness Standards for Mathematics* have been created with attention to the expectations of the highest achieving countries. They have focus and depth, emphasizing the understanding of and connections among topics that are most important for success regardless of a student's pathway after reaching these standards.

A primary goal of developing these standards is to enable students to achieve *mathematical proficiency* (see sidebar). Students are expected to understand the knowledge described in the Core Concepts and in the Coherent Understandings at a depth that enables them to reason with that knowledge—to analyze, interpret and evaluate mathematical problems, make deductions, and justify results. The Core Skills are meant to be used strategically and adaptively to solve problems. Students' knowledge and skills come to life and take their value when melded with the ways they approach mathematics—as described by the Core Practices.

The specific verbs used to describe concepts and skills in these standards are not meant to limit or indicate levels of any taxonomy. Although using verbs to indicate levels of depth has been a common practice in this country's standards writing, high performing nations do not use verbs in this way. They describe depth and practices first in separate sections of their syllabi. We have adopted the high performing countries' practice of focusing on a clear statement of what mathematics should be learned when writing standards for knowledge and skills.

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- productive disposition—habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy.

These standards are measurable; that is, they are observable and verifiable through the broad spectrum of student performances that may be assessed during classroom observation, school-based examinations and large-scale testing. The *College and Career Readiness Standards for Mathematics* can guide the development of assessment frameworks that distribute the assessment responsibilities across multiple levels of the educational system: state, district, school and teacher.

Students reaching these levels will be prepared for non-remedial college mathematics courses and will be prepared for training programs for career-level jobs; however, the *College and Career Readiness Standards for Mathematics* should not be construed as grade twelve exit standards. Students interested in STEM fields, and those who wish to go beyond for other reasons, will need to reach these standards before their senior year in order to have time to include additional mathematics. A number of pathways for advanced learning are possible and may be integrated throughout the high school experience and beyond.

The Common Core State Standards Initiative

The *College and Career Readiness Standards for Mathematics* will anchor the next phase of the Common Core State Standards Initiative: development of K–12 Mathematics Standards. Those K–12 Standards are in turn expected to guide the development of a next generation of assessments, developed collaboratively by multiple states. The K–12 Mathematics Standards will serve as a guide and tool for aligning instruction, curriculum, assessment, teacher supports, and systems of accountability. To ensure alignment, the Standard for Mathematical Practice, the Standards for Mathematical Content, and the Example Tasks should all be taken into account.

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Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

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Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

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How Evidence Informed Decisions in Drafting the Standards

The Common Core State Standards Initiative builds on a generation of standards efforts led by states and national organizations. On behalf of the states, we have taken a step toward the next generation of standards that are aligned to college- and career-ready expectations and are internationally benchmarked. These standards are grounded in evidence from many sources that shows that the next generation of standards in mathematics must be focused on deeper, more thorough understanding of more fundamental mathematical ideas and higher mastery of these fewer, more useful skills.

The evidence that supports this new direction comes from a variety of sources. International comparisons show that high performing countries focus on fewer topics and that the U.S. curriculum is "a mile wide and an inch deep." Surveys of college faculty show the need to shift away from high school courses that merely survey advanced topics, toward courses that concentrate on developing an understanding and mastery of ideas and skills that are at the core of advanced mathematics. Reviews of data on student performance show the large majority of U.S. students are not mastering the mile wide list of topics that teachers cover.

The evidence tells us that in high performing countries like Singapore, the gap between what is taught and what is learned is relatively smaller than in Malaysia or the U.S. states. Malaysia's standards are higher than Singapore's, but their performance is much lower. One could interpret the narrower gap in Singapore as evidence that they actually use their standards to manage instruction; that is, Singapore's standards were set within the reach of hard work for their system and their population. Singapore's Ministry of Education flags its webpage with the motto, "Teach Less, Learn More." We accepted the challenge of writing standards that could work that way for U.S. teachers and students: By providing focus and coherence, we could enable more learning to take place at all levels.

However, a set of standards cannot be simplistically "derived" from any body of evidence. It is more accurate to say that we used evidence to inform our decisions. A few examples will illustrate how this was done.

For example, systems of linear equations are covered by all states, yet students perform surprisingly poorly on this topic when assessed by ACT. We determined that systems of linear equations have high coherence value, mathematically; that this topic is included by all high performing nations; and that it has moderately high value to college faculty. Result: We included it in our standards.

A different and more complex pattern of evidence appeared with families of functions. Again we found that students performed poorly on problems related to many advanced functions (trigonometric, logarithmic, quadratic, exponential, and so on). Again we found that a number of states cover them, even though college faculty rated them lower in value. High performing countries include this material, but with different degrees of demand. We decided that we had to carve a careful line through these topics so that limited teaching resources could focus where most important. We decided that students should

develop deep understanding and mastery of linear and exponential functions. They should also have familiarity with other families of functions, and apply their algebraic, modeling and problem solving skills to them—but not develop in-depth technical mastery and understanding. Thus we defined two distinct levels of attention and identified which families of functions got which level of attention.

Why were exponential functions selected for intensive focus in the Functions standard instead of, say, quadratic functions? What tipped the balance was the high coherence value of exponential functions in supporting modeling and their wide utility in work and life. Quadratic functions were also judged to be well supported by expectations defined under Expressions and Equations.

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College and Career Readiness Standards for Mathematics

Draft for Review and Comment

September 21, 2009

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College and Career Readiness Standards for Mathematics

Mathematical Practice

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Practices · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x - y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

(a) For the importance of students' beliefs about effort, see the National Mathematics Advisory Panel's Report of the Task Group on Learning Processes, p. 4-10 (2008). (b) Cuoco, A., Goldenberg, E. P., and Mark, J., *Journal of Mathematical Behavior*, 15 (4), 375-402, 1996; *Focus in High School Mathematics*. Reston, VA: NCTM, in press; Harel, G., What is Mathematics? A Pedagogical Answer to a Philosophical Question. In R. B. Gold & R. Simons (Eds.), *Current Issues in the Philosophy of Mathematics From the Perspective of Mathematicians*, Mathematical Association of America, 2008.

Number

Core Concepts · Students understand that:

A The real numbers include the rational numbers and are in one-to-one correspondence with the points on the number line.

B Quantities can be compared using division, yielding rates and ratios.

C A fraction can represent the result of dividing the numerator by the denominator; equivalent fractions have the same value.

D Place value and the rules of arithmetic form the foundation for efficient algorithms.

A Coherent Understanding of Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra:

- Numbers can be added in any order with any grouping and multiplied in any order with any grouping.
- Adding 0 and multiplying by 1 both leave a number unchanged.
- All numbers have additive inverses, and all numbers except zero have multiplicative inverses.
- Multiplication distributes over addition.

Subtraction and division are defined in terms of addition and multiplication, so are also governed by these rules.

The place value system bundles units into 10s, then 10s into 100s, and so on, providing an efficient way to name large numbers. Subdividing in a similar way extends this to the decimal system, which provides an address system for locating all real numbers on the number line with arbitrarily high accuracy. Place value is the basis for efficient algorithms, reducing much computation to single-digit arithmetic. Mental computation strategies also make opportunistic use of the rules of arithmetic, as when the product $5\times177\times2$ is computed at a glance to obtain 1770, rather than methodically working from left to right.

An estimate may be more appropriate than an exact value, for example, when you want to know the number of calories in a meal. Often a result is reported using fewer digits than were calculated. A mature number sense includes having rules of thumb about how much accuracy is appropriate and understanding that accuracy to more than a few decimal places often takes substantial effort. Estimation and approximation are also useful in checking calculations.

Rational numbers represented as fractions can be located on the number line by seeing them as numbers expressed in different units; for example, 3/5 is 3 units, where each unit is 1/5. However, rational numbers do not fill out the number line. There are also irrational numbers, such as π or $\sqrt{2}$. Each point on the number line then corresponds to a real number that is either rational or irrational.

Connections to Expressions, Functions and Coordinates. The rules of arithmetic govern the manipulations of expressions and functions. Two perpendicular number lines define the coordinate plane.

Core Skills · Students can and do:

1 Compare numbers and make sense of their magnitude.

Include positive and negative numbers expressed as fractions, decimals, powers, and roots. Limit to square and cube roots. Include very large and very small numbers and the use of scientific notation.

2 Know when and how to use standard algorithms, and perform them flexibly, accurately and efficiently.*

3 Use mental strategies and technology to formulate, represent and solve problems.**

4 Solve multi-step problems involving fractions and percentages.

Include situations such as simple interest, tax, markups/markdowns, gratuities and commissions, fees, percent increase or decrease, percent error, expressing rent as a percentage of take-home pay, and so on.

5 Use estimation and approximation to solve problems.

Include evaluating answers for their reasonableness, detecting errors, and giving answers to an appropriate level of precision.

* This aligns with the concept of procedural fluency as in the National Research Council report *Adding it up: Helping children learn mathematics.* Specifically, "*Procedural fluency* refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently" (p. 121).

** This aligns with the concept of strategic competence as described in *Adding it up.* "*Strategic competence* refers to the ability to formulate mathematical problems, represent them, and solve them" (p. 124).

Quantity

Core Concepts · Students understand that:

A The value of a quantity is not specified unless the units are named or understood from the context.

B Quantities can be added and subtracted only when they are of the same type (length, area, speed, etc.).

C Quantities can be multiplied or divided to create new types of quantities, called derived quantities.

A Coherent Understanding of Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

The length of a football field and the speed of light are both quantities. If we choose units of miles per second, then the speed of light has a value of approximately 186,000 miles per second. But the speed of light need not be expressed in miles per second; it may be approximated by 3×10^8 meters per second or in any other unit of speed. Bare numerical values such as 186,000 do not describe quantities unless they are paired with units.

Speed (distance divided by time), rectangular area (length multiplied by length), density (mass divided by volume), and population density (number of people divided by land area) are examples of derived quantities, obtained by multiplying or dividing quantities.

It can make sense to add two quantities, such as when a child 51 inches tall grows 3 inches to become 54 inches tall. To be added or subtracted, quantities must be of the same type (length, area, speed, etc.); to add or subtract their values, the quantities must be expressed in the same units. Converting quantities to have the same units is like converting fractions to have a common denominator before adding or subtracting. But, even when quantities have the same units it does not always make sense to add them. For example, if a wooded park with 300 trees per acre is next to a field with 30 trees per acre, they do not have 330 trees per acre.

Doing algebra with units in a calculation reveals the units of the answer, and can help reveal a mistake if, for example, the answer comes out to be a distance when it should be a speed.

Connections to Number, Expressions, Equations, Functions, Modeling and Statistics. Operations described under Number and Expressions govern the operations one performs on quantities, including the units involved. Quantity is an integral part of any application of mathematics, and has connections to solving problems using data, equations, functions and modeling.

Core Skills · Students can and do:

1 Know when and how to convert units in computations.

Include the addition and subtraction of quantities of the same type expressed in different units; averaging data given in mixed units; converting units for derived quantities such as density and speed.

2 Use and interpret quantities and units correctly in algebraic formulas.

Include specifying units when defining variables and attending to units when writing expressions and equations.

3 Use and interpret quantities and units correctly in graphs and data displays.

Include function graphs, data tables, scatterplots and other visual displays of dimensioned data.

4 Use units as a way to understand problems and to guide the solution of multi-step problems.

Include examples such as acceleration; currency conversions; people-hours; social science measures, such as deaths per 100,000; and general rates, such as points per game.

Expressions

Core Concepts · Students understand that:

A Expressions are constructions built up from numbers, variables, and operations, which have a numerical value when each variable is replaced with a number.

B Complex expressions are made up of simpler expressions.

C The rules of arithmetic can be applied to transform an expression without changing its value.

D Rewriting expressions in equivalent forms serves a purpose in solving problems.

A Coherent Understanding of Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Reading an expression with comprehension involves analysis of its underlying structure, which may suggest a different but equivalent way of writing it that exhibits some different aspect of its meaning. For example, $p + 0.05p$ can be interpreted as the addition of a 5% tax to a price p. But rewriting $p + 0.05p$ as $1.05p$ shows that adding a tax is the same as multiplying by a constant factor.

Algebraic manipulations are based on the conventions of algebraic notation and the rules of arithmetic. Heuristic mnemonic devices are not a substitute for procedural fluency. For example, factoring, expanding, collecting like terms, the rules for interpreting minus signs next to parenthetical sums, and adding fractions with a common denominator are all instances of the distributive law; the definitions for negative and rational exponents are based on the extension of the exponent laws for positive integers. The laws of exponents connect multiplication of numbers to addition of exponents and thus express the deep relationship between addition and multiplication captured by the parallel nature of the rules of arithmetic for these operations.

Complex expressions are made up of simpler expressions using arithmetic operations and substitution. When simple expressions within more complex expressions are treated as single quantities, or chunks, the underlying structure of the larger expression may be more evident.

Connections to Equations and Functions. Setting expressions equal to each other leads to equations. Expressions can define functions of the variables that appear in them, with equivalent expressions defining the same function.

Core Skills · Students can and do:

1 See structure in expressions.

For example, recognize: that the expressions $x^4 - y^4$ and $(x + y)^2 - (x - y)^2$ are differences of squares; that there are different ways to rewrite the latter expression, e.g., by expanding and collecting like terms or by factoring as a difference of squares; that p is a common factor in $p + 0.025p$; that an expression in the form $(x - 3)^2 + 14$ reveals its minimum value.

2 Manipulate simple expressions.

Show procedural fluency in the following cases: factoring out common terms; factoring expressions with quadratic structure; writing in standard form sums, differences, and products of polynomials. Include completing the square and rewriting in standard form sums, differences, products, and quotients of simple rational expressions; rewriting expressions with negative exponents and those involving square or cube roots of a single term involving exponents.

3 Define variables and write an expression to represent a quantity in a problem.

Include contextual problems.

4 Interpret an expression that represents a quantity in terms of the context.

Include interpreting parts of an expression, such as terms, factors and coefficients.

Equations

Core Concepts · Students understand that:

A An equation is a statement that two expressions are equal.

B The solutions of an equation are the values of the variables that make the resulting numerical statement true.

C The steps in solving an equation are guided by understanding and justified by logical reasoning.

D Equations not solvable in one number system may have solutions in a larger number system.

A Coherent Understanding of Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true. If the equation is true for all values of the variables, then we call it an identity; identities are often discovered by manipulating one expression into another.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs, which can be graphed in the plane. Equations can be combined into systems to be solved simultaneously.

An equation can be solved by successively transforming it into one or more simpler equations. The process is governed by deductions based on the properties of equality. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

Some equations have no solutions in a given number system, stimulating the formation of expanded number systems (integers, rational numbers, real numbers and complex numbers).

A formula is a type of equation. The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = \left(\frac{b_1+b_2}{2}\right)h$, can be solved for h using the same deductive process.

Inequalities can be solved in much the same way as equations. Many, but not all, of the properties of equality extend to the solution of inequalities.

Connections to Functions, Coordinates, and Modeling. Equations in two variables may define functions. Asking when two functions have the same value leads to an equation; graphing the two functions allows for the approximate solution of the equation. Equations of lines involve coordinates, and converting verbal descriptions to equations is an essential skill in modeling.

Core Skills · Students can and do:

1 Understand a problem and formulate an equation to solve it.

Extend to inequalities and systems.

2 Solve equations in one variable using manipulations guided by the rules of arithmetic and the properties of equality.

Solve linear equations with procedural fluency. For quadratic equations, include solution by inspection, by factoring, or by using the quadratic formula. Understand that the quadratic formula comes from completing the square. Include simple absolute value equations solvable by direct inspection and by understanding the interpretation of absolute value as distance.

3 Rearrange formulas to isolate a quantity of interest.

Exclude cases that require extraction of roots or inverse functions.

4 Solve systems of equations.

Focus on pairs of simultaneous linear equations in two variables. Include algebraic techniques, graphical techniques and solving by inspection.

5 Solve linear inequalities in one variable and graph the solution set on a number line.

Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

6 Graph the solution set of a linear inequality in two variables on the coordinate plane.

Emphasize graphing the associated equation, using a dashed or solid line as appropriate and shading to indicate the half-plane on which the solutions to the inequality lie.

Functions

Core Concepts · Students understand that:

A A function is a rule, often defined by an expression, that assigns a unique output for every input.

B The graph of a function f is a set of ordered pairs $(x, f(x))$ in the coordinate plane.

C Functions model situations where one quantity determines another.

D Common functions occur in families where each member describes a similar type of dependence.

A Coherent Understanding of Functions. Functions model situations where one quantity determines another. For example, the return on $10,000 invested at an annualized percentage rate of 4.25% is a function of the length of time the money is invested. Because nature and society are full of dependencies between quantities, functions are important tools in the construction of mathematical models.

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a plane to fly 1000 miles is a function of the plane's average ground speed in miles per hour, v; the rule $T(v) = 1000/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of possible inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context. The graph of a function is a useful way of visualizing the relationship the function models, and manipulating the expression for a function can throw light on the function's properties.

Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with an initial value of zero describe proportional relationships.

Connections to Expressions, Equations, Modeling and Coordinates. Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. The graph of a function f is the same as the solution set of the equation $y = f(x)$. Questions about when two functions have the same value lead to equations, whose solutions can be visualized from the intersection of the graphs. Since functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be modeled effectively using a spreadsheet or other technology.

Core Skills · Students can and do:

1 Recognize proportional relationships and solve problems involving rates and ratios.

Include being able to express proportional relationships as functions.

2 Describe the qualitative behavior of common types of functions using graphs and tables.

Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

3 Analyze functions using symbolic manipulation.

Include slope-intercept and point-slope form of linear functions; vertex form of quadratic functions to identify symmetry and find maximums and minimums; factored form to find zeros. Use manipulations as described under Expressions.

4 Use the families of linear and exponential functions to solve problems.

For linear functions $f(x) = mx + b$, understand b as the intercept or initial value and m as the slope or rate of change. For exponential functions $f(x) = a \cdot b^x$, understand a as the intercept or initial value and b as the growth factor.

5 Find and interpret rates of change.

Compute the rate of change of linear functions and make qualitative observations about how the rate of change varies for nonlinear functions.

Modeling

Core Concepts · Students understand that:

A Mathematical models involve choices and assumptions that abstract key features from situations to help us solve problems.

B Even very simple models can be useful.

A Coherent Understanding of Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

Connections to Quantity, Equations, Functions, Shape, Coordinates and Statistics. Modeling makes use of shape, data, graphs, equations and functions to represent real-world quantities and situations.

Core Skills · Students can and do:

1 Model numerical situations.

Include readily applying the four basic operations in combination to solve multi-step quantitative problems with dimensioned quantities; making estimates to introduce numbers into a situation and get problems started; recognizing proportional or near-proportional relationships and analyzing them using characteristic rates and ratios.

2 Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

3 Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

4 Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

5 Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

6 Interpret the results of applying a model and compare models for a particular situation.

Include realizing that models seldom fit exactly and so there can be error; identifying simple sources of error and being careful not to over-interpret models. Include recognizing that there can be many models that relate to a situation, that they can capture different aspects of the situation, that they can be simpler or more complex, and that they can have a better or worse fit to the situation and the questions being asked.

Shape

Core Concepts · Students understand that:

A Shapes and their parts, attributes, and measurements can be analyzed deductively.*

B Congruence, similarity, and symmetry can be analyzed using transformations.

C Mathematical shapes model the physical world, resulting in practical applications of geometry.

D Right triangles and the Pythagorean theorem are central to geometry and its applications, including trigonometry.

A Coherent Understanding of Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships. Once understood, those attributes and relationships can be applied in diverse practical situations—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Understanding the attributes of geometric objects often relies on measurement: a circle is a set of points in a plane at a fixed distance from a point; a cube is bounded by six squares of equal area; when two parallel lines are crossed by a transversal, pairs of corresponding angles are congruent.

The concepts of congruence, similarity and symmetry can be united under the concept of geometric transformation. Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent. Applying a scale transformation to a geometric figure yields a similar figure. The transformation preserves angle measure, and lengths are related by a constant of proportionality. If the constant of proportionality is one, distances are also preserved (so the transformation is a rigid transformation) and the figures are congruent.

The definitions of sine, cosine and tangent for acute angles are founded on right triangle similarity, and, with the Pythagorean theorem, are fundamental in many practical and theoretical situations.

Connections to Coordinates, Functions and Modeling. The Pythagorean theorem is a key link between geometry, measurement and distance in the coordinate plane. Parameter changes in families of functions can be interpreted as transformations applied to their graphs and those functions, as well as geometric objects in their own right, can be used to model contextual situations.

*In this document, deductive analysis aligns with the notion of adaptive reasoning as defined in *Adding it Up*, and includes empirical exploration, informal justification, and formal proof.

Core Skills · Students can and do:

1 Use multiple geometric properties to solve problems involving geometric figures.

Properties include: measures of interior angles of a triangle sum to 180°; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints; and a line tangent to a circle is perpendicular to the radius meeting it.

2 Prove theorems, test conjectures and identify logical errors.

Include theorems establishing the properties in Core Skill 1 and other theorems about angles, parallel and perpendicular lines, similarity and congruence of triangles.

3 Construct and interpret representations of geometric objects.

Include classical construction techniques and construction techniques supported by modern technologies. Include moving between two-dimensional representations and the three-dimensional objects they represent, such as in schematics, assembly instructions, perspective drawings and multiple views.

4 Solve problems involving measurements.

Include measurement (length, angle measure, area, surface area, and volume) of a variety of figures and shapes in two- and three-dimensions. Compute measurements using formulas and by decomposing complex shapes into simpler ones.

5 Solve problems involving similar triangles and scale drawings.

Include computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale.

6 Apply properties of right triangles and right triangle trigonometry to solve problems.

Include using the Pythagorean theorem and properties of special right triangles, and applying sine, cosine and tangent to determine lengths and angle measures of right triangles. Use right triangles and their properties to solve real-world problems. Limit angle measures to degrees.

Coordinates

Core Concepts · Students understand that:

A Locations in the plane or in space can be specified by pairs or triples of numbers called coordinates.

B Coordinates link algebra with geometry and allow methods in one domain to solve problems in the other.

C The set of solutions to an equation in two variables forms a curve in the coordinate plane—such as a line, parabola, circle—and the solutions to systems of equations correspond to intersections of these curves.

A Coherent Understanding of Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling and proof.

Coordinate geometry is a rich field for exploration. How does a geometric transformation such as a translation or reflection affect the coordinates of points? How is the geometric definition of a circle reflected in its equation?

Adding a third perpendicular axis associates three numbers with locations in three dimensions and extends the use of algebraic techniques to problems involving the three-dimensional world we live in.

Connections to Shape, Quantity, Equations and Functions. Coordinates can be used to reason about shapes. In applications, coordinate values often have units (such as meters and bushels). A one-variable equation of the form $f(x) = g(x)$ may be solved in the coordinate plane by finding intersections of the curves $y = f(x)$ and $y = g(x)$.

Core Skills · Students can and do:

1 Translate fluently between lines in the coordinate plane and their equations.

Include predicting visual features of lines by inspection of their equations, determining the equation of the line through two given points, and determining the equation of the line with a given slope passing through a given point.

2 Identify the correspondence between parameters in common families of equations and the location and appearance of their graphs.

Include common families of equations—the graphs of $Ax + By = C$, $y = mx + b$ and $x = a$ are straight lines; the graphs of $y = a(x - h)^2 + k$ and $y = Ax^2 + Bx + C$ are parabolas; and the graph of $(x - h)^2 + (y - k)^2 = r^2$ is a circle.

3 Use coordinates to solve geometric problems.

Include proving simple theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

Probability

Core Concepts · Students understand that:

A Probability models outcomes for situations in which there is inherent randomness, quantifying the degree of uncertainty in terms of relative frequency of occurrence.

B The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.

C The laws of probability govern the calculation of probabilities of combined events.

D Interpreting probabilities contextually is essential to rational decision-making in situations involving randomness.

A Coherent Understanding of Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1. This number is generally interpreted as the relative frequency of occurrence of the event over the long run.

The structure of a probability model begins by listing or describing the possible outcomes for a random situation (the sample space) and assigning probabilities based on an assumption about long-run relative frequency. In situations such as flipping a coin, rolling a number cube, or drawing a card, it is reasonable to assume various outcomes are equally likely.

Compound events constructed from these simple ones can be represented by tree diagrams and by frequency or relative frequency tables. The probabilities of compound events can be computed using these representations and by applying the additive and multiplicative laws of probability. Interpreting these probabilities relies on an understanding of independence and conditional probability, approachable through the analysis of two-way tables.

Converting a verbally-stated problem into the symbols and relations of probability requires careful attention to words such as *and*, *or*, *if*, and *all*, and to grammatical constructions that reflect logical connections. This is especially true when applying probability models to real-world problems, where simplifying assumptions are also usually necessary in order to gain at least an approximate solution.

Connections to Statistics and Expressions. Probability is the foundation for drawing valid conclusions from sampling or experimental data. Counting has an advanced connection with Expressions through Pascal's triangle and binomial expansions.

Core Skills · Students can and do:

1 Compute theoretical probabilities by systematically counting points in the sample space.

Make use of symmetry and equally likely outcomes. Include permutation and combination problems as long as small numbers are involved or technology is used, so that formulas are not required.

2 Interpret probabilities of compound events using concepts of independence and conditional probability.

Include reading conditional probabilities from two-way tables.

3 Compute probabilities of compound events.

Make use of the additive and multiplicative laws of probability, tree diagrams and frequency or relative frequency tables in real contexts. Do not emphasize fluency with the related formulas

4 Estimate probabilities empirically.

Include using data from simulations carried out with technology to estimate probabilities.

5 Identify and explain common misconceptions regarding probability.

Include misconceptions about long-run versus short-run behavior of relative frequencies (the law of large numbers). Include attention to the use and misuse of probability in the media, especially in terms of interpreting charts and tables and in the contextual meaning of terms connected to probability, such as 'odds' or 'risk.'

6 Adapt probability models to solve real-world problems.

Include the use of conditional probability to assess subsets of data (e.g., what does the data say about males and females separately). Include the use of independence as a simplifying assumption (e.g., find the probability that two students both contract the disease this year).

Statistics

Core Concepts · Students understand that:

A Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.

B Visual displays and summary statistics condense the information in data sets into usable knowledge.

C Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.

D The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

A Coherent Understanding of Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data. Statistics provides tools for describing variability in data and for making informed decisions that take variability into account.

Data are gathered, displayed, summarized, examined and interpreted to discover patterns. Data can be summarized by a statistic measuring center, such as mean or median, and a statistic measuring spread, such as interquartile range or standard deviation. Different distributions can be compared numerically using these statistics or visually using plots. Which statistics to compare, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance and this can be evaluated only under the condition of randomness.

In critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were collected, and the analyses employed as well as the data summaries and the conclusions drawn.

Connections to Probability, Functions and Modeling. Valid conclusions about a population depend on designed simulations or other statistical studies using random sampling or assignment and rely on probability for their interpretation. Functional models may be used to approximate data. If the data are approximately linear, the relationship may be modeled with a trend line and the strength and direction of such a relationship may be expressed through a correlation coefficient. Technology facilitates the study of statistics by making it possible to simulate many possible outcomes in a short amount of time, and by generating plots, function models, trend lines and correlation coefficients.

Core Skills · Students can and do:

1 Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question.

Include determining whether a question can best be addressed through a sample survey, randomized experiment or observational study. Include unbiased selection for a sample and randomization of assignment to treatment for an experiment.

2 Use appropriate displays and summary statistics for data.

Include univariate, bivariate, categorical and quantitative data. Include the thoughtful selection of displays and measures of center and spread to summarize data.

3 Interpret data displays and summaries critically; draw conclusions and develop recommendations.

Include paying attention to the context of the data, interpolating or extrapolating judiciously, and examining the effects of extreme values of the data on summary statistics of center and spread. Include data sets that follow a normal distribution. Include observing and interpreting linear trends in bivariate quantitative data.

4 Draw statistical conclusions involving population means or proportions using sample data.

Conclusions should be based on simulations or other informal techniques, rather than formulas.

5 Evaluate reports based on data.

Include looking for bias or flaws in the way the data were gathered or presented, as well as unwarranted conclusions, such as claims that confuse correlation with causation.

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X. Achieve, Inc., Virginia Postsecondary Survey, 2004.

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A. ACT Job Skill Comparison Charts

B. Achieve's Mathematics at Work, 2008. http://www.achieve.org/mathatwork

C. *The American Diploma Project Workplace Study*. National Alliance of Business Study, 2002.

D. Carnevale, Anthony and Desrochers, Donna. *Connecting Education Standards and Employment: Course-taking Patterns of Young Workers,* 2002.

http://www.edroundtable.state.in.us/pdf/adp/ADPWorkplaceStudy.pdf

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H. States' Career Cluster Initiative. *Essential Knowledge and Skill Statements*, 2008.

I. WorkKeys Occupational Profiles™

http://www.act.org/workkeys/profiles/occuprof/index.html

IV. International Documents

STANDARDS [High performing countries/countries of interest]

A. Alberta

Alberta Learning, *Pure Mathematics 10–20–30 (Senior High)*, 2002. (Grades 10-12)

B. Belgium

Department for Educational Development: Core Curriculum. (Grades 9-10 and 11-12) Retrieved June 24, 2009 from http://www.ond.vlaanderen.be/dvo/english/corecurriculum/corecurriculum.htm

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Compulsory mathematics curriculum for senior secondary, as submitted to the APEC consortium. (Grades 10-12) Last retrieved July 13, 2009, from http://www.apecknowledgebank.org/file.aspx?id=1895

D. Chinese Taipei

- Curriculum Guidelines for the Required Subject Math in Senior High Schools, as submitted to the APEC consortium. (Grades 10-11) Last retrieved July 13, 2009 from http://www.apecknowledgebank.org/file.aspx?id=1900
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- *The National Curriculum Framework,* 2005. (Grades 9-12). National Council of Educational Research and Training. Last retrieved July 13, 2009, from http://ncert.nic.in/html/pdf/schoolcurriculum/framework05/prelims.pdf
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ASSESSMENTS [Key international assessments with global reach]

A. Program for International Student Assessment (PISA), 2006.

B. Trends in International Mathematics and Science Study (TIMSS), 2007.

C. International Baccalaureate, Mathematics Standard Level, 2006.

D. University of Cambridge International Examinations: General Certificate of Secondary Education in Mathematics, 2009.

E. EdExcel, General Certificate of Secondary Education, Mathematics, 2009.

F. Lundsgaard Hansen, Birthe and Vagn. Reference levels in School Mathematics, Education in Europe, National Presentation, Denmark, 2001. Last retrieved July 15, 2009, from http://www.emis.de/projects/Ref/doc_ems_pdf/EMS_NATIONAL_PRESENTATIONS/EMS_DENMARK.pdf

V. State Documents

A. California State Standards

B. Florida State Standards

C. Georgia State Standards

D. Massachusetts State Standards

E. Mathematics Curriculum Framework Revision Panel [Revised Progress Report]. Massachusetts Department of Elementary and Secondary Education, 2009. Last retrieved July 15, 2009, from http://www.doe.mass.edu/boe/docs/0509/item5_report.pdf.

F. Minnesota State Standards

MOSAIC

Multiple Options for Student Assessment and Instruction Consortium

Memorandum of Understanding

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the lead state(s): Wisconsin, Nebraska, and Missouri. The purpose of this agreement is to establish a framework of collaboration, as well as articulate tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. States might choose to participate in this Consortium even if their Race to the Top grant application is not funded.

I. PROJECT PROPOSAL

A. PARTICIPATING SEA RESPONSIBILITIES

A Consortium of states proposes to build a balanced assessment system of formative and benchmark assessment in a Race to the Top grant application. A state might choose to participate in this agreement through funding of its own choosing. The name of the system to be built is Multiple Options (for) Student Assessment (and) Instruction Consortium (MOSAIC). The MOSAIC system will be designed to complement a summative assessment system aligned to the Common Core such as the one being proposed under the SMARTER Consortium or any other Consortia that may develop a summative assessment aligned to the Common Core.

The proposed Consortium tasks and activities described in the Race to the Top application include the tasks that follow below. States participating in the Consortium will need to determine which of the tasks they wish to undertake with this Consortium. This decision may be made after the submission of the MOU.

Task 1.1.1 COMMON CORE: **The consortium states will adopt the Common Core Standards.** Within one year of state adoption, all districts within the consortium states will have adopted the Common Core Standards, will have integrated the standards to their local curriculum, and will have aligned professional development to familiarize staff with the college and career-ready expectations.

Task 1.1.2 PROFESSIONAL DEVELOPMENT—CURRICULAR INTEGRATION: **The consortium states will develop and build professional development materials around the instructional integration of Common Core standards.** This will include curricular frameworks aligned to the Common Core, defining of learning progressions within content areas, materials on instructional strategies, and suggested interventions. All materials will be disseminated across the states within the consortium and made available in a web-banked system.

Task 1.1.3 INSTRUCTIONAL SUPPORT SYSTEM: **The consortium states will have access to a computerized system that will provide opportunities for districts to** load the system with formative/local assessment tasks, items, and instructional materials including performance assessments. These can be shared across states, and customized for local use. All will be aligned with the Common Core and will be available electronically to students and teachers with timely data turn-around.

Task 1.1.4 STATE FLEXIBILITY: **Each state will define the level at which districts/schools in their state participate in the formative/benchmark assessment system. This may vary from state to state, depending on how each state defines voluntary versus optional participation.** (One level of required participation within a state might be to require the state's persistently low performing schools and districts to participate in this comprehensive assessment system, and to require that student performance data be tracked over time for growth and improvement.)

Task 1.1.5 REPORT DEVELOPMENT: **Each state will contribute to the development of district, school, and student-level performance reports on the Common Core.** Reports will be generated in parent-friendly and teacher-friendly formats to track progress on the Common Core standards. Emphasis will be placed upon growth and improvement over time, with customized feedback about suggested next-steps based on the student's performance.

Task 1.1.6 BENCHMARK ASSESSMENT SYSTEM: **Each state will contribute to the development of a benchmark assessment item bank with the capabilities for adaptive testing.** From this item bank, common diagnostic/benchmark tests will be developed across the "total package" consortia states through a consortia bid process to a single vendor. Each state will contribute field-tested items to the bank. This bank will be used to diagnose student strengths and deficiencies and serve as an "early warning" system. Common performance standards and cut scores for these diagnostic/benchmark tests will be set across the consortium of states. The common tests will be loaded into the computerized system for immediate data turn around. The common tests will be available to districts/schools within each state as defined by that state – varying levels of participation will require different cost to each state to implement, most likely on a per-pupil basis. (States participating at the Partner or Associate level may access items in the bank, but may not utilize the consortia-developed common assessments).

Task 1.1.7 PROFESSIONAL DEVELOPMENT—USING DATA TO IMPROVE INSTRUCTION: **Each state will contribute to the development of hands-on training and workshop modules for educators that focus on user-friendly strategies to make data-informed instructional decisions based upon formative, benchmark, and summative assessment results.** All materials will be disseminated across the collaborating states.

The selection of tasks by each SEA participating in the Consortium will determine the level of participation of each respective state. There are three levels of participation that may be selected by each SEA in the Consortium. While the level of participation does not need to be selected at the time of signing the MOU, by its signature the state is indicating its interest in participating at a minimum of Level Three.

- **Level One: "Total Package"** – The state participates in **all seven tasks** with a common vendor, and shares in all resources available through the project, including all formative/benchmark assessments developed under the project. The state has an active role in developing, disseminating and sharing professional development tasks and materials.

- **Level Two: "Partner"** – The state contributes to the item bank **(Tasks 1.1.1, 1.1.2, and 1.1.6)** and professional development materials, and may use components in their state for state-specific work. (ex: state does not use common assessments developed from the bank; instead, uses the bank to create their own assessment tools with a separate vendor)

- **Level Three: "Associate"** – The state contributes to the item bank, **(Task 1.1.6 only)** and may use components in their state for state-specific work. The state does not contribute to or have access to professional development components developed through the project.

B. RESPONSIBILITIES OF ALL SEA PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person for the Race to the Top grant.

2) These key contacts from each State and the lead state(s) will maintain frequent communication to facilitate cooperation under this MOU.

3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State
Chief/Commissioner (or equivalent authorized signatory)

Chris L Nicastro — January 5, 2010

Signature — Date

Chris L. Nicastro — Missouri Commissioner of Education

Print Name — Title

Authorized Lead SEA Official - Lead State
By its signature below, the lead state(s) hereby accepts the SEA as a Participating SEA in the Consortium

Official State Designee — Date

Print Name — Title

Please email this signed page by January 5, 2010 to

lynette.russell@dpi.wi.gov and pat.roschewski@nebraska.gov
or fax to
(Fax) 608.266.8770 and (Fax) 402.471.4311

****PLEASE email this signed page only by January 5, 2010****

MOU for a State Consortium Developing Balanced Assessments of the Common Core Standards

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the Balanced Assessment Consortium and Missouri. The purpose of this agreement is to establish a framework of collaboration for states in supporting assessment of the common core standards. The agreement also articulates tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. The MOU outlines a set of working principles, the roles of states and local districts within the consortium, and a set of tasks that the Consortium would undertake.

Working Principles

A consortium of states developing a balanced assessment system for evaluating the common core standards would start with working principles derived from an examination of successful state systems in the U.S. and high-achieving systems internationally. For example:

1) **Assessments are grounded in a thoughtful, standards-based curriculum and are managed as part of a tightly integrated system of standards, curriculum, assessment, instruction, and teacher development**.

- Curriculum guidance is lean, clear, and focused on what students should know and be able to *do* as a result of their learning experiences. Assessment expectations are described in the curriculum frameworks or course syllabi and are exemplified by samples of student work.
- Curriculum and assessments are organized around a well-defined set of learning progressions within subject areas. These guide teaching decisions, classroom-based assessment, and external assessment.
- Teachers and other curriculum experts are involved in developing curriculum and assessments which guide professional learning and teaching. Thus, everything that comes to schools is well-aligned and pulling in the same direction.

2) **Assessments elicit evidence of actual student performance on challenging tasks that prepare students for the demands of college and career in the 21st century.** Curriculum and assessments seek to teach and evaluate a broad array of skills and competencies that generalize to higher education and work settings. They emphasize deep knowledge of core concepts within and across the disciplines, including problem solving, analysis, synthesis, and critical thinking, and include essays and open-ended tasks and problems, as well as selected response items.

3) **Teachers are involved in the development of curriculum and the development and scoring of assessments**. Scoring processes are moderated to ensure consistency and to enable teachers to deeply understand the standards and to develop stronger curriculum and instruction leading to greater student proficiency. The moderated scoring process is a strong professional learning experience that helps drive the instructional improvements that enable student learning, as teachers become more skilled at their own assessment practices and their development of curriculum to teach the standards. The assessment systems are designed to increase the capacity of teachers to prepare students for the contemporary demands of college and career.

4) **Assessments are structured to <u>continuously improve teaching and learning</u>**. Assessment *as*, *of*, and *for* learning is enabled by several features of assessment systems:

- The use of school-based, curriculum-embedded assessments provides teachers with models of good curriculum and assessment practice, enhances curriculum equity within and across schools, and allows teachers to see and evaluate student learning in ways that can feed back into instructional and curriculum decisions.

- Close examination of student work and moderated teacher scoring of both school-based components and externally developed open-ended examinations are sources of ongoing professional development that improve teaching.

- Developing both school-based and external assessments around learning progressions allows teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

5) Assessment and accountability systems are designed to <u>improve the quality of learning</u> and schooling. Assessments aim to encourage and support the learning of ambitious intellectual skills in the way they are designed and used for informing teaching, learning, and schooling. Accountability systems publicly report outcomes and take these into account, along with other indicators of school performance, in a well-designed system focused on continual improvement for schools.

6) Assessment and accountability systems <u>use multiple measures</u> to evaluate students and schools.

Multiple measures of learning and performance are used to evaluate skills and knowledge. Students engage in a variety of tasks and tests that are both curriculum-embedded and on-demand, providing many ways to demonstrate and evaluate their learning. These are combined in reporting systems at the school and beyond the school level. School reporting and accountability are also based on multiple measures. Assessment data are combined with other information about schools' resources, capacities, practices, and outcomes to design intensive professional development supports and interventions that improve school performance.

7) <u>New technologies enable greater assessment quality</u> and information systems that support accountability.

New technologies enhance and transform the way the assessment process is developed, delivered, and used, providing adaptive tools and access to information resources for students to demonstrate their learning, and providing appropriate feedback by supporting both teacher scoring and computer-based scoring (now possible for both selected response and some forms of constructed-response items). By using technology to reduce costs for delivery of more open-ended assessment formats, scoring, and reporting, resources can be redirected to improvements in assessment quality.

Technology also organizes data about student learning, enhancing system accountability for instruction and reporting by providing more efficient, accurate, and timely information to teachers, parents, administrators, and policymakers. Technology helps to integrate information at as part of longitudinal data systems, contributing to a rich profile of accomplishment for every student.

<u>State and Local Roles within a Consortium</u>

States working within the Consortium would:

- Adopt and augment the Common Core standards as appropriate to their context.

- Create and deploy curriculum frameworks that address the standards—drawing on exemplars and tested curriculum models.
- Build and manage an assessment system that includes both on-demand and curriculum-embedded assessments that evaluate the full range of standards and allow evaluation of student progress. The Consortium may develop both joint assessments (commonly implemented by states) as well as other assessment tasks and items linked to the standards (and grounded in curriculum units) that can be incorporated into states' individual assessment plans for formative or summative purposes.
- Develop rubrics that embody the standards, and clear examples of good work, benchmarked to performance standards.
- Create oversight / moderation / audit systems for ensuring the comparability of locally managed and scored assessment components.
- Ensure that teacher and leader education and development infuse knowledge of learning, curriculum, and assessment.
- Implement high-quality professional learning focused on examination of student work, curriculum and assessment development, and moderated scoring.

Districts and schools would:

- Examine the standards and evaluate current curriculum, assessment, and instructional practice in light of the standards.
- Evaluate state curriculum guidance, and further develop and adapt curriculum to support local student learning, select and augment curriculum materials, and continually evaluate and revise curriculum in light of student learning outcomes.
- Incorporate formative assessments into the curriculum, organized around the standards, curriculum, and learning sequences to inform teaching and student learning.
- Participate in administering and scoring relevant portions of the on-demand and curriculum-embedded components of the assessment system, and examining student work and outcomes.
- Help design and engage in professional development around learning, teaching, curriculum, & assessment.
- Engage in review and moderation processes to examine assessments and student work, within and beyond the school.

Tasks the Consortium Would Undertake

The consortium of states would build on successful efforts already launched in a number of states, seeking to integrate the best knowledge and exemplars from existing efforts, so as to use resources efficiently, take advantage of well-tested approaches, and avoid reinventing the wheel. It would bring together leading curriculum and assessment experts to advise and support efforts to create a system for evaluating the Common Core, building on the most credible and well-vetted knowledge available in the field. With these supports, the Consortium could:

1. Support the Development of Curriculum Frameworks: When the Common Core standards have been released, vetted, and adopted, consortia of states would work with curriculum and assessment experts to develop (or adapt from previously successful work) curriculum frameworks, syllabi, and other materials mapped to the standards. There has been enormous investment in the United States in high-quality curriculum, for example through NSF and other

organizations at the national level, and in many states and districts. Other English-speaking nations have also developed high quality curriculum materials linked to standards and learning progressions that could be evaluated in this process. This effort would inventory and cull from efforts with a strong evidence base of success to support states in building out curriculum frameworks around which they can organize deeper curriculum development at the local level, state and local assessment development, instructional supports, and professional development.

2. Create a Digital Curriculum and Assessment Library: The results of this effort should ultimately be made available on-line in a digital platform that offers materials for curriculum building and, eventually, model syllabi for specific courses linked to the standards, formative and summative assessment tasks and instruments linked to the curriculum materials, and materials for training teachers and school leaders in both strategies for teaching specific curriculum concepts / units and assessment development and scoring. In addition, as described below, an electronic scoring platform supporting training, calibrating, benchmarking, and reporting would be developed and made available across the states.

3. Develop State and Local Assessments: The state consortium would work to create a **common reference examination, which includes selected-response, constructed response and performance components** aimed at higher-order skills, linked to the Common Core standards for grades 3-8, like the NECAP assessment recently developed by a set of New England states. This assessment would be designed to incorporate more rigorous and analytic multiple-choice and open-ended items than many tests currently include and would include strategically selected curriculum-embedded performance assessments at the classroom level that can be part of the summative evaluation, while also providing formative information.

These curriculum-embedded components would be developed around core concepts or major skills that are particularly salient in evaluating students' progress in English language arts and mathematics. (Eventually, work on science could be included.) Exemplars to evaluate and build upon are already available in many states and in nations like England that have developed a set of "tests and tasks" for use in classrooms that help teachers evaluate students' learning in relation to well-described learning progressions in reading, writing, mathematics, and other subjects.

Curriculum-embedded components would link to the skills evaluated in the "on-demand" test, allowing for more ambitious tasks that take more time and require more student effort than can be allocated in a 2 or 3-hour test on a single day; these components would evaluate skills in ways that expect more student-initiated planning, management of information and ideas, interaction with other materials and people, and production of more extended responses that reveal additional abilities of students (oral presentations, exhibitions, and product development, as well as written responses) that are associated with college and career success.

In the context of summative assessments, curriculum-embedded tasks would be standardized, scored in moderated fashion, and scores would be aggregated up to count as part of the external assessment. Curriculum-embedded assessments would also include marker tasks that are designed to be used formatively to check for essential understandings and to give teachers useful information and feedback as part of ongoing instruction. Thoughtful curriculum guidance would outline the scaffolding and formative assessment needed to prepare students to succeed on the summative assessments.

All components of the system would incorporate **principles of universal design** that seek to remove construct-irrelevant aspects of tasks that could increase barriers for non-native English speakers and students with other specific learning needs. In addition, designers who are skilled at developing linguistically supportive assessments and tests for students with learning disabilities would be engaged from the beginning in considering how to develop the assessments for maximum access, as well as how to design appropriate accommodations and modifications to enable as many students as possible to be validly assessed within the system.

The emphasis on evaluating **student growth over time** and on tying standards to a conception of learning progressions should encourage a growth oriented frame for both the "on-demand" examination and the more extended classroom assessments. The Consortium may consider the viability of incorporating computer-based adaptive testing that creates vertically scaled assessments based on the full range of learning progressions in ELA and math. This would allow students to be evaluated in ways that give greater information about their abilities and their growth over time. This approach would not preclude the evaluation of grade-level standards, which could be part of any students' assessment, nor would it preclude a significant number of constructed response, open-ended items, as the technology for machine-scoring structured open-ended items is now fairly well-developed. Strategic use of partial teacher scoring for these items would also be a desirable element of the system to support teachers' understanding of the standards and assessments, and their planning for instruction.

The emphasis on evaluating student growth should also inform the development of the curriculum-embedded elements of the system, which should be selected or developed to strategically evaluate students' progress along the learning continuum. Centrally developed tasks administered and scored by teachers with moderation (see below), using common rubrics, would be part of the set of reported scores. In states with experience and capacity, it may be possible to begin to incorporate information about student learning that teachers develop from their own classroom evidence, linked to the standards and learning progressions and guided by the curriculum frameworks. This could be an optional aspect of the Consortium's work for states and communities with interest and capacity.

At the **high school level**, the Consortium might explore one or both of two options for assessment:

- **Course- or syllabus-based systems** like those in England, Australia, Singapore, Hong Kong, Alberta (Canada), as well as the International Baccalaureate. Generally conceptualized as end-of-course-exams in this country, this approach should become a more comprehensive course assessment approach like that pursued in these other countries. Such an approach would include within-course performance assessments that count toward the examination score, as well as high-quality assessment end-of-course components that feature constructed response as well as selected response items. Within-course performance assessments would tap central modes of inquiry in the disciplines, ensuring that students have the opportunity to engage in scientific investigations, literary analyses and other genres of writing, speaking and listening; mathematical modeling and applications; social scientific research. Such an approach might require an ELA and math assessment at a key juncture that evaluates an appropriate benchmark level for high school standards, and then, as in high-achieving nations, allow for pursuit of other courses/ assessments that are selected by students

according to their interests and expertise. These could serve as additional information on the diploma for colleges and employers.

- **Standards-driven systems** that might include a more comprehensive benchmark assessment in ELA and mathematics complemented by collections of evidence that demonstrate students' abilities to meet certain standards within and across the disciplines. This set of assessments would allow more curriculum flexibility in how to meet the standards. Systems like these are used in some provinces in Canada and Australia, in states like Rhode Island, Wyoming, Nebraska, and New Hampshire, and in systems of schools like the New York Performance Standards Consortium, the Asia Society, and Envision Schools. Sometimes these sets of evidence are organized into structured portfolios, such as the Technology portfolio in New Hampshire and the broader Graduation portfolios in these sets of schools that require specific tasks in each content area, scored with common rubrics and moderation.

- **A mixed model** could combine elements of both course- and standards-driven models, allowing some demonstrations of proficiency to occur in any one of a range of courses (rather than a single, predetermined course) or even outside the bounds of a course, like the efforts by some states to allow students to pass courses via demonstrations of competence rather than seat time (e.g. NH, OH). Such a system could also include specific components intended to develop and display research and inquiry skills that might also be interdisciplinary, such as the Project Work requirements in England, Singapore, and the International Baccalaurate, and the Senior Project requirements in Pennsylvania and Ohio.

4. Develop Moderation and Auditing Systems for Teacher-Scored Work: The consortium would develop protocols for managing moderation and auditing systems and training scorers so as to enable comparable, consistent scoring of performance assessments. In other nations' and states' systems that include these features routinely, procedures have been developed to ensure both widespread teacher involvement – often as part of professional development time – and to create common standards and high levels of reliability in evaluating student work. A range of models are possible, and the consortium would serve as a resource to individual states in developing and implementing strong, efficient approaches.

5. Develop Technology to Support the Assessment System: Technology should be used to enhance these assessments in a number of ways: by delivering the assessments; in on-line tasks of higher-order abilities, allowing students to search for information or manipulate variables and tracking information about the students' problem-solving processes; in some cases, scoring the results or delivering the responses to trained scorers / teachers to assess from an electronic platform. Such a platform may also support training and calibration of scorers and moderation of scores, as well as efficient aggregation of results in ways that support reporting and research about the responses. This use of technology is already being used in the International Baccalaureate assessment system, which includes both on-demand and classroom-based components.

In order to gain the efficiency and cost benefits of machine scoring and the teaching and learning benefits of teachers' moderated scoring, a mixed system could be developed where computer-based scoring is incorporated on constructed response tasks where useful – though teachers would score some of these tasks for anchoring and learning purposes – while other tasks that require human scoring engage most teachers in scoring to support improvements in instruction.

RESPONSIBILITIES OF ALL SEAs PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person.

2) These key contacts from each State will maintain frequent communication with the parties administering the Balanced Assessment Consortium to facilitate cooperation under this MOU.

3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State Chief/Commissioner (or equivalent authorized signatory)

Chris L Nicastro

Signature

January 5, 2010

Date

Chris L. Nicastro

Print Name

Missouri Commissioner of Education

Title

Please email this signed page to

Tammy Morrill
Tammy.Morrill@maine.gov

****PLEASE email this signed page only by January 7, 2010****

Missouri Early Learning Standards for Mathematics

Content Component	Process Standards
I. Number and Operations	1. Uses number to show quantity. 2. Uses language to represent number of objects. 3. Solves problems using number. 4. Uses numerical representation.
II. Geometry and Spatial Sense	1. Investigates positions and locations. 2. Explores shapes in the environment.
III. Patterns and Relationships (Algebra)	1. Recognizes relationships in the environment. 2. Uses patterns in the environment.
IV. Measurement	1. Makes comparisons. 2. Uses measurement.
V. Exploring Data (Probability)	1. Collects, organizes and displays information. (Charting and Graphing)

children flourish in a learning community where they can directly act on objects and interact with people

Organization

The standards cover the broad scope of child development and are organized by:

I. **Content Component** — the specific content area to be addressed (e.g., number and operations or measurement).

II. **Process Standards** — identifiable competencies or capabilities in the process of mathematical development, such as solving problems using number or using numerical representation.

III. **Indicators** — observable milestones in the development of competencies, such as writing some numerals or taking objects apart and putting them together again.

IV. **Examples** — specific behaviors children may exhibit in their mathematical development.

This structure provides us with an accessible way to see how the standards fit into our curriculum and teaching practices.

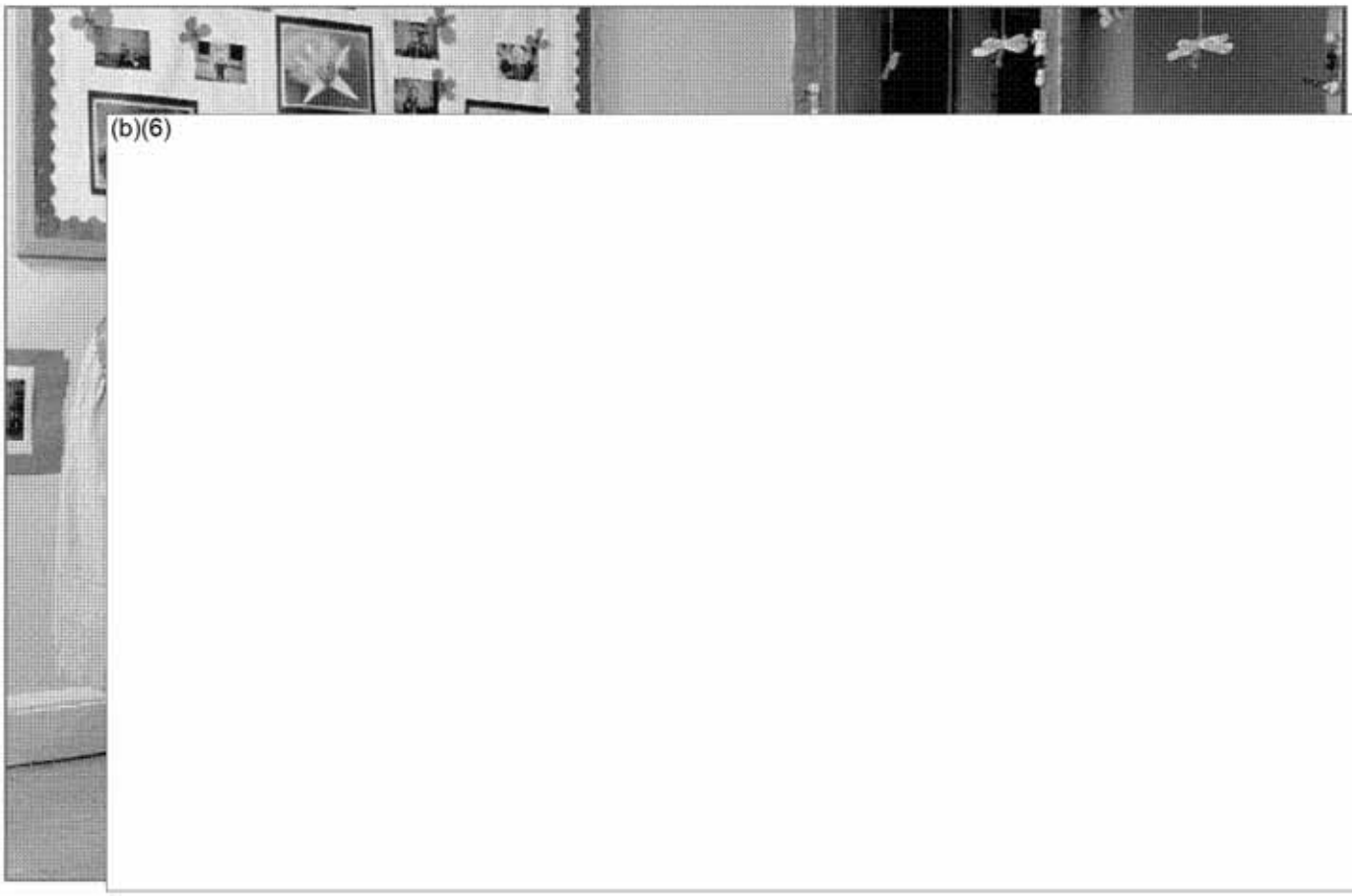
Introduction for Teachers

This guide, along with the *Parent Handbook*, is a companion to the Missouri Early Learning Standards for Mathematics. It is intended for all adults who work with preschool-age children and their families — teachers, caregivers and/or parent educators. It explains the standards and contains practical suggestions for creating engaging, developmentally appropriate learning communities to foster each child's mathematical thinking.

Why is it important to have mathematics standards for early learners? In Missouri, the Outstanding Schools Act of 1993 called together a group of master teachers, parents and policy-makers from around the state. The result of that group's work are the Show-Me Standards, which are designed for students in kindergarten through grade 12 and serve to ensure that graduates of Missouri's public schools have the knowledge, skills and competencies to lead productive, fulfilling and successful lives. However, we all realize the foundations for learning are laid well before a child enters kindergarten! Research tells us the early years provide crucial opportunities for educators and caregivers to influence children's growth and development. If our goal is that every child enter kindergarten ready to learn and succeed, pre-kindergarten educational standards can provide us with shared understandings about the competencies critical for this to occur. In addition, pre-kindergarten standards provide a direct link to the Show-Me Standards, so we know that we are preparing children for the high expectations they will encounter as they progress through school.

These standards describe what most children should know and be able to do in the area of mathematics by the time they enter kindergarten. They represent a shared set of expectations for preschool children, expectations developed by drawing upon current research about how young children learn. It is important to keep in mind, however, that children learn and develop in their own unique ways. While research demonstrates that these standards are appropriate for most children who are about to enter kindergarten, our responsibility as educators is to assess where each child is on the continuum of mathematical thinking and build on what that child knows and can do.

Ongoing observational assessment is a key element in supporting children's early mathematical development. This guide will illustrate some indicators that teachers can reliably assess to show each child's progress over time. This data can be used to plan meaningful, engaging learning experiences that promote both mathematical development and a love for solving problems. In addition, you will find information about creating mathematically rich environments and partnering with parents and families to promote mathematical thinking and an enthusiasm for learning. Lists defining the mathematical terms referred to in the standards and outlining helpful resources are also included.



I. Number and Operations

This standard refers to the child's increasing understanding that numbers represent quantities. It is an important component of number sense — the ability to understand how numbers are used and how they are represented as well as relationships among numbers.

Mathematical Concepts Defined

Content component: Number and Operations

Count with understanding (cardinality): attach a number name to a series of objects; to understand that the number spoken when tagging or touching the last object also identifies the total number in the group
Estimate: making an educated guess as to the amount or size of something
Everyday fractions: numbers that represent parts of whole objects in the child's environment (e.g., half a sandwich)
Number and operations: understanding of numbers, ways of representing numbers, relationships among numbers and number systems
Number: a unit belonging to a mathematical system used for counting, measuring, ordering and labeling; the meaning of a number word or numeral
Number sense: the ability to understand numbers, ways of representing numbers and relationships among numbers (Number sense is much more than counting; it involves the ability to think and work with numbers easily and to understand their uses (counting, measuring, ordering and labeling) and relationships.)
Numerals: conventional symbols that represent numbers (e.g., "1" is the numeral for "one")
One-to-one correspondence: matching objects from one set to objects of an equal set.
Operations on numbers: basic number combinations and strategies for computing such as addition and subtraction
Ordinal numbers: numbers that indicate the position of an object in a sequence (i.e., first, second, third)
Quantity: how many units are in a set (i.e., an amount or the result of counting)
Rote count: recite the names of the numerals in order or sequence (e.g., singing a counting song)
Tagging: linking a single number name with one object, and only one, at a time

1. Uses number to show quantity.

Indicators	Examples The child ...
a. Shows interest in counting and quantity.	• uses fingers to indicate the number (e.g., holds up five fingers to show age). • repeats counting rhymes and singing games with numbers. • counts familiar objects (e.g., family members, friends, toys) although not always accurately. • asks how many.
b. Develops an increasing ability to rote count in sequence.	• counts one to 10 or beyond.
c. Counts objects with understanding.	• counts five items (e.g., blocks, crayons, cars) accurately. • hands one to five objects upon request (e.g., hands you three potatoes when you say, "Joe, hand me three potatoes.")

Teacher strategies to promote use of number to show quantity include:

- encouraging children to experiment with counting in ways that are meaningful to them.
- engaging children in singing counting songs.
- reading big books that feature counting or numbers (e.g., Ten Black Dots).
- modeling counting of objects or people in meaningful contexts (e.g., to determine how many children are at a table).
- providing opportunities for counting objects.
- modeling that we use one counting word/number for each object.
- asking "how many" questions.
- posting a number chart at children's eye level and modeling how to use it.
- playing counting games.

I. Number and Operations

This standard reflects the child's growing knowledge and use of vocabulary associated with number and quantity. It provides a building block for mathematical understanding and communicating mathematical ideas. It is important to remember that children can make mathematical observations and connections throughout the day and in all areas of the curriculum.

2. Uses language to represent number of objects.

Indicators	**Examples** **The child ...**
a. Uses language to compare number (e.g., more/less, greater/fewer, equal to).	• looks at his own and another child's blocks and determines who has more blocks. • compares raisins with a friend's and decides they have the same amount. • asks, "How many more do you have?"
b. Combines and names how many.	• puts the red, yellow and blue crayons together and tells how many total crayons there are. • recognizes that three cars and two trucks is a total of five vehicles.
c. Separates and names how many.	• participates in finger plays, songs or stories such as *Five Little Monkeys* or *Five Little Ducks* that use backward counting. • plays with a plastic ball and bowling pins and can tell how many fell down and how many are left standing.
d. Explores everyday fractions.	• says, "I have a whole orange," or "I have half an apple, (although not always accurately).

Teacher strategies that promote the use of mathematical language include:

- choosing books involving counting and math concepts during shared reading (see the list in the Resources section for suggested titles).
- engaging children in identifying environmental print with numbers and making environmental print "math" books.
- giving children materials to make collections with and conversing with them about how they sort or classify objects and how many there are.
- engaging children in finger plays, songs and stories that involve counting (forward and backward).
- providing opportunities for counting objects and asking about quantities.
- modeling vocabulary for making comparisons and indicating quantity.
- helping children make mathematical connections at snack time (e.g., asking, "Are there enough crackers for everyone? How many do we need?").

I. Number and Operations

This standard refers to a child's ability to identify and solve personally meaningful problems involving number. As children begin to work with numbers to solve problems that are of interest to them, they deepen their understanding of what numbers represent as well as of the relationships among numbers.

3. Solves problems using number.

Indicators	Examples The child ...
a. Names how many there are in a group (up to five objects).	• recognizes that there are two or three crayons in a box. • rolls a number cube and tells how many dots are on it without counting. • counts five blocks and says, "There are five blocks."
b. Uses one-to-one correspondence when counting objects.	• gets a carton of milk for each child at the table. • puts a cup with each napkin when setting the table. • when playing, matches one car to each block or gives one plate to each doll.
c. Uses one-to-one correspondence to compare the size of a group of objects.	• compares two rows of blocks, two in one line and four in another, and can tell which one has more or less. • matches number of cars to a friend's and says, "I have more."
d. Estimates, then counts to verify the number of objects.	• while playing in the sand guesses how many cups it would take to fill a bucket and counts the cups of sand put in the bucket. • guesses how many pennies are on the table, then counts the pennies.

Teacher strategies that promote problem solving with numbers include:

- taking advantage of natural contexts during the day (e.g., at snack time or when taking attendance) to encourage problem solving with numbers.
- showing children a glimpse of a small group of items (i.e., 1 to 3) and asking them how many there are.
- supplying the math center with a variety of math games, including teacher-made games, for children to explore.
- engaging children in all kinds of group games (e.g., aiming games, hiding games, guessing games, board games).
- encouraging children to make up board games or make their own rules for games.
- providing opportunities for children to estimate amounts and test their predictions.
- supporting children in making mathematical observations and connections in the block area and other centers.
- having children vote in appropriate contexts (e.g., in determining the name of the class pet).
- describing real-life situations involving numbers and a problem for children to solve (e.g., saying, "We have 10 cartons of milk for snack but only six straws. How many more straws do we need?).

supply the math center
with a variety of math games
for children to explore

I. Number and Operations

This standard refers to the child's ability to identify and distinguish numerals as well as develop an understanding of ordinal numbers (i.e., numbers that indicate where an object is positioned in a sequence). This skill is another building block of number sense and provides a means for children to communicate mathematical ideas.

4. Uses numerical representation.

Indicators	Examples The child ...
a. Uses drawings to represent number.	• draws pictures showing size (e.g., short/tall) and quantity of family members. • creates a way to keep score during a game. • draws a picture to indicate number of objects or snacks.
b. Identifies numerals in everyday situations.	• selects numerals on the telephone, calculator or computer. • finds and names numerals in books or on signs.
c. Uses ordinal numbers (i.e., first, second, last).	• can identify position in a line of children (e.g., who is first, second, last). • can put three objects in a line and tell you which object is first, middle or last. • tells the position of objects (i.e., first, second, last).
d. Writes some numerals.	• draws numerals in sand. • creates numerals with rolled clay or pipe cleaners. • tries to write how old he or she is. • tries to copy a telephone number.
e. Matches numeral with quantity.	• when playing a game with a spinner or number cube, correctly counts the spaces on the game board that match the numeral or symbol. • uses magnetic or flannel numerals to show how many marbles.

Teacher strategies for promoting use of numerical representation include:

- creating a classroom environment that contains many examples of how numbers are found and used in daily living (e.g., having phone books, receipts, etc., in the writing center; providing a calculator or adding machine in the math center).
- providing developmentally appropriate math software on the computer and having it accessible to children.
- encouraging children to represent numbers in many different media.
- having the children collect environmental print involving number.
- providing opportunities for children for tallying.
- providing resources and opportunities for children to experiment with writing numbers in the writing and art centers.
- providing time and space for children to play a variety of math games.
- posting number lines or charts at children's eye level for their reference.
- modeling the vocabulary of ordinal numbers.
- providing many opportunities for children to represent quantities with objects and exchange their ideas with their peers.

create a classroom
environment that contains
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II. Geometry and Spatial Sense

This standard concerns the child's developing understanding of the relationships between and among objects in the physical world as well as of the child's own spatial sense: the consciousness of where he/she is in relationship to other people and objects.

Mathematical Concepts Defined

Content component: Geometry and Spatial Sense

Attribute: a characteristic or feature of an object such as color, size, shape, weight and number of sides
Geometry: the area of mathematics that involves shape, size, position, direction and movement and describes and classifies the physical world we live in
Location: where an object is in space
Orientation: the position or arrangement of an object
Position: the place where an object or person is in relation to others
Spatial sense: children's awareness of themselves in relation to the people and objects around them; it includes knowing boundaries, arrangements and positions
Shape: the form of an object
- **Three-dimensional:** objects that have length, width and depth; solid figures such as cubes, spheres and cylinders
- **Two-dimensional:** objects that have length and width but not depth; shapes such as squares, triangles and circles

1. Investigates positions and locations.

Indicators	Examples The child ...
a. Takes objects apart and puts them together.	• builds with interlocking blocks. • puts lids on containers. • completes simple puzzles.
b. Uses actions and words to indicate position and location.	• moves self to show positions during play (e.g., under a table, in the tent, between friends). • uses objects to show position (e.g., puts the bears on/off/on top of/above/below/beside the box). • talks about objects that are on/off/under/in front of/behind/inside/outside/next to/ between/etc. • says when reading *The Three Billy Goats Gruff*, "The big billy goat is on the bridge, and the troll is under the bridge."
c. Uses actions and words to indicate movement and orientation.	• moves self to show positions (e.g., up, down, forward, backward, around, through, to, from, sideways, across, back and forth, in a straight or curved path). • explains where objects in a room have been moved. • describes how to get to a location using landmarks. • follows a path or moves through an obstacle course. • draws paths or beginnings of a map to show location during play.

Teacher strategies to support children's investigation of positions and locations include:

- having a variety of simple puzzles accessible to children.
- providing simple machines or objects for children to explore that can be taken apart and put together again.
- supplying the classroom with a variety of games and manipulatives that involve interlocking parts (e.g., Don't Break the Ice, LEGOs, unifix cubes).
- providing an ample supply of blocks, in all shapes and sizes, as well as adequate space and time for children to play with them and to discuss their actions and creations.
- modeling the vocabulary associated with position and location.
- reading aloud texts that involve changing positions and locations and engaging children in conversations related to these concepts.
- engaging children in movement and hiding games.
- supporting children's attempts to make pictures or models of objects.
- encouraging children to make maps of their environment or to trace paths that they can then represent in pictures with landmarks.

II. Geometry and Spatial Sense

This standard refers to children's growing awareness and identification of shapes in the environment as well as of dimensions. These abstract concepts become meaningful as children begin to explore shapes and observe their characteristics.

2. Explores shapes in the environment.

Indicators	Examples The child ...
a. Investigates and talks about the characteristics of shapes.	• says, "A circle is round." • discovers that some blocks stack and some blocks roll. • says that squares and triangles have corners and straight sides.
b. Creates and duplicates three-dimensional and two-dimensional shapes using a variety of materials	• uses blocks to make other shapes or objects. • makes shapes with play dough, pipe cleaners, string or yarn. • attempts to draw shapes and make pictures using shapes. • says, after cutting the sandwich, "Look, I made a triangle (or rectangle) with my sandwich."
c. Identifies and names some shapes.	• points to or names simple shapes (e.g., box shape, ball shape, circle, triangle, square). • says, "The pizza is round. My piece is triangle-shaped." • says, "The flag is the shape of a rectangle."
d. Indicates if shapes are alike or different using one or more characteristics	Three-dimensional shapes • says, "A bubble and an orange are both like balls (spheres)." • says, "A block (cube) is shaped like a box." • says, "This ball rolls, but this block does not." Two-dimensional shapes • says, "A triangle has three sides," or "A square has four sides." • says, "A circle is curved (round) like a hula hoop."

Teacher strategies to promote children's exploration of shapes in the environment include:

- providing many opportunities for block play and supporting children's conversations about their actions and experiments.
- asking open-ended questions about children's constructions (e.g., saying, "Why do you think this block keeps falling off the tower?").
- providing an art/construction area with a wide variety of materials for children to use to explore shapes.
- reading aloud and having available to children texts that illustrate or involve shapes; modeling the vocabulary associated with shapes.
- encouraging children to make observations and comparisons about shapes.
- providing opportunities for children to explore the attributes of shapes (e.g., in block play or the art area).

provide opportunities for block play
— support children's
conversations about their
actions and experiments

III. Patterns and Relationships (Algebra)

Children have a natural curiosity to explore their world and in their explorations begin to make all kinds of relationships, which is a reflection of mathematical thinking. As this thinking develops, children begin to sort, classify and recognize or make patterns, the foundation of algebra.

Mathematical Concepts Defined

Content component: Patterns and Relationships (Algebra)

Extend: continue a pattern beyond what is shown

Match: to find two objects that have at least one characteristic in common

Order: arrange objects or numbers to show a progressive increase or decrease of a specific characteristic

Pattern: a sequence of colors, shapes, objects, sounds or movements that repeats again and again in a regular arrangement; patterns are a way for young students to recognize order and to organize their world

Patterns and relationships: the primary objective is for young children to be able to identify and analyze simple patterns, extend them and make predictions about them

Regroup: to place or assign objects in two or more groups using a different characteristic than was used the first time the objects were grouped

Relative difference: the specific characteristic that differs among a group of objects (e.g., size)

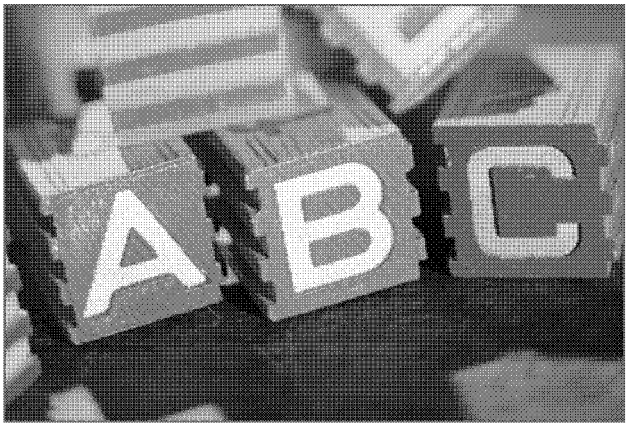
Sort: to place or assign objects in two or more groups on a basis of at least one characteristic

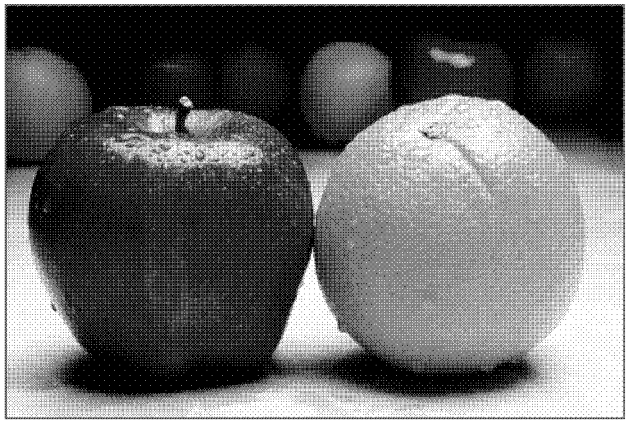
1. Recognizes relationships in the environment.

Indicators	Examples The child ...
a. Matches, sorts and regroups objects according to one or more characteristics.	• sorts plastic foods by size, color, shape or category. • matches objects that are alike (e.g., puts all of the two-hole buttons in one pile and four-hole buttons in another). • matches adult animals to their babies. • when playing "Go Fish," matches all the cards with threes.
b. Orders things according to relative differences.	• sorts stuffed animals from smallest to largest. • talks about who is tall, taller, tallest. • arranges a group of blocks from longest to shortest.

Teacher strategies for promoting children's recognition of relationships in the environment include:

- having an adequate supply of interesting materials accessible to children that they can sort and classify. These can be commercial products as well as recyclables and found objects, such as rocks, pine cones, etc.
- providing children many opportunities to sort and classify objects and to make small collections.
- engaging children in conversations about how they are sorting and classifying objects.
- playing games such as What's My Rule? and doing activities that involve children in determining how groups are classified and in identifying patterns.





III. Patterns and Relationships (Algebra)

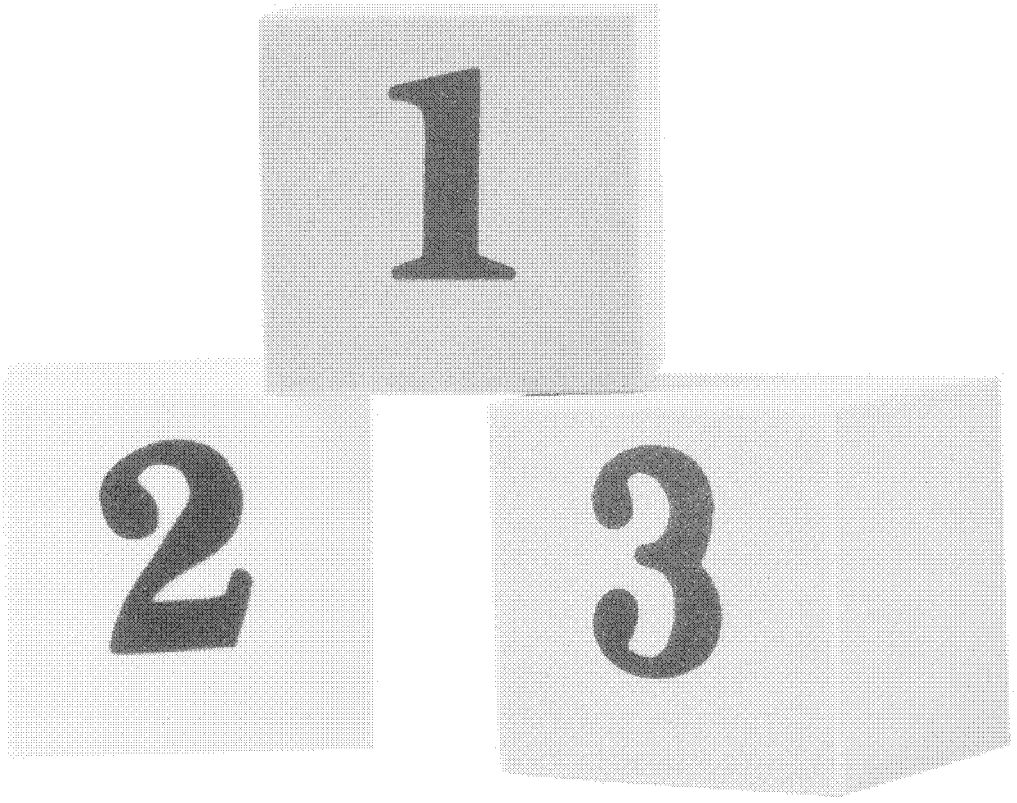
This standard reflects the child's growing ability to identify patterns. As the child begins to notice patterns in her surroundings, she also begins to explore making patterns in all kinds of ways, thus building algebraic thinking skills.

2. Uses patterns in the environment.

Indicators	Examples The child ...
a. Recognizes patterns.	• talks about color or pattern in clothing (e.g., says, "I have red and blue stripes on my shirt."). • identifies color patterns that repeat (e.g., red, blue, red, blue).
b. Duplicates and extends patterns.	• imitates a pattern of sounds and physical movement (e.g., clap, stomp, clap, stomp ...). • continues rhythmic patterns. • completes the patterns in a story (e.g., says, "Brown Bear, Brown Bear, what do you see?"). • repeats a pattern according to size, color, shape, while stringing beads. • predicts what comes next when an adult "reads" the pattern using simple vocabulary (e.g., car, car, boat, car, car, _____).
c. Creates patterns.	• creates simple patterns with beads or blocks according to color, size or shape. • creates simple patterns when drawing, coloring or painting.

Teacher strategies for promoting children's use of patterns include:

- modeling and discussing patterns.
- engaging children in making body patterns.
- providing materials for children to use for pattern making (these can be recyclables and found objects as well as commercial products such as pattern blocks).
- reading aloud books that involve patterns and having children complete the patterns.
- engaging children in songs, dances, marches and clapping games that involve rhythmic patterns.
- using a pocket chart for creating and displaying patterns with numbers, letters, colors, shapes, etc., and engaging the children in predicting what comes next.



IV. Measurement

This standard refers to the child's increasing ability to make comparisons and identify sequences. This ability relates to both concrete objects and to concepts, such as time, that are very abstract to the child.

Mathematical Concepts Defined

Content component: Measurement
Compare: think about same and different; describe the relationship between two or more objects
Measurable features: a characteristic or attribute of an object that can be quantified (represented with a number) such as size, shape, weight and number of sides
Measurement: young children's intuitive notions of comparing volume, area, length and other attributes that they will eventually learn to measure; involves decisions about how much or how long
Sequence: an arrangement of events or actions in a progressive order over time

1. Makes comparisons.

Indicators	Examples The child ...
a. Compares objects using measurable features.	• uses words to describe opposites (e.g., big/little, long/short, heavy/light). • chooses the largest snack. • says, "My bucket is heavier." • says, "This crayon is shorter."
b. Describes measurement.	• talks about an object being longer than another object. • uses a variety of language to describe measurement (e.g., shorter, taller, wider, bigger, heavier, lighter, holds more, hot, cold).
c. Orders three or more objects according to length or size differences.	• places ribbons in order by length. • puts cars in a row according to size. • puts pans (or measuring cups) inside each other.
d. Uses language associated with time in everyday situations.	• says, "Snack time comes after rest time." • says, "It's nighttime because it is dark." • says, "I eat breakfast in the morning." • says, "My birthday comes in the summer."
e. Anticipates, remembers and predicts a sequence of events.	• says, "I brush my teeth before I go to bed." • says, "We went to the library and then the grocery store." • recalls recent events and talks about them (e.g., says, "Yesterday we went to the zoo."). • describes the sequence of activities when going to the grocery store. • tells stories such as *The Three Little Pigs* with events in order. • points out when a familiar story is not told in the correct order.

Teacher strategies to encourage children in making comparisons include:

- modeling vocabulary for making comparisons (e.g., asking, "Is your train longer or shorter than Jennifer's?").
- engaging children in conversations where they are invited to make comparisons.
- reading aloud familiar stories and having children predict what comes next.
- engaging children in retelling familiar stories.
- providing opportunities for children to create "books" illustrating a sequence of events such as a field trip to the fire station.
- taking advantage of daily routines to introduce and model language associated with time.
- using a picture or pocket calendar for children to mark and track important events.

IV. Measurement

This standard refers to the child's increasing ability to engage in the process of measurement. As children explore their environment and recognize that things have measurable properties such as length, height and weight, they learn that these properties can be assessed and compared. As they do so, they begin to implement both standard (e.g., rulers, scales) and nonstandard (e.g., yarn, hands) units of measurement.

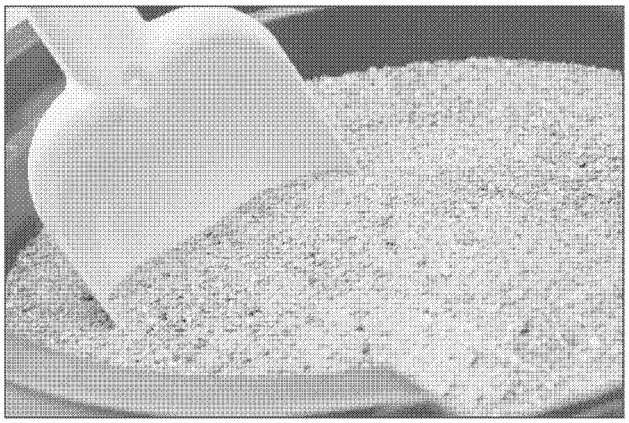
2. Uses measurement.

Indicators	Examples The child ...
a. Explores ways to measure.	• fills a container with solids or liquid (e.g., sand, ice cubes, water). • pours liquid from one container to another container. • sees how many blocks it takes to cover a sheet of paper.
b. Measures using objects.	• places a string next to an object to measure length. • uses the toy thermometer to measure the "patient's" temperature. • imitates using a ruler when helping dad.

Teacher strategies to promote children's use of measurement include:

- providing different kinds of containers, measuring spoons, cups, balance scales, etc., at the sand or water tables for the children to explore (a tub of beans can also be used).
- asking questions that lead children to make comparisons that can be measured as they engage in center-time activities.
- using classroom situations to engage children in measuring (e.g., asking, "Do you think there's enough room for the aquarium on that table? How can we find out?").
- modeling how measuring tools (i.e., tape measures, rulers, etc.) are used and making them available to children to use for their own purposes.
- encouraging children to estimate amounts, lengths, etc., and then supporting their efforts to take measurements to compare with their estimates.

the child imitates using a ruler when helping dad



V. Exploring Data (Probability)

This standard refers to children's ability to collect and organize information for their own purposes. As children begin to sort, classify and compare as part of their daily lives, they start to find means to organize information, or data, in order to use it in meaningful ways. As children's experience with collecting and organizing information increases, they also begin to explore ways to represent and interpret it (e.g., by participating in making charts or graphs).

Mathematical Concepts Defined

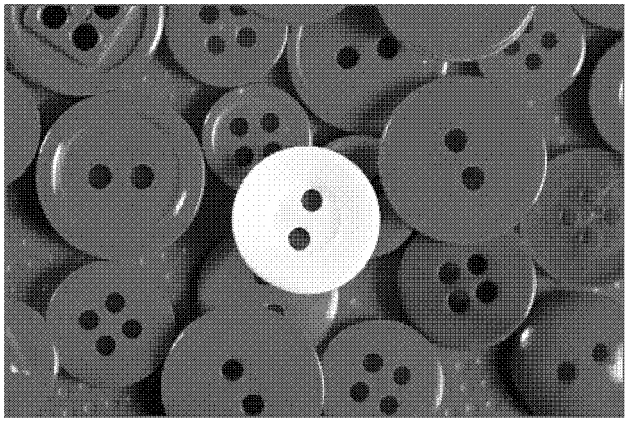
Content component: Exploring Data (Probability)
Classify: sort or form groups by similar characteristics
Data: information gathered to answer a question
Exploring data: informal experience with data by collecting, organizing, representing and comparing the information
Organize: to arrange information in order to see relationships, often using graphs and charts

1. Collects, organizes and displays information. (Charting and Graphing)

Indicators	Examples The child ...
a. Asks questions to gather information.	• asks, "What is your favorite color?" • asks, "What month is your birthday?" • asks, "What do you like to play outside?" • asks, "How many brothers and sisters do you have?"
b. Sorts and classifies objects into groups.	• puts objects together that have the same use (e.g., blocks, dishes, vehicles, clothes). • groups objects by their height, size, color or shape.
c. Explains how the grouping was done.	• tells how the buttons were sorted. "I put the red bottons together." • tells why he put the red cars in a group and the blue cars in a group.
d. Uses charts and graphs to evaluate information.	• says after looking at the chart, "two kids have birthdays in July." • says, "I have five trucks and four cars." • says after looking at the graph, "More buttons are red."

Teacher strategies to support children's explorations with data include:

- encouraging children to ask questions to gather information.
- providing children many opportunities to sort and classify objects, to make small collections and to discuss how they are organizing them.
- engaging children in conversations about how they are sorting and classifying objects.
- using children's interests to pose questions for them to investigate (e.g., saying, "At circle time, many children were talking about their pets. I wonder how many kinds of pets you all have? How can we find out?").
- encourage children to create charts and graphs from their investigations or classifications.



Creating a Mathematically Rich Environment

When thinking about enhancing the environment to support children's mathematical thinking, it is important to remember that mathematics can extend across all curricular areas. Just as literacy can be introduced into many different activity centers, so can mathematics. Including math books in the reading center and rulers and graph paper in the writing center, for example, can encourage young children's mathematical thinking as can number charts posted at children's eye level. Supplying the classroom with plentiful and varied materials for children to explore also supports children's mathematical development and invites hands-on investigations and problem solving. A math center that includes a wide variety of math games, including teacher-made games, manipulatives, pattern blocks, etc., and a well-supplied block area can provide children with wonderful opportunities to extend their mathematical thinking. Providing a supply of found materials (e.g., rocks, shells, pine cones) for children to assemble small collections with is also helpful. In fact, as teachers organize their environment to take advantage of mathematical potential, it becomes clear that math is — or can be — everywhere!

Involving Parents and Families

Partnering with parents and families to support children's mathematical development can be both rewarding and fun! Sharing math games to be played at home, or lending books in literacy bags that feature numbers and math concepts as well as story books are wonderful ways to involve families in the math curriculum. In addition, collecting environmental print or collecting information for class charts and graphs can turn into family projects. There are many resources for educators interested in involving parents in supporting their children's mathematical thinking, many of which are included in the next few pages. The Parents As Teachers program is also a wonderful resource; contact your school district for more information about this exemplary program.

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- Child Development Associate (CDA) National Credentialing Program: www.nncc.org/Evaluation/cdacb.html
- Children's Defense Fund: www.childrensdefense.org
- Conference on Standards for Preschool and Kindergarten Mathematics Education: www.gse.buffalo.edu/org/conference/
- Connections Newsletters: www.canr.uconn.edu/ces/child
- Early Childhood Education on Line: www.ume.maine.edu/ECEOL-L
- Early Childhood Educators' and Family Web Corner: users.stargate.net/~cokids
- Early Childhood News: www.earlychildhoodnews.com
- ERIC/EECE Clearing House on Elementary and Early Childhood Education: ericeece.org/publications.html
- Everything for Early Childhood Education Preschool-Grade 2: www.edupuppy.com
- Licensing of Child-Care Facilities in Missouri: www.health.state.mo.us/LicensingAndCertification/Dcc-gh.html
- Math and Children's Literature: www.carolhurst.com/subjects/math/math.html
- Math Forum: mathforum.org/library/levels/p/
- Missouri Department of Conservation: www.conservation.state.mo.us/teacher
- National Association for the Education of Young Children (NAEYC): www.naeyc.org
- National Association for Family Child Care: www.nafcc.org
- National Child Care Information Center: www.nccic.org
- National Council of Supervisors of Mathematics: ncsmonline.org
- National Council of Teachers of Mathematics: www.nctm.org/
- "On-Lion" for Kids: www2.nypl.org/home/branch/kids/
- Project Construct National Center: www.projectconstruct.org
- U.S. Department of Education, Office of Educational Research and Improvement and National Institute on Early Childhood Development and Education: www.ed.gov/pubs/EarlyMath/

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- *The Buzz: Cool Ideas for Child Care Providers* (4 issues per year)
  Center for Innovations in Special Education
  152 Parkade Plaza, 601 Business Loop 70 W
  Columbia MO 65211-8020
  1-800-976-2473
- *Early Childhood News* (6 issues per year)
  330 Progress Road
  Dayton OH 45449
  1-800-607-4410
- *Scholastic Early Childhood Today* (8 issues per year)
  P.O. Box 54814
  Boulder CO 80322-4814
  1-800-544-2917
- *Young Children* (6 issues per year)
  National Association for the Education of Young Children (NAEYC)
  1509 16th Street, NW
  Washington DC 20036-2460
  1-800-424-2460

Other materials:

- NAEYC brochure for parents: *More than 1, 2, 3: The real basics of mathematics.* (McCracken, J.B.) No. 575. (See above address for ordering.)
- U.S. government booklet for parents: *Early Childhood: Where Learning Begins Mathematics.* (Print copies from www.ed.gov/pubs/EarlyMath/.)

Missouri Early Learning Standards for Science

Content Component	Process Standards
I. Physical Science	1. Explores physical properties of objects and materials. 2. Investigates properties of objects and materials. 3. Solves problems involving physical properties of objects and materials. 4. Represents observations of the physical world in a variety of ways.
II. Life Science	1. Explores characteristics of living things. 2. Investigates characteristics of living things. 3. Solves problems related to living things. 4. Represents observations about living things in a variety of ways.
III. Earth and Space	1. Explores properties of earth and space. 2. Investigates properties of earth and space. 3. Solves problems involving earth and space. 4. Represents observations about earth and space in a variety of ways.

children with confidence in their own ability to work through problems are active thinkers

Organization

The standards cover the broad scope of child development and are organized by:

I. **Content Component** — the specific content area to be addressed, such as physical science or life science.

II. **Process Standards** — identifiable competencies or capabilities in the process of scientific development, such as investigating properties of objects and materials or exploring properties of earth and space.

III. **Indicators** — observable milestones in the development of competencies, such as experimenting with simple tools or showing interest in plant or animal changes.

IV. **Examples** — specific behaviors children may exhibit in their scientific thinking.

This structure provides us with an accessible way to see how the standards fit into our curriculum and teaching practices.

Introduction for Teachers

This guide, along with the *Parent Handbook*, is a companion to the *Missouri Early Learning Standards for Science*. It is intended for all adults who work with preschool-age children and their families — teachers, caregivers and/or parent educators. It explains the standards and contains practical suggestions for creating engaging, developmentally appropriate learning communities to foster each child's scientific thinking.

Why is it important to have standards in science for early learners? In Missouri, the Outstanding Schools Act of 1993 called together a group of master teachers, parents and policy-makers from around the state. The result of that group's work are the Show-Me Standards, which are designed for students in kindergarten through grade 12 and serve to ensure that graduates of Missouri's public schools have the knowledge, skills and competencies to lead productive, fulfilling and successful lives. However, we all realize the foundations for learning are laid well before a child enters kindergarten. Research tells us the early years provide crucial opportunities for educators and caregivers to influence children's growth and development. If our goal is that every child enters kindergarten ready to learn and succeed, pre-kindergarten educational standards can provide us with shared understandings about the competencies critical for this to occur. In addition, pre-kindergarten standards provide a direct link to the Show-Me Standards, so we know that we are preparing children for the high expectations they will encounter as they progress through school.

To this end, the *Missouri Early Learning Standards for Science* describe what most children should know and be able to do in the area of science by the time they enter kindergarten. They represent a shared set of expectations for preschool children that were developed by drawing upon current research about how young children learn. It is important to keep in mind, however, that children learn and develop in their own unique ways. While research demonstrates that these standards are appropriate for most children who are about to enter kindergarten, our responsibility as educators is to assess where each child is on the continuum of scientific thinking and build on what that child knows and can do.

Ongoing observational assessment is a key element in supporting children's early scientific development. This guide will illustrate some indicators that teachers can reliably assess to show each child's progress over time. This data can be used to plan meaningful, engaging learning experiences that promote both scientific development and a love for solving problems. In addition, you will find information about creating rich environments to support the construction of scientific knowledge as well as for partnering with parents and families to promote an interest in science and an enthusiasm for learning. Lists of teacher resources and children's books focused on science are also included.

(b)(6)

I. Physical Science

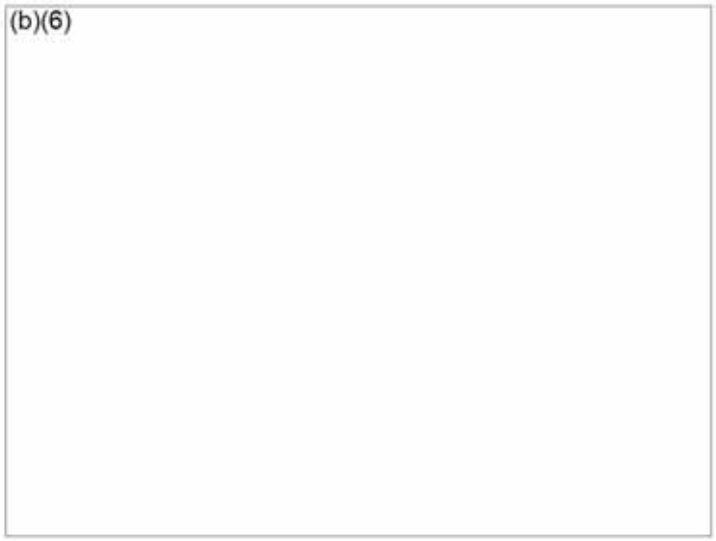
Children are naturally interested in the objects and materials that constitute the physical world that surrounds them as well as in how objects and materials can be manipulated and changed. As they begin to explore these properties, they begin to build their knowledge about physical science.

1. Explores physical properties of objects and materials.

Indicators	**Examples** **The child ...**
a. Shows interest in the physical world.	• comments on changes in the physical world (e.g., says, "We made play dough out of salt, flour and water."). • looks at fiction and nonfiction books (e.g., *Mouse Paint, Trucks, Freight Train, Snow Balls, Stone Soup, How Things Work*) about the physical world.
b. Uses one or more senses to observe the physical world.	• comments on changes when substances are mixed, shaken or cooked (e.g., mixing paint, making butter from cream, cooking play dough). • collects objects of different shapes and sizes (e.g., marbles, coins, blocks). • listens to and identifies environmental sounds (e.g., cars, airplanes, wind, rain, birds).
c. Experiments with simple tools.	• explores ramps, magnets, magnifying glasses, scales, eyedroppers, unbreakable mirrors, cups, funnels, etc.

Teacher strategies to encourage children to explore the physical properties of objects and materials include:

- providing a variety of materials for children to use to manipulate and/or construct things (e.g., blocks of all sizes and shapes, tubes, ramps, pulleys, ropes, boxes).
- setting up learning centers for children to explore objects and materials. Center contents should be changed periodically to keep children interested.
- involving children in activities that involve transformation of materials (e.g., cooking, painting).
- making books about the physical world available to children in the literacy area and in other interest areas (e.g., block area, sensory area).
- reading books (including big books) aloud that feature aspects of the physical world.
- inviting visitors with a science-related vocation or hobby (e.g., scientists, construction workers, firefighters) to the classroom to discuss and/or demonstrate what they do and what equipment or tools they use.
- drawing children's attention to aspects of the physical world to promote their interest.
- asking open-ended questions to promote children's awareness of the physical world (e.g., asking, "What do you think happened to the snowball we left on the table?").
- modeling how to use simple tools to investigate and/or observe various objects (e.g., using a magnifying glass to look at a shell).
- encouraging children to make collections of objects they're interested in and engaging them in conversations about the objects.



I. Physical Science

Science is basically a process of inquiry — raising questions and then investigating methodically to answer them. Children have a natural curiosity about the world, and this curiosity provides the springboard for investigations that promote scientific thinking.

2. Investigates properties of objects and materials.

Indicators	Examples The child ...
a. Asks questions about objects and materials.	• asks, "Why does the ice cube melt?" • asks, "Why does this ball roll faster than that one?" • asks, "Why do magnets stick together?"
b. Experiments with objects and materials to gather information and observe reactions.	• plays in water with objects that sink and float. • repeatedly rolls a car down a ramp. • mixes colors using paint, watercolors, food coloring, etc.
c. Shows knowledge of physical properties of objects.	• sorts objects and materials by what they are made of (e.g., rock, metal, plastic, wood, glass, cloth). • sorts objects and materials by various characteristics (e.g., soft/hard, float/sink, loud/quiet). • tells (not always accurately) how ice, play dough, pudding, etc., is made.

Teacher strategies that promote children's investigations of the properties of objects and materials include:

- providing opportunities for them to manipulate objects and observe reactions (e.g., at the woodworking center, block area, light table, art area).
- modeling asking questions about objects/materials and encouraging children to find answers (e.g., asking, "I wonder how we can make the cars go down the ramp faster? How do you think we can find out?").
- giving children access to a variety of materials they can collect and engaging them in conversations about how they are sorting or classifying objects.
- modeling comparison language (e.g., wet/dry, shiny/dull, rough/smooth).
- supporting them in making observations about the physical world and making connections with what they already know or have observed.
- providing developmentally appropriate science software on the computer.

model how to use simple tools
to investigate and/or observe various objects

I. Physical Science

This standard refers to children's ability to identify and solve personally meaningful problems involving materials and objects they can manipulate and/or transform. As children work with things to solve problems of interest to them, they deepen their understanding of physics (interaction of matter and energy) and chemistry (how substances interact and change).

3. Solves problems involving physical properties of objects and materials.

Indicators	Examples The child ...
a. Identifies problems involving physical properties of objects and materials.	• says, "I want the car to go faster." • says, "I want to build a taller tower." • says, "I have red, blue and yellow paint, but I want green."
b. Experiments with objects to produce desired effects.	• moves the ramp to make a toy car go different speeds. • tries to make a new color of paint by mixing other paint colors. • tries to throw a ball at a target.
c. Makes predictions based on experiences with objects and materials.	• suggests which objects will sink or float. • guesses which ramp the car will go down faster. • predicts which objects magnets attract or repel (e.g., leaves, cotton balls, paper clips, nuts and bolts). • makes suggestions that will cause ice to melt faster.

Teacher strategies that promote problem solving with objects and materials include:

- asking open-ended questions (e.g., asking "How can we make the car go farther?" or "What happened when the magnet touched the paper clip?").
- taking advantage of spontaneous happenings to encourage problem solving with substances and objects (e.g., at snack time when something spills; in the block area as children attempt to construct tall towers).
- providing children with enough time and space to work with objects and materials and pursue their own inquiries (e.g., constructing with blocks).
- supplying a variety of materials for children to experiment with (e.g., to see what sinks or floats at the water table; to see how far objects such as feathers or pieces of paper go when they blow at them through straws).
- engaging children in predicting what will happen as they experiment.
- providing opportunities for children to test their predictions.
- encouraging children to build on what they know by making connections with other experiences they've had with objects and materials.

(b)(6)

I. Physical Science

This standard refers to children's ability to demonstrate, in various ways, what they perceive through their senses as they experience the physical world. This skill is another building block for scientific thinking and provides a means for children to communicate their ideas about the physical world and how it works.

4. Represents observations of the physical world in a variety of ways.

Indicators	Examples The child ...
a. Represents observations through pretend play.	• pretends to prepare/cook food. • uses simple tools (e.g., magnets, magnifying glasses, ramps, tape measures, balls, prisms) in pretend play. • engages in role playing (e.g., acts like a scientist, chef, construction worker, artist, race car driver/pit crew member).
b. Represents observations through music and movement.	• pretends to skate on ice. • acts out a melting snowman, popping popcorn, an object rolling down a hill. • sings action songs (e.g., *I'm a Little Teapot, Johnny Works With One Hammer, Grand Old Duke of York, Jack and Jill Went Up the Hill*). • creates songs about experiences in the physical world.
c. Represents observations through art and construction.	• builds and/or draws towers, enclosures, roads, bridges, tunnels, ramps and vehicles. • intentionally mixes blue and yellow paint to make green. • draws "maps" or "blueprints" of constructions.
d. Talks about the physical world.	• asks, "How did you do that?" • tells a friend, "If you add another block to the tower, it will fall." • describes objects according to size, shape, color or speed. • uses names for tools (e.g., magnifying glass, magnet, scale, ramp). • uses texture words (e.g., bumpy, rough, soft, smooth, slick, hard). • uses measurement words (e.g., heavy/light, hot/cold, big/little, long/short, fast/slow).

Teacher strategies for promoting children's representation of their observations include:

- engaging them in conversations about the physical world.
- encouraging them to represent their observations in many different media as well as through language.
- engaging them in musical experiences and songs where they act out their observations (e.g., swaying in the wind).
- providing resources and opportunities for them to experiment with writing or drawing their observations (e.g., a block structure, a tower).
- providing appropriate props for children to role play.
- supplying the classroom with posters, books and magazines about the physical world and its phenomena.
- modeling use of vocabulary to describe the physical world (e.g., measurement and texture words, names of tools).
- providing many opportunities (e.g., at circle time, during center time) for children to represent their ideas about how the physical world works and to exchange their ideas with their peers.

engage
children in
conversations
about the
physical world

(b)(6)

II. Life Science

This standard concerns the child's developing understanding of the difference between living and nonliving things as well as of how living things grow and change. Because young children are active learners, they build their knowledge through direct experience with living things in the environment and in the classroom.

1. Explores characteristics of living things.

Indicators	Examples The child ...
a. Shows interest in plant and animal changes.	• comments on changes in living things (e.g., babies grow to adults, seeds become plants, caterpillars become butterflies, birds hatch from eggs). • remarks that the leaves are changing colors, the trees have buds, the flowers are blooming. • looks at books, magazines and posters that feature living things (e.g., *The Very Hungry Caterpillar; Ranger Rick's Your Big Back Yard; Zoo Book*; magazines and posters from the Missouri Department of Conservation).
b. Uses one or more senses to observe the natural world.	• expresses wonder/excitement about living things (e.g., rabbits, deer, fish, spiders, birds, blooming flowers). • says, "I hear the birds singing," or "The dog is barking." • says, "I smell a skunk," or "Smell this flower." • comments on the different tastes of food. • holds or watches a caterpillar or worm to see how it moves. • catches bugs and places them in a container. • uses a magnifying glass to observe living things. • examines leaves, pine cones, shells, etc.

Teacher strategies to support children's exploration of the characteristics of living things include:

- keeping a class pet (or an aquarium, ant farm, etc.) and encouraging children to observe and care for the creature.
- engaging children in sensory experiences with natural objects or living things (with appropriate care and safety considerations in mind).
- drawing children's attention to living things in the environment when opportunities arise.
- taking children on nature walks and/or explorations of the playground to discover what lives there.
- providing opportunities for children to make collections of seeds, leaves, pine cones, etc., as well as to discuss the characteristics of what they collect.
- supplying the classroom with nonfiction books that are about living things and that illustrate the life cycle.
- engaging the children in planting seeds (indoors and outdoors) and observing how plants grow and change.

(b)(6)

provide opportunities for children to collect seeds, leaves, pine cones, etc., as well as to discuss the characteristics of what they collect

II. Life Science

Young children are fascinated by the attributes of living things as well as by the transformations living things (including themselves) exhibit as they develop and move through the cycle of life. Children's natural curiosity and wonder can be the inspiration for beginning scientific inquiry and early investigations about the natural world.

2. Investigates characteristics of living things.

Indicators	Examples The child ...
a. Asks questions about the natural world.	• asks, "Why didn't the seed grow?" • asks, "Where do babies come from?" • asks, "Where do the frogs go in winter?" • asks, "How do fish breathe?" • asks, "What do animals eat?"
b. Collects information to learn about living things.	• collects leaves, pine cones, shells, seeds, bugs, etc. • uses a magnifying glass to investigate a spider web. • uses real or pretend binoculars to observe nature (e.g., birds, trees). • looks at books and magazines to learn about living things.
c. Shows knowledge of the characteristics of living things.	• matches mother animals with their babies using pictures, stuffed animals, animal matching games, animal figurines, etc. • sorts collections (e.g., leaves, pine cones, shells, seeds, bugs). • talks about the differences in animals (e.g., birds have feathers, fish live in water, dogs and cats have fur). • identifies living versus nonliving things (e.g., says, "That's just a plastic snake!").

Teacher strategies to promote children's investigations into the characteristics of living things include:

- asking children questions to engage their interest about living things they can observe in the classroom or outdoors (e.g., asking, "Where do you think the toad lives?" or "Why do you think these leaves are drooping?").
- using children's questions and interest about specific living things (e.g., spiders, plants) to engage them in projects that will extend throughout the curriculum.
- reading aloud books about living things and the life cycle and engaging children in conversations about this information.
- prompting discussions about how the human body works by asking questions (e.g., asking, "How do you know when you're hungry?").
- giving children opportunities to handle animals, insects, reptiles, etc., in order to explore their characteristics (keeping health and safety considerations in mind).
- giving children access to resources so they can make their own collections of artifacts from the natural world (e.g., shells, seeds and seed pods, leaves, feathers).
- encouraging children to represent their observations and ideas about living things in a variety of media as well as through language.

give children access to resources
so they can make their own collections
of artifacts from the natural world

(b)(6)

II. Life Science

This standard reflects children's ability to identify and attempt to solve problems involving living things and the natural world. It is important to keep in mind, however, that children's "solutions" may not always be accurate. In fact, these errors in thinking are part of a developmental process as children construct their knowledge about living things and the natural world.

3. Solves problems related to living things.

Indicators	Examples The child ...
a. Identifies problems involving living things.	• comments that the plant is drooping (wilting). • complains that the animal cage is smelly. • says, "I can't play outside because the bugs will bite."
b. Recognizes that living things have needs.	• says, "The plant needs water." • says, "I'm hungry." • says, "The dog wants to play."
c. Makes predictions based on experiences with living things.	• says, "I think a baby chick will come out of the egg." • says, "If we don't water the plant, it will die." • says, "When the dog brings the ball, he wants to play." • says, "When the baby cries, she needs you."

Teacher strategies to support children's problem solving related to living things include:

- acknowledging their observations about changes involving living things (including human beings) and helping them make connections between cause and effect(s).
- modeling appropriate care of living things (e.g., plants, animals, reptiles, themselves).
- reading aloud books that deal with problems of living things.
- asking questions to promote their problem solving (e.g., asking, "Why do you think the cage is smelly?").
- giving them many opportunities to observe and interact with living things (indoors and outdoors).
- modeling wonder and interest in the natural world.

(b)(6)

(b)(6)

II. Life Science

This standard refers to children's ability to express what they perceive through their senses as they experience the natural world and interact with living things. It also refers to children's growing awareness of their own selves/bodies as part of the natural world. This skill is another building block for scientific thinking and provides a means for children to communicate their ideas about nature and the life cycle.

4. Represents observations about living things in a variety of ways.

Indicators	Examples The child ...
a. Represents observations through pretend play.	• Engages in role playing (e.g., plays a veterinarian, gardener, doctor, farmer, florist, parent). • pretends to be an animal (e.g., dog, elephant, bird).
b. Represents observations through music and movement.	• moves like an elephant, spider or snake. • sings songs about living things (e.g., *Six Little Ducks, Old MacDonald Had a Farm, Five Little Speckled Frogs, Baby Bumble Bee, And the Green Grass Grew All Around, Sweetly Sings the Donkey*). • creates songs about living things.
c. Represents observations through art and construction.	• draws or paints pictures of animals. • uses blocks to build a farm or zoo. • draws or paints pictures of his own family.
d. Talks about plants and animals.	• tells about family pets, trips to the zoo, etc. • comments on how to care for a pet. • uses words such as leaf, tree and flower in conversation. • uses names of living things (e.g., elephant, cow, bird, fish, dog, spider, insect, flower, tree, grass). • uses words such as beak, wings, skin, shell, claws, head, tail, feathers, horns and fur in conversation.

Teacher strategies to support children's ability to represent their observations about living things include:

- providing an ample supply of blocks and animal and human figures as well as adequate space and time for children to play with them and to discuss their actions and creations.
- providing opportunities for children to represent their observations from the zoo, a field trip, etc., by making a class book.
- inviting visitors with a vocation or hobby involving living things or the natural world (e.g., veterinarian, farmer, nurse) into the classroom.
- supporting children's pretend play concerning living things and places where living things are found (e.g., zoo, circus, farm, doctor's office).
- modeling the vocabulary used to describe the characteristics of living things.
- supplying the classroom with appealing books involving living things and the natural world.
- engaging children in music and/or movement activities where they can imitate living things and the sounds they make.
- supporting children's attempts to make pictures or sculptures (e.g., with play dough or modeling clay) of living things.
- encouraging children to "write" about their observations (e.g., in a daily journal, in letters to grandparents).
- engaging children in conversations about their observations (e.g., at morning meeting, while working in learning centers).

invite visitors with a vocation or hobby
involving living things or the natural world
into the classroom

III. Earth and Space

This standard refers to children's interest in and curiosity about earth and space. These abstract concepts start to become meaningful as children begin to observe the earth and sky and their characteristics and phenomena.

1. Explores properties of earth and space.

Indicators	**Examples** **The child ...**
a. Shows interest in earth and space.	• comments on changes in the weather, clouds or seasons. • looks at books and magazines about earth and space (e.g., *In the Night Sky; Happy Birthday Moon; Goodnight Moon; In the Small, Small Pond; The Snowy Day; Mud Puddle; Let's Go Rock Collecting; Star Gazers; Ranger Rick's Your Big Back Yard*).
b. Uses one or more senses to observe earth and space.	• plays with, collects and examines rocks, soil (dirt), mud, sand, shells, etc. • notices shadows. • says, "I hear the rain (thunder, wind)." • looks at the clouds, the stars and the moon.
c. Uses simple tools to explore earth and space.	• uses a sand sifter, garden tools, etc., to explore the dirt, mud, sand and rocks. • uses a flashlight to make shadows. • plays with measuring devices (e.g., thermometer, rain gauge, ruler, cup, bowl). • experiments with windsocks, pinwheels, telescopes, binoculars, kites, magnifying glasses, etc.

Teacher strategies to support children's exploration of the properties of earth and space include:

- drawing their attention to weather and changes in weather and the seasons and engaging them in conversations about what they see, hear and feel.
- supplying the classroom with books and magazines about earth and space.
- providing them with opportunities to play with soil (dirt), sand and mud.
- equipping the sand and/or water table with simple tools and measuring devices (e.g., sifters, trowels, hand rakes and hoes, measuring cups).
- engaging them in shadow play.
- setting up a learning center with a light table.
- reading aloud stories about earth and space, the moon and stars, etc.
- encouraging them to make rock collections.

(b)(6)

III. Earth and Space

Young children's knowledge about earth and space is constructed in very concrete ways through "hands-on, minds-on" investigations of materials and processes that are meaningful to them. This standard refers to these early attempts to find out about the earth and space.

2. Investigates properties of earth and space.

Indicators	Examples The child asks ...
a. Asks questions about earth and space.	• "How do you make mud?" • "Why is this rock shiny?" • "What makes the thunder and lightning?" • "What happened to the snow?" • "Why is the moon out in the daytime?" • "Where does the sun go to sleep?" • "Why is the moon following me?"
b. Conducts experiments to gain knowledge of earth and space.	• adds water to soil (dirt) to make mud. • looks for rocks that will write on concrete. • tries to change rocks (e.g., breaks them into smaller pieces or makes them shiny by using water or oil). • paints with water on outside surfaces.
c. Shows knowledge of changes in earth and space.	• comments on changes in the weather, clouds, temperature, daylight and darkness. • says, "The moon is different tonight." • comments on changes in puddles, grass, soil, sand, wood chips, etc.

Teacher strategies to promote children's investigations of the properties of earth and space include:

- providing many opportunities for children to play with sand and water and supporting their conversations about their actions and experiments.
- asking open-ended questions to encourage children's investigations (e.g., asking, "Why do you think the puddle is gone?").
- providing an outdoor area where children can dig, play in water, etc.
- encouraging children to make observations and comparisons about the sky, the weather and the seasons.
- providing opportunities for children to explore the attributes of various rocks and minerals, different kinds of dirt/soil, etc.

(b)(6)

III. Earth and Space

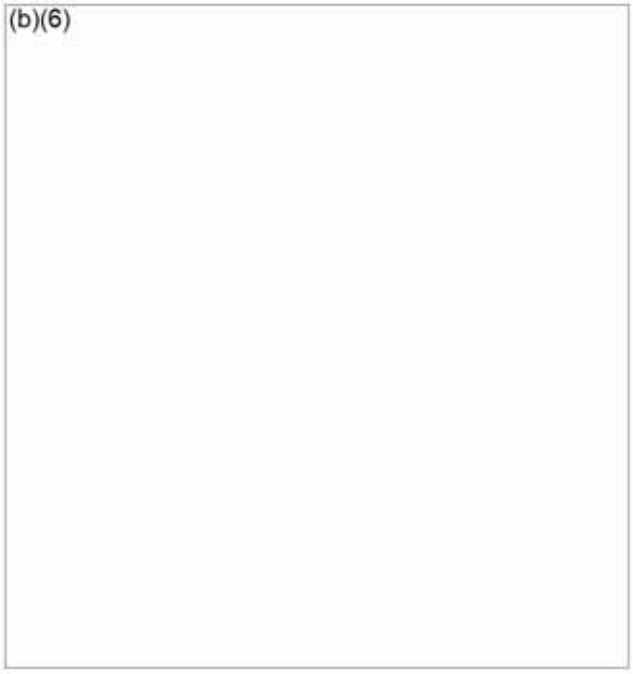
The standard refers to children's ability to identify and solve personally meaningful problems related to earth and space. As children begin to build theories to solve problems that are of interest to them, they deepen their understanding of the environment in which they live. Their theories may not be accurate, but the process of identifying a problem and thinking it through is the foundation for the development of reasoning and scientific thought.

3. Solves problems involving earth and space.

Indicators	**Examples** **The child says ...**
a. Identifies problems involving earth and space.	• "There is no grass under the slide." • "It's cold outside." • "I can't walk on the sidewalk (sand). It is too hot." • "My shoes got wet when I stepped in the puddle." • "I can't dig in this hard dirt."
b. Makes predictions based on experiences with earth and space.	• "I hear thunder. It's going to rain." • "We get to play outside because it is sunny." • "I think the snow will melt because the sun is shining." • "I might fall on the ice." • "If it snows too much, we can't go anywhere." • "Water and dirt make mud."

Teacher strategies for promoting children's ability to solve problems related to earth and space include:

- taking advantage of spontaneous happenings during the day to encourage problem solving (e.g., going outdoors after rain has caused puddles to form).
- providing children with enough time and space to play with sand, water, soil/dirt, rocks, etc., and pursue their own inquiries.
- engaging children in shadow play.
- engaging children in predicting what will happen as they experiment.
- providing opportunities for children to test their predictions.
- encouraging children to make connections with other experiences they've had in order to build on what they know about the earth, sky, weather, seasons, etc.



III. Earth and Space

This standard reflects children's growing ability to communicate their observations about earth and space in a variety of ways as well as through language. As the child becomes more aware of the elements and features of earth and space, she begins to communicate her observations and understandings.

4. Represents observations about earth and space in a variety of ways.

Indicators	Examples The child ...
a. Represents observations through pretend play.	• engages in role playing (e.g., plays a weather person, astronaut, farmer). • dresses dolls, puppets or flannel-board characters according to the weather. • uses simple tools (e.g., magnifying glasses, binoculars, telescopes, scales, maps, digging tools, brushes, buckets) to pretend.
b. Represents observations through music and movement.	• moves like the wind, snowman, snowflake, rocket, astronaut in space, tornado, dinosaur, etc. • sings songs such as *Twinkle, Twinkle, Little Star*; *The Itsy, Bitsy Spider*; *Hey Diddle Diddle*; and *If All the Raindrops Were Lemondrops and Gumdrops*. • creates songs about earth and space.
c. Represents observations through art and construction.	• makes landscapes with mud, sand and water. • draws or paints pictures of the sky, moon, stars, sun, earth, etc. • uses play dough or blocks to make mountains, snowmen, spaceships, caves, dinosaurs, etc.
d. Talks about earth and space.	• describes rocks according to size, shape and color. • says, "The moon and stars come out at night." • talks about night and day. • talks about winter, spring, summer and fall. • uses earth words (e.g., soil, ocean, mountain, sand, rock, river, lake, creek). • uses weather words (e.g., rainy, windy, snowy, foggy, sunny, cloudy, temperature). • uses seasonal words (e.g., winter, spring, summer and fall). • uses space words (e.g., moon, star, sun, sky, air).

Teacher strategies for supporting children's representations of earth and space include:

- asking open-ended questions (e.g., why and how questions) to engage children in conversations about elements of earth and space.
- encouraging children to represent their observations about the seasons, clouds, rivers, mountains, and other components of earth and space in many different media as well as through language.
- engaging children in musical experiences and songs in which they act out their observations (e.g., twirling like a snowflake).
- providing resources and opportunities for children to experiment with writing or drawing their observations (e.g., of a thunder storm, of the night sky).
- inviting guests (e.g., miners, geologists, weather forecasters) to the classroom to discuss and/or demonstrate what they do and what equipment or tools they use.
- providing appropriate props for children to role play.
- supplying the classroom with posters, books and magazines about earth and space.
- modeling vocabulary associated with earth and space (e.g., weather and seasonal words, names of tools).
- providing many opportunities (e.g., at circle time, during center time) for children to represent their ideas about earth and space and to exchange their ideas with their peers.

supply the classroom with posters, books and magazines about earth and space

Creating an Environment to Promote Scientific Thinking

An environment that promotes children's interest in science is one that stimulates inquiry and experimentation. For young children, the process of scientific thinking begins with wonder and questioning. Supplying the classroom and science area with interesting artifacts from the physical and natural worlds as well as with simple scientific instruments and tools such as magnifying glasses, scales and other measuring devices, a variety of containers, tubes, and sand and water tables will lay the foundation for children's investigations and problem solving. An ample supply of blocks, rollers, ramps, ropes and pulleys, balls and pendulums, etc., will also inspire children to experiment with objects. Providing a supply of found materials (e.g., rocks, shells, pine cones) for children to explore is also helpful. Periodically introducing new items and rotating others helps keep children's interest. In addition, when thinking about enhancing the environment to support children's scientific thinking, it is important to remember that science can extend across all curricular areas. For example, the art area also lends itself naturally to children's investigations and experiments with paint, play dough and clay. Including a wide variety of picture books and texts about nature, earth and space, and the physical world in the literacy center will also support children's scientific thinking. And remember, equipping a classroom for scientific inquiry need not be expensive. A plastic tub can serve as a water table, found objects and recyclables can serve to promote children's experiments and investigations, and the outdoors is a great laboratory!

Involving Parents and Families

Partnering with parents and families to support children's scientific thinking can be both rewarding and fun. Encouraging families to involve their children in cooking, to take "field trips" around their yards or neighborhoods to observe nature or make collections of interesting rocks, leaves, nuts, etc., or to observe the moon and stars are wonderful ways to involve families in the science curriculum. Lending books that feature scientific topics and the natural world is another way to both promote interest in science and literacy development. In addition, collecting artifacts or information for class projects can turn into family endeavors. There are many resources for educators interested in involving parents in supporting their children's scientific thinking; many are included in this handbook. The Parents as Teachers program is also a wonderful resource; contact your school district for more information about this exemplary program.

Resources

Books:

Anderson, A., Diehn, G., and Krautwurst, T. (1998). *Geology crafts for kids: 50 nifty projects to explore the marvels of planet earth*. New York, NY: Sterling Publishing.

Blobaum, C. (1999). *Geology rocks! 50 hands-on activities to explore the earth*. Charlotte, VT: Williamson Publishing Co.

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Fiarotta, P. (1975). Snips and snails and walnut shells: *Nature crafts for children*. New York, NY: Workman Publishing Company.

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Hickman, P.M. (1988). *Birdwise: Forty fun feats for finding out about our feathered friends*. Reading, MA: Addison-Wesley Publishing.
Hickman, P.M. (1990). *Bugwise: Thirty incredible insect investigations and arachnid activities*. Reading, MA: Addison-Wesley Publishing.
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Holt, B.-G. (1989). *Science with young children* (Rev. ed.). Washington, DC: National Association for the Education of Young Children.
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Kamii, C., and DeVries, R. (1978/1993). *Physical knowledge in preschool education: Implications of Piaget's theory*. New York, NY: Teachers College Press.
Katz, A. (1986). *Naturewatch*. Reading, MA: Addison-Wesley.
Kohl, M.F. (1992). *Mudworks: Creative clay, dough, and modeling experiences*. Bellingham, WA: Bright Ring Publishing.
Kohl, M.F., and Gainer, C. (1991). *Good earth art: Environmental art for kids*. Bellingham, WA: Bright Ring Publishing.
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Kraul, W. (1995). *Earth, water, fire and air: Playful explorations in the four elements*. Mt. Rainier, MD: Gryphon House.
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Linglebach, J. (Ed.) (1989). *Hands-on nature: Information and activities for exploring the environment with children*. Woodstock, VT: Vermont Institute of Nature Science.
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Ranger Rick's Naturescope: Birds, birds, birds!
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Ranger Rick's Naturescope: Astronomy adventures.
Ranger Rick's Naturescope: Wading into wetlands.
Ranger Rick's Naturescope: Endangered species: Wild and rare.
Ranger Rick's Naturescope: Geology: The active earth.
Ranger Rick's Naturescope: Let's hear it for herps.
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Ranger Rick's Naturescope: Trees are terrific!
Ranger Rick's Naturescope: Amazing mammals: Part 1.
Ranger Rick's Naturescope: Amazing mammals: Part II.
Ranger Rick's Naturescope: Incredible insects.
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VanCleave, J. (1998). *Insects and spiders: mind-boggling experiments you can turn into science fair projects*. New York, NY: John Wiley and Sons.
VanCleave, J. (2000). Science around the year. New York, NY: John Wiley and Sons.
Williams, R.A., Rockwell, R.E., and Sherwood, E.A. (1990). Mudpies to magnets: A preschool science curriculum. Mt. Rainier, MD: Gryphon House.

Magazines:

- *Early Childhood News* (6 issues per year)
  330 Progress Road
  Dayton OH 45449
  1-800-607-4410
- *Scholastic Early Childhood Today* (8 issues per year)
  P.O. Box 54814
  Boulder CO 80322-4814
  1-800-544-2917
- *Young Children* (6 issues per year)
  National Association for the Education of Young Children (NAEYC)
  1509 16th Street, NW
  Washington DC 20036-2460
  1-800-424-2460

Web sites:

- Association for Childhood Education International — www.udel.edu/bateman/acei
- Early Childhood Education on Line — www.ume.maine.edu/ECEOL-L
- Early Childhood Educators' and Family Web Corner — users.sgi.net/~cokids
- Everything for Early Childhood Education Preschool-Grade 2 — www.edupuppy.com
- Houghton Mifflin K-8 Education Place: Science Center — eduplace.com/science/index.jsp
- Missouri Department of Conservation Teacher's Page — mdc.mo.gov/teacher
- Missouri DESE Early Childhood — dese.mo.gov/divimprove/fedprog/earlychild/index.html
- National Association for Family Child Care — www.nafcc.org
- National Institute for Early Education Research — nieer.org
- On-Lion for Kids! — kids.nypl.org
- Project Construct National Center — www.projectconstruct.org
- The Southern Early Childhood Association online position statements — www.southernearlychildhood.org/position.html
- U.S. Department of Health and Human Services National Child Care Information Center — www.nccic.org
- University of Connecticut Connections Newsletters — www.canr.uconn.edu/ces/child
- University of Illinois Early Childhood and Parenting (ECAP) Collaborative — ecap.crc.uiuc.edu

Children's books:

Air and water: *Small Cloud* — Ariane; *Water* — Frank Asch; *Wind* — Ron Bacon; *Air Is All Around You* — Franlyn M. Branley; *Follow the Water From Brook to Ocean* — Arthur Dorrors; *A Drop of Water* — Walter Wick.

Amphibians: *All About Frogs* — Jim Aronsky; *Marsh Music* — Marianne Berkes; *Salamanders* — Emery Bernhard; *Toad* — Ruth Brown; *Amphibian: Eyewitness Books* — Barry Clarke; *Can You Find Me? A Book About Animal Camouflage* — Jennifer Dewey; *Why Frogs Are Wet* — Judy Hawes.

Animals: *I Was Walking Down the Road* — Sarah E. Barchas; *One Earth, a Multitude of Creatures* — Peter Roop and Connie Roop; *What's Inside? Small Animals* — Angela Royston; *When Animals Are Babies* — Elizabeth Schwartz.

Aquatic life: *Otters Under Water* — Jim Aronsky; *Around the Pond* — Ann Cooper; *My River* — Shari Halpern; *The River: A First Discovery Book* — Gallimard Jeunesse and Laura Bour; *Pond Year* — Kathryn Lasky; *Look Closer: Pond Life* — Barbara Taylor; *The Beaver Pond* — Alvin Tresselt.

Birds: *Birds: A First Discovery Book* — Claude Delafosse and Rene Mettler; *How Do Birds Find Their Way?* — Roma Gans; *The Barn Owls* — Tony Johnston; *About Birds: A Guide for Children* — Cathryn Still; *Have You Seen My Duckling?* — Nancy Tafuri.

Caves: *A Journey Through Time: The Cave Painter of Lascaux* — Roberta Angeletti; *First Look: Under The Ground* — Daphne Butler; *Look Closer: Cave Life* — Christine Gunzi; *Painters of the Caves* — Patricia Lauber; *Looking Inside Caves and Caverns* — Ronald Schultz.

Energy: *Switch On, Switch Off* — Melvin Berger; *All About Electricity* — Melvin Berger; *Who Likes the Sun?* — Beatrice Schenk DeRegniers; *Sun Up, Sun Down* — Gail Gibbons; *The True Book of Energy* — Illa Pondendorf.

Fish: *The Little Fish That Got Away* — Bernadine Cook; *Blue Sea* — Robert Kalan; *Swimmy* — Leo Lionni; *What's It Like To Be a Fish?* — Wendy Pfeffer; *Fishes* — Brian Wildsmith.

Food chains: *Bugs for Lunch* — Margery Facklam; *What About Ladybugs?* — Celia Godkin; *What Do You Do When Something Wants To Eat You?* — Steve Jenkins; *Eat and Be Eaten* — Iela Mari; *Watch Where You Go* — Sally Noll.

Habitat: *Homes in the Ground* — Susan Canizares Mary Reid; *In the Woods* — Ermanno Cristini and Luigi Puricelli; *In the Tall, Tall Grass* — Denise Fleming; *The True Book of Animal Homes* — Illa Pondendorf; *What Lives in a Shell?* — Kathleen Weidner Zoehfeld.

Harvest: *Raccoons and Ripe Corn* — Jim Aronsky; *Pelle's New Suit* — Elsa Besckow; *Picking Apples and Pumpkins* — Amy Hutchings; *Apples and Pumpkins* — Anne Rockwell; *Autumn Harvest* — Alvin Tresselt; *Working Cotton* — Sherley Anne Williams.

Insects: *Ladybug, Ladybug* — Ruth Brown; *What Do Insects Do?* — Susan Canizares and Pamela Chanko; *Insects* — John Grassy; *From Caterpillar to Butterfly* — Deborah Heiligman; *How to Hide a Butterfly and Other Insects* — Ruth Heller; *Bugs, Bugs, Bugs!* — Mary Reid and Betsey Chessen.

Land use: *Common Ground: The Water, Earth and Air We Share* — Molly Bang; *Building a House* — Byron Barton; *The First Snowfall* — Anne Rockwell and Harlow Rockwell; *City in Summer* — Eleanor Schick; *Letting Swift River Go* — Jane Yolen.

Mammals: *Big Tracks, Little Tracks* — Franklyn M. Branley; *Animal Tracks* — Arthur Dorros; *The Milk Makers* — Gail Gibbons; *Animals Born Alive and Well* — Ruth Heller; *Chipmunk at Hollow Tree Land* — Victoria Sherro; *The Rabbit Story* — Alvin Tresselt.

Old-time days: *Charlie Needs a Cloak* — Tomie dePaola; *Pancakes for Breakfast* — Tomie dePaola; *General Store* — Rachel Field; *Native American Rock Art: Messages From the Past* — Yvette LaPierre; *Who Came Down That Road?* — George Ella Lyon.

Plants and flowers: *Flower Garden* — Eve Bunting; *Growing Vegetable Soup* — Lois Ehlert; *From Seed to Plant* — Gail Gibbons; *The Reason for a Flower* — Ruth Heller; *The Carrot Seed* — Ruth Krauss.

Recycling and pollution: *The Earth and I Are Friends* — Frank Asch; *Recycle: A Handbook for Kids* — Gail Gibbons; *The Compost Heap* — Harlow Rockwell; *Litterbugs Come in Every Size* — Norah Smaridge.

Reptiles: *All About Alligators* — Jim Aronsky; *All About Rattlesnakes* — Jim Aronsky; *All About Turtles* — Jim Aronsky; *Can You Find Me? A Book About Animal Camouflage* — Jennifer Dewey; *Turtles and Snails: A First Discovery Book* — Gallimard Jeunesse and Gilbert Houbre; *The Fascinating World of Snakes* — Maria Angels Julivert; *Eyes on Nature: Lizards* — Robert Matero.

Rocks: *Fossils Tell of Long Ago* — Aliki; *Earthquakes* — Franklyn M. Branley; *Volcanoes* — Franklyn M. Branley; *The Pebble in My Pocket* — Meredith Hooper; *On My Beach There Are Many Pebbles* — Leo Lionni; *Hobby Handbooks: Rocks and Fossils* — Ray Oliver.

Seasons: *Spring* — Asun Balzola and J.M. Parramon; *A Winter Day* — Douglas Florian; *A Pocketful of Seasons* — D.V. Foster; *Fresh Fall Leaves* — Betsy Franco; *On a Summer Day* — Lois Lenski; *Seeing Science Through Art: Sky Tree* — Thomas Locker.

Seeds: *The Dandelion Seed* — Joseph Anthony and Cris Arbo; *All About Seeds* — Melvin Berger; *The Tiny Seed* — Eric Carle; *Apples* — Gail Gibbons; *From Seed to Plant* — Gail Gibbons; *The Reason for a Flower* — Ruth Heller; *How a Seed Grows* — Helene J. Jordan.

Shadows: *What Makes a Shadow?* — Clyde Robert Bulla; *The Shadow Book* — Beatrice Schenk DeRegniers; *Footprints and Shadows* — Anne Wescott Dodd; *Me and My Shadow* — Arthur Dorros; *Shadows* — Carolyn G. Otto.

Soil: *Deep Down Underground* — Oliver Dunrea; *The Pottery Place* — Gail Gibbons; *Muddigush* — Kimberly Knutson; *Under Your Feet* — Joanna Ryder; *Our Earthworms* — Herbert H. Wong.

Spiders: *Spider's Web* — Christine Back; *Spiders* — Gail Gibbons; *Be Nice to Spiders* — Margaret Bloom Graham; *Outside and Inside Spiders* — Sandra Markel; *I Love Spiders* — John Parker.

Trees and forests: *Look at a Tree* — Eileen Curran; *From Tree to Paper* — Wendy Davis; *Mr. Tamarin's Trees* — Kathryn Ernst; *A Carpenter* — Douglas Florian; *The Tree in the Ancient Forest* — Carol Reed-Jones; *Johnny Maple-Leaf* — Alvin Tresselt.

Weather: *Flash, Crash, Rumble and Roll* — Franklyn M. Branley; *The Cloud Book* — Tomie dePaola; *Snowballs* — Lois Ehlert; *Thundercake* — Patricia Polacco; *The First Snowfall* — Anne Rockwell and Harlow Rockwell; *It Looked Like Spilt Milk* — Charles G. Shaw.

Missouri Early Learning Standards for Social and Emotional Development and Approaches to Learning

Content Component	Process Standards
I. Knowledge of Self	1. Exhibits self-awareness. 2. Develops self-control. 3. Develops personal responsibility.
II. Knowledge of Others	1. Builds relationships of mutual trust and respect with others. 2. Works cooperatively with children and adults.
I. Approaches to Learning	1. Shows curiosity. 2. Takes initiative. 3. Exhibits creativity. 4. Shows confidence. 5. Displays persistence. 6. Uses probelm-solving skills.

children are born with a desire to learn about and make sense of their world

Organization

The standards cover the broad scope of child development and are organized by:

I. **Content Component** — the specific content area to be addressed; for example, knowledge of self and knowledge of others.

II. **Process Standards** — identifiable competencies or capabilities in the process of social and emotional development, such as developing self-control and building relationships of mutual trust and respect with others.

III. **Indicators** — observable milestones in the development of competencies, such as initiating interactions with others and participating successfully as a member of a group.

IV. **Examples** — specific behaviors children may exhibit in their development, such as expressing preferences, listening while others are speaking and sharing ideas in a group situation.

This structure provides us with an accessible way to see how the standards fit into our curriculum and teaching practices.

Introduction for Teachers

This guide, along with the *Parent Handbook*, is a companion piece to the *Missouri Early Learning Standards for Social and Emotional Development & Approaches to Learning*. It is intended for all adults who work with preschool-age children and their families — teachers, caregivers, and/or parent educators. The guide is designed to provide an explanation of the standards and contains practical suggestions for creating engaging, developmentally appropriate learning communities where each child's social and emotional development is fostered.

Why is it important to have such standards? In Missouri, the Outstanding Schools Act of 1993 called together a group of master teachers, parents and policy-makers from around the state. The Show-Me Standards were the result of that group's work. Those standards are designed for students in kindergarten through grade 12 and serve to ensure that graduates of Missouri's public schools have the knowledge, skills and competencies to lead productive, fulfilling and successful lives.

However, we all realize that the foundations for learning are laid well before a child enters kindergarten! Research tells us that the pre-kindergarten years provide crucial opportunities for educators and caregivers to influence children's growth and development. If our goal is that every child enter kindergarten ready to learn and succeed, pre-kindergarten educational standards can provide us with shared understandings about the competencies critical for this to occur. In addition, pre-K standards provide a direct link to the Show-Me Standards, so we know that we are preparing children for the high expectations they will encounter as they progress through school.

(b)(6)

To this end, the *Missouri Early Learning Standards for Social and Emotional Development & Approaches to Learning* describe the social and emotional competencies most children should demonstrate by the time they enter kindergarten. They represent a shared set of expectations for preschool children that were developed by drawing upon current research about how young children develop and learn. It is important to keep in mind, however, that children develop and learn in their own unique ways. While research demonstrates that these standards are appropriate for most children who are about to enter kindergarten, our responsibility as educators is to assess where each child is on the developmental continuum and build on what that child knows and can do.

Educators can determine this only through ongoing observational assessment. This guide will illustrate some indicators that teachers can reliably assess to show each child's progress over time. This data can be used to plan meaningful, engaging learning experiences that promote both social and emotional competencies and strong, sustainable learning communities. You will also find information about creating supportive environments and partnering with parents and families to promote community building and an enthusiasm for learning as well as a list of helpful resources.

I. Knowledge of Self

This standard refers to the child's growing awareness of his or her own preferences and abilities as well as personal information. As children develop a sense of personal identity, they begin to recognize the characteristics that make them unique as individuals and to build self-esteem. They also begin to develop a sense of their family connections and cultural identity. This is a crucial early step along the pathway to becoming an autonomous, that is, independent and self-governing, person. Also, knowing and understanding one's self is the basis for knowing and understanding others and leads to the capacity to take others' perspectives.

1. Exhibits self-awareness.

Indicators	**Examples** **The child ...**
a. Shows respect for self.	• stands up for his or her own rights and needs. • acknowledges accomplishments (e.g., says, "I can hit the ball."). • uses self-help skills (e.g., washing hands with soap and water, brushing teeth with assistance, trying new foods).
b. Develops personal preferences.	• makes choices. • expresses likes and dislikes. • chooses a favorite color, food, song, friend, etc.
c. Knows personal information.	• describes self using several basic characteristics (e.g., gender, age, hair color or eye color). • refers to self by first and last name. • knows parents'/guardians' names. • may know address and telephone number.

Teacher strategies to support development of self-awareness include:

- providing opportunities for children to express preferences and make choices throughout the day (e.g., at area time or at snack time).
- allowing children sufficient time to consider and make choices.
- respecting children's preferences and decisions (within reason and always with regard to safety issues).
- accepting children's ideas and opinions.
- encouraging children to express preferences through modeling.
- playing games, such as the name game, to help children learn and remember personal information.

I. Knowledge of Self

This standard refers to the child's increasing ability to control impulses and participate in activities with others as well as to adapt to changing conditions in acceptable and culturally appropriate ways.

2. Develops self-control.

Indicators	**Examples** **The child ...**
a. Follows simple rules.	• follows a few clear and consistent home or classroom rules. • follows rules made with adults and/or peers in a game of play. • follows safety rules.
b. Accepts transitions and follows daily routines.	• understands and follows schedules/routines at home or school. • manages smooth transitions from one activity to the next (e.g., comes indoors to wash hands, to eat lunch, to listen to a story). • separates from parents easily.
c. Expresses feelings through appropriate gestures, actions and language.	• identifies emotions (e.g., says, "I'm really mad." or "The story makes me sad."). • shares happiness or success of another. • offers to help someone who is hurt. • uses pretend play to understand and respond to feelings. • controls an impulse to take an object away from another child (e.g., uses appropriate words instead of hitting).
d. Adapts to different environments.	• adjusts behavior in different settings (e.g., library, home, playground or school). • follows rules in different settings.

Teacher strategies for promoting ability to exhibit self-control:

- modeling vocabulary for expressing feelings through language.
- acknowledging and accepting children's expressions of feelings.
- engaging children in talks about how to behave in various situations.
- using literature to help children take the perspective of others.
- taking advantage of events in the classroom to explain the need for rules and to involve the children in rule making and conflict resolution.
- clearly signaling transitions through the use of music, songs, etc.
- creating and posting schedules that show the events of the day/week/etc. in a way children understand (e.g., with pictures, photos or symbols).
- establishing routines that take into account children's needs for rest, activity, play, conversation, etc.

I. Knowledge of Self

This standard refers to the child's increasing sense of belonging and participating as a member of a family and community, whether at home, school or in another setting. Exhibiting a sense of personal responsibility indicates that one is aware of one's own place in the world and of the obligations that place entails. It also involves the child's growing sense of competence and confidence that he or she is a valued and contributing member of his or her family and community.

3. Develops personal responsibility.

Indicators	**Examples** **The child ...**
a. Cares for personal and group possessions.	• carefully handles books and other objects. • takes care of toys. • puts away belongings and materials, such as clothing, toys and art supplies.
b. Begins to accept the consequences of his or her own actions.	• brings a damaged object to a parent or teacher for repair after breaking it. • admits wrongdoing (e.g., says, "I hit her because she took my toy.").

Teacher strategies to promote development of personal responsibility include:

- modeling appropriate methods for handling objects, cleaning up, etc.
- providing children opportunities to do things for themselves and/or for the class.
- discussing issues of carelessness, destruction of property, etc., as soon as they occur and inviting suggestions for resolving the problem.
- allowing children to experience the consequences of carelessness, etc. (within reason and always with safety considerations in mind), then discussing the situation with the child or children (without blaming or shaming) in order to solve the problem.
- listening to children's explanations and supporting their efforts towards reparation.
- using stories/literature to engage children in taking the perspectives of others.
- asking open-ended questions to evoke children's responses.

allow children to direct their own pretend play

II. Knowledge of Others

This standard refers to the child's growing ability to initiate and sustain relationships with adults and peers that are characterized by honesty, openness and consideration for others' feelings and views. Children who experience relationships that are respectful and cooperative respond with feelings of trust, security and confidence. These are the building blocks for understanding one's self as an individual and as a member of a community and for functioning as a valued member of one's social world.

1. Builds relationships of mutual trust and respect with others.

Indicators	Examples The child ...
a. Respects the rights of others.	• listens while others are speaking. • takes turns and follows rules. • respects the personal space of others (e.g., keeps hands to self).
b. Respects adult leadership.	• uses an adult as a resource (e.g., seeks information, assistance or advice). • follows adults' guidelines for safety in the home or classroom. • follows adults' rules for appropriate behavior in different environments. • shows interest in community workers (e.g., firefighters, police officers, dentists, doctors) and understands their roles in the community.
c. Seeks comfort and security from significant adults.	• shows an attachment or bond to an adult. • goes to an adult if he or she has a problem. • feels safe with significant adults.
d. Develops friendships.	• offers help and resources to others. • has a special friendship with one or two peers (e.g., misses them if they are apart; frequently chooses them in play). • is named as a friend or play partner by others.
e. Uses courteous words and actions.	• says "please" and "thank you" or "hello" and "goodbye" at appropriate times. • shares toys; passes items at mealtime. • waits for a turn during conversation.
f. Respects similarities and differences among people.	• notices the similarities and differences in others. • includes children with differences in play (i.e., differences such as gender, race, special needs, culture and language). • explores real-life situations through pretend play. • recognizes that different individuals have different kinds of skills and information.

Teacher strategies for supporting development of relationships of mutual trust and respect with others include:

- modeling trust, honesty and respect in dealings with children and adults.
- having class meetings to discuss events and issues, resolve problems and share celebrations and news.
- engaging the children in voting to decide questions (e.g., to determine the name of a pet).
- using literature to help children take the perspective of others and/or to facilitate problem solving.
- creating an environment where children feel safe and secure and where their feelings and views are accepted.
- modeling the vocabulary and conventions of courtesy and politeness.
- providing opportunities during the day for children to choose to work or play with particular others.
- supporting children in their efforts to resolve conflicts with others by helping them reach a mutually satisfactory resolution (rather than imposing a solution that seems "fair" to adults).
- inviting guests who are "community helpers" to talk to the children about their roles and why they do what they do.
- providing opportunities and materials for children to express their ideas, feelings and role-playing through pretend play.
- encouraging participation in group (small and/or large) games, allowing children to make up or modify rules and to resolve their own conflicts (always with safety considerations in mind).

II. Knowledge of Others

This standard signifies the child's increasing ability to participate as a contributing member of his or her family and community. It is crucial to success in school as well as in life. Learning how to negotiate and cooperate in the process of solving everyday problems helps children develop critical thinking skills. As children learn to consider the views of others, they become increasingly able to tolerate differences of opinion. In addition, children become aware of the interdependence of people in the various communities that make up their world and to appreciate the contributions of others.

2. Works cooperatively with children and adults.

Indicators	**Examples** **The child ...**
a. Participates successfully as a member of a group.	• allows others to join play and activities. • participates cooperatively in large and small group activities (i.e., is sometimes a leader and sometimes a follower). • plays cooperatively with others (e.g., takes turns when playing a game). • identifies self as a member of a group (e.g., refers to our family, our school, our team).
b. Shares experiences and ideas with others.	• engages in conversations to express his or her own ideas. • expresses self through pretend play, art, music, dance, written work and spoken language. • shares personal information.
c. Begins to examine a situation from another person's perspective.	• adopts various roles during pretend play. • expresses empathy (e.g., consoles the child who lost a game or a child who is unhappy). • adjusts plans in consideration of others' wants and needs (e.g., asks a friend if he or she would like to go first).
d. Resolves conflicts with others.	• shows an interest in fairness and established rules. • attempts to make amends (e.g., says "I'm sorry" or offers a toy). • participates in resolving conflict with adult assistance. • attempts to solve problems without adult help (i.e., negotiates or compromises).

Teacher strategies to promote ability to work cooperatively as a member of a group include:

- holding "circle time" daily and encouraging children to share their news and views, plan activities, etc.
- using class meetings and discussions to resolve issues of concern.
- engaging children in small-group work.
- providing daily opportunities for children to express themselves through art, construction, music, movement and language.
- modeling how to express one's feeling through words and tone of voice.
- taking advantage of spontaneous events in the classroom to involve children in rule making and problem solving as well as meaningful projects.
- supporting children in building relationships and friendships with peers and solving their own problems by providing time and space for hands-on activities and games.
- taking time to recognize and celebrate special events and accomplishments of individuals and the class.

ability to participate as a contributing family and community member

I. Approaches to Learning

This standard refers to the child's inquisitiveness — the active desire to learn. It relates to the child's natural tendency to explore all aspects of the environment from objects and people to ideas and customs. It is through finding the answers to their own questions that children construct knowledge. Most important, young children express their curiosity not only through asking questions but also by manipulating, acting on and experimenting with objects and by tasting, touching and taking things apart. A curious child is a child who is eager and ready to learn.

1. Shows curiosity.

Indicators	**Examples** **The child ...**
a. Expresses interest in people.	• asks about people in his or her environment. • takes an interest in others' activities. • asks others for personal information (e.g., asks, "What's your name?" or "How did you hurt your arm?").
b. Shows interest in learning new things and trying new experiences.	• explores on his or her own. • develops a personal interest (e.g., likes trains, dinosaurs, dolls, etc.). • investigates and experiments with materials. • shows an interest in how others do things.
c. Asks questions.	• uses questions to find answers. • wonders why something is the way it is.

Teacher strategies to promote curiosity include:

- providing a learning environment with a wide variety of materials for children to explore and manipulate (being careful to avoid creating an overstimulating or overwhelming situation).
- having "real" objects (that can be safely manipulated or disassembled) available for children to explore, such as typewriters, telephones, etc.
- periodically introducing new materials (and retiring those the children seem to have lost interest in) into the classroom.
- asking children open-ended questions about what they are doing, observing or thinking about.
- modeling wonderment and ways to investigate questions.
- providing a "science area" with examples of objects (e.g., shells, interesting rocks, bird nests) and/or living things (e.g., hamsters, ant farms, etc.) for the children to observe and interact with.
- encouraging children to ask questions.
- accepting children's theories and encouraging them to test them or try them out (always with safety considerations in mind, of course).
- reading aloud literature to stimulate children's interest in and curiosity about people, places, the natural world, machines, etc.
- using children's questions about spontaneous events (e.g., a construction site across the street; artifacts from a family visit to another country) to engage them in a meaningful project.
- taking children on walks to explore the natural world.

active desire to learn

I. Approaches to Learning

This standard refers to a child's increasing ability to exhibit a spirit of independence and sense of control over his or her choices. It also reflects the child's ability to initiate social relationships and demonstrate a growing sense of self-sufficiency and confidence in interactions with others.

2. Takes initiative.

Indicators	Examples The child ...
a. Initiates interactions with others.	• asks a friend to join in play. • joins a play activity already in progress. • participates in group activities • suggests play activities.
b. Makes decisions independently.	• selects materials for a project. • offers to help others. • does the correct thing when others do not.
c. Develops independence during activities, routines and play.	• hangs up his or her coat when coming indoors. • enjoys playing alone at times. • completes a task.

Teacher strategies to promote ability to take initiative include:

- holding class meetings where children can propose solutions for solving problems and/or resolving conflicts.
- establishing routines and engaging class helpers to manage daily tasks.
- encouraging children to participate in group (large and small) games where they can modify or make their own rules and resolve conflicts.
- giving children opportunities to make choices throughout the day (e.g., at area or center time).
- allowing children to direct their own play.
- providing easily accessible materials for children to use as they pursue their own interests or engage in personal projects.
- seeking children's suggestions for solving problems and trying them out (within the bounds of reason and safety).
- giving children responsibility for maintaining routines, classroom chores, etc.

(b)(6)

I. Approaches to Learning

This standard refers to a child's capacity to express his or her own unique way of seeing the world as well as his or her talents. Creativity can be expressed in many ways although we commonly think of this word in association with the expressive arts. However, creativity also involves being able to deal with new situations and problems and to see things from a fresh perspective. The ability to see gaps in knowledge, to identify problems, or to extend and elaborate on ideas also contributes to one's creativity. A sense of humor is another key element of creativity — one that children, as well as adults, delight in.

3. Exhibits creativity.

Indicators	**Examples** **The child ...**
a. Tries new ways of doing things.	• completes projects differently than others (e.g., uses a novel approach in block structures, paintings, clay structures). • uses materials in a new way (e.g., blanket becomes a tent). • invents new activities or games; suggests new rules for a familiar game.
b. Uses imagination to generate a variety of ideas.	• makes up words, songs or stories. • engages in pretend play. • makes changes to a familiar story by adding actions or characters. • expresses ideas through art, construction, movement or music.
c. Exhibits a sense of humor.	• laughs when someone tells a funny story. • exaggerates a movement or statement to be funny. • makes up silly words; plays with sounds. • makes up jokes (tells simple jokes over and over).

Teacher strategies to foster creativity include:

- supplying open-ended materials (e.g., yarn, wood scraps, feathers, all sorts of paper, cardboard, pipe cleaners) for the children to explore.
- allowing children to express themselves in all kinds of art media rather than having them produce versions of teacher-directed craft projects.
- encouraging children to make up songs and stories as well as to change the words to familiar tunes and stories.
- providing a well-supplied pretend-play area and periodically introducing new materials (and retiring familiar ones) so that children can vary their play.
- arranging the classroom so that materials and supplies are easily accessible to children.
- reading aloud humorous poems and stories.
- engaging the children in singing silly songs.
- allowing the children to direct their own pretend play.
- responding to children's humor.

(b)(6)

I. Approaches to Learning

This standard refers to children's senses of faith in themselves and their own abilities; it is critical to ensuring success in learning. Confident children feel positive about themselves and their ability to do things or to adapt to changing conditions and environments. A confident child is willing to take reasonable risks, to express or defend ideas, to try new games and toys, or to engage in challenging tasks. A confident child generally feels comfortable in new settings and is able to separate from a primary caretaker.

4. Shows confidence.

Indicators	Examples The child ...
a. Expresses his or her own ideas and opinions.	• communicates likes and dislikes. • suggests a solution for a conflict or problem. • shares ideas in a group situation (e.g., with family, peers or classmates).
b. Views self as competent and has a positive self-image.	• expresses mastery of a skill (e.g., says, "Now I can swing myself!"). • asks others to view his or her creation (e.g., says, "Look at my picture!"). • contributes to family or classroom discussions. • takes pride in accomplishments.

Teacher strategies for fostering a sense of confidence include:

- holding circle time daily and encouraging children to express their ideas and opinions.
- supporting children's attempts to solve problems and resolve conflicts.
- giving children responsibility for daily tasks (e.g., distributing snacks, cleaning up).
- discussing issues with children at their eye level.
- acknowledging children's accomplishments and creations — without excessive or rote praise (e.g., saying, "You figured out that puzzle very quickly. How did you do that?").
- asking children to describe their accomplishments or creations (e.g., "You've worked very hard on that painting. Tell me about it." or "I've never seen a clay sculpture like that before. What were you thinking of when you made it?").
- supporting a child's initiation and management of class meetings to discuss issues of concern.
- showing confidence in a child's ability to try new things (e.g., saying, "I know you're a good runner. I bet you could go even faster if you tried using the scooter.").

show confidence in the child's ability to try new things

I. Approaches to Learning

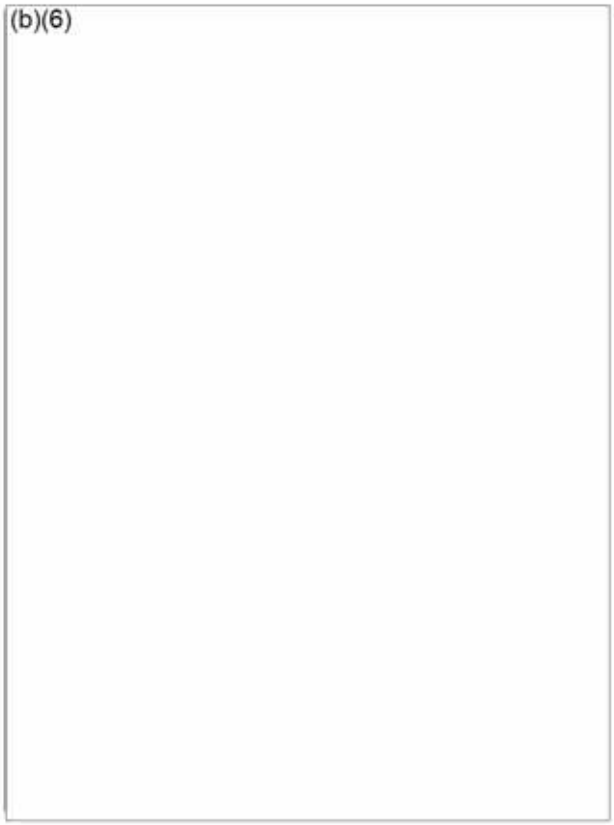
This standard refers to children's capacities to fully engage in what they're doing and to meet challenges appropriate to their stages of development. The ability to persist in a task or endeavor is an important element in learning; in fact, being able to cope with frustration and failure until one has achieved one's goal is the hallmark of success in life.

5. Displays persistence.

Indicators	**Examples** **The child ...**
a. Sustains attention to a task or activity appropriate for his age.	• remains engaged in an activity (e.g., builds an extensive block building or completes playing a game). • attends to a task regardless of distractions. • works on a task over a period of time, leaving and returning to complete it (e.g., a block structure, a picture).
b. Pursues challenges.	• makes plans for an activity. • completes a project. • continues to try a difficult task (e.g., builds a complex block structure).
c. Copes with frustration.	• shows understanding when a peer accidentally knocks down his or her block structure. • can lose a game without getting upset. • persists in trying to complete a task after many attempts have failed (e.g., tying shoes, riding a bike).

Teacher strategies to foster a capacity to persist include:

- allowing children to pursue their own interests (e.g., during area time).
- arranging the classroom so children have enough space to work on a project over time.
- organizing the daily schedule so that children have large blocks of time to engage in and complete tasks and projects.
- designing the curriculum in response to children's interests.
- providing adequate supplies so that children have the resources they need to complete projects.



I. Approaches to Learning

This standard refers to the child's ability to identify questions to investigate and to figure out solutions for everyday problems. This ability is crucial for constructing knowledge as the child builds on his or her prior experiences and assimilates new information. It is how learners build a framework of understandings.

6. Uses problem-solving skills.

Indicators	**Examples** **The child ...**
a. Recognizes problems.	• states a personal problem (e.g., says, "I can't get my jacket zipped." or "I can't find the purple marker."). • anticipates the potential for problems (e.g., says, "If I climb too high, I won't be able to get down."). • recalls a previous problem (e.g., says, "I remember the last time we built the house – we had to put another block here to hold it up.").
b. Tries to solve problems.	• modifies actions based on new information and experiences (e.g., changes block structure when the tower continues to fall, moves during story time to see the book, puts on a sweater when it is cold). • changes behavior in response to another child or adult (e.g., comforts another child who is crying). • asks for help from another child or adults.
c. Works with others to solve problems.	• cooperates in making decisions with another child (e.g., plans with a peer to build a castle out of blocks, choose what game to play, or how to share materials such as toys or markers). • offers solutions to a conflict with another child. • takes turns (e.g., says, "Let's decide who goes first, second, third … .").

Teacher strategies to promote use of problem-solving skills include:

- designing curriculum based on children's interests.
- providing a variety of accessible materials for children to use as they engage in personally meaningful projects.
- using open-ended questions to support children's investigations and experiments (e.g., asking, "What could you use to make that ramp higher?" or "Is there another way to build this so that the bridge doesn't fall down?" or "Why do you think that happened?").
- providing opportunities for children to work together (i.e., in pairs or small groups).
- giving children choices in their activities and tasks.
- organizing the daily schedule so that children have sufficient time to pursue investigations and complete projects.
- reading stories aloud and asking children for their responses to situations depicted.
- engaging the children in playing group games, especially math games.
- holding class meetings and discussions to raise and resolve issues of concern.

ability to identify questions
to investigate and to figure out
solutions for everyday problems

Creating an Environment to Support Children's Social and Emotional Development

The classroom environment is a critical component in fostering children's social and emotional development. How the room is arranged, how routines and schedules are designed, how classroom rules are established and maintained — all of these elements contribute to building a strong learning community where children feel welcome, safe and eager to learn.

Room arrangements should include a large space for group meetings but also include spaces where small groups of children can work together as well as a quiet nook or corner (or two). Having a variety of accessible materials for children to use as well as a number of interesting "centers" or areas (such as a pretend-play or housekeeping area; a block area; a center for math games, manipulatives and puzzles; an art area) engages children's interest. Allowing children to choose their activities (while providing satisfying alternatives if something proves to be too popular) not only supports their learning but also helps reduce conflicts. Designing a schedule that allows children sufficient time to pursue their interests and arranging the room so that noisy areas are separated from quiet ones also helps ease management concerns. In addition, routines that involve children in maintaining their mutual space give them a sense of ownership and investment in their classroom community. Just as adults do, children thrive in an environment that they feel they have helped design to meet their needs — needs for privacy and companionship, engagement and rest — and where they feel safe and valued as a contributing member of a community.

Communicating With Parents/Families

Parents are, of course, our most important partners as we support the social and emotional development of the children in our care. Open, trusting and respectful communication with families is essential in order for the child to have a smooth transition between home and school. Sharing information about rules and routines, how conflicts are resolved and how issues are dealt with is very important, especially because every family will have its own way of dealing with discipline and other issues of concern. There are many resources for educators interested in communicating with families, particularly on these issues. Practical Parenting Partnerships and the Parents as Teachers Program are wonderful resources; contact your school district for more information about these exemplary programs.

Resources

Books:

Bailey, B. (2000). *Easy to love, difficult to discipline: The 7 basic skills for turning conflict into cooperation*. New York: William Morrow.

Bailey, B. (2000). *I love you rituals: Activities to build bonds and strengthen relationships with children* (rev. ed.). Oviedo, FL: Loving Guidance.

Bailey, B. (1997). *There's gotta be a better way: Discipline that works!* (Rev. ed.). Oviedo, FL: Loving Guidance.

Bredekamp, S., and Copple, C. (Eds.). *Developmentally appropriate practice in early childhood programs* (rev. ed.). Washington, DC: National Association for the Education of Young Children.

Bronson, M.B. (1995). *The right stuff for children birth to 8: Selecting play materials to support development*. Washington, DC: National Association for the Education of Young Children.

Carlsson-Paige, N., and Levin, D.E. (2000). *Before push comes to shove: Building conflict resolution skills with children*. St. Paul, MN: Redleaf Press.

Derman-Sparks, L., and the A.B.C. Task Force. (1989). *Anti-bias curriculum: Tools for empowering young children*. Washington, DC: National Association for the Education of Young Children.

DeVries, R., and Zan, B. (1994). *Moral classrooms, moral children*. New York: Teachers College Press.

Diffily, D., and Morrison, K. (Eds.). (1996). *Family-friendly communication for early childhood programs*. Washington, DC: National Association for the Education of Young Children.

Evans, B. (2002). *You can't come to my birthday party!: Conflict resolution with young children*. Ypsilanti, MI: High/Scope Press.

Feldman, J. (1995). *Transition time: Let's do something different!* Beltsville, MD: Gryphon House.

Gartrell, D.J. (2000). *What the kids said today: Using classroom conversations to become a better teacher*. St. Paul, MN: Redleaf Press.

Greenman, J. (1988). *Caring spaces, learning places: Children's environments that work*. Redmond, WA: Exchange Press.

Greenman, J. (1998). *Places for childhoods: Making quality happen in the real world*. Redmond, WA: Exchange Press.

Hopkins, S. (Ed.). (1999). *Hearing Everyone's Voice: Educating young children for peace and democratic community*. Redmond, WA: Exchange Press.

Isbell, R., and Exelby, B. (2001). *Early learning environments that work*. Beltsville, MD: Gryphon House.

Kamii, C., and DeVries, R. (1980). *Group games in early education: Implications of Piaget's theory*. Washington, DC: National Association for the Education of Young Children.

Katz, L.G., and McClellan, D.E. (1997). *Fostering children's social competence: The teachers's role*. Washington, DC: National Association for the Education of Young Children.

Kaiser, B. and Rasminsky, J.K. (1999). *Meeting the challenge: Effective strategies for challenging behaviours in early childhood environments*. Ottawa, Ontario: Canadian Child Care Federation.

MacDonald, S. (1996). *The portfolio and its use, book II: A road map for assessment*. Little Rock, AR: Southern Early Childhood Association.

Nelsen, J., and Erwin, E. (2002). *Positive discipline for childcare providers: A practical effective plan for every preschool and daycare program*. Roseville, CA: Prima Publications.

Schiller, P., and Bryant, T. (1998). *The values book: Teaching 16 basic values to young children*. Beltsville, MD: Gryphon House.

Stone, J.G. (2001). *Building classroom community: The early childhood teacher's role*. Washington, DC: National Association for the Education of Young Children.

Zavitkovsky, D., Baker, K.R., Berlfein, J.R., and Almy, M. (1986). *Listen to the children*. Washington, DC: National Association for the Education of Young Children.

Web Sites:

- Association for Childhood Education International: www.acei.org
- Center for Innovations in Education: education.missouri.edu/SPED/cise
- Children's Defense Fund: www.childrensdefense.org
- Connections Newsletters: www.canr.uconn.edu/ces/child
- Council for Exceptional Children, Division for Early Childhood: www.dec-sped.org/positionpapers.html
- Early Childhood Educators' and Family Web Corner: users.stargate.net/~cokids
- Early Childhood Education On Line: www.ume.maine.edu/eceol
- Earlychildhood NEWS: www.earlychildhoodnews.com
- ERIC/EECE Clearinghouse on Elementary and Early Childhood Education: ericeece.org/pubs/digests/2001/mcclel01.html
- Everything for Early Childhood Education Preschool-Grade 2: www.edupuppy.com
- Licensing of Child-Care Facilities in Missouri: www.dhss.mo.gov/childcare
- National Association for the Education of Young Children (NAEYC): www.naeyc.org
- National Child Care Information Center: www.nccic.org
- National Network for Child Care: www.nncc.org/Child.Dev/soc.emot.dev.5y6y.html
- PBS for Early Care Providers: www.pbs.org/wholechild/providers/index.html
- Project Construct National Center: www.projectconstruct.org
- Regents' Center for Early Developmental Education: www.uni.edu/coe/regentsctr/

Magazines:

- *The Buzz: Cool Ideas for Child Care Providers* (4 issues per year)
  Center for Innovations in Special Education
  152 Parkade Plaza, 601 Business Loop 70 W
  Columbia MO 65211-8020
  1-800-976-2473
- *Early Childhood News* (6 issues per year)
  330 Progress Road
  Dayton OH 45449
  1-800-607-4410
- *Scholastic Early Childhood Today* (8 issues per year)
  P.O. Box 54814
  Boulder CO 80322-4814
  1-800-544-2917
- *Young Children* (6 issues per year)
  National Association for the Education of Young Children (NAEYC)
  1509 16th Street, NW
  Washington DC 20036-2460
  1-800-424-2460

NAEYC Brochures for Parents: (see above address for ordering)

- *Helping children learn self-control: A guide to discipline* — No. 572
- *Love and learn: Positive guidance for young children* — (Honig, A.S.) No. 528
- *Play is FUNdamental* — (McCracken, J.B.) No. 576 (No. 566 in Spanish)
- *Ready to go: What parents should know about school readiness* — No. 554
- *So many goodbyes: Ways to ease the transition between home and groups for young children* — (McCracken, J.B.) No. 573
- *Teaching young children to resist bias: What parents can do* — (Derman-Sparks, L., Gutierrez, M., and Day, C.B.) No. 565 (No. 564 in Spanish)

Missouri Early Learning Standards for Literacy

Content Component	Process Standards
I. Symbolic Development	1. Represents feelings and ideas in a variety of ways.
II. Speaking/Expressive Language	1. Uses language to communicate. 2. Uses expanded vocabulary.
III. Listening/Receptive Language	1. Listens for different purposes.
IV. Reading	1. Applies early reading skills. 2. Uses concepts of print. 3. Attends to sounds in language. (Phonological Awareness)
V. Writing	1. Uses writing as a means of expression/communication.

All children actively seek to comprehend the world in which they live.

Organization

The standards cover the broad scope of early literacy development and are organized by:

I. **Content Component** — the specific content area to be addressed, such as written language or knowledge of print and books;
II. **Process Standards** — identifiable competencies or capabilities in the process of literacy development, such as attending to sounds in language or applying early reading skills;
III. **Indicators** — observable milestones in the development of competencies, such as using language to represent ideas and feelings or listening responsively to books and stories;
IV. **Examples** — specific behaviors children may exhibit in their literacy development.

This structure provides us with an accessible way to see how the standards fit into our curriculum and teaching practice.

Introduction for Teachers

This guide, along with the Parents' Guide, is a companion piece to the *Missouri Early Learning Standards for Literacy*. It is intended for all adults who work with preschool age children and their families- teachers, caregivers, and/or parent educators. The guide is designed to provide an explanation of the standards and contains practical suggestions for creating engaging, developmentally appropriate learning communities where each child's literacy development is fostered.

Why is it important to have standards for early literacy? In Missouri, the Outstanding Schools Act of 1993 called together a group of master teachers, parents, and policy makers from around the state. The Show-Me Standards were the result of that group's work. Those standards are designed for students in kindergarten through grade 12 and serve to ensure that graduates of Missouri's public schools have the knowledge, skills, and competencies to lead productive, fulfilling, and successful lives. However, we all realize that the foundations for learning are laid well before a child enters kindergarten! In fact, research tells us that the pre-kindergarten years provide crucial opportunities for educators and caregivers to influence children's growth and development. If our goal is that every child enter kindergarten ready to learn and succeed, pre-kindergarten educational standards can provide us with shared understandings about the competencies critical for this to occur. In addition, early learning standards provide a direct link to the Show-Me Standards, so we know that we are preparing children for the high expectations they will encounter as they progress through school.

To this end, the *Missouri Early Learning Standards for Literacy* describe what most children should know and be able to do in the area of literacy by the time they enter kindergarten. They represent a shared set of expectations for preschool children, expectations developed by drawing upon current research about how young children learn. It is important to keep in mind, however, that children learn and develop in their own unique ways. While research demonstrates that these standards are appropriate for most children who are about to enter kindergarten, our responsibility as educators is to assess where each child is on the literacy continuum and build on what that child knows and can do.

Ongoing, observational assessment is thus a key element in supporting children's early literacy development. This guide will illustrate some indicators that teachers can reliably assess to show each child's progress over time. This data can be used to plan meaningful, engaging learning experiences that both promote literacy development and a love for reading and writing. In addition, you will find information about creating literacy-rich environments and partnering with parents and families to promote literacy and an enthusiasm for learning. A list of helpful resources is included as well.

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I. Symbolic Development

This standard refers to the child's ability to interpret, create and use symbols to represent something (an idea, a feeling, or an object) that is not present. The capacity for symbolic development is integral to literacy, although some adults mistakenly assume that symbolic activities are less critical to a child's development than language activities. It is through symbolic expression that the young child's imagination and abilities to communicate ideas and feelings flourish. It provides the child with the means for representing what they know about their world, as well as for thinking about imaginary and real-life situations.

1. Represents feelings and ideas in a variety of ways.

Indicators	**Examples** **The child ...**
a. Represents feelings and ideas through pretend play.	• pretends to be a firefighter, doctor, mother, father, etc. • cooperates during play with others (e.g., children work together to build a castle with blocks). • creates play themes with others (e.g., "I'll be the mommy, you are the baby, and we'll go shopping). • attaches emotion to pretend play.
b. Represents feelings and ideas through movement.	• pretends to move, run, jump, crawl, hop, skate, etc., like an elephant, airplane, dancer, bird, etc. • expresses his/her feelings through movement (e.g., jumps with excitement, stomping feet in frustration).
c. Represents feelings and ideas through music.	• responds to different kinds of music (e.g., marches to music, relaxes to soft music). • joins in singing favorite songs, saying rhymes, finger plays, etc. • creates music and songs (e.g., changes words to familiar tune, plays pretend instruments).
d. Represents feelings and ideas through art and construction.	• draws or paints pictures and tells others about his/her pictures. • builds with blocks, Lego's, tinker toys, etc., and says, "I made a castle." • responds to others when asked to tell about a construction or a drawing.

interpret, create and use symbols to
represent something that is not present

Teacher strategies to promote children's symbolic development include:

- allowing enough time and space for make believe play.
- providing prop boxes and/or props in general for pretend play.
- developing theme units with supporting materials.
- acting out familiar stories as a group and/or providing props so that children can "retell" favorite stories on their own.
- providing a well-equipped play area.
- providing puppets, realistic animal and people figures in the block area.
- having a supply of recyclables accessible to children so they can create their own props.
- allowing enough time and space for movement activities.
- incorporating movement activities into the daily schedule.
- presenting invitations, or posing open-ended problems, instead of giving directions to act or move in a certain way.
- incorporating music/singing together into the daily schedule.
- providing a variety of instruments for children to play.
- providing materials for children to create their own instruments.
- playing rhythmic pattern games (e.g., clapping games).
- equipping listening center with a variety of tapes and headphones.
- using music and/or songs to signal transitions.
- allowing enough time and space for children to build/construct with materials, as well as for art exploration.
- allowing children to explore and create with art materials, rather than engage in craft projects designed to produce identical products.
- providing a variety of paper, poster board, art supplies, paints, markers, as well as a supply of clay, etc., organized so they are freely accessible to children.
- providing a variety of blocks, rollers, Lego's, etc., organized so that they are freely accessible to children.

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II. Speaking/Expressive Language

These standards refer to the child's ability to express him/herself using language. Children learn how language works by actively and purposefully interacting with other people and the environment. They operate under the assumption that language is orderly and they try out various alternatives in an attempt to discover that order. In the process of teaching themselves how spoken language works, children construct their own rules, based on their understanding of adult speech. For example, a child might say "foots" instead of "feet" as they experiment with spoken language. As they have more opportunities to express themselves, they increase their understanding of how language works by building on what they already know and revising their theories of how language operates.

1. Uses language to communicate.

Indicators	**Examples** **The child ...**
a. Communicates in home language and is understood by others.	• uses English, Spanish, sign, or other native language for a variety of purposes. • communicates personal needs, preferences, and feelings.
b. Initiates and responds appropriately in conversation and discussions with adults and children.	• responds to how others feel and expresses concern. • shares information and gives directions, especially during play. • engages in turn-taking conversations. • asks why, what, when, where questions.

2. Uses expanded vocabulary.

Indicators	**Examples** **The child ...**
a. Uses language to pretend or create.	• pretends with words or actions to be a story/television character. • makes up rhymes of songs. • tells real or make believe stories. • tells and laughs at exaggerated stories.
b. Uses complete sentences of varying length.	• uses descriptive language (e.g., color words, sizes, shapes). • acquires new vocabulary. • asks and answers questions for information. • uses new vocabulary during play.

Teacher strategies to promote children's speaking/expressive language include:

- providing time for student-initiated talk on matters important to them.
- encouraging peer interactions throughout the day.
- introducing topics at circle time that encourage children's verbal participation.
- holding class meetings to resolve conflicts, make grocery lists, vote, etc.
- modeling how to ask and answer questions.
- singing "open-ended" songs that children can supply words for.
- reading and discussing stories with a small (2-3) group of children.
- providing opportunities/materials to introduce new words in a way that's meaningful for children (e.g., "Yes, that is a bug and it's called a spider.").

III. Listening/Receptive Language

This standard refers to the child's ability to give attention to and understand language. Speaking and listening are interactive processes and as children build their capacity to listen attentively, they increase their understanding of how people communicate with each other.

1. Listens for different purposes.

Indicators	Examples The child ...
a. Follows simple directions.	• follows 2-step directions, "Put away your crayons and go to the door." • follows 3-step directions, "Pick up your toys, brush your teeth, and put on your green shirt."
b. Listens responsively to books and stories.	• responds to books and stories with facial and body gestures (smiling, laughing, etc.). • responds verbally to the story or text.
c. Listens to and engages in conversations with others.	• responds appropriately to the words of another in an exchange of ideas, comments, or questions.
d. Responds to questions.	• answers simple questions (e.g., "What would you do if you fell off your bike and hurt your knee?").

Teacher strategies to promote children's listening/receptive language include:

- reading aloud often
- providing opportunities for children to interact with peers throughout the day
- providing opportunities for asking and answering questions
- engaging children in one-on-one conversations

speaking and listening are interactive processes

IV. Reading

This standard refers to the child's increasing ability to recognize and understand print and books. Children notice that readers respond to signs and directions, consult recipes, pour over newspapers, or relax with novels. They have a great interest in being read to and in printed text. For example, children will ask, "what is that word?" or "what does that say?" They often memorize favorite stories and spend time "reading" to themselves, or picking out words that they know. They are constructing the understanding that print/books conveys meaning.

As children begin to learn how language works, they start to make the connection that there are specific sounds associated with the language they speak and the environment they live in. They explore sound patterns and rhymes, and begin to notice that inflections (changes in a speaker's pitch or loudness) can hold meaning. In the course of their explorations, they discover the letter/sound connection as well — a crucial building block for literacy.

1. Applies early reading skills.

Indicators	**Examples** **The child ...**
a. Shows interest in reading and books.	• recognizes and frequently requests favorite book(s). • chooses to "read" or look at books. • responds to and talks about the pictures in books.
b. Exhibits book-handling skills.	• holds a book upright and turns pages in the book, front to back. • begins to scan pages from top to bottom and left to right. • knows a book is for "reading."
c. Pretends to read easy or predictable books or tries to read along during his/her favorite part of story.	• joins in with predictable phrases (e.g., "Run, run, as fast as you can. You can't catch me, I'm the Gingerbread Man"). • uses pictures and/or context to construct meaning. • may "read" beginning books, wordless books, familiar rhyming books, and/or predictable books by recreating the story from memory and/or picture cues.
d. Comprehends and responds to text.	• identifies known objects in illustrations. • talks about or expresses emotion in reaction to text. • makes predictions and may use the pictures as a guide (e.g., "I bet he is going to fall."). • uses the voice of a character (e.g., "Reads" text like "I'm the Mean Old Troll.").
e. Develops a sense of story.	• tells a story from pictures. • recognizes variations in retelling of stories. • predicts outcomes of stories. • tells stories with beginnings, middles, and ends. • dictates stories for others to write down. • tells stories based on personal experiences, imagination, dreams, and/or stories from books. • recalls information about settings, characters, events in a story.

IV. Reading

2. Uses concepts of print.

Indicators	Examples The child ...
a. Reads environmental print and symbols.	• recognizes fast food and store signs (e.g., McDonald's, K-Mart). • recognizes product logos (e.g., Cheerios, Barbie, Lego's). • recognizes environmental signs (e.g., STOP, MEN, WOMEN, EXIT).
b. Identifies some alphabet letters.	• identifies some letters in his/her name. • may identify letters in other personally significant words (e.g., "c" for cookie, "d" for dog, "m" for mom).
c. Recognizes that print represents spoken words.	• recognizes first name in print. • knows that the label "chair" on a chair means chair. • looks at words on the page of a book and "reads" the story. • recognizes that a letter is different from a word.

Reads environmental print and symbols.

IV. Reading

3. Attends to sounds in language. (Phonological Awareness)

Indicators	Examples The child ...
a. Repeats rhymes, simple songs, poems and finger plays.	• says or sings nursery rhymes such as Humpty Dumpty. • sings simple songs such as Twinkle Twinkle Little Star. • says poems and finger plays such as Itsy Bitsy Spider.
b. Participates in word games.	• claps along with syllables of words (e.g., claps names and rhythms). • creates words by substituting one sound for another (e.g., "I like to eat…Apples and Bananas, Opples and Bononos" "Willoby, Wallaby, Woo"). • participates in rhyming games (e.g., going on a bear hunt and find something that rhymes with sock).
c. Discriminates some sounds in words.	• attends to books that focus on specific sounds (e.g., JAMBERRY, FOX IN SOCKS, WHO'S IN THE SHED). • perceives differences between similar sounding words (e.g., coat and goat, three and free). • experiments with language sounds (like sssssssssnake, hisssssssss, buzzzzzzzzzz). • attends to some beginning sounds in familiar words (i.e., "That word begins like my name, David, dog."). • plays with repetitive sounds (e.g., snakes slither, John Jacob Jingle Himer Schmitt).

Teacher strategies to help children apply early reading skills include:

- reading aloud daily.
- using name cards in various ways (for labeling cubbies, on the helper schedule, taking attendance, etc.).
- using predictable and big books regularly and repetitively.
- encouraging children to respond to stories by asking open-ended questions and/or engaging them in conversations about the story.
- keeping copies of predictable favorites in the class library all year long.
- engaging the children in choral reading.
- reading the same book multiple times, using a variety of techniques.
- pointing to words, left to right, when reading; modeling how to turn pages.
- reading a story in a small group, letting each child follow in his/her own copy of the book.
- having a quiet "reading" time built in to the daily schedule.
- using labels and encouraging awareness of labeling and environmental print.
- providing library time and a means for checking out books to read and/or take home.
- providing a variety of accessible printed materials to explore and pretend with.
- organizing a reading center/area with an adequate supply of books (7-10 per child), pillows, etc., where children can choose books to read quietly and comfortably.
- writing class books together to keep in the class library and which can be checked out to take home and share with families.
- playing word games such as The Name Game Song.
- involving children in learning lots of songs, fingerplays, and nursery rhymes.
- singing call-and-response songs (e.g., as found on Thomas Moore or Ella Jenkins recordings).
- learning poems to say/chant aloud.
- playing sound/listening games such as "Find the Hidden Sound" and identify the sound.

V. Writing

This standard refers to the child's increasing ability to understand that graphic symbols (i.e., print, handwriting) are meaningful and can be used to communicate with others. Children notice that writers jot down notes, compose letters, make lists, take and send messages. They are very interested in all kinds of writing tools. Children begin to explore written language by writing various curves, angles, or scribbles. As they learn more about how language works, children start to understand that our writing system is based on letters representing speech sounds.

1. Uses writing as a means of expression/communication.

Indicators	Examples The child ...
a. Experiments with writing tools and materials.	• shows beginning control of writing, drawing, and art tools (e.g., uses a paint brush, pencil or marker with a functional grasp, uses dry-erase markers or chalk on board, uses tools for play-dough).
b. Uses scribbles, shapes, pictures and letters to write.	• scribbles letter-like symbols and some letters in writing. • writes something and then asks someone else to read it. • attempts to write for a variety of purposes (e.g., lists, messages, stories). • writes as part of play (e.g., the child says, "This is my grocery list.").
c. Tells others about intended meaning of drawings and writings.	• uses writing to communicate ideas and information. • says to a friend, during pretend play, "I am giving you a ticket, you are going too fast." • uses symbols or drawings to express thoughts, feelings, and ideas. Child may draw or "write" about an experience.
d. Uses a variety of resources to facilitate writing.	• may ask others for help in writing. • attempts to copy letters or words from the environment (e.g., cereal box, names, public signs, logos, books, etc.).

Teacher strategies to promote children's writing include:

- supplying a variety of freely accessible supplies for writing (markers, pencils, chalk, many kinds of paper, labels, envelopes, notepads, dry marker boards, magnetic letters, etc.).
- providing easels for painting, drawing, writing.
- organizing a writing center with many writing tools.
- providing journals and time for writing.
- making many opportunities for children to write for meaningful purposes, such as sign-up sheets for turn-taking, thank you letters, signs, lists.
- writing daily news.
- composing classroom books together.
- supplying all centers/areas with writing tools and/or props such as blank receipts, invoices, etc.
- asking children to describe their drawings and writing the words they dictate. Read the words back.

Experiments with writing tools and materials.

Creating a Learning Environment to Support Literacy

One of the keys to building a literacy-rich environment is to have an adequate supply of books and writing materials. A good guideline is to have at least 7-10 books per child. There should be a variety of genres represented: stories, picture books, predictable books, wordless books, nonfiction, poetry…big books are very important as well. In addition to setting up a reading center, or book corner, a listening station, and a writing center, distributing appropriate books and writing materials in all areas of the room encourages children to incorporate literacy activities throughout their day. Books and materials should be accessible to the children, arranged on low shelves or in baskets. Comfy spots for reading and spaces for writing, painting, and drawing all contribute to making an environment where children can learn to love reading and writing!

making an environment where children can learn to love reading and writing!

Involving Parents/Families

Parents/families are important partners in promoting young children's early literacy development. Encouraging parents/family members to read daily to their children, and to converse about what they read, is an obvious place to start. Inviting families to create books of environmental print together, or to take their child to a library frequently, are also good ways to show parents how to support literacy. There are many resources for educators interested in involving parents in literacy development, some of which are included below. The Parents As Teachers program is also an invaluable resource; contact your school district for more information about this exemplary program.

Resources

Books

Bishop, A, Yopp, R.H., & Yopp, H.K. (2000). *Ready for Reading: A handbook for parents of preschoolers.* Boston: Allyn and Bacon.

Bredekamp, S., & Rosegrant, T. (Eds.). (1995). *Reaching potentials: Vol. 2. Transforming early childhood curriculum and assessment.* Washington, DC: National Association for the Education of Young Children.

Burns, M.S., & Snow, C.E. (1999). *Starting out right: A guide to promoting children's reading success.* Washington, DC: National Academy Press.

Campbell, R (Ed.). (1998). *Facilitating preschool literacy.* Newark, DE: International Reading Association.

Engel, B. S. (1995). *Considering children's art: Why and how to value their works.* Washington, DC: National Association for the Education of Young Children.

Hirsch, E. S. (1995). *The block book* (3rd ed). Washington, DC: National Association for the Education of Young Children.

Leonard, A. M. (1997). *I spy something: A practical guide to classroom observations of young children.* Little Rock, AR: Southern Early Childhood Association.

MacDonald, S. (1997). *The portfolio and its use: A road map for assessment.* Little Rock, AR: Southern Early Childhood Association.

MacDonald, D. T. (1979). *Music in our lives: The early years.* Washington, DC: National Association for the Education of Young Children.

Moomaw, S. (1997). *More than singing: Discovering music in preschool and kindergarten.* St. Paul, MN: Redleaf Press.

Moomaw, S., & Hieronymus, B. (1999). *More than painting: Exploring the wonders of art for preschool and kindergarten.* St. Paul, MN: Redleaf Press.

Neuman, S.B., Copple, C., & Bredekamp, S. (2000). *Learning to read and write: Developmentally appropriate practices for young children.* Washington, DC: National Association for the Education of Young Children.

Owocki, G. (1999). *Literacy through play.* Portsmouth, NH: Heinemann.

Owocki, G.(2001). *Make way for Literacy!: Teaching the way young children learn.* Washington, DC: National Association for the Education of Young Children.

Paley, V. G. (1998). *The girl with the brown crayon.* Boston, MA: Harvard Press.

Schickendanz, J. A. (1999). *Much more than the ABCs: The early stages of reading and writing.* Washington, DC: National Association for the Education of Young Children.

Skeen, P., Garner, A. P., & Cartwright, S. (1984). *Woodworking for young children.* Washington, DC: National Association for the Education of Young Children.

Strickland, D. S., & Morrow, L. M. (Eds.). (1989). *Emerging literacy: Young children learn to read and write.* Newark, DE: International Reading Association.

Sullivan, M. (1982). *Feeling strong, feeling free: Movement exploration for young children.* Washington, DC: National Association for the Education of Young Children.

Trelease, J. (2001). *The read aloud handbook.* (5th Ed.) NY: Penguin.

Web Sites

Association for Childhood Education International: http://www.udel.edu/bateman/acei/
Center for the Improvement of Early Reading Achievement (CIERA): http://www.ciera.org
Children's Defense Fund: http://www.childrensdefense.org/
Connections Newsletters: http://fcs.tamv.edu/families/child_care/connections_newsletters.php
Early Childhood Education on Line: http://www.umaine.edu/eceol/
Early Childhood Educators' and Family Web Corner: http://users.stargate.net/~cokids/
Early Childhood News: http://www.earlychildhood.com
Everything for Early Childhood Education Preschool-Grade 2: http://www.edupuppy.com/
Helping Your Child Become a Reader: http://www.ed.gov/pubs/parents/Reader/index.html
Licensing of Child Care Facilities in Missouri: http://www.health.state.mo.us/
National Association for Family Child Care: http://www.nafcc.org
National Child Care Information Center: http://ericps.crc.uiuc.edu/nccic/cctopics.html
National Literacy Center for Family Literacy Publications: http://www.famlit.org
"On-Lion" for Kids: http://www2.nypl.org/home/branch/kids/
Poems for children: http://www.firsteps.com/Lessons/shortsweet20.htm
Songs for children: http://www.kididdles.com/mouseum/index.html

Magazines and Newsletters

The Buzz: Cool Ideas for Child Care Providers (4 issues per year)
Center for Innovations in Special Education
152 Parkade Plaza, 601 Business Loop 70 W
Columbia, MO 65211-8020
(800) 976-2473

Early Childhood News (6 issues per year)
P. O. Box 608
Vandalia, OH 54377
(800) 607-4410

Scholastic Early Childhood Today (8 issues per year)
P.O. Box 54814
Boulder, CO 80322-4814
(800) 544-2917

Young Children (6 issues per year)
National Association for the Education of Young Children (NAEYC)
1509 16th Street, NW
Washington, DC 20036-2460
(800) 424-2460

Brochures

NAEYC Brochures for Parents:
[For ordering information, call (800) 424-2460.]
Play is Fundamental. (McCracken, J. B.) #576
Raising a Reader, Raising a Writer: How Parents Can Help #530
Books to Grow On: African American Literature for Young Children #568

International Reading Association Brochures for Parents:
[For ordering information, call (800) 336-READ.]
Beginning Literacy and Your Child # 1028-553
Get Ready to Read # 1017-836
Make the Reading-Writing Connection #1038-836

Missouri Early Learning Standards for Physical Development, Health and Safety

Content Component	Process Standards
I. Physical Development	1. Uses gross motor skills with purpose and coordination. 2. Uses fine motor skills with purpose and control. 3. Responds to sensory input to function in the environment.
II. Health	1. Practices healthy behaviors.
III. Safety	1. Practices safe behaviors.

children flourish in a learning community where they can directly act on objects and interact with people

Organization

The standards cover the broad scope of child development and are organized by:

I. **Content Component** — the specific content area to be addressed, such as physical development, health or safety.

II. **Process Standards** — identifiable competencies or capabilities in the process of physical development, health and safety, such as using fine motor skills with purpose and control or practicing healthy behaviors.

III. **Indicators** — observable milestones in the development of competencies, such as controlling body movements and showing independence in personal hygiene.

IV. **Examples** — specific behaviors children may exhibit in their development such as balancing on one foot or engaging in active play.

This structure provides us with an accessible way to see how the standards fit into our curriculum and teaching practices.

Introduction for Teachers

This guide, along with the *Parent Handbook*, is a companion piece to the *Missouri Early Learning Standards for Physical Development, Health and Safety*. It is intended for all adults who work with preschool-age children and their families — teachers, caregivers and/or parent educators. The guide explains the standards and contains practical suggestions for creating engaging, developmentally appropriate learning communities where each child's physical development, health and safety is fostered.

Why is it important to have such standards? In Missouri, the Outstanding Schools Act of 1993 called together a group of master teachers, parents and policy-makers from around the state. The Show-Me Standards were the result of that group's work. Those standards are designed for students in kindergarten through grade 12 and serve to ensure that graduates of Missouri's public schools have the knowledge, skills and competencies to lead productive, fulfilling and successful lives.

However, we all realize that the foundations for learning are laid well before a child enters kindergarten. Research tells us that the early years provide crucial opportunities for educators and caregivers to influence children's growth and development. If our goal is that every child enter kindergarten ready to learn and succeed, pre-kindergarten educational standards can provide us with shared understandings about the competencies critical for this to occur. In addition, pre-K standards provide a direct link to the Show-Me Standards, so we know that we are preparing children for the high expectations they will encounter as they progress through school.

To this end, the *Missouri Early Learning Standards for Physical Development, Health and Safety* describe the competencies most children should demonstrate by the time they enter kindergarten. They represent a shared set of expectations for preschool children that were developed by drawing upon current research about how young children develop and learn. It is important to keep in mind, however, that children develop and learn in their own unique ways. While research demonstrates that these standards are appropriate for most children who are about to enter kindergarten, our responsibility as educators is to assess where each child is on the developmental continuum and build on what that child knows and can do.

Educators can determine this only through ongoing observational assessment. This guide illustrates some indicators that teachers can reliably assess to show each child's progress over time. This data can be used to plan meaningful, engaging learning experiences that promote both physical development, health and safety and active, sustainable learning communities. You will also find information about creating supportive environments and partnering with parents and families to promote safe, healthy, active living and an enthusiasm for learning. A list of helpful resources is included.

(b)(6)

I. Physical Development

Children love to move and physically explore their environments. This standard refers to children's abilities to manipulate their bodies and large muscles in increasingly purposeful and skillful ways.

1. Uses gross motor skills with purpose and coordination.

Indicators	Examples The child ...
a. Moves from one point to another.	• walks, runs, jumps, gallops and hops on one foot.
b. Controls body movements.	• bends, stretches, turns and twists body parts. • rolls body in one direction. • "stops" or "freezes" then changes directions while playing a game. • balances on one foot (on a balance beam or variety of surfaces).
c. Uses large muscle movements to manipulate objects.	• bats at a ball or balloon with hands or equipment. • throws, kicks, bounces and catches a ball. • rides a tricycle/bicycle or wheeled toy with pedals.

Teacher strategies to promote children's gross motor skills include:

- providing ample time and space for vigorous outdoor and indoor play.
- supplying a variety of playground equipment (e.g., swings, slides, climbing structures, tricycles, wagons, large blocks) for children to actively explore. For safety reasons, playground surfaces should be "soft" (i.e., composed of loose fill such as mulch or pea gravel or with rubber-like material).
- supplying a variety of indoor equipment (e.g., balance boards, large blocks, large foam wedges, ramps, crawl-through shapes, hoops, balls, foam or plastic bats, paddles) for play that increases gross motor skills.
- constructing a mini obstacle course (e.g., with blocks, ramps, balance beams, crawl-through shapes) for children to negotiate.
- providing space and equipment (e.g., pendulums, beanbag targets, plastic bowling balls and pins) for aiming activities.
- engaging children in activities that involve gross motor skills such as imitating the movements of insects (e.g., butterflies, beetles) or animals (e.g., elephants, lions, puppies).
- scheduling daily opportunities for movement experiences in addition to indoor and/or outdoor free play. These experiences need not be whole group activities; they may be short (5- to 10-minute) activities, arranged in various "stations" around the classroom or playground, that children may choose to participate in according to their interests and skill levels.
- planning movement experiences that allow children to participate according to their abilities (e.g., encouraging children to jump as high as they can or to dance expressively to music). These activities should be open-ended and experimental rather than competitive.
- adapting play equipment and the classroom environment so that all children, including those with special needs, can participate in movement experiences.
- engaging the children in movement activities accompanied by music or to a rhythm (e.g., marching, dancing, clapping, stomping, swaying).

plan movement experiences that allow children to participate according to their abilities

I. Physical Development

During the preschool years, children begin to build their fine motor skills and their hand strength. Individual children at this age exhibit a wide range of abilities with regard to fine motor skills. However, fine motor activities can be a source of frustration if children are directed to perform tasks (e.g., practicing writing letters and numbers for extended periods) that they are not ready for developmentally. Rather, supporting children's fine motor skill development during the preschool years should focus on providing children with materials to explore and manipulate during play or through open-ended learning experiences such as sorting or art activities. As children engage in these activities, they build the fine motor skills they will need in kindergarten for handwriting, etc.

2. Uses fine motor skills with purpose and control.

Indicators	Examples The child ...
a. Performs fine motor tasks.	• squeezes wet sponges, a glue bottle or a catsup bottle. • works with play dough or molds clay. • uses hands and fingers to open clothespins, uses staplers, uses a paper punch, etc.
b. Uses fingers and hands to accomplish fine motor tasks.	• fastens buttons, zips zippers, fastens fasteners or snaps snaps on clothing. • strings beads, macaroni or "O"-shaped cereal. • sorts small shapes in a shape sorter. • builds with small connecting blocks. • laces shoes or lacing cards. • holds paper with one hand and cuts with the other.
c. Uses tools in a functional manner.	• uses paintbrushes, scissors and eating utensils. • holds writing tools with fingers to draw or write. • uses woodworking tools with supervision (e.g., hammer, saw).
d. Exhibits coordination of facial muscles.	• attempts to wink an eye. • blows bubbles through a bubble wand or blows out candles. • tries to whistle. • imitates or makes silly faces. • speaks clearly.

Teacher strategies to support children's development of fine motor skills include:

- arranging the daily schedule so that children have sufficient time to deeply engage in activities. Teachers should also model activities, invite children to try new activities and engage in play with the children.
- supplying the math center with various manipulatives and engaging the children in sorting and/or counting activities.
- arranging a well-equipped writing center (e.g., with pencils, alphabet letters, staplers, tape, different-sized markers, various kinds of paper including notepads, receipts or order forms) where children can explore and experiment with writing.
- setting up a woodworking or construction area with various tools for the children to work with under supervision.
- supplying a sand and/or water table with various pieces of equipment (e.g., measuring cups, funnels, scales, scoops, sponges) for the children to use.
- providing a well-equipped art area and plenty of opportunities for children to experiment with art materials (e.g., paint, play dough, scissors, glue, materials to make collages). The focus should be on children making their own creations rather than assembling teacher-made "crafts." In this way, children have the opportunity to express themselves and solve problems; in addition, they are not so concerned with something not looking "the same" as everyone else's, which is an expectation that can lead to frustration.
- providing a game and/or puzzle center.
- arranging a well-equipped block area, out of the way of classroom traffic, with enough space for children to build substantial projects. Placing this area near the dramatic play area can also encourage more complex play.
- supplying the classroom computer with appropriate software for the children to explore.
- serving snacks or meals "family style" so that children have the opportunity to pour their own drinks, serve themselves and use eating utensils.
- engaging the children in finger plays, songs, rhythm activities and stories that involve movement, making faces, imitating animals, etc.
- supporting children's efforts to dress themselves, brush their teeth, clean up, etc.

I. Physical Development

This standard refers to the child's ability to take in information from the environment through his senses. Children need to develop their perceptual abilities (e.g., touch, taste, sight, smell, hearing) and learn to interpret and integrate this sensory information. This will help children develop a sense of how their bodies relate to others and the physical environment. As their sensory awareness becomes more refined, they will exhibit their own preferences and learn important safety concepts.

3. Responds to sensory input to function in the environment.

Indicators	**Examples** **The child ...**
a. Exhibits sensory awareness.	**Touch** • identifies hidden objects in a "feely" bag by touch. • participates in messy play activities (e.g., finger painting, working with clay or play dough). **Hearing** • follows verbal directions while playing games such as Simon Says. • responds to environmental sounds (e.g., attends when name is called, investigates unusual noises such as a siren or breaking glass). **Sight** • finds details in illustrations in books (e.g., *I Spy, Each Peach Pear Plum, Where's Waldo?*). • arranges objects by color, size, texture and/or shape. • aims a ball or beanbag at a target. • follows a line with a finger or pencil. **Smell** • says, "This marker smells likes grapes." • says, "I smell the popcorn." **Taste** • licks ice cream on a cone. • remarks that a food tastes good.
b. Exhibits body awareness.	• identifies body parts through finger plays and songs (e.g., *Hokey Pokey; Head, Shoulders, Knees and Toes; Where Is Thumbkin?*). • creates different shapes with his body (e.g., makes a circle with fingers, makes a bridge with another child). • imitates animals with movement of body parts (e.g., uses arms for wings, slithers like a snake).
c. Exhibits spatial awareness.	• moves body forward, backward, sideways, up, down. • plays games involving movement and directions (e.g., Duck, Duck, Goose; Tag; Hide and Seek; Mother, May I?). • moves through a room without bumping into people or furniture. • negotiates an obstacle course. • puts puzzles together or fits blocks into a defined space.
d. Exhibits temporal awareness.	• moves his body to a rhythm (e.g., clapping, stomping, swaying, marching). • adjusts body movements to the tempo (e.g., fast, slow, start, stop). • kicks a rolling ball. • catches a ball. • follows a sequence or pattern in songs or finger plays (e.g., *B-I-N-G-O; The Itsy, Bitsy Spider; Where Is Thumbkin?*).

Teacher strategies to support development of sensory awareness include:

- providing a sensory table stocked with various materials to explore, and regularly exchanging the materials and introducing new ones.
- engaging children in singing, rhyming or other word games that focus on language sounds.
- encouraging children to investigate and imitate sounds in the environment.
- providing children with opportunities to play with musical instruments or to make their own instruments with objects in the environment.
- asking children to find details in book illustrations during story time.
- providing children with opportunities to make collections and sort and classify objects by color, size, shape, etc.
- engaging children in aiming games (e.g., throwing beanbags at a target, playing ring toss, bowling).
- encouraging children to identify smells (e.g., examining different fruits and discussing their smells; playing a guessing game to identify items by smell).
- introducing cooking experiences into the classroom so children can touch, taste and smell various kinds of food.
- conducting talks about food preferences (i.e., tastes they like or dislike).
- playing games that involve naming or using parts of the body.
- engaging children together in music and movement experiences so that they can develop a sense of how their bodies move in relation to others.
- engaging children in outdoor games that involve equipment (e.g., bouncing balls, hitting a ball with a bat) and movement experiences where they toss and catch things (e.g., scarves, balls, feathers).
- creating a small obstacle course for children to explore; the course could include objects to walk over, climb on or crawl through.
- engaging children in rhythm games or games where they need to follow directions or perform a sequence of movements.

II. Health

Children don't necessarily develop healthy behaviors on their own. Rather, these behaviors need to be taught and supported by caring adults. This standard reflects behaviors we would like to see in preschool children and goals we can work toward in our programs.

1. Practices healthy behaviors.

Indicators	Examples The child ...
a. Shows independence in personal hygiene.	• manages toileting. • washes and dries hands. • covers nose and mouth when sneezing. • uses a tissue.
b. Chooses to participate in daily physical activity.	• plays on/with outdoor equipment (e.g., slides, balls, wheeled toys). • engages in active play (e.g., running, jumping, chasing, moving to music, playing with pets). • goes on walks with family members. • joins in indoor or outdoor games (e.g., musical games, Tag, Drop the Handkerchief).
c. Exhibits body strength and endurance.	• climbs a ladder on the slide. • pours liquid from a small pitcher. • maintains her hold while hanging from a bar. • engages in activities such as duck walks, crab walks, frog leaps, bear walks or wheelbarrow walks.

Teacher strategies to support the development of healthy behaviors include:

- modeling hygienic behaviors and giving simple explanations of why we do them (e.g., saying, "I always wash my hands before I eat because I don't want to get germs in my food.").
- making sure the classroom is adequately supplied with tissues, toilet paper, paper towels, etc., and that these items are accessible to children.
- demonstrating sensitivity to children's needs for toileting and having a toileting routine that allows for children's independence and self-regulation.
- showing enthusiasm for daily physical activity and engaging with the children in active play.
- fitting in daily periods of vigorous indoor and outdoor play.
- engaging children in conversations about healthy behaviors and their importance.

III. Safety

Like healthy behaviors, safe behaviors need to be taught and supported by adults. It is our responsibility as adults with children in our care to make sure that the environment is safe and that children are taught basic procedures to keep themselves from harm. The following indicators describe behaviors we would like to see preschoolers exhibit with the guidance of caring adults.

1. Practices safe behaviors.

Indicators	Examples The child ...
a. Listens to and follows adult directions during emergencies.	• participates in emergency drills (e.g., fire, intruders, natural disasters) at school and home.
b. Follows vehicle, street and public safety.	• uses appropriate car restraints. • stays with an adult when crossing the street, in parking lots and/or in public places. • practices bike safety (e.g., wears a helmet, rides in a safe place). • stays away from machinery (e.g., lawn mower, power tools, farm equipment).
c. Recognizes personal danger.	• knows that objects such as weapons, syringes, matches, etc., can be dangerous and should not be touched. • displays caution around water, fire, unsafe heights and unfamiliar people or animals. • knows not to eat unknown substances such as medicines, poisons, household cleaners, etc.
d. Knows how and when to seek help.	• asks an adult for help when made to feel uncomfortable or unsafe by another person. • calls for help during emergencies (e.g., shouts for an adult, asks an adult for help in an emergency, calls 9-1-1). • recognizes trusted adults (e.g., police officers, firefighters).

Teacher strategies to promote safe behaviors in children include:

- modeling and discussing the importance of safe behaviors (e.g., saying, "I always wear my seat belt when I'm in the car. Why do you think that's important?").
- regularly conducting emergency drills and fire drills with the children regularly and making sure they are familiar with emergency procedures.
- reading stories to the children that involve safety issues and/or the roles of police officers, firefighters, etc., and discussing these issues with the children.
- inviting police officers, firefighters, animal control personnel and/or veterinarians into the classroom to explain their roles.
- teaching children basic safety procedures (e.g., how to call for help; not to touch sharp objects, weapons or syringes; what to do if an adult makes them uncomfortable) and role playing these procedures with them.
- including items (e.g., hard hats, bike helmets, doll car seats) that reflect safe behaviors or roles in the pretend-play area.
- teaching children the basic symbols (e.g., poison symbol, EXIT sign) for danger and safety.

read stories to the children that involve safety issues or the roles of police officers and firefighters

Creating an Environment That Promotes Physical Development, Health and Safety

Physical Development

It is important to recognize that supporting children's physical development has as important a place in the curriculum as does supporting cognitive and language development. Thoughtfully planned movement experiences, along with periods of vigorous outdoor and indoor activities, should be a part of each day's schedule. Often, however, preschool teachers feel challenged in this area due to lack of space and/or resources. There are creative ways to overcome these challenges. If space is an issue, rather than having the whole group engage in physical activities, these activities can be designed for small groups or individuals at stations around the room or playground. Equipment can be fashioned from recyclable materials (e.g., empty 2-liter soda bottles can serve as bowling pins, a beanbag target can be made from a cardboard box, assorted cardboard boxes covered with contact paper can serve as blocks). Families are often wonderful resources as well. Many families are more than willing to donate time and/or materials to create or equip a playground or to contribute used games and sports equipment to the classroom.

Health and Safety

The children in our care deserve environments that are safe and encourage healthy living. It is up to us as adults to make sure our classrooms comply with safety and health standards and that children are properly supervised at all times. That said, it would indeed be a perfect world if accidents never happened. Unfortunately, this is not the case, so we must continually model and exhibit how to practice safe and healthy behaviors so that children can observe and imitate these behaviors and can know what to do if there is an accident or emergency. In addition, we can encourage children to practice these behaviors independently at home and at school.

It is also important to model healthy living practices and teach children the importance of good hygiene, a healthy diet and the need for exercise. Children often come to us with strong — and limited — food preferences. Introducing a variety of healthy foods and allowing children to choose among them or involving children in cooking experiences with healthy foods can help expand children's ideas of acceptable foods. A daily routine that balances children's needs for periods of activity and rest is important, and so is helping them recognize their own physical reactions (e.g., ask, "How do you know when you are getting tired?"). Maintaining a social environment in the classroom that supports children being able to meet their own physical needs (e.g., getting a tissue to blow their noses, being able to wash and dry their hands when they feel they need to) also helps promote children's independent practice of healthy behaviors.

Involving Parents and Families

Teachers and parents/families together can be a powerful force to promote children's health, safety and physical development. However, this can only happen when there is open and trusting communication between teachers and families, particularly when it comes to health and safety. Teachers can provide parents with resources concerning safety and health issues (e.g., posting a notice on the class bulletin board that the fire department will be installing child car seats on a certain date, or sending home leaflets about good nutrition, vaccination programs, etc.). Offering suggestions for physical activities that parents and children can do together or sponsoring events such as a family picnic or game night is another way to involve parents. Health and safety are everyone's concern, and open, respectful communication with parents and families can go a long way to furthering these goals.

(b)(6)

Resources

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Weikart, P.S. (2002). *Movement in Steady Beat: Activities for Children Ages 3 to 7.* Ypsilanti, MI: High/Scope Press.

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Children's books:

Physical Development: *A Picture Book of Jesse Owens* — David A. Adler and Robert Casilla; *Each Peach Pear Plum* — Allan Ahlberg and Janet Ahlberg; *My Five Senses* — Aliki; *My Hands* — Aliki; *Barn Dance* — John Archambault, Ted Rand and Bill Martin Jr.; *Here Are My Hands* — John Archambault, Ted Rand and Bill Martin Jr.; *Moondance* — Frank Asch; *Clifford's Sports Day* — Norman Bridwell; *Hand Rhymes* — Marc Tolon Brown; *Making Faces* — Nick Butterworth; *From Head to Toe* — Eric Carle; *The Very Quiet Cricket* — Eric Carle; *Clap Your Hands* — Lorinda Bryan Cauley; *Parade* — Donald Crews; *Snow Dance* — Lezlie Evans and Cynthia Jabar; *Where's Waldo?* — Martin Handford; *Is it Rough? Is it Smooth? Is it Shiny?* — Tana Hoban; *Color Dance* — Ann Jonas; *The Lot at the End of My Block* — Kevin Lewis and Reg Cartwright; *Rhinos Who Play Baseball* — Julie Mammano; *This Is My Body* — Gina Mayer and Mercer Mayer; *Five Little Monkeys* — David Melling; *Clang, Boom, Bang* — Jane Belk Moncure and Viki Woodworth; *Benny's Big Bubble* — Jane O'Connor and Tomie dePaola; *Bearobics: A Hip-Hop Counting Story* — Victoria Parker, Emily Bolam and Vic Parker; *The Ear Book* — Al Perkins, Dr. Seuss and Bill O'Brian; *Shake My Sillies Out* — Raffi and David Allender; *What Noises Can You Hear?* — Hannah Reidy and Emma Dodd; *Morgan Plays Soccer* — Anne Rockwell and Paul Meisel; *The Body Book* — Shelly Rotner and Steve Calcagnino; *Jump Rope Magic* — Afi-Odelia Scruggs and David Diaz; *The Eye Book* — Dr. Seuss, Theo. Lesieg and Joseph Mathieu; *The Itsy Bitsy Spider* — Iza Trapani; *The Farmer in the Dell* — Alexandra Wallner; *Hop Jump* — Ellen Stoll Walsh; *Can You See What I See?* — Walter Wick; *Piggies* — Audrey Wood and Don Wood.

Health: *The Very Hungry Caterpillar* — Eric Carle and Leiggi; *Jamberry* — Bruce Degen; *Bread and Jam for Frances* — Russell Hoban and Lillian Hoban; *The Checkup* — Helen Oxenbury; *Gregory, the Terrible Eater* — Mitchell Sharmat, Ariane Dewey and Jose Aruego.

Safety: *I'm Safe! At the Mall* — Wendy Gordon and Paul Gordon; *Dinosaurs Beware: A Safety Guide* — Stephen Marc and Krensky Brown; *Fireman Small* — Wong Herbert Yee.

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STATE OF MISSOURI
DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
DIVISION OF SCHOOL IMPROVEMENT
205 JEFFERSON ST., P.O. BOX 480
JEFFERSON CITY, MISSOURI 65102-0480

2009 COLLEGE PREPARATORY STUDIES CERTIFICATE

SECTION I – REQUIREMENTS

Subjects	*Units*
English/Language Arts	4
Mathematics	3
Science	2
Social Studies	3
Fine Arts	1
Practical Arts	1
Physical Education	1
Specified Core Electives	3
General Electives *(see Guidelines)*	6
	24

Additional Requirements

1. Grade point average of **3.0** (on a 4.0 scale) in mathematics, science, social studies and English/language arts.

2. Score above the **2008** national average by having attained at least:
   - **1,511** (combined) on the SAT
   - **or**
   - **21** (composite) on the ACT

SECTION II – NUMBER OF GRADUATES

We certify below the number of graduating students from our school (the Class of 2009) who are entitled to receive a state **College Preparatory Studies Certificate.** They have completed the necessary course requirements at a high level of achievement and have scored above the national average on either the ACT or SAT test.

_____ Number of students qualified for the College Preparatory Studies Certificate.

_____ Number of graduates enrolled.

SECTION III – CERTIFICATION

NAME OF SCHOOL DISTRICT	COUNTY/DISTRICT CODE

NAME OF SCHOOL

SIGNATURE OF PRINCIPAL	SIGNATURE OF COUNSELOR

MAIL OR FAX THIS FORM TO:

Assistant Commissioner of School Improvement
Missouri Department of Elementary and Secondary Education
P.O. Box 480, Jefferson City, MO 65102-0480
Phone: (573) 751-4234 Fax: (573) 751-9434
http://dese.mo.gov/divimprove/curriculum/collegeprep

DEADLINE: Certificates are mailed to high schools between April 1 and June 30.
Order in time for graduation!

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THE GREAT SEAL OF THE STATE OF MISSOURI

SHO-ME TECHNOLOGIES

Appendix 15 State of Missouri (C)(2)

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Adair County R-I	5.4885	3.9885	2.7315	3.885	1.1535	76.9%	1.5	53.7%	76.9%	65.0%	259	2		266		Y
Kirksville R-III	51.4	41.4	29.66	39.03	9.37	93.7%	10	91.4%	85.8%	93.7%	2,602	5		2,557		Y
Adair County R-II	7.092	4.092	1.038	3.615	2.577	85.9%	3	85.9%	62.6%	82.8%	241	2		257		Y
North Andrew Co R-VI	8.856	5.856	2.814	5.385	2.571	85.7%	3	80.3%	62.1%	85.7%	359	2		372		Y
Avenue City R-IX	3.63	2.13	1.2945	2.13	0.8355	55.7%	1.5	47.1%	51.8%	55.7%	142	1	Y	128		Y
Savannah R-III	42.183	36.183	30.627	35.505	4.878	81.3%	6	77.9%	74.8%	81.3%	2,367	5		2,390	Y	
Tarkio R-I	8.571	5.571	2.769	5.22	2.451	81.7%	3	81.7%	63.7%	78.3%	348	2		369		Y
Rock Port R-II	8.697	5.697	3.423	5.61	2.187	72.9%	3	72.9%	66.9%	66.7%	374	2		384		Y
	2.64	2.64	2.64	2.64	0	0.0%					176	1		176		Y
Community R-VI	8.112	5.112	2.988	5.1	2.112	70.4%	3	70.4%	62.5%	44.7%	340	2		338		Y
Van-Far R-I	12.195	9.195	7.395	9.195	1.8	60.0%	3	45.0%	59.7%	60.0%	613	3		640		Y
Mexico 59	48.635	38.635	27.355	36.495	9.14	91.4%	10	74.3%	62.0%	91.4%	2,433	5		2,507		Y
Wheaton R-III	10.992	7.992	4.848	7.47	2.622	87.4%	3	87.4%	77.0%	67.0%	498	3		491		Y
Southwest R-V	16.14	13.14	10.08	12.66	2.58	86.0%	3	78.5%	82.0%	86.0%	844	4		868		Y
Exeter R-VI	8.325	5.325	3.732	5.325	1.593	53.1%	3	25.0%	22.7%	53.1%	355	2		350		Y
Cassville R-IV	129.415	29.415	24.515	29.415	4.9	4.9%	100	4.4%	2.9%	4.9%	1,961	4		1,949		Y
Purdy R-II	15.51	10.51	6.51	10.26	3.75	75.0%	5	75.0%	71.0%	65.5%	684	3		691		Y
Shell Knob 78	5.208	2.208	-0.108	2.1	2.208	73.6%	3	73.6%	47.8%	50.0%	140	1	Y	154		Y
Monett R-I	44.425	34.425	27.995	34.425	6.43	64.3%	10	51.4%	49.0%	64.3%	2,295	5		2,228		Y
Liberal R-II	11.271	8.271	5.529	7.95	2.421	80.7%	3	80.7%	52.0%	50.3%	530	3		542		Y
Golden City R-III	8.1	5.1	1.89	4.545	2.655	88.5%	3	36.9%	26.0%	88.5%	303	2		251		Y
Lamar R-I	25.794	19.794	14.766	19.38	4.614	76.9%	6	75.5%	76.9%	64.9%	1,292	4		1,338		Y
Miami R-I (Amoret)	6.741	3.741	0.669	3.255	2.586	86.2%	3	47.2%	32.5%	86.2%	217	2		203		Y
Ballard R-II	3.6	2.1	1.3275	2.1	0.7725	51.5%	1.5	40.2%	36.1%	51.5%	140	1		133	Y	
Adrian R-III	17.505	11.505	7.503	11.505	4.002	66.7%	6	48.5%	50.7%	66.7%	767	3		758		Y
Rich Hill R-IV	16.36	6.36	5.04	6.36	1.32	13.2%	10	11.5%	11.3%	13.2%	424	3		403		Y
Hume R-VIII	4.08	2.58	2.094	2.58	0.486	32.4%	1.5	24.7%	25.0%	32.4%	172	1		165		Y
Hudson R-IX	2.475	0.975	0.594	0.975	0.381	25.4%	1.5	12.3%	25.4%	14.9%	65	1	Y	65		Y
Butler R-V	19.983	15.483	11.487	15.06	3.573	79.4%	4.5	58.2%	55.3%	79.4%	1,004	4		1,024	Y	
Lincoln R-II	10.53	7.53	5.811	7.53	1.719	57.3%	3	50.3%	42.1%	57.3%	502	3		531		Y
Warsaw R-IX	30.595	20.595	17.775	20.595	2.82	28.2%	10	27.9%	28.2%	26.6%	1,373	4		1,334		Y
Cole Camp R-I	15.042	12.042	8.838	11.49	2.652	88.4%	3	61.0%	88.4%	61.0%	766	3		773		Y
Meadow Heights R-II	11.625	8.625	6.744	8.625	1.881	62.7%	3	51.3%	53.0%	62.7%	575	3		589		Y
Leopold R-III	6	3	1.224	3	1.776	59.2%	3	56.1%	56.8%	59.2%	200	1		208		Y
Zalma R-V	7.905	3.405	1.7535	3.405	1.6515	36.7%	4.5	24.7%	32.2%	36.7%	227	2		244		Y
Woodland R-IV	19.899	13.899	9.471	13.785	4.314	71.9%	6	71.9%	50.3%	67.0%	919	4		912		Y
Southern Boone Co R-I	36.9	21.9	17.055	21.9	4.845	32.3%	15	31.7%	30.6%	32.3%	1,460	4		1,449		Y
Hallsville R-IV	30.565	20.565	15.455	20.565	5.11	51.1%	10	28.7%	29.7%	51.1%	1,371	4		1,343		Y
Sturgeon R-V	9.375	6.375	4.65	6.375	1.725	57.5%	3	53.1%	43.8%	57.5%	425	3		453		Y
Centralia R-VI	31.985	21.985	11.185	20.085	8.9	89.0%	10	85.8%	75.3%	89.0%	1,339	4		1,311	Y	
Harrisburg R-VIII	12.195	9.195	5.955	8.625	2.67	89.0%	3	80.0%	89.0%	46.9%	575	3		592		Y
Columbia 93	361.18	261.18	215.78	261.18	45.4	45.4%	100	43.1%	45.4%	44.1%	17,412	6		17,256	Y	
Career Center - Columbia 93	262.68	261.18	261.1725	261.18	0.0075	0.5%	1.5	0.2%	0.5%	0.0%	17,412	6		17,256	Y	
East Buchanan Co C-1	18.27	12.27	6.99	11.73	4.74	79.0%	6	79.0%	78.0%	67.6%	782	3		735		Y
Mid-Buchanan Co R-V	15.27	10.77	8.3985	10.77	2.3715	52.7%	4.5	45.1%	52.7%	49.2%	718	3		693		Y
Rushville Elementary - Buchanan Co R-IV	6.975	5.475	4.8555	5.475	0.6195	41.3%	1.5	38.0%	27.9%	41.3%	365	2		371		Y
Buchanan Co R-IV	8.49	5.49	3.36	5.475	2.115	70.5%	3	70.5%	55.9%	64.9%	365	2		371		Y
St Joseph	276.34	176.34	119.54	176.34	56.8	56.8%	100	35.6%	53.4%	56.8%	11,756	6		11,747	Y	
Neelyville R-IV (High School)	15.372	9.372	4.968	9.27	4.302	71.7%	6	35.8%	34.4%	71.7%	618	3		627		Y
Poplar Bluff R-I	96.535	76.535	62.375	76.455	14.08	70.4%	20	63.3%	49.4%	70.4%	5,097	5		4,958		Y
Twin Rivers R-X	20.445	14.445	11.043	14.445	3.402	56.7%	6	43.3%	42.0%	56.7%	963	4		1,011		Y
Breckenridge R-I	2.88	1.38	0.489	1.38	0.891	59.4%	1.5	31.2%	59.4%	30.5%	92	1		106		Y
Hamilton R-II	15.51	11.01	8.157	11.01	2.853	63.4%	4.5	51.2%	63.4%	60.5%	734	3		737		Y
New York R-IV	2.1	0.6	0.087	0.6	0.513	34.2%	1.5	17.2%	26.3%	34.2%	40	1	Y	39		Y
Cowgill R-VI	2.1	0.6	-0.87	0.39	1.26	84.0%	1.5	31.7%	40.4%	84.0%	26	1	Y	26		Y
Polo R-VII	10.515	6.015	3.783	6.015	2.232	49.6%	4.5	40.0%	34.1%	49.6%	401	3		404		Y
Mirabile C-1	2.31	0.81	0.273	0.81	0.537	35.8%	1.5	19.5%	35.8%	21.0%	54	1	Y	54		Y
Braymer C-4	7.695	4.695	3.369	4.695	1.326	44.2%	3	41.1%	39.1%	44.2%	313	2		348		Y
Kingston 42	2.055	0.555	0.273	0.555	0.282	18.8%	1.5	14.3%	18.5%	18.8%	37	1	Y	54		Y
North Callaway Co R-I	28.105	18.105	11.375	18.105	6.73	67.3%	10	51.7%	67.3%	57.8%	1,207	4		1,337		Y
New Bloomfield R-III	20.365	10.365	8.315	10.365	2.05	20.5%	10	15.2%	15.9%	20.5%	691	3		739		Y
Fulton 58	45.575	35.575	22.975	32.775	9.8	98.0%	10	74.4%	98.0%	96.0%	2,185	5		2,183	Y	
South Callaway Co R-II	112.96	12.96	6.36	12.96	6.6	6.6%	100	6.4%	6.4%	6.6%	864	4		909		Y
Missouri School for the Deaf	2.9385	1.4385	0.0315	1.26	1.2285	81.9%	1.5	61.2%	64.8%	81.9%	84	1		100	Y	
Missouri School for the Deaf	2.76	1.26	0.3495	1.26	0.9105	60.7%	1.5	59.1%	60.7%	59.6%	84	1		100	Y	
Stoutland R-II	17.11	7.11	2.74	7.11	4.37	43.7%	10	43.7%	36.0%	43.3%	474	3		472		Y
Camdenton R-III	84.245	64.245	53.965	64.245	10.28	51.4%	20	40.3%	51.4%	35.2%	4,283	5		4,339		Y
Climax Springs R-IV	8.04	3.54	0.8715	3.54	2.6685	59.3%	4.5	45.3%	41.0%	59.3%	236	2		228		Y
Macks Creek R-V	6.465	4.965	3.9345	4.965	1.0305	68.7%	1.5	49.5%	56.4%	68.7%	331	2		345		Y
Macks Creek R-V	6.555	5.055	3.825	4.965	1.14	76.0%	1.5	49.9%	59.5%	76.0%	331	2		345		Y
Jackson R-II	84.27	74.27	62.97	72.12	9.15	91.5%	10	91.5%	90.5%	87.0%	4,808	5		4,745		Y
Delta R-V	7.803	4.803	2.367	4.635	2.268	75.6%	3	67.7%	63.3%	75.6%	309	2		312		Y
Oak Ridge R-VI	8.064	5.064	2.916	5.04	2.124	70.8%	3	44.5%	44.9%	70.8%	336	2		338		Y
Cape Girardeau 63	105.045	60.045	34.62	60.045	25.425	56.5%	45	40.3%	45.2%	56.5%	4,003	5		3,959	Y	
Nell Holcomb R-IV	7.275	4.275	2.304	4.275	1.971	65.7%	3	41.8%	61.0%	65.7%	285	2	Y	305		Y
Hale R-I	4.065	2.565	1.692	2.565	0.873	58.2%	1.5	58.2%	47.9%	41.0%	171	1		178		Y
Tina-Avalon R-II	4.335	2.835	2.001	2.835	0.834	55.6%	1.5	55.6%	36.7%	39.8%	189	1		189		Y
Bosworth R-V	3.5235	2.0235	0.7065	1.89	1.1835	78.9%	1.5	40.2%	49.1%	78.9%	126	1		118		Y
Carrollton R-VII Career Center	20.49	14.49	9.27	13.98	4.71	78.5%	6	70.7%	73.2%	78.5%	932	4		962		Y

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Norborne R-VIII	4.6725	3.1725	1.7775	3	1.2225	81.5%	1.5	55.3%	81.5%	53.2%	200	1		201		Y
East Carter Co R-II	17.595	11.595	8.091	11.595	3.504	58.4%	6	44.2%	43.6%	58.4%	773	3		819		Y
Van Buren R-I	17.59	7.59	4.6	7.59	2.99	29.9%	10	28.6%	29.9%	25.4%	506	3		516		Y
Archie R-V	15.52	8.52	8.471	8.52	0.049	0.7%	7	0.7%	0.7%	0.0%	568	3		621		Y
Archie R-V	11.52	8.52	6.501	8.52	2.019	67.3%	3	56.5%	51.8%	67.3%	568	3		621		Y
Strasburg C-3	3.03	1.53	1.068	1.53	0.462	30.8%	1.5	30.8%	28.4%	28.2%	102	1	Y	89		Y
Raymore-Peculiar R-II	109.79	89.79	82.41	89.79	7.38	36.9%	20	36.9%	36.5%	34.3%	5,986	5		5,974	Y	
Sherwood-Cass R-VIII	16.206	13.206	11.004	13.155	2.151	71.7%	3	70.4%	68.3%	71.7%	877	4		898		Y
East Lynne 40	6.384	3.384	0.486	2.985	2.499	83.3%	3	13.3%	34.4%	83.3%	199	1	Y	199		Y
Pleasant Hill R-III	43.105	33.105	27.265	33.105	5.84	58.4%	10	32.2%	39.3%	58.4%	2,207	5		2,207	Y	
Harrisonville R-IX	61.175	41.175	33.295	41.175	7.88	39.4%	20	29.7%	30.4%	39.4%	2,745	5		2,755	Y	
Drexel R-IV	8.955	4.455	2.223	4.455	2.232	49.6%	4.5	49.6%	44.4%	42.7%	297	2		273		Y
Midway R-I	10.89	7.89	6.243	7.89	1.647	54.9%	3	39.7%	47.9%	54.9%	526	3		551		Y
Belton 124 Technology Center	99.99	79.99	60.03	77.01	16.98	84.9%	20	83.9%	84.9%	71.7%	5,134	5		4,959	Y	
Stockton R-I	21.155	16.155	13.595	16.155	2.56	51.2%	5	51.2%	35.5%	48.7%	1,077	4		1,093		Y
El Dorado Springs R-II	25.11	19.11	13.35	18.33	4.98	83.0%	6	71.0%	69.2%	83.0%	1,222	4		1,218		Y
Northwestern R-I	5.505	2.505	0.924	2.505	1.581	52.7%	3	42.3%	35.2%	52.7%	167	1		190		Y
Brunswick R-II	5.28	3.78	2.8485	3.78	0.9315	62.1%	1.5	62.1%	61.4%	59.4%	252	2		276		Y
Keytesville R-III	5.994	2.994	-0.054	2.52	2.574	85.8%	3	33.6%	85.8%	27.6%	168	1		178		Y
Salisbury R-IV	10.851	7.851	4.719	7.335	2.616	87.2%	3	78.5%	83.6%	87.2%	489	3		476		Y
Chadwick R-I	5.178	3.678	2.112	3.42	1.308	87.2%	1.5	87.2%	80.9%	76.2%	228	2		239		Y
Chadwick R-I	4.92	3.42	2.3775	3.42	1.0425	69.5%	1.5	69.5%	55.7%	66.8%	228	2		239		Y
Nixa High School	128.295	83.295	69.39	83.295	13.905	30.9%	45	21.6%	23.0%	30.9%	5,553	5		5,437	Y	
Sparta R-III	14.649	11.649	9.231	11.49	2.259	75.3%	3	68.7%	72.0%	75.3%	766	3		729		Y
Billings R-IV Elementary School	8.4	6.9	5.9025	6.9	0.9975	66.5%	1.5	53.5%	63.1%	66.5%	460	3		475		Y
Clever R-V	20.43	15.93	13.4145	15.93	2.5155	55.9%	4.5	55.9%	53.9%	45.7%	1,062	4		1,051		Y
Ozark R-VI	103.25	83.25	64.21	80.73	16.52	82.6%	20	75.5%	82.6%	80.8%	5,382	5		5,366	Y	
Spokane R-VII	17.715	11.715	8.439	11.715	3.276	54.6%	6	39.5%	39.9%	54.6%	781	3		745		Y
Revere C-3	1.83	0.33	0.0975	0.33	0.2325	15.5%	1.5	8.3%	8.2%	15.5%	22	1	Y	24		Y
	0.645	0.645	0.645	0.645	0	0.0%					43	1	Y	54		Y
Clark Co R-I	20.4465	15.9465	11.7435	15.42	3.6765	81.7%	4.5	36.5%	33.5%	81.7%	1,028	4		1,032		Y
Kearney R-I	66.48	56.48	45.18	54.33	9.15	91.5%	10	73.0%	66.0%	91.5%	3,622	5		3,594	Y	
Smithville R-II	48.895	38.895	26.195	36.045	9.85	98.5%	10	49.1%	54.5%	98.5%	2,403	5		2,276		Y
Excelsior Springs 40	57.52	47.52	37.46	45.99	8.53	85.3%	10	64.3%	85.3%	78.9%	3,066	5		2,779	Y	
Liberty 53	219.36	159.36	124.08	159.36	35.28	58.8%	60	58.0%	58.8%	58.7%	10,624	6		10,263	Y	
Missouri City 56	1.995	0.495	0.108	0.495	0.387	25.8%	1.5	5.0%	11.5%	25.8%	33	1	Y	24		Y
Central Office - North Kansas City 74	427.845	277.845	207.045	277.845	70.8	47.2%	150	24.5%	28.3%	47.2%	18,523	6		18,391	Y	
Cameron R-I	33.12	27.12	23.238	27.12	3.882	64.7%	6	63.5%	64.7%	59.9%	1,808	4		1,836	Y	
Lathrop R-II	23.425	13.425	9.635	13.425	3.79	37.9%	10	37.3%	37.9%	32.1%	895	4		864		Y
Clinton Co R-III	15.258	12.258	10.122	12.24	2.118	70.6%	3	33.0%	38.1%	70.6%	816	4		813		Y
Cole Co R-I High School	16.07	11.07	6.49	10.53	4.04	80.8%	5	50.6%	34.2%	80.8%	702	3		689		Y
Wardsville - Blair Oaks R-II	20.795	15.795	10.615	14.955	4.34	86.8%	5	64.0%	86.8%	65.7%	997	4		953		Y
Cole Co R-V	15.515	10.515	7.28	10.515	3.235	64.7%	5	51.8%	64.7%	60.5%	701	3		677		Y
Jefferson City Public Schools	153.82	128.82	115.17	128.82	13.65	54.6%	25	39.4%	39.5%	54.6%	8,588	6		8,311	Y	
Blackwater R-II	3.525	2.025	1.2615	2.025	0.7635	50.9%	1.5	39.5%	36.9%	50.9%	135	1	Y	134		Y
Cooper Co R-IV	5.52	2.52	-0.18	2.22	2.4	80.0%	3	53.3%	52.2%	80.0%	148	1		153		Y
Prairie Home R-V	3.93	2.43	1.5225	2.43	0.9075	60.5%	1.5	60.5%	45.4%	58.8%	162	1		146		Y
Otterville R-VI	5.2395	3.7395	2.4405	3.615	1.1745	78.3%	1.5	75.4%	78.3%	64.5%	241	2		243		Y
Pilot Grove C-4	7.35	4.35	2.334	4.35	2.016	67.2%	3	36.2%	33.3%	67.2%	290	2		301		Y
Boonville R-I	35.355	25.355	15.855	24.105	8.25	82.5%	10	79.7%	82.2%	82.5%	1,607	4		1,585		Y
Bourbon Middle School - Crawford Co R-I	115.66	15.66	12.76	15.66	2.9	2.9%	100	2.8%	2.8%	2.9%	1,044	4		1,038		Y
Crawford Co R-II	33.47	23.47	11.47	20.97	9.5	95.0%	10	74.5%	83.2%	95.0%	1,398	4		1,394		Y
	14.475	14.475	14.475	14.475	0	0.0%					965	4		954		Y
Lockwood R-I	7.035	5.535	4.728	5.535	0.807	53.8%	1.5	48.5%	47.5%	53.8%	369	2		369		Y
Dadeville R-II	3.78	2.28	1.5	2.28	0.78	52.0%	1.5	48.7%	52.0%	50.5%	152	1		154		Y
Everton R-III	4.305	2.805	1.7625	2.805	1.0425	69.5%	1.5	59.6%	60.6%	69.5%	187	1		175		Y
Greenfield R-IV	12.095	7.095	3.77	7.095	3.325	66.5%	5	48.3%	66.5%	59.1%	473	3		477		Y
Dallas Co R-I	127.75	27.75	17.85	27.75	9.9	9.9%	100	4.6%	4.4%	9.9%	1,850	4		1,826	Y	
Pattonsburg R-II	4.041	2.541	1.029	2.31	1.281	85.4%	1.5	81.0%	82.8%	85.4%	154	1		175		Y
Winston R-VI	4.4475	2.9475	1.7925	2.895	1.1025	73.5%	1.5	44.2%	41.4%	73.5%	193	1		180		Y
North Daviess R-III (High School)	2.91	1.41	0.813	1.41	0.597	39.8%	1.5	33.8%	22.6%	39.8%	94	1		83		Y
Gallatin R-V	14.025	9.525	7.0185	9.525	2.5065	55.7%	4.5	47.4%	55.7%	41.1%	635	3		690		Y
Tri-County R-VII	102.505	2.505	1.505	2.505	1	1.0%	100	0.9%	0.9%	1.0%	167	1		178		Y
Osborn R-O	3.69	2.19	0.78	2.01	1.23	82.0%	1.5	69.2%	57.9%	82.0%	134	1		136		Y
Maysville R-I	13.875	9.375	6.522	9.375	2.853	63.4%	4.5	49.4%	59.8%	63.4%	625	3		609		Y
Union Star R-II	3.693	2.193	0.927	2.085	1.158	77.2%	1.5	74.2%	77.2%	55.9%	139	1		147		Y
Stewartsville C-2	7.35	4.35	1.53	3.99	2.46	82.0%	3	45.1%	82.0%	79.7%	266	2		253		Y
Salem R-80	32.185	22.185	16.515	22.185	5.67	56.7%	10	41.0%	38.7%	56.7%	1,479	4		1,534		Y
Oak Hill R-I	3.1425	1.6425	0.3975	1.545	1.1475	76.5%	1.5	76.5%	76.2%	75.2%	103	1	Y	105		Y
Green Forest R-II	4.095	2.595	1.602	2.595	0.993	66.2%	1.5	66.2%	21.5%	17.5%	173	1	Y	180		Y
Dent-Phelps R-III	6.0345	4.5345	2.9955	4.29	1.2945	86.3%	1.5	51.9%	48.2%	86.3%	286	2	Y	285		Y
North Wood R-IV	5.106	3.606	2.304	3.48	1.176	78.4%	1.5	41.0%	42.8%	78.4%	232	2	Y	225		Y
Skyline R-II	3.42	1.92	0.06	1.515	1.455	97.0%	1.5	97.0%	75.0%	82.7%	101	1	Y	103		Y
Plainview R-VIII	3.015	1.515	0.4665	1.515	1.0485	69.9%	1.5	36.8%	69.9%	36.6%	101	1	Y	120		Y
Ava R-I	27.355	22.355	16.205	21.03	4.825	96.5%	5	52.5%	57.9%	96.5%	1,402	4		1,446		Y
Malden R-I	22.542	16.542	11.058	15.9	4.842	80.7%	6	80.7%	55.5%	61.4%	1,060	4		1,104		Y
Campbell R-II	14.27	9.27	6.665	9.27	2.605	52.1%	5	40.4%	31.7%	52.1%	618	3		639		Y
Holcomb R-III	10.905	9.405	7.995	9.225	1.23	82.0%	1.5	82.0%	79.5%	75.7%	615	3		633		Y
Clarkton C-4	9.153	6.153	2.397	5.325	2.928	97.6%	3	49.7%	63.6%	97.6%	355	2		339		Y
Senath-Hornersville C-8	15.756	12.756	10.434	12.645	2.211	73.7%	3	73.7%	46.5%	58.9%	843	4		848		Y

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Southland C-9	7.3185	5.8185	4.5615	5.715	1.1535	76.9%	1.5	64.8%	51.8%	76.9%	381	2		402		Y
Kennett 39	40.555	30.555	24.955	30.555	5.6	56.0%	10	34.2%	36.3%	56.0%	2,037	5		2,039		Y
Franklin Co R-II	5.415	2.415	1.149	2.415	1.266	42.2%	3	42.2%	31.1%	26.5%	161	1	Y	155		Y
Meramec Valley R-III	63.32	53.32	40.48	50.4	9.92	99.2%	10	89.2%	91.0%	99.2%	3,360	5		3,435	Y	
Union R-XI Clark-Vitt Elementary	91.02	46.02	26.985	46.02	19.035	42.3%	45	36.6%	42.3%	29.7%	3,068	5		3,059	Y	
Lonedell R-XIV	6.888	5.388	3.822	5.13	1.308	87.2%	1.5	64.7%	82.2%	87.2%	342	2	Y	342		Y
Spring Bluff R-XV	5.415	3.915	3.06	3.915	0.855	57.0%	1.5	42.3%	57.0%	48.1%	261	2	Y	266	Y	
	1.215	1.215	1.215	1.215	0	0.0%					81	1	Y	89		Y
St Clair R-XIII	40.635	34.635	31.131	34.635	3.504	58.4%	6	0.0%	0.0%	58.4%	2,309	5		2,379	Y	
St Clair R-XIII	40.635	34.635	30.999	34.635	3.636	60.6%	6	0.0%	0.0%	60.6%	2,309	5		2,379	Y	
Sullivan C-2 High School	44.66	34.66	25.12	33.39	8.27	82.7%	10	61.3%	65.8%	82.7%	2,226	5		2,244	Y	
New Haven	10.245	7.245	5.367	7.245	1.878	62.6%	3	54.8%	42.0%	62.6%	483	3		488		Y
Washington Board of Education	95.205	65.205	43.905	65.055	21.15	70.5%	30	49.8%	69.6%	70.5%	4,337	5		4,274	Y	
Gasconade Co R-II	47.96	27.96	20.88	27.96	7.08	35.4%	20	34.2%	35.4%	33.2%	1,864	4		1,886		Y
Gasconade Co R-I	20.715	16.215	13.0965	16.215	3.1185	69.3%	4.5	48.0%	41.6%	69.3%	1,081	4		1,115		Y
King City R-I	8.961	5.961	2.709	5.385	2.676	89.2%	3	89.2%	62.3%	49.4%	359	2		327		Y
Stanberry Co R-II School	8.553	5.553	2.397	5.025	2.628	87.6%	3	60.1%	60.1%	87.6%	335	2		348		Y
Albany R-III	11.19	6.69	4.116	6.69	2.574	57.2%	4.5	43.0%	42.6%	57.2%	446	3		465		Y
Willard R-II	83.015	63.015	50.955	63.015	12.06	60.3%	20	42.3%	47.5%	60.3%	4,201	5		4,156		Y
Republic R-III	79.495	69.495	60.215	68.355	8.14	81.4%	10	81.4%	76.4%	72.2%	4,557	5		4,319	Y	
Ash Grove R-IV	23.82	13.82	6.66	13.74	7.08	70.8%	10	57.2%	49.8%	70.8%	916	4		849		Y
Walnut Grove R-V	7.725	4.725	3.39	4.725	1.335	44.5%	3	41.1%	44.5%	39.9%	315	2		304		Y
Strafford R-VI	119.215	19.215	9.415	19.215	9.8	9.8%	100	5.9%	3.7%	9.8%	1,281	4		1,214		Y
	34.335	34.335	34.335	34.335	0	0.0%					2,289	5		2,280		Y
Springfield R-XII	478.895	378.895	291.895	370.395	78.5	78.5%	100	55.4%	69.2%	78.5%	24,693	6		24,398	Y	
Fair Grove R-X	22.56	16.56	12.89	16.56	3.87	64.5%	6	50.4%	30.3%	64.5%	1,104	4		1,111	Y	
Grundy R-V	5.52	2.52	0.663	2.52	1.857	61.9%	3	61.9%	37.7%	58.0%	168	1		157		Y
Spickard R-II	1.9995	0.4995	-0.6195	0.465	1.0845	72.3%	1.5	53.6%	57.3%	72.3%	31	1	Y	49		Y
	0.6	0.6	0.6	0.6	0	0.0%					40	1	Y	76		Y
Laredo R-VII	2.46	0.96	-0.45	0.78	1.23	82.0%	1.5	26.1%	82.0%	24.8%	52	1	Y	62		Y
Trenton R-IX Elementary	19.86	18.36	16.8	18.105	1.305	87.0%	1.5	62.9%	68.0%	87.0%	1,207	4		1,198		Y
Trenton R-IX	24.105	18.105	14.475	18.105	3.63	60.5%	6	37.1%	38.3%	60.5%	1,207	4		1,198		Y
Cainsville R-I	3.015	1.515	0.756	1.515	0.759	50.6%	1.5	36.0%	25.0%	50.6%	101	1		108		Y
South Harrison Co R-II	16.89	13.89	11.31	13.65	2.34	78.0%	3	67.2%	65.0%	78.0%	910	4		905		Y
North Harrison Co R-III	8.262	3.762	0.468	3.69	3.222	71.6%	4.5	71.6%	61.3%	49.7%	246	2		222		Y
Gilman City R-IV	3.8475	2.3475	0.7725	2.085	1.3125	87.5%	1.5	66.2%	35.0%	87.5%	139	1		150		Y
Ridgeway R-V	4.695	1.695	-0.111	1.695	1.806	60.2%	3	34.8%	31.0%	60.2%	113	1		98		Y
Henry Co R-I	15.545	10.545	6.565	10.305	3.74	74.8%	5	43.5%	44.5%	74.8%	687	3		683		Y
Shawnee R-III	2.406	0.906	-0.156	0.9	1.056	70.4%	1.5	24.5%	26.2%	70.4%	60	1	Y	49		Y
Calhoun R-VIII	5.28	2.28	0.639	2.28	1.641	54.7%	3	47.2%	52.2%	54.7%	152	1		143		Y
Leesville R-IX	2.715	1.215	0.4515	1.215	0.7635	50.9%	1.5	8.3%	12.0%	50.9%	81	1	Y	69		Y
Davis R-XII	2.055	0.555	-0.1125	0.555	0.6675	44.5%	1.5	20.5%	44.5%	36.5%	37	1	Y	31		Y
Montrose R-XIV	3.1875	1.6875	0.1125	1.425	1.3125	87.5%	1.5	49.7%	39.5%	87.5%	95	1		83		Y
Clinton	38.88	28.88	18.78	27.33	8.55	85.5%	10	85.5%	78.3%	57.9%	1,822	4		1,833		Y
Hickory Co R-I	13.695	10.695	8.694	10.695	2.001	66.7%	3	64.0%	61.4%	66.7%	713	3		818		Y
Wheatland R-II	7.77	4.77	1.59	4.23	2.64	88.0%	3	73.7%	66.2%	88.0%	282	2		288		Y
Weaubleau R-III	11.52	5.52	2.028	5.52	3.492	58.2%	6	58.2%	37.9%	44.0%	368	2		403		Y
Hermitage R-IV	6.2025	4.7025	3.1275	4.44	1.3125	87.5%	1.5	85.0%	83.8%	87.5%	296	2		293		Y
Craig R-III	2.9445	1.4445	0.2655	1.38	1.1145	74.3%	1.5	65.5%	62.5%	74.3%	92	1		92		Y
Mound City R-II	7.335	4.335	2.547	4.335	1.788	59.6%	3	47.9%	41.0%	59.6%	289	2		303		Y
South Holt Co R-I	13.855	3.855	1.165	3.855	2.69	26.9%	10	24.6%	25.7%	26.9%	257	2		278		Y
New Franklin R-I	11.295	6.795	4.0455	6.795	2.7495	61.1%	4.5	37.3%	51.3%	61.1%	453	3		475	Y	
Fayette R-III (New)	13.389	10.389	6.981	9.735	2.754	91.8%	3	69.4%	61.3%	91.8%	649	3		644	Y	
Glasgow	8.571	5.571	2.799	5.235	2.436	81.2%	3	54.1%	81.2%	52.5%	349	2		346		Y
Howell Valley R-I	4.875	3.375	2.67	3.375	0.705	47.0%	1.5	27.4%	22.0%	47.0%	225	2	Y	208		Y
Mountain View Elementary - Mountain View Birch Tree R-III	21.48	19.98	18.939	19.98	1.041	69.4%	1.5	69.4%	64.5%	67.0%	1,332	4		1,298		Y
Birch Tree Elementary - Mountain View Birch Tree R-III	21.705	20.205	18.705	19.98	1.275	85.0%	1.5	49.8%	47.0%	85.0%	1,332	4		1,298		Y
Liberty Sr High - Mountain View Birch Tree R-III	29.98	19.98	18.63	19.98	1.35	13.5%	10	13.5%	8.5%	13.4%	1,332	4		1,298		Y
Willow Springs R-IV	25.435	20.435	15.035	19.485	4.45	89.0%	5	71.7%	85.3%	89.0%	1,299	4		1,317		Y
Richards R-V	8.2995	6.7995	5.2005	6.525	1.3245	88.3%	1.5	55.5%	84.3%	88.3%	435	3	Y	427		Y
West Plains R-VII	48.37	38.37	31.64	38.37	6.73	67.3%	10	67.3%	66.3%	65.4%	2,558	5		2,558		Y
Glenwood R-VIII	7.185	4.185	2.64	4.185	1.545	51.5%	3	39.5%	34.8%	51.5%	279	2	Y	299		Y
Junction Hill C-12	5.007	3.507	1.893	3.225	1.332	88.8%	1.5	78.0%	88.8%	61.6%	215	2	Y	214		Y
Fairview R-XI	18.535	8.535	7.075	8.535	1.46	14.6%	10	13.9%	14.6%	14.2%	569	3	Y	569		Y
South Iron Co R-I (High School)	8.679	5.679	3.231	5.505	2.274	75.8%	3	60.9%	66.6%	75.8%	367	2		353		Y
Arcadia Valley R-II	26.185	16.185	9.885	16.185	6.3	63.0%	10	45.2%	63.0%	34.9%	1,079	4		1,050		Y
Belleview R-III	3.6	2.1	1.4475	2.1	0.6525	43.5%	1.5	43.5%	34.9%	30.9%	140	1	Y	133		Y
Iron Co C-4	9.756	6.756	4.314	6.585	2.271	75.7%	3	75.7%	71.6%	64.9%	439	3		445		Y
Fort Osage R-I	96.025	76.025	54.425	72.225	17.8	89.0%	20	59.1%	61.3%	89.0%	4,815	5		4,888		Y
Blue Springs R-IV	254.955	209.955	187.005	209.955	22.95	51.0%	45	42.0%	42.6%	51.0%	13,997	6		13,951	Y	
Grain Valley R-V	153.16	53.16	43.76	53.16	9.4	9.4%	100	9.4%	8.4%	8.3%	3,544	5		3,265	Y	
Oak Grove R-VI	41.095	31.095	26.495	31.095	4.6	46.0%	10	41.4%	36.0%	46.0%	2,073	5		2,122	Y	
Lees Summit R-VII	391.215	291.215	164.415	262.815	98.4	98.4%	100	94.4%	95.6%	98.4%	17,521	6		17,335	Y	
Hickman Mills C-I (Baptiste Educational Center)	125.585	105.585	79.825	99.705	19.88	99.4%	20	98.6%	98.6%	99.4%	6,647	6		6,937	Y	
Technology Center - Raytown C-2	182.615	132.615	105.565	132.615	27.05	54.1%	50	54.1%	50.6%	50.4%	8,841	6		8,784	Y	
Raytown C-2 High School	182.615	132.615	130.115	132.615	2.5	5.0%	50	0.0%	0.0%	5.0%	8,841	6		8,784	Y	
Grandview C-4	71.65	61.65	51.59	60.12	8.53	85.3%	10	85.3%	78.9%	79.3%	4,008	5		4,046	Y	
Lone Jack C-6	11.79	8.79	6.63	8.76	2.13	71.0%	3	65.0%	71.0%	63.1%	584	3		595		Y
Independence 30	253.605	208.605	174.405	207.255	32.85	73.0%	45	65.9%	73.0%	69.9%	13,817	6		13,976	Y	
Board of Education Bldg - Kansas City 33	401.025	301.025	197.025	284.025	87	87.0%	100	87.0%	86.2%	73.0%	18,935	6		19,788	Y	

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Center 58	60.03	40.03	21.15	37.59	16.44	82.2%	20	64.2%	53.8%	82.2%	2,506	5		2,420	Y	
University Academy	26.275	16.275	11.315	16.275	4.96	49.6%	10	34.8%	47.7%	49.6%	1,085	4		1,134	Y	
	2.895	2.895	2.895	2.895	0	0.0%					193	1		181	Y	
	3.75	3.75	3.75	3.75	0	0.0%					250	2		233	Y	
Hogan Preparatory Academy	15.22	5.22	0.38	5.22	4.84	48.4%	10	29.8%	28.3%	48.4%	348	2		312	Y	
Genesis Charter School Inc	102.31	2.31	0.21	2.31	2.1	2.1%	100	1.4%	1.7%	2.1%	154	1		105	Y	
	3.015	3.015	3.015	3.015	0	0.0%					201	2		200	Y	
	6.09	6.09	6.09	6.09	0	0.0%					406	3		450	Y	
	9.36	9.36	9.36	9.36	0	0.0%					624	3		708	Y	
	5.16	5.16	5.16	5.16	0	0.0%					344	2		233	Y	
	6.795	6.795	6.795	6.795	0	0.0%					453	3		472	Y	
	3.255	3.255	3.255	3.255	0	0.0%					217	2		223	Y	
Academie Lafayette	10.215	8.715	7.125	8.445	1.32	88.0%	1.5	67.4%	82.4%	88.0%	563	3		482	Y	
	3.36	3.36	3.36	3.36	0	0.0%					224	2		204	Y	
	7.35	7.35	7.35	7.35	0	0.0%					490	3		426	Y	
	13.515	13.515	13.515	13.515	0	0.0%					901	4		952	Y	
	2.55	2.55	2.55	2.55	0	0.0%					170	1		115	Y	
	18.825	18.825	18.825	18.825	0	0.0%					1,255	4		1,090	Y	
	3.225	3.225	3.225	3.225	0	0.0%					215	2		0	Y	
	6.54	6.54	6.54	6.54	0	0.0%					436	3		0	Y	
	4.545	4.545	4.545	4.545	0	0.0%					303	2		0	Y	
Carl Junction R-I	63.7	53.7	42.26	51.48	9.22	92.2%	10	89.2%	90.0%	92.2%	3,432	5		3,330		Y
Avilla R-XIII	3.945	2.445	1.752	2.445	0.693	46.2%	1.5	46.2%	46.1%	39.6%	163	1	Y	150		Y
Jasper Co R-V	13.71	7.71	4.356	7.71	3.354	55.9%	6	51.8%	55.9%	55.2%	514	3		488		Y
Sarcoxie R-II	19.017	13.017	7.353	12.285	4.932	82.2%	6	77.2%	75.4%	82.2%	819	4		796		Y
Carthage R-IX High School	89.89	69.89	44.45	64.17	19.72	98.6%	20	98.6%	72.3%	80.6%	4,278	5		4,136	Y	
Webb City R-VII	73.34	63.34	50.68	60.51	9.83	98.3%	10	86.9%	98.3%	97.0%	4,034	5		4,077	Y	
Joplin R-VIII	161.61	116.61	101.85	116.61	14.76	32.8%	45	21.2%	21.6%	32.8%	7,774	6		7,678	Y	
Northwest R-I	159.885	99.885	81.705	99.885	18.18	30.3%	60	16.3%	16.3%	30.3%	6,659	6		6,892	Y	
Grandview R-II	16.155	13.155	10.275	12.765	2.49	83.0%	3	83.0%	76.4%	71.0%	851	4		823		Y
Hillsboro R-III	75.225	55.225	39.945	54.585	14.64	73.2%	20	66.0%	53.1%	73.2%	3,639	5		3,658		Y
Dunklin R-V	28.692	22.692	16.308	21.6	5.292	88.2%	6	84.9%	87.2%	88.2%	1,440	4		1,387	Y	
Festus R-VI	58.865	48.865	36.865	46.365	9.5	95.0%	10	80.0%	75.9%	95.0%	3,091	5		3,125	Y	
Jefferson Co R-VII	17.21	12.21	9.555	12.21	2.655	53.1%	5	38.8%	53.1%	38.2%	814	4	Y	740		Y
Sunrise R-IX	8.628	5.628	2.472	5.1	2.628	87.6%	3	0.0%	0.0%	87.6%	340	2	Y	325		Y
Windsor C-1	65.105	45.105	35.045	45.105	10.06	50.3%	20	46.0%	50.3%	44.4%	3,007	5		3,007		Y
Fox C-6	231.87	186.87	134.67	176.52	41.85	93.0%	45	93.0%	51.6%	42.5%	11,768	6		11,646	Y	
Crystal City 47	16.67	11.67	7.18	11.175	3.995	79.9%	5	51.9%	76.3%	79.9%	745	3		781	Y	
De Soto 73 Data Center	65.675	45.675	27.715	43.695	15.98	79.9%	20	52.1%	51.4%	79.9%	2,913	5		3,130	Y	
Kingsville R-I	7.215	4.215	2.679	4.215	1.536	51.2%	3	51.2%	46.0%	33.3%	281	2		282		Y
Holden R-III	31.825	21.825	17.055	21.825	4.77	47.7%	10	37.4%	35.2%	47.7%	1,455	4		1,438		Y
Chilhowee R-IV	5.76	2.76	0.861	2.76	1.899	63.3%	3	38.2%	59.6%	63.3%	184	1		164		Y
Johnson Co R-VII	15.02	10.02	7.305	10.02	2.715	54.3%	5	23.1%	21.5%	54.3%	668	3		649		Y
Knob Noster R-VIII High School	32.245	22.245	16.835	22.245	5.41	54.1%	10	42.7%	52.7%	54.1%	1,483	4		1,494		Y
Leeton R-X	8.49	5.49	3.411	5.49	2.079	69.3%	3	56.0%	52.5%	69.3%	366	2		376		Y
Warrensburg R-VI	62.075	52.075	40.195	49.635	9.44	94.4%	10	92.9%	91.6%	94.4%	3,309	5		3,337		Y
Knox Co R-I	13.3785	8.8785	4.8015	8.415	3.6135	80.3%	4.5	52.5%	58.2%	80.3%	561	3		554		Y
Laclede Co R-I	19.31	14.31	8.86	13.335	4.475	89.5%	5	89.5%	73.7%	71.2%	889	4		890		Y
Gasconade C-4	2.835	1.335	0.4845	1.335	0.8505	56.7%	1.5	47.7%	31.8%	56.7%	89	1	Y	102		Y
Lebanon Sr High - Lebanon R-III	108.31	68.31	48.79	68.31	19.52	48.8%	40	42.4%	46.8%	48.8%	4,554	5		4,638		Y
Laclede Co C-5	17.485	7.485	6.355	7.485	1.13	11.3%	10	9.5%	9.9%	11.3%	499	3	Y	469		Y
Concordia High School - Concordia R-II	10.791	7.791	4.989	7.44	2.451	81.7%	3	68.8%	40.3%	81.7%	496	3		519		Y
High School - Lafayette Co C-I	20.727	16.227	11.583	15.48	3.897	86.6%	4.5	78.6%	80.3%	86.6%	1,032	4		1,073	Y	
Odessa R-VII	41.365	31.365	24.395	31.365	6.97	69.7%	10	39.8%	37.3%	69.7%	2,091	5		2,131	Y	
Santa Fe R-X	8.91	5.91	4.194	5.91	1.716	57.2%	3	56.9%	57.0%	57.2%	394	2		411		Y
Wellington-Napoleon R-IX	8.55	5.55	4.317	5.55	1.233	41.1%	3	41.1%	27.7%	28.1%	370	2		430		Y
Lexington R-V	19.605	15.105	12.4095	15.105	2.6955	59.9%	4.5	58.3%	58.2%	59.9%	1,007	4		1,015	Y	
Miller R-II	12.348	9.348	5.712	8.58	2.868	95.6%	3	91.0%	95.6%	84.9%	572	3		569		Y
Pierce City R-VI	14.73	11.73	9.27	11.55	2.28	76.0%	3	76.0%	68.7%	72.3%	770	3		739		Y
Marionville R-IX	17.565	11.565	7.575	11.565	3.99	66.5%	6	43.4%	41.5%	66.5%	771	3		773		Y
Mt Vernon R-V	122.5	22.5	17	22.5	5.5	5.5%	100	4.0%	4.0%	5.5%	1,500	4		1,547		Y
Aurora R-VIII	41.815	31.815	25.115	31.815	6.7	67.0%	10	61.7%	67.0%	40.7%	2,121	5		2,086		Y
Verona R-VII	9.165	6.165	4.344	6.165	1.821	60.7%	3	37.3%	45.6%	60.7%	411	3		383		Y
Canton R-V	11.271	8.271	5.049	7.71	2.661	88.7%	3	87.3%	87.0%	88.7%	514	3		531		Y
Lewis Co C-1	21.435	15.435	12.465	15.435	2.97	49.5%	6	39.4%	39.9%	49.5%	1,029	4		1,021		Y
Silex R-I	8.94	5.94	4.185	5.94	1.755	58.5%	3	50.3%	58.5%	42.2%	396	2		385		Y
Elsberry R-II - Middle School	15.714	12.714	10.026	12.42	2.394	79.8%	3	73.7%	64.9%	79.8%	828	4		831		Y
Troy R-III	137.175	92.175	69.9	92.175	22.275	49.5%	45	48.9%	45.7%	49.5%	6,145	6		6,019	Y	
Winfield R-IV	123.43	23.43	16.23	23.43	7.2	7.2%	100	4.6%	4.0%	7.2%	1,562	4		1,550		Y
Linn Co R-I	7.125	4.125	2.106	4.125	2.019	67.3%	3	50.3%	62.2%	67.3%	275	2		296		Y
Bucklin R-II	4.26	2.76	1.23	2.52	1.29	86.0%	1.5	85.4%	63.2%	86.0%	168	1		166		Y
Meadville R-IV	5.2755	3.7755	2.2545	3.54	1.2855	85.7%	1.5	78.8%	71.2%	85.7%	236	2		275		Y
Marceline R-V	15.39	9.39	5.19	9.39	4.2	70.0%	6	70.0%	69.2%	62.7%	626	3		634		Y
Brookfield R-III	26.56	16.56	13.26	16.56	3.3	33.0%	10	33.0%	27.1%	26.5%	1,104	4		1,088		Y
Southwest Livingston Co R-I	4.545	3.045	2.0115	3.045	1.0335	68.9%	1.5	42.0%	68.9%	55.2%	203	2		203		Y
Livingston Co R-III	2.925	1.425	0.7365	1.425	0.6885	45.9%	1.5	22.7%	26.3%	45.9%	95	1	Y	76		Y
Grand River Technical School - Chillicothe R-II	40.37	30.37	21.85	29.61	7.76	77.6%	10	72.9%	68.5%	77.6%	1,974	4		1,957		Y
McDonald Co R-I	77.9	57.9	44.24	57.9	13.66	68.3%	20	67.8%	54.0%	68.3%	3,860	5		3,785		Y
Atlanta C-3	4.9125	3.4125	2.2575	3.36	1.1025	73.5%	1.5	73.5%	64.4%	73.5%	224	2		229		Y
Bevier C-4	8.325	3.825	1.0215	3.825	2.8035	62.3%	4.5	41.1%	62.3%	49.6%	255	2		248		Y

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
La Plata R-II (High School)	6.711	5.211	3.699	4.98	1.281	85.4%	1.5	85.4%	80.3%	75.7%	332	2		348		Y
Macon Co R-I	29.86	19.86	14.51	19.86	5.35	53.5%	10	36.8%	39.2%	53.5%	1,324	4		1,362		Y
Callao C-8	2.49	0.99	0.654	0.99	0.336	22.4%	1.5	22.4%	22.2%	19.1%	66	1	Y	58		Y
Macon Co R-IV	3.495	1.995	1.191	1.995	0.804	53.6%	1.5	41.3%	30.2%	53.6%	133	1		137		Y
Marquand-Zion R-VI	4.6095	3.1095	1.7205	2.94	1.2195	81.3%	1.5	81.3%	77.6%	74.7%	196	1		178		Y
Fredericktown R-I	48.11	28.11	19.55	28.11	8.56	42.8%	20	42.8%	2.5%	41.6%	1,874	4		1,932		Y
Maries Co R-I	10.077	8.577	7.113	8.37	1.257	83.8%	1.5	59.3%	66.7%	83.8%	558	3		506		Y
Maries Co R-II	16.935	12.435	9.105	12.345	3.24	72.0%	4.5	62.5%	72.0%	64.8%	823	4		827		Y
Marion Co R-II	9.84	4.84	-1.56	3.39	4.95	99.0%	5	40.4%	38.7%	99.0%	226	2		222		Y
Palmyra R-I	24.135	18.135	12.495	17.415	4.92	82.0%	6	79.0%	72.6%	82.0%	1,161	4		1,154		Y
Hannibal 60	74.795	54.795	41.935	54.795	12.86	64.3%	20	44.9%	45.8%	64.3%	3,653	5		3,611		Y
North Mercer Co R-III	6.495	3.495	0.465	3.03	2.565	85.5%	3	85.5%	78.6%	83.6%	202	2		201		Y
Princeton R-V	8.52	5.52	3.516	5.52	2.004	66.8%	3	60.5%	60.3%	66.8%	388	2		373		Y
Eldon R-I	39.37	29.37	22.87	29.37	6.5	65.0%	10	48.2%	49.2%	65.0%	1,958	4		1,914		Y
Miller Co R-III	6.735	3.735	1.806	3.735	1.929	64.3%	3	52.1%	64.3%	63.1%	249	2		270		Y
St Elizabeth R-IV	13.78	3.78	1.7	3.78	2.08	20.8%	10	20.8%	12.2%	13.0%	252	2		255		Y
School of the Osage R-II	39.385	29.385	24.045	29.385	5.34	53.4%	10	44.8%	49.4%	53.4%	1,959	4		1,963		Y
Iberia R-V	21.535	11.535	8.925	11.535	2.61	26.1%	10	22.1%	22.7%	26.1%	769	3		748		Y
East Prairie R-II	21.84	17.34	15.5175	17.34	1.8225	40.5%	4.5	40.5%	39.9%	38.9%	1,156	4		1,175		Y
Charleston R-I	21.53	16.53	13	16.515	3.515	70.3%	5	62.1%	66.5%	70.3%	1,101	4		1,075		Y
Moniteau Co R-I	31.145	21.145	11.005	19.575	8.57	85.7%	10	70.2%	73.9%	85.7%	1,305	4		1,343	Y	
	1.155	1.155	1.155	1.155	0	0.0%					77	1	Y	69	Y	
	0.915	0.915	0.915	0.915	0	0.0%					61	1	Y	56		Y
Tipton R-VI	13.53	9.03	6.267	9.03	2.763	61.4%	4.5	52.5%	61.4%	40.9%	602	3		603	Y	
Jamestown School	6.705	3.705	1.83	3.705	1.875	62.5%	3	34.7%	62.5%	40.0%	247	2		219		Y
Clarksburg C-2	3.12	1.62	0.726	1.62	0.894	59.6%	1.5	36.1%	59.6%	46.0%	108	1	Y	117		Y
Middle Grove C-1	2.1225	0.6225	-0.4725	0.6	1.0725	71.5%	1.5	29.8%	35.6%	71.5%	40	1	Y	49		Y
Monroe City R-I	17.979	11.979	5.691	10.935	5.244	87.4%	6	40.7%	37.8%	87.4%	729	3		716		Y
Holliday Elementary	2.55	1.05	0.1815	1.05	0.8685	57.9%	1.5	37.3%	57.9%	40.3%	70	1	Y	64		Y
Madison C-3	6.9	3.9	2.571	3.9	1.329	44.3%	3	44.3%	38.3%	29.7%	260	2		265		Y
Paris R-II	12.045	7.545	5.2545	7.545	2.2905	50.9%	4.5	46.4%	44.6%	50.9%	503	3		524		Y
Wellsville-Middletown R-I	10.191	7.191	4.689	6.99	2.301	76.7%	3	67.2%	54.4%	76.7%	466	3		497		Y
Montgomery Co R-II	31.09	21.09	10.43	19.26	8.83	88.3%	10	39.9%	40.2%	88.3%	1,284	4		1,331		Y
Morgan Co R-I	12.867	9.867	7.113	9.54	2.427	80.9%	3	80.9%	80.9%	80.9%	636	3		664		Y
Morgan Co R-II	26.6985	22.1985	18.6615	22.005	3.3435	74.3%	4.5	67.2%	74.0%	74.3%	1,467	4		1,529		Y
Risco R-II	5.754	2.754	0.006	2.43	2.424	80.8%	3	80.8%	43.3%	45.4%	162	1		158		Y
Portageville Wilson Bldg	22.66	12.66	3.74	11.7	7.96	79.6%	10	77.0%	77.8%	79.6%	780	3		812		Y
Gideon 37	9.669	5.169	1.731	5.025	3.294	73.2%	4.5	50.7%	51.7%	73.2%	335	2		346		Y
New Madrid Co R-I	34.165	24.165	17.495	24.165	6.67	66.7%	10	59.3%	66.7%	54.4%	1,611	4		1,644		Y
East Newton Co R-VI	29.964	23.964	19.656	23.91	4.254	70.9%	6	70.9%	64.3%	38.9%	1,594	4		1,681		Y
Diamond R-IV	19.905	15.405	10.815	14.685	3.87	86.0%	4.5	71.0%	75.8%	86.0%	979	4		936		Y
Westview C-6	3.84	2.34	1.6575	2.34	0.6825	45.5%	1.5	40.4%	41.7%	45.5%	156	1	Y	154		Y
Seneca R-VII	30.605	25.605	19.975	24.54	4.565	91.3%	5	89.4%	89.0%	91.3%	1,636	4		1,637		Y
High School Neosho R-V	78.13	68.13	56.09	65.61	9.52	95.2%	10	71.0%	78.0%	95.2%	4,374	5		4,380	Y	
Nodaway-Holt R-VII	6.57	3.57	2.514	3.57	1.056	35.2%	3	23.0%	19.3%	35.2%	238	2		226		Y
West Nodaway Co R-I	7.2	4.2	1.38	3.84	2.46	82.0%	3	76.3%	78.7%	82.0%	256	2		280		Y
Northeast Nodaway R-V	6.645	3.645	1.908	3.645	1.737	57.9%	3	57.9%	50.3%	56.9%	243	2		235		Y
Jefferson C-123	5.286	2.286	0.144	2.265	2.121	70.7%	3	61.8%	70.7%	52.3%	151	1		155		Y
North Nodaway Jr - Sr High	5.07	3.57	2.16	3.39	1.23	82.0%	1.5	54.7%	53.4%	82.0%	226	2		228		Y
Pickering Elementary - North Nodaway Co R-VI	4.89	3.39	2.9835	3.39	0.4065	27.1%	1.5	22.2%	25.5%	27.1%	226	2		228		Y
Eugene Field Elementary - Maryville R-II	22.995	21.495	20.6085	21.495	0.8985	59.1%	1.5	35.2%	46.2%	59.1%	1,433	4		1,463		Y
Eugene Field Elementary - Maryville R-II	22.995	21.495	20.61	21.495	0.885	59.0%	1.5	48.9%	49.9%	59.0%	1,433	4		1,463		Y
Maryville R-II	31.495	21.495	14.715	21.495	6.78	67.8%	10	67.8%	51.7%	67.0%	1,433	4		1,463		Y
South Nodaway Co R-IV	4.395	2.895	2.0625	2.895	0.8325	55.5%	1.5	41.5%	48.1%	55.5%	193	1		204		Y
Couch R-I	103.585	3.585	1.385	3.585	2.2	2.2%	100	1.4%	1.7%	2.2%	239	2		235		Y
Couch R-I	5.2755	3.7755	2.3445	3.585	1.2405	82.7%	1.5	70.5%	73.3%	82.7%	239	2		235		Y
Couch R-I	5.085	3.585	2.535	3.585	1.05	70.0%	1.5	51.4%	70.0%	69.9%	239	2		235		Y
Thayer R-II	16.825	11.825	5.975	10.65	4.675	93.5%	5	50.7%	93.5%	40.7%	710	3		689		Y
Oregon-Howell R-III	6.876	3.876	1.764	3.87	2.106	70.2%	3	53.3%	70.2%	52.2%	258	2		280		Y
Alton R-IV	21.31	11.31	6.68	11.31	4.63	46.3%	10	31.9%	35.1%	46.3%	754	3		782		Y
Osage Co R-I	4.9425	3.4425	2.0175	3.255	1.2375	82.5%	1.5	82.5%	61.4%	69.0%	217	2		235		Y
Osage Co R-II	14.085	9.585	8.2395	9.585	1.3455	29.9%	4.5	20.2%	29.9%	26.6%	639	3		648		Y
Osage Co R-III	15.915	12.915	10.395	12.705	2.31	77.0%	3	40.7%	43.2%	77.0%	847	4		847		Y
Thornfield R-I	2.565	1.065	0.39	1.065	0.675	45.0%	1.5	35.3%	40.5%	45.0%	71	1	Y	65		Y
Bakersfield R-IV	10.515	6.015	3.126	6.015	2.889	64.2%	4.5	64.2%	46.1%	47.5%	401	3		382		Y
Gainesville R-V	14.645	9.645	6.515	9.645	3.13	62.6%	5	62.6%	54.9%	59.3%	643	3		629		Y
Dora R-III	8.4	5.4	2.61	5.055	2.445	81.5%	3	81.5%	65.8%	78.9%	337	2		354		Y
Lutie R-VI	5.0235	3.5235	1.9065	3.24	1.3335	88.9%	1.5	88.9%	88.7%	88.3%	216	2		218		Y
North Pemiscot Co R-I - Ross Elementary	5.91	4.41	3.867	4.41	0.543	36.2%	1.5	0.0%	0.0%	36.2%	294	2		302		Y
North Pemiscot Co R-I	7.41	4.41	2.934	4.41	1.476	49.2%	3	47.7%	49.2%	40.6%	294	2		302		Y
Hayti R-II	17.435	12.435	9	12.435	3.435	68.7%	5	56.4%	64.4%	68.7%	829	4		835		Y
Pemiscot Co R-III	3.3675	1.8675	0.5925	1.755	1.1625	77.5%	1.5	71.4%	77.5%	53.3%	117	1	Y	119		Y
Cooter R-IV	8.289	5.289	2.361	4.875	2.514	83.8%	3	38.5%	33.6%	83.8%	325	2		322		Y
South Pemiscot Co R-V	12.2985	10.7985	9.3015	10.575	1.2735	84.9%	1.5	79.0%	84.9%	67.9%	705	3		729		Y
South Pemiscot Co R-V	12.2925	10.7925	9.3075	10.575	1.2675	84.5%	1.5	71.2%	84.5%	67.0%	705	3		729		Y
Delta C-7	5.004	3.504	2.196	3.375	1.179	78.6%	1.5	77.3%	66.9%	78.6%	225	2		258		Y
Caruthersville 18 Middle School	31.445	21.445	10.765	19.605	8.84	88.4%	10	88.4%	88.3%	88.2%	1,307	4		1,381		Y
Pemiscot Co Special School District	5.217	0.717	-2.757	0.555	3.312	73.6%	4.5	72.9%	66.9%	73.6%	37	1		0		Y
Perry Co 32	45.37	35.37	28.78	35.37	6.59	65.9%	10	53.2%	64.6%	65.9%	2,358	5		2,342		Y
Altenburg 48	3.93	2.43	1.8195	2.43	0.6105	40.7%	1.5	29.6%	40.7%	39.2%	162	1	Y	161		Y

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Northwest High School - Pettis Co R-V	8.385	5.385	3.942	5.385	1.443	48.1%	3	42.6%	38.6%	48.1%	359	2		378		Y
Northwest Elementary - Pettis Co R-V	6.885	5.385	4.9425	5.385	0.4425	29.5%	1.5	27.8%	29.5%	19.7%	359	2		378		Y
La Monte R-IV	9.171	6.171	2.439	5.355	2.916	97.2%	3	76.5%	78.6%	97.2%	357	2		349		Y
Smithton R-VI	14.435	9.435	6.44	9.435	2.995	59.9%	5	23.8%	21.0%	59.9%	629	3		596		Y
Green Ridge R-VIII	9.285	6.285	4.623	6.285	1.662	55.4%	3	40.5%	55.4%	54.9%	419	3		393		Y
Pettis Co R-XII	3.75	2.25	1.428	2.25	0.822	54.8%	1.5	44.4%	53.7%	54.8%	150	1	Y	146		Y
Sedalia 200	92.565	72.565	51.645	69.105	17.46	87.3%	20	49.7%	39.1%	87.3%	4,607	5		4,588		Y
	26.145	26.145	26.145	26.145	0	0.0%					1,743	4		1,750		Y
Newburg R-II	10.11	7.11	5.106	7.11	2.004	66.8%	3	66.8%	48.3%	44.3%	474	3		452		Y
Rolla 31	80.405	60.405	50.205	60.405	10.2	51.0%	20	42.6%	46.3%	51.0%	4,027	5		4,004		Y
Phelps Co R-III	4.6695	3.1695	2.0805	3.15	1.0695	71.3%	1.5	71.3%	53.9%	58.2%	210	2	Y	189		Y
Bowling Green R-I	27.078	21.078	16.122	20.7	4.578	76.3%	6	56.4%	55.7%	76.3%	1,380	4		1,358		Y
Pike Co R-III	13.137	8.637	4.893	8.34	3.447	76.6%	4.5	76.6%	67.0%	65.7%	556	3		544		Y
Pike/Lincoln Technical Center	11.661	8.661	5.919	8.34	2.421	80.7%	3	43.8%	43.7%	80.7%	556	3		544		Y
Boncl R-X	2.145	0.645	0.162	0.645	0.483	32.2%	1.5	24.0%	24.1%	32.2%	43	1	Y	46		Y
Louisiana R-II	15.33	10.83	7.9725	10.83	2.8575	63.5%	4.5	57.5%	53.9%	63.5%	722	3		794		Y
North Platte Co R- I	13.074	10.074	7.356	9.765	2.409	80.3%	3	62.9%	64.3%	80.3%	651	3		656		Y
West Platte R-II	12.81	9.81	7.08	9.495	2.415	80.5%	3	66.6%	71.9%	80.5%	633	3		680		Y
Barry School - Platte Co R-III	56.61	50.61	49.416	50.61	1.194	19.9%	6	14.0%	16.2%	19.9%	3,374	5		3,185	Y	
Platte Co R-III	70.61	50.61	43.69	50.61	6.92	34.6%	20	8.8%	14.0%	34.6%	3,374	5		3,185	Y	
Park Hill Data Center	234.32	154.32	144.56	154.32	9.76	12.2%	80	0.3%	0.2%	12.2%	10,288	6		10,232	Y	
Bolivar R-I	51.95	41.95	30.37	39.66	9.29	92.9%	10	80.3%	87.2%	92.9%	2,644	5		2,664	Y	
Fair Play R-II	9.03	6.03	4.02	6.03	2.01	67.0%	3	51.4%	55.0%	67.0%	402	3		406		Y
Halfway R-III	7.38	4.38	2.286	4.38	2.094	69.8%	3	36.4%	44.6%	69.8%	292	2		298		Y
Humansville R-IV	10.55	5.55	2.065	5.55	3.485	69.7%	5	69.7%	57.7%	33.4%	370	2		370		Y
Marion C Early R-V	13.896	10.896	7.704	10.35	2.646	88.2%	3	73.3%	72.0%	88.2%	890	3		657		Y
Pleasant Hope R-VI	23.41	13.41	7.6	13.41	5.81	58.1%	10	47.1%	53.5%	58.1%	894	4		978		Y
Swedeborg R-III	2.52	1.02	0.3015	1.02	0.7185	47.9%	1.5	47.9%	19.1%	29.2%	68	1	Y	68		Y
Richland R-IV	12.867	9.867	7.023	9.495	2.472	82.4%	3	80.2%	82.4%	79.6%	833	3		603		Y
Laquey R-V	12.231	9.231	6.879	9.105	2.226	74.2%	3	54.5%	63.8%	74.2%	607	3		751		Y
Waynesville R-VI (High School)	112.86	92.86	72.06	89.46	17.4	87.0%	20	71.7%	87.0%	83.4%	5,964	5		5,589		Y
	16.245	16.245	16.245	16.245	0	0.0%					1,083	4		1,092		Y
Crocker R-II	108.145	8.145	3.245	8.145	4.9	4.9%	100	3.9%	2.7%	4.9%	543	3		556		Y
Putnam Co R-I	14.652	11.652	9.078	11.415	2.337	77.9%	3	75.8%	76.7%	77.9%	761	3		795		Y
Ralls Co R-II	14.973	11.973	8.757	11.415	2.658	88.6%	3	38.3%	42.0%	88.6%	761	3		780		Y
Northeast Randolph Co R-IV	9.936	6.936	4.344	6.69	2.346	78.2%	3	61.7%	78.2%	49.1%	446	3		474		Y
Renick R-V	3.72	2.22	1.173	2.22	1.047	69.8%	1.5	51.3%	69.8%	49.4%	148	1	Y	155		Y
Higbee R-VIII	103.42	3.42	1.62	3.42	1.8	1.8%	100	0.9%	0.8%	1.8%	226	2		245		Y
Westran R-I (High School)	13.815	9.315	6.9345	9.315	2.3805	52.9%	4.5	40.9%	42.5%	52.9%	621	3		635		Y
Moberly	56.675	36.675	24.595	36.675	12.08	60.4%	20	46.9%	45.8%	60.4%	2,445	5		2,386		Y
Stet R-XV	2.7	1.2	0.3015	1.2	0.8985	59.9%	1.5	59.9%	59.9%	58.0%	80	1		90		Y
Lawson R-XIV	25.305	19.305	15.711	19.305	3.594	59.9%	6	54.2%	54.5%	59.9%	1,287	4		1,322		Y
Orrick R-XI	16.765	6.765	3.935	6.765	2.83	28.3%	10	21.3%	24.0%	28.3%	451	3		454		Y
Hardin-Central C-2 (High School)	6.39	3.39	2.583	3.39	0.807	26.9%	3	24.6%	26.9%	25.9%	226	2		220		Y
Richmond R-XVI	34.915	24.915	19.975	24.915	4.94	49.4%	10	38.9%	39.1%	49.4%	1,661	4		1,637	Y	
Centerville R-I	2.37	0.87	0.57	0.87	0.3	20.0%	1.5	16.0%	1.7%	20.0%	58	1	Y	50		Y
Southern Reynolds Co R-II	13.875	7.875	4.185	7.875	3.69	61.5%	6	38.1%	38.0%	61.5%	525	3		558		Y
Bunker R-III	9.765	3.765	0.369	3.765	3.396	56.6%	6	55.4%	56.6%	46.5%	251	2		258		Y
Lesterville R-IV	8.655	4.155	2.0895	4.155	2.0655	45.9%	4.5	40.4%	9.5%	45.9%	277	2		286		Y
Naylor R-II Elementary School	7.935	6.435	5.427	6.435	1.008	67.2%	1.5	59.5%	67.2%	56.6%	429	3		428		Y
Doniphan R-I	30.243	24.243	18.747	23.595	4.848	80.8%	6	80.8%	52.0%	72.4%	1,573	4		1,623		Y
Ripley Co R-IV	4.26	2.76	1.8345	2.76	0.9255	61.7%	1.5	50.3%	61.7%	36.6%	184	1	Y	197		Y
Ripley Co R-III	3.435	1.935	1.281	1.935	0.654	43.6%	1.5	33.6%	43.6%	33.2%	129	1	Y	141		Y
Administration - Ft Zumwalt R-II	340.215	295.215	238.605	282.66	44.055	97.9%	45	70.4%	74.8%	97.9%	18,844	6		18,687	Y	
Francis Howell R-III	395.605	295.605	260.405	295.605	35.2	35.2%	100	30.6%	35.2%	35.2%	19,707	6		20,395	Y	
Wentzville R-IV	226.635	181.635	164.715	181.635	16.92	37.6%	45	37.6%	30.5%	37.4%	12,109	6		11,929	Y	
St Charles R-VI (NEW)	104.335	84.335	58.895	78.615	19.72	98.6%	20	88.4%	90.4%	98.6%	5,241	5		5,175	Y	
Orchard Farm R-V	27.765	21.765	18.495	21.765	3.27	54.5%	6	38.7%	38.4%	54.5%	1,451	4		1,486		Y
Appleton City R-II	8.055	5.055	3.246	5.055	1.809	60.3%	3	55.8%	41.5%	60.3%	337	2		344		Y
Roscoe C-1 School	2.4255	0.9255	-0.1455	0.915	1.0605	70.7%	1.5	70.7%	50.0%	63.5%	61	1	Y	61		Y
Lakeland R-III	12.885	6.885	2.805	6.885	4.08	68.0%	6	50.2%	68.0%	46.5%	459	3		463		Y
Osceola	11.22	8.22	5.28	7.8	2.52	84.0%	3	73.2%	73.9%	84.0%	520	3		558		Y
Bismarck R-V	18.865	8.865	5.855	8.865	3.01	30.1%	10	23.7%	24.2%	30.1%	591	3		623		Y
Lincoln Intermediate School - Farmington R-VII	78.515	58.515	48.035	58.515	12.48	62.4%	20	11.4%	13.4%	62.4%	3,901	5		3,827		Y
North St Francois Co R-I	65.09	45.09	32.29	45.09	12.8	64.0%	20	44.9%	44.6%	64.0%	3,006	5		3,207		Y
Central R-III	40.97	30.97	23.65	30.81	7.16	71.6%	10	67.2%	71.6%	68.5%	2,054	5		2,031		Y
West St Francois Co R-IV	25.96	15.96	9.93	15.96	6.03	60.3%	10	46.3%	48.5%	60.3%	1,064	4		1,050		Y
Ste Genevieve Co R-II	37.467	31.467	25.443	30.555	5.112	85.2%	6	74.3%	73.6%	85.2%	2,037	5		2,023		Y
Hazelwood Central High School Annex	533.815	283.815	190.565	283.815	93.25	37.3%	250	31.5%	35.7%	37.3%	18,921	6		18,886	Y	
Ferguson-Florissant R-II	276.13	176.13	146.43	176.13	29.7	29.7%	100	28.0%	29.7%	25.2%	11,742	6		12,678	Y	
Pattonville R-III	129.78	89.78	53.22	85.5	32.28	80.7%	40	32.1%	48.4%	80.7%	5,700	5		5,626	Y	
Rockwood R-VI Babler Elementary	490.035	340.035	249.735	340.035	90.3	60.2%	150	60.2%	54.1%	53.1%	22,669	6		22,566	Y	
Kirkwood R-VII	127.875	82.875	44.535	79.455	34.92	77.6%	45	52.1%	48.9%	77.6%	5,297	5		5,322	Y	
Lindbergh R-VIII	185.425	85.425	54.325	85.425	31.1	31.1%	100	27.0%	26.5%	31.1%	5,695	5		5,643	Y	
Mehlville R-IX	266.95	166.95	148.25	166.95	18.7	18.7%	100	15.9%	16.2%	18.7%	11,130	6		11,124	Y	
Parkway C-2 (Administration Building)	513.835	263.835	160.085	263.835	103.75	41.5%	250	38.0%	37.0%	41.5%	17,589	6		17,504	Y	
Affton High - Affton 101	137.17	37.17	30.57	37.17	6.6	6.6%	100	6.6%	6.4%	4.7%	2,478	5		2,455	Y	
Bayless Intermediate School	36.18	26.18	16.98	25.08	8.1	81.0%	10	48.0%	43.3%	81.0%	1,672	4		1,712	Y	
Brentwood	18.045	12.045	8.307	12.045	3.738	62.3%	6	57.9%	62.3%	62.2%	803	4		803	Y	
Brentwood	18.045	12.045	8.415	12.045	3.63	60.5%	6	57.4%	55.5%	60.5%	803	4		803	Y	

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Clayton Administrative Center	82.17	37.17	14.355	37.17	22.815	50.7%	45	31.4%	40.7%	50.7%	2,478	5		2,605	Y	
Hancock Place	35.695	25.695	20.405	25.695	5.29	52.9%	10	48.0%	52.9%	49.9%	1,713	4		1,798	Y	
Jennings	66.155	46.155	32.155	46.155	14	70.0%	20	64.7%	70.0%	64.0%	3,077	5		3,110	Y	
Ladue	79.365	59.365	40.605	56.985	16.38	81.9%	20	68.0%	70.9%	81.9%	3,799	5		3,701	Y	
Maplewood-Richmond Heights	40.635	20.635	-0.765	16.935	17.7	88.5%	20	47.9%	71.8%	88.5%	1,129	4		1,120	Y	
Normandy	95.455	75.455	43.775	66.615	22.84	114.2%	20	93.4%	114.2%	78.2%	4,441	5		4,590	Y	
Ritenour	144.06	124.06	54.54	96.3	41.76	208.8%	20	96.2%	208.8%	96.7%	6,420	6		6,355	Y	
Riverview Gardens (Central Office)	121.85	101.85	90.17	101.85	11.68	58.4%	20	57.0%	58.4%	49.4%	6,790	6		6,884	Y	
University City	94.11	49.11	34.755	49.11	14.355	31.9%	45	21.9%	21.8%	31.9%	3,274	5		3,294	Y	
Valley Park	35.78	15.78	8	15.78	7.78	38.9%	20	35.2%	38.9%	27.9%	1,052	4		1,021	Y	
Webster Groves	86.81	66.81	56.61	66.81	10.2	51.0%	20	36.5%	38.4%	51.0%	4,454	5		4,368	Y	
Bishop Middle School - Wellston	17.665	7.665	4.925	7.665	2.74	27.4%	10	22.1%	22.1%	27.4%	511	3		598	Y	
Special School District St Louis Co	172.615	72.615	40.115	72.615	32.5	32.5%	100	22.8%	25.0%	32.5%	4,841	5		4,227	Y	
Miami R-I	2.13	0.63	0.1905	0.63	0.4395	29.3%	1.5	28.3%	29.3%	16.8%	42	1	Y	50		Y
Orearville R-IV	2.544	1.044	-0.654	0.72	1.374	91.6%	1.5	29.3%	41.0%	91.6%	48	1	Y	48		Y
Malta Bend R-V	4.77	1.77	0.321	1.77	1.449	48.3%	3	32.0%	48.3%	39.8%	118	1		110		Y
Hardeman R-X - Elementary Building	2.28	0.78	-0.156	0.78	0.936	62.4%	1.5	55.7%	62.4%	33.1%	52	1	Y	48		Y
Gilliam C-4	2.115	0.615	0.327	0.615	0.288	19.2%	1.5	19.2%	15.0%	17.7%	41	1	Y	42		Y
Marshall School District	57.905	37.905	29.625	37.905	8.28	41.4%	20	34.4%	41.4%	38.3%	2,527	5		2,598		Y
Slater	15.745	5.745	0.305	5.745	5.44	54.4%	10	54.4%	54.3%	29.3%	383	2		379		Y
Sweet Springs R-VII	16.87	6.87	2.24	6.87	4.63	46.3%	10	36.9%	40.2%	46.3%	458	3		474		Y
Schuyler Co R-I	13.44	10.44	7.62	10.08	2.46	82.0%	3	77.9%	82.0%	76.6%	672	3		678		Y
Gorin R-III	1.875	0.375	-0.3195	0.375	0.6945	46.3%	1.5	46.3%	30.2%	36.6%	25	1	Y	25		Y
Scotland Co R-I	12.36	9.36	6.3	8.88	2.58	86.0%	3	45.4%	44.7%	86.0%	592	3		723		Y
Scott City R-I	18.147	15.147	12.273	14.76	2.487	82.9%	3	82.9%	59.4%	60.2%	984	4		986		Y
Chaffee R-II High School	11.265	8.265	6.336	8.265	1.929	64.3%	3	64.3%	44.8%	56.3%	551	3		558		Y
Chaffee R-II Elementary	9.765	8.265	7.4655	8.265	0.7995	53.3%	1.5	40.1%	36.2%	53.3%	551	3		558		Y
Scott Co R-IV	17.73	14.73	12.645	14.73	2.085	69.5%	3	69.5%	51.5%	56.9%	982	4		975		Y
Scott Co Central R-V	7.935	4.935	3.093	4.935	1.842	61.4%	3	54.1%	56.5%	61.4%	329	2		363		Y
Sikeston R-VI	74.91	54.91	39.39	54.15	14.76	73.8%	20	63.6%	69.0%	73.8%	3,610	5		3,606		Y
Kelso C-7	2.835	1.335	0.4935	1.335	0.8415	56.1%	1.5	52.5%	43.0%	56.1%	89	1	Y	104		Y
Oran R-III	7.245	5.745	4.575	5.685	1.11	74.0%	1.5	74.0%	55.8%	48.3%	379	2		366		Y
Winona R-III	17.32	7.32	2.65	7.32	4.67	46.7%	10	46.7%	46.2%	41.2%	488	3		527		Y
Eminence R-I	9.68	4.68	3.455	4.68	1.225	24.5%	5	23.8%	19.4%	24.5%	312	2		316		Y
North Shelby	7.935	4.935	1.935	4.485	2.55	85.0%	3	58.6%	44.5%	85.0%	299	2		316		Y
Shelby Co R-IV	17.292	11.292	7.008	11.25	4.242	70.7%	6	33.5%	33.0%	70.7%	750	3		806		Y
Richland R-I	7.224	4.224	1.356	3.84	2.484	82.8%	3	78.7%	70.0%	82.8%	256	2		305		Y
Bell City R-II	6.42	3.42	1.515	3.42	1.905	63.5%	3	36.1%	42.6%	63.5%	228	2		241		Y
Advance R-IV	106.42	6.42	3.62	6.42	2.8	2.8%	100	1.6%	2.1%	2.8%	428	3		452		Y
Advance R-IV	10.92	6.42	3.6165	6.42	2.8035	62.3%	4.5	35.3%	46.0%	62.3%	428	3		452		Y
Puxico R-VIII	16.125	13.125	11.055	13.125	2.07	69.0%	3	69.0%	57.8%	54.1%	875	4		769		Y
Bloomfield R-XIV	14.643	11.643	9.327	11.535	2.208	73.6%	3	64.8%	73.6%	58.4%	769	3		748		Y
Dexter R-XI	34.101	31.101	28.449	30.825	2.376	79.2%	3	72.9%	71.6%	79.2%	2,055	5		2,048		Y
Bernie R-XIII	12.75	8.25	5.739	8.25	2.511	55.8%	4.5	47.2%	55.8%	36.6%	550	3		566		Y
Hurley R-I	6.81	3.81	2.223	3.81	1.587	52.9%	3	41.4%	41.4%	52.9%	254	2		271		Y
Abesville Elementary - Galena R-II	9.864	8.364	7.116	8.265	1.149	76.6%	1.5	60.0%	58.3%	76.6%	551	3		553		Y
Galena R-II	11.649	8.649	5.781	8.265	2.484	82.8%	3	66.6%	59.0%	82.8%	551	3		553		Y
Crane R-III	24.12	14.12	1.38	11.25	9.87	98.7%	10	51.8%	98.7%	49.2%	750	3		745		Y
Reeds Spring R-IV	42.985	32.985	23.585	31.785	8.2	82.0%	10	47.9%	52.3%	82.0%	2,119	5		2,196		Y
Blue Eye R-V	14.322	11.322	8.658	11.04	2.382	79.4%	3	78.7%	79.4%	76.0%	736	3		666		Y
Green City R-I	7.635	4.635	2.751	4.635	1.884	62.8%	3	62.8%	50.6%	49.1%	309	2		320		Y
Milan C-2	13.752	10.752	7.968	10.41	2.442	81.4%	3	44.4%	51.6%	81.4%	694	3		735		Y
Newtown-Harris R-III (High School)	4.545	1.545	-0.531	1.545	2.076	69.2%	3	69.2%	67.3%	69.0%	103	1		109		Y
Bradleyville R-I	5.364	3.864	2.616	3.765	1.149	76.6%	1.5	69.2%	61.5%	76.6%	251	2		251		Y
Taneyville R-II	6.135	3.135	2.004	3.135	1.131	37.7%	3	26.9%	37.7%	36.9%	209	2	Y	208		Y
Forsyth R-III	28.39	18.39	14.01	18.39	4.38	43.8%	10	43.8%	36.6%	33.0%	1,226	4		1,233		Y
Branson R-IV - Mountain Data Center	85.685	65.685	52.745	65.685	12.94	64.7%	20	62.3%	60.7%	64.7%	4,379	5		4,205		Y
Hollister R-V	26.895	20.895	16.761	20.895	4.134	68.9%	6	68.9%	65.3%	65.5%	1,393	4		1,370		Y
Kirbyville R-VI Middle School	7.851	4.851	2.139	4.545	2.406	80.2%	3	68.0%	64.9%	80.2%	303	2	Y	326		Y
Mark Twain R-VIII	2.475	0.975	0.117	0.975	0.858	57.2%	1.5	29.0%	57.2%	31.1%	65	1	Y	77		Y
Success R-VI	3.06	1.56	0.7575	1.56	0.8025	53.5%	1.5	53.5%	35.9%	33.3%	104	1	Y	108		Y
Houston R-I	26.38	16.38	8.12	15.75	7.63	76.3%	10	75.4%	76.3%	58.8%	1,050	4		1,047		Y
	6.105	6.105	6.105	6.105	0	0.0%					407	3		395		Y
Licking R-VIII	16.749	13.749	9.861	12.855	2.994	99.8%	3	99.7%	86.4%	99.8%	857	4		830		Y
Cabool R-IV	16.05	13.05	9.27	12.21	2.94	98.0%	3	90.9%	77.9%	98.0%	814	4		809		Y
Plato R-V	16.692	10.692	5.808	10.35	4.542	75.7%	6	75.7%	59.8%	47.1%	690	3		666		Y
Raymondville R-VII	3.3	1.8	0.984	1.8	0.816	54.4%	1.5	50.9%	54.4%	32.5%	120	1	Y	130		Y
Nevada R-V	58.31	38.31	27.89	38.31	10.42	52.1%	20	44.1%	44.2%	52.1%	2,554	5		2,583		Y
Bowman Bldg - Nevada R-V	41.31	38.31	36.999	38.31	1.311	43.7%	3	31.6%	43.7%	38.7%	2,554	5		2,583		Y
Bronaugh R-VII	6.6	3.6	1.824	3.6	1.776	59.2%	3	37.9%	51.2%	59.2%	240	2		237		Y
Sheldon R-VIII	4.8735	3.3735	1.7865	3.105	1.3185	87.9%	1.5	81.3%	87.9%	76.2%	207	2		207		Y
Northeast Vernon County R-I (High School)	4.8705	3.3705	1.8195	3.12	1.3005	86.7%	1.5	75.3%	86.7%	51.4%	208	2		206		Y
Northeast Vernon County R-I (High School)	4.71	3.21	1.98	3.12	1.14	76.0%	1.5	76.0%	67.5%	62.8%	208	2		206		Y
Northeast Vernon County R-I (Elementary School)	4.62	3.12	2.904	3.12	0.216	14.4%	1.5	12.5%	14.4%	8.5%	208	2		206		Y
Wright City R-II	28.62	22.62	19.986	22.62	2.634	43.9%	6	43.4%	39.7%	43.9%	1,508	4		1,518		Y
Wright City R-II	28.62	22.62	19.986	22.62	2.634	43.9%	6	43.5%	39.7%	43.9%	1,508	4		1,518		Y
Warren County R-III	52.251	46.251	39.819	45.135	5.316	88.6%	6	83.3%	83.8%	88.6%	3,009	5		3,035		Y
Kingston K-14	23.84	13.84	4	12.42	8.42	84.2%	10	84.2%	57.9%	80.6%	828	4		828		Y
Potosi R-III	41.619	37.119	32.871	36.57	3.699	82.2%	4.5	82.2%	81.9%	78.2%	2,438	5		2,437	Y	
Richwoods R-VII	4.602	3.102	1.578	2.865	1.287	85.8%	1.5	85.8%	68.7%	40.9%	191	1	Y	167		Y

Site Name	Total BW needed for util at 70% and online testing	If Current BW util >70% add	Add BW needed(Mbps)	BW needed (Mbps)	Highest BW used	Highest Utilization	Bandwidth (Mbps)	April 2009	May 2009	December 2009	2010Enroll	Size	K8District	2009Enroll	Urban	Rural
Valley R-VI	7.9905	6.4905	4.9395	6.24	1.3005	86.7%	1.5	86.7%	84.9%	84.5%	416	3		454		Y
Greenville R-II	14.637	11.637	8.913	11.325	2.412	80.4%	3	72.5%	79.5%	80.4%	755	3		755		Y
Clearwater R-I High	22.38	16.38	12.984	16.38	3.396	56.6%	6	36.3%	33.7%	56.6%	1,092	4		1,074		Y
Clearwater R-I Elementary	17.88	16.38	15.606	16.38	0.774	51.6%	1.5	51.6%	47.8%	50.1%	1,092	4		1,074		Y
Niangua R-V	5.721	4.221	2.739	4.005	1.266	84.4%	1.5	75.8%	68.2%	84.4%	267	2		254		Y
	9.75	9.75	9.75	9.75	0	0.0%					650	3		633		Y
Marshfield R-I	66.59	46.59	38.95	46.59	7.64	38.2%	20	30.9%	31.2%	38.2%	3,106	5		3,198	Y	
Seymour R-II	16.602	13.602	10.098	12.9	2.802	93.4%	3	93.4%	88.2%	93.0%	860	4		887		Y
Worth Co R-III	12.015	6.015	3.987	6.015	2.028	33.8%	6	33.8%	32.0%	33.8%	401	3		370		Y
Norwood R-I	17.605	7.605	4.995	7.605	2.61	26.1%	10	11.3%	13.2%	26.1%	507	3		501		Y
Hartville R-II	21.4	11.4	5.79	11.4	5.61	56.1%	10	55.3%	56.1%	50.8%	760	3		788		Y
Mountain Grove R-III	35.29	25.29	15.53	23.91	8.38	83.8%	10	59.1%	52.8%	83.8%	1,594	4		1,611		Y
Mansfield R-IV	14.022	11.022	8.028	10.575	2.547	84.9%	3	84.9%	58.4%	78.9%	705	3		709		Y
Manes R-V	2.43	0.93	0.444	0.93	0.486	32.4%	1.5	19.1%	32.4%	12.5%	62	1	Y	62		Y
	394.62	394.62	394.62	394.62	0	0.0%					26,308	6		27,421	Y	
Missouri School for the Blind	3.975	0.975	-0.735	0.975	1.71	57.0%	3	25.4%	57.0%	27.5%	65	1		67	Y	
											378	2		394	Y	
											434	3		347	Y	
											913	4		910	Y	
											807	4		850	Y	
											505	3		524	Y	
											3,011	5		2,732	Y	
											478	3		505	Y	
											1,351	4		1,527	Y	
											1,339	4		1,387	Y	
											80	1		52	Y	
											0			0	Y	
											54	1		0	Y	
											83	1		0	Y	
											958	4		994		
											1,110	4		977		

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Academie Lafayette	327,000.00
Adair County R-I	
Adair County R-II	10,000.00
Adrian R-III School	20,000.00
Advance R-IV	100,000.00
Affton 101	70,000.00
Albany R-III	
Allen Village School	
Alta Vista Charter School	
Alton R-IV Schools	
Amanda Johnson	
Appleton City R-2 School	10,000.00
Arcadia Valley RII	50,000.00
Archie R-V School District	5,000.00
Ash Grove R-IV	100,000.00
Atlanta C-3	
Aurora R-VIII School District	
Ava R-I School District	200,000.00
Avenue City R-IX School District	50,000.00
Avilla R-XIII	40,000.00
Avilla R-XIII	30,000.00
Bakersfield R-4 School	
Ballard R-2	
Bayless School District	10,000.00
Bell City R-II	
Belleview R-III	30,000.00
Belton School District	1,000,000.00
Benjamin Banneker Charter Academy f Technc	65,000.00
Bernie School District	
Bevier C-4	0.00
Billings R-IV	2,500.00
Bismarck R-V	
Blackwater R-II	7,500.00
Blair Oaks R-II Schools	75,000.00
Bloomfield R-14 School District	80,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Blue Eye R-V	140,000.00
Blue Springs R-IV	1,200,000.00
Bolivar R-I School District	
Boonville R-1 School District	
Bosworth R-V	
Bowling Green R-1	200,000.00
Bradleyville R-I	
Branson	150,000.00
Braymer C-4 School District	
Breckenridge R-I	
Brentwood	0.00
Bronaugh R-7	
Brookfield R-III School District	
Brunswick R-II School District	0.00
Buchanan County R-IV	
Bucklin R-II	
Bunker R3 School	55,000.00
Butler R-V	120,000.00
Cabool R-IV	
Calhoun R-VIII	1,200.00
CALLAO C-8 SCHOOL	
Camdenton R-III School District	
Cameron R-I School District	300,000.00
Campbell	10,000.00
Cape Girardeau School District	60,000.00
Carl Junction R-1 School District	
Carrollton R-VII School District	
Carthage R-9	50,000.00
Caruthersville #18	1,200.00
Cassville R-IV School District	
Center School District 58	
Centerville R-I	50,000.00
Central R-III	10,000.00
Centralia R-VI School District	0.00
Chadwick R-I School District	

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Chaffee R-II	0.00
Chilhowee R-IV	1,200.00
Chillicothe R-II	
Clark County R-I	
Clarkton C4 School District	
Clearwater R-1	0.00
Clever R-V Public Schools	100,000.00
Climax Springs R-IV School	
Clinton County R-3	0.00
Clinton School District	
Cole Camp R-1	
Cole R-1 School District	
Columbia	
Community R-VI	
Concordia R-2 High School	
Confluence Academy	5,000,000.00
Construction Careers Center	
Cooper County R-4	7,500.00
Couch R-1 School District	100,800.00
Cowgill R-VI	0.00
Craig R-3	
Crane R-III	80,000.00
Crawford County R-I School District	100,000.00
Crocker R-II	14,000.00
Crystal City Public Schools 47	
Dallas County R-1	20,000.00
Davis R-XII	
De Soto 73 School District	90,000.00
Della Lamb Charter School	30,000.00
Delta C-7 School District	100,000.00
Delta RV	
Dent-Phelps R-III	0.00
Derrick Thomas Academy	0.00
Dexter R-XI School District	900,000.00
Diamond R-IV	8,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Dixon R-1 Schools	
Don Bosco Education Center	
Doniphan R-1 School	500,000.00
Dora R-III School District	15,000.00
Drexel R-IV School	30,000.00
Dunklin R-5	
East Buchanan C-1	65,000.00
East Carter R-II	50,000.00
East Lynne #40 School District	92,000.00
East Newton R-Vi	500,000.00
East Prairie R-2	42,000.00
El Dorado Springs R II	
Eldon R-1	0.00
Elsberry RII	0.00
Eminence R-1	
Ethel Hedgeman Lyle Academy	150,000.00
Everton R-III School District	72,000.00
Excelsior Springs School District	10,000.00
Fair Grove R-X	200,000.00
Fair Play R-II District	
Fairfax R-3 School District	8,000.00
Fairview R-XI School	500,000.00
Farmington R-7	75,000.00
Fayette R-III	60,000.00
Ferguson-Florissant	0.00
Festus R-VI	450,000.00
Fordland R-III	
Forsyth R-III	0.00
Fort Osage R-1 School District	150,000.00
Fort Zumwalt School District	100,000.00
Fox C-6	300,000.00
Francis Howell School District	2,000,000.00
Franklin County R-II School	100,000.00
Fredericktown R-I	
Fulton 58	350,218.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Gainesville R-V	20,000.00
Gallatin R-V Schools	
Gasconade County R-1	5,000.00
Gasconade County R-2 Schools	0.00
Genesis	
Gideon 37 School District	
GILLIAM C-4	30,000.00
Gilman City RIV School	
Glasgow School District	10,000.00
Glenwood R-8	75,000.00
Golden City R-III	5,000.00
Gordon Parks Elementary	50,000.00
Gorin R-III	
Grain Valley R-5	25,000.00
Grandview C-4	250,000.00
Grandview R-II	60,000.00
Green City R-1	0.00
Green Forest R-II	50,000.00
Green Ridge R-VIII School	
Greenfield R-IV Schools	0.00
Greenville R-II	80,000.00
Grundy R-V	30,000.00
Hale R-1	
Halfway R-3	30,000.00
Hallsville R-IV School District	350,000.00
Hamilton R-2	
Hancock Place School District	
Hannibal #60 Schools	700,000.00
Hardeman R-X	
Hardin- Central C-2	30,000.00
Harrisburg R-VIII	
Harrisonville R-IX	
Hartville R-II	
Hayti R-II	60,000.00
Hazelwood School District	

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Henry Couty R-I	
Hermitage R-IV	
Hickman Mills C-1	500,000.00
hickory County R-1	
Higbee R-VIII School District	70,000.00
Hillsboro R-3	666,200.00
Hogan Preparatory Academy	
Holcomb R-III	5,000.00
Holden R-III	135,000.00
Holliday C-2 School	23,400.00
Hollister R-V	
Hope Academy Charter School	
Houston R-I Schools	200,000.00
Howell Valley R-1	200,000.00
Hurley R-I School District	3,000.00
Iberia R-V	
Imagine Academy of Academic Success	
Imagine Academy of Careers	
Imagine Renaissance Academy of	
Independence 30	750,000.00
Jackson R-2	20,000.00
Jamestown C-1 School	
Jasper R-5	
Jefferson C-123	
Jefferson City School District	60,000.00
Jefferson County R-VII	100,000.00
Jennings School Districtt	2,000,000.00
Johnson Co. R-VII	45,000.00
Joplin Schools	125,000.00
Kansas City, Missouri School District	
Kearney R-1 School District	
Kelso C-7 School Disrict	7,000.00
Kennett #39 School District	20,000.00
Keytesville R-III	0.00
King City R-1	4,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Kingston 42	0.00
Kingston K-14	15,000.00
Kingsville R-1	2,000.00
KIPP Endeavor Academy	
Kirbyville RVI	32,750.00
Kirksville R-III School District	12,000.00
Kirkwood School District R7	
Knob Noster R-VIII	1,500.00
Knox County R-I School District	
La Monte R-IV School	
Laclede County -1	5,000.00
Laclede County C-5 School District	
Ladue	
LAFAYETTE COUNTY C-1	
Lakeland R-III	
Lamar R-1	120,000.00
Laquey R-V School District	150,000.00
Laredo R-VII	5,000.00
Lathrop R-II	
Lawson R-XIV School District	10,000.00
Lebanon R-3 School District	
Lee's Summit	
Leesville R-IX	
Leeton R-X School District	
Leopold R-III	
Lesterville R-IV	
Lewis County C-1	15,000.00
Lexington R-V	5,000.00
Liberal R-II	
Liberty Public Schools	0.00
Licking R-VIII School District	3,500.00
Lift For Life Academy	0.00
Lincoln County R-IV School District	40,000.00
Lindbergh Schools	
Linn County R-I	30,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Livingston Co. R-III	0.00
Logan-Rogersville R-8 Schools	200,000.00
Lone Jack C-6	125,000.00
Lonedell R-14	50,000.00
Louisiana R-II School District	200,000.00
Luray School District 33	2,000.00
Macks Creek R-V School	0.00
Macon County R-1 School District	
Madison C-3	
Malden R-I School District	
Malta Bend R-V School District	
Manes R-V School	
Mansfield RIV	10,000.00
Maplewood Richmond Heights	250,000.00
Marceline R-V	15,000.00
Maries County R-II	200,000.00
Maries R-1	240,000.00
Marion C. Early R-V	165,000.00
Marion County R-II	
Marionville R-9 Schools	
Mark Twain R-VIII Schools	7,500.00
Marquand-Zion R-VI	10,000.00
Marshall	200,000.00
Marshfield R-1 Schools	400,000.00
Maryville R II	15,000.00
Maysville R-I School District	300,000.00
McDonald County R-1	
Meadow Heights R-II	20,000.00
Meadville R-IV	
Mehlville School District	3,000,000.00
Meramec Valley R-III	400,000.00
Mexico 59	15,000.00
Miami R-1	5,000.00
Miami R-I	5,000.00
Mid-Buchanan R-V	

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Middle Grove C-1	0.00
Milan C-2 School District	100,000.00
Miller County R-III	10,000.00
Mirabile C-I	10,000.00
Missouri City #56	10,000.00
Missouri School for the Blind	
Missouri School for the Deaf	0.00
Moberly	
Monett R-1 School District	
Moniteau County R-I	5,000.00
Moniteau R-V	
Monroe City R-I Schools	
Montgomery County R-II	350,000.00
Montrose R-14	
Morgan County R-1	
Morgan County RII	550,000.00
Mound City R-2	10,000.00
Mountain Grove R-III	
Mountain View-Birch Tree R-III	0.00
Mt. Vernon R-5 School District	50,000.00
Naylor R-II	100,000.00
Neelyville R-IV	
Nell Holcomb R-IV	100,000.00
Neosho R-V	0.00
Nevada R-V	
New Bloomfield R-III	
New Franklin R-1	5,000.00
New Haven #138	20,000.00
New Madrid County R-1	
Newburg R-II	
Newtown-Harris R-III	0.00
Nixa R-II	
Nodaway Holt R-VII	0.00
Norborne R-8 School District	0.00
North Andrew R-VI	0.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
North Callaway R1	150,000.00
North Daviess R-III	59,000.00
North Harrison R-III	
North Kansas City 74	5,000,000.00
North Mercer R-III	30,000.00
North Nodaway R-6 School District	60,000.00
North Platte	32,000.00
North Shelby	
North St. Francois County R-1	12,000.00
North Wood R-IV School District	
Northeast Nodaway R-V	
Northeast R-IV	0.00
Northwest R-I School District	
Northwestern R-1	
Norwood R-1	5,000.00
Oak Grove R-VI School District	1,000,000.00
Oak Hill R-1	119,000.00
Oak Ridge R-6	10,000.00
Odessa R-VII	260,000.00
Oran R-III	204,800.00
Orchard Farm R-V School District	150,000.00
Orearville R-4	
Oregon-Howell	10,000.00
Orrick R-XI School District	
Osage Co. R-III	25,000.00
Osage County R-1	0.00
Osage County R-II Schools	275,000.00
Osborn R-O+A368	75,000.00
Osceola	20,000.00
Otterville R-VI	60,000.00
Ozark R-VI	250,000.00
Palmyra R1 School District	
Paris R-II	0.00
Park Hill School District	
Parkway School District	4,000,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Pathway	30,000.00
Pattonsburg R-2	55,000.00
Pattonville R-3	200,000.00
Pemiscot County R-3	50,000.00
Pemiscot County Special School District	
Perry County School District #32	15,000.00
Pettis Co R-XII	25,000.00
Pettis County R-V	
Phelps County R-3 School	50,000.00
Pierce City R-VI	20,000.00
Pike County R-III	50,000.00
Pilot Grove C-4 School	80,000.00
Plato R-V	500,000.00
Platte County	
Pleasant Hill R-III	300,000.00
Pleasant Hope R6	100,000.00
Polo R-VII	
Poplar Bluff R-1	126,000.00
Portageville School District	
Potosi R-3	1,462,500.00
Prairie Home R-V School	45,000.00
Princeton R-V	30,000.00
Purdy R II	12,000.00
Putnam Co R1 Schools	0.00
Puxico R-8 Schools	0.00
Ralls County R-II	12,000.00
Raymondville R-VII	20,000.00
Raymore-Peculiar	250,000.00
Raytown C-2 School District	190,000.00
Reeds Spring R-IV	225,000.00
Renick R-V School	120,000.00
Republic R-3 Schools	0.00
Revere C-3	
Rich Hill R-IV	0.00
Richards R-V School	150,000.00

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Richland R-1	
Richland R-IV	0.00
Richmond R-XVI School District	20,000.00
Richwoods R-VII School	50,000.00
Ridgeway R-V School	
Ripley County R-III School	40,000.00
Risco RII	35,000.00
Ritenour School District	
Riverview Gardens School District	
Rock Port R-II	12,500.00
Rockwood R-VI	
Rolla 31	8,000.00
Saint Joseph School District	
Salem R80 School District	12,000.00
Salisbury R-IV	50,000.00
Santa Fe R-X	75,000.00
Sarcoxie R-II	0.00
Savannah R-III	250,000.00
School District of Clayton	
School of the Osage	250,000.00
Schuyler R-1 School	
Scotland Co. R-I Schools	350,000.00
Scott City R-1	5,000.00
Scott County Central	
Scott County R-IV	100,000.00
Scula Vita Nuova Charter	0.00
Sedalia School District #200	300,000.00
Senath-Hornersville	22,500.00
Seneca R-7	
Seymour	
Shawnee R-III	7,000.00
Shelby Co RIV	0.00
Sheldon R-VIII Schools	
Shell Knob School District #1	80,000.00
Sherwood Cass R-8	

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District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Sikeston R-6	
Silex RI	50,000.00
Skyline R-II	15,000.00
Slater Public Schools	
Smithton R-VI	
Smithville R-II	430,000.00
South Harrison R-II	1,000.00
South Holt R-I	0.00
South Iron R-1	
South Nodaway	300,000.00
South Pemiscot R-V School District	10,000.00
Southern Boone Co. R-1	150,000.00
Southland C-9	2,000.00
Southwest R-V	0.00
Sparta R-III	
Special School District of St. Louis County	
Spickard R-II	
Spokane R-VII School District	70,000.00
Spring Bluff R-XV	
Springfield R-12 Public Schools	10,000.00
St. Charles R-VI School District	30,000.00
St. Clair R-XIII	100,000.00
St. Elizabeth R-IV	
St. James R-1	3,000.00
St. Louis Charter School	15,000.00
St. Louis Public Schools	
Stanberry R-II	0.00
Ste. Genevieve R-II School District	0.00
Steelville R-3	2,500.00
Stewartsville C-2	
Stockton R-1	
Stoutland R-II Schools	10,000.00
Strafford R-VI	8,000.00
Strain-Japan R-16	15,000.00
Strasburg C-3	

Appendix 16 State of Missouri

District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Sturgeon R-V	0.00
Success R - 6 School	5,000.00
Sullivan School District	0.00
Summersville R-II	
Sunrise R-IX	50,000.00
Sweet Springs R-VII	
Taneyville R-II	95,000.00
Tarkio R-I	8,000.00
Thayer R-2	150,000.00
Tina-Avalon R-II	
Tolbert District	12.00
Trenton R-IX	150,000.00
Tri-County R-VII	2,000.00
Troy R-III School District	0.00
Twin Rivers R-10	30,000.00
Union R-XI School District	20,000.00
Union Star R-II School	2,000.00
University Academy	75,000.00
University City	200,000.00
Urban Community Leadership Academy	15,000.00
Valley Park School District	30,000.00
VALLEY R-6	20,000.00
Van Buren R-1	25,000.00
Van-Far R-1	4,500.00
Verona R-VII Schools	0.00
WALNUT GROVE RV	1,500.00
Warren County R-III School District	2,400,000.00
Warrensburg R-VI	
Warsaw R-IX	
Washington	5,000.00
Waynesville R-VI	75,000.00
WEAUBLEAU R-III	
Webb City R-7 School District	
Webster Groves	20,000.00
Wellington-Napoleon	

Appendix 16 State of Missouri

District Name:	If yes, what is the estimated cost to upgrade? (Please enter numbers only - not dollar signs or commas)
	Estimated cost
Wellston	
Wellsville-Middletown R-I	
Wentzville R-IV School District	200,000.00
West Nodaway R-1 School District	
West Platte Co. R-II	
West St. Francois County R-IV	57,600.00
Westran R-1 School District	
Westview C-6 School District	50,000.00
Wheatland R-II	
Wheaton R-III	0.00
Willard	
Willow Springs R-IV	
Windsor C-1	
Winona R-III	120,000.00
Winston R-VI School District	35,000.00
Woodland R-IV	
Worth County R-III	8,000.00
Wright City R-II	400,000.00
Zalma R-V Schools	30,000.00
TOTALS	**54,491,380.00**

Missouri Revised Statutes

Chapter 168
Personnel--Teachers and Others
Section *168.021*

August 28, 2009

Issuance of teachers' licenses--effect of certification in another state and subsequent employment in this state.

168.021. 1. Certificates of license to teach in the public schools of the state shall be granted as follows:

(1) By the state board, under rules and regulations prescribed by it:

(a) Upon the basis of college credit;

(b) Upon the basis of examination;

(2) By the state board, under rules and regulations prescribed by the state board with advice from the advisory council established by section 168.015 to any individual who presents to the state board a valid doctoral degree from an accredited institution of higher education accredited by a regional accrediting association such as North Central Association. Such certificate shall be limited to the major area of postgraduate study of the holder, shall be issued only after successful completion of the examination required for graduation pursuant to rules adopted by the state board of education, and shall be restricted to those certificates established pursuant to subdivision (1) of subsection 3 of this section;

(3) By the state board, which shall issue the professional certificate classification in both the general and specialized areas most closely aligned with the current areas of certification approved by the state board, commensurate with the years of teaching experience of the applicant, and based upon the following criteria:

(a) Recommendation of a state-approved baccalaureate-level teacher preparation program;

(b) Successful attainment of the Missouri qualifying score on the exit assessment for teachers or administrators designated by the state board of education. Applicants who have not successfully achieved a qualifying score on the designated examinations will be issued a two-year nonrenewable provisional certificate; and

(c) Upon completion of a background check and possession of a valid teaching certificate in the state from which the applicant's teacher preparation program was completed;

(4) By the state board, under rules prescribed by it, on the basis of a relevant bachelor's degree, or higher degree, and a passing score for the designated exit examination, for individuals whose academic degree and professional experience are suitable to provide a basis for instruction solely in the subject matter of banking or financial responsibility, at the discretion of the state board. Such certificate shall be limited to the major area of study of the holder and shall be restricted to those certificates established under subdivision (1) of subsection 3 of this section. Holders of certificates granted under this subdivision shall be exempt from the teacher tenure act under sections 168.102 to 168.130 and each school district shall have the decision-making authority on whether to hire the holders of such certificates; or

*(5) By the state board, under rules and regulations prescribed by it, on the basis of certification by the American Board for Certification of Teacher Excellence (ABCTE) and verification of ability to work with children as demonstrated by sixty contact hours in any one of the following areas as validated by the school principal: sixty contact hours in the classroom, of which at least forty-five must be teaching; sixty contact hours as a substitute teacher, with at least thirty consecutive hours in the same classroom; sixty contact hours of teaching in a private school; or sixty contact hours of teaching as a paraprofessional, for an initial four-year ABCTE certificate of license to teach, except that such certificate shall not be granted for the areas of early childhood education, elementary education, or special education. Upon the completion of the requirements listed in paragraphs (a), (b), (c), and (d) of this subdivision, an applicant shall be eligible to apply for a career continuous professional certificate under subdivision (2) of subsection 3 of this section:

(a) Completion of thirty contact hours of professional development within four years, which may include hours spent in class in an appropriate college curriculum;

(b) Validated completion of two years of the mentoring program of the American Board for Certification of Teacher Excellence or a district mentoring program approved by the state board of education;

(c) Attainment of a successful performance-based teacher evaluation; and

(d) Participate in a beginning teacher assistance program.

2. All valid teaching certificates issued pursuant to law or state board policies and regulations prior to September 1, 1988, shall be exempt from the professional development requirements of this section and shall continue in effect until they expire, are revoked or suspended, as provided by law. When such certificates are required to be renewed, the state board or its designee shall grant to each holder of such a certificate the certificate most nearly equivalent to the one so held. Anyone who holds, as of August 28, 2003, a valid PC-I, PC-II, or continuous professional certificate shall, upon expiration of his or her current certificate, be issued the appropriate level of certificate based upon the classification system established pursuant to subsection 3 of this section.

3. Certificates of license to teach in the public schools of the state shall be based upon minimum requirements prescribed by the state board of education. The state board shall provide for the following levels of professional certification: an initial professional certificate and a career continuous professional certificate.

(1) The initial professional certificate shall be issued upon completion of requirements established by the state board of education and shall be valid based upon verification of actual teaching within a specified time period established by the state board of education. The state board shall require holders of the four-year initial professional certificate to:

(a) Participate in a mentoring program approved and provided by the district for a minimum of two years;

(b) Complete thirty contact hours of professional development, which may include hours spent in class in an appropriate college curriculum, or for holders of a certificate under subdivision (4) of subsection 1 of this section, an amount of professional development in proportion to the certificate holder's hours in the classroom, if the certificate holder is employed less than full time; and

(c) Participate in a beginning teacher assistance program;

(2) (a) The career continuous professional certificate shall be issued upon verification of completion of four years of teaching under the initial professional certificate and upon verification of the completion of the requirements articulated in paragraphs (a), (b), and (c) of subdivision (1) of this subsection or paragraphs (a), (b), (c), and (d) of subdivision (5) of subsection 1 of this section.

(b) The career continuous professional certificate shall be continuous based upon verification of actual employment in an educational position as provided for in state board guidelines and completion of fifteen contact hours of professional development per year which may include hours spent in class in an appropriate college curriculum. Should the possessor of a valid career continuous professional certificate fail, in any given year, to meet the fifteen-hour professional development requirement, the possessor may, within two years, make up the missing hours. In order to make up for missing hours, the possessor shall first complete the fifteen-hour requirement for the current year and then may count hours in excess of the current year requirement as make-up hours. Should the possessor fail to make up the missing hours within two years, the certificate shall become inactive. In order to reactivate the certificate, the possessor shall complete twenty-four contact hours of professional development which may include hours spent in the classroom in an appropriate college curriculum within the six months prior to or after reactivating his or her certificate. The requirements of this paragraph shall be monitored and verified by the local school district which employs the holder of the career continuous professional certificate.

(c) A holder of a career continuous professional certificate shall be exempt from the professional development contact hour requirements of paragraph (b) of this subdivision if such teacher has a

local professional development plan in place within such teacher's school district and meets two of the three following criteria:

a. Has ten years of teaching experience as defined by the state board of education;

b. Possesses a master's degree; or

c. Obtains a rigorous national certification as approved by the state board of education.

4. Policies and procedures shall be established by which a teacher who was not retained due to a reduction in force may retain the current level of certification. There shall also be established policies and procedures allowing a teacher who has not been employed in an educational position for three years or more to reactivate his or her last level of certification by completing twenty-four contact hours of professional development which may include hours spent in the classroom in an appropriate college curriculum within the six months prior to or after reactivating his or her certificate.

5. The state board shall, upon an appropriate background check, issue a professional certificate classification in the areas most closely aligned with an applicant's current areas of certification, commensurate with the years of teaching experience of the applicant, to any person who is hired to teach in a public school in this state and who possesses a valid teaching certificate from another state or certification under subdivision (4) of subsection 1 of this section, provided that the certificate holder shall annually complete the state board's requirements for such level of certification, and shall establish policies by which residents of states other than the state of Missouri may be assessed a fee for a certificate license to teach in the public schools of Missouri. Such fee shall be in an amount sufficient to recover any or all costs associated with the issuing of a certificate of license to teach. The board shall promulgate rules to authorize the issuance of a provisional certificate of license, which shall allow the holder to assume classroom duties pending the completion of a criminal background check under section 168.133, for any applicant who:

(1) Is the spouse of a member of the armed forces stationed in Missouri;

(2) Relocated from another state within one year of the date of application;

(3) Underwent a criminal background check in order to be issued a teaching certificate of license from another state; and

(4) Otherwise qualifies under this section.

6. The state board may assess to holders of an initial professional certificate a fee, to be deposited into the excellence in education revolving fund established pursuant to section 160.268, RSMo, for the issuance of the career continuous professional certificate. However, such fee shall not exceed the combined costs of issuance and any criminal background check required as a condition of issuance. Applicants for the initial ABCTE certificate shall be responsible for

any fees associated with the program leading to the issuance of the certificate, but nothing in this section shall prohibit a district from developing a policy that permits fee reimbursement.

7. Any member of the public school retirement system of Missouri who entered covered employment with ten or more years of educational experience in another state or states and held a certificate issued by another state and subsequently worked in a school district covered by the public school retirement system of Missouri for ten or more years who later became certificated in Missouri shall have that certificate dated back to his or her original date of employment in a Missouri public school.

8. The provisions of subdivision (5) of subsection 1 of this section, as well as any other provision of this section relating to the American Board for Certification of Teacher Excellence, shall terminate on August 28, 2014.

(L. 1963 p. 200 § 9-2, A.L. 1973 H.B. 158, A.L. 1984 H.B. 1457 & 1501, A.L. 1988 S.B. 797, A.L. 1990 H.B. 1142, A.L. 1998 H.B. 1469, A.L. 2000 H.B. 1808, A.L. 2003 S.B. 296, A.L. 2008 H.B. 1678 merged with S.B. 1066, A.L. 2009 S.B. 291)

(Source: RSMo 1959 §§ 168.030, 168.260)

*Subdivision (5) of subsection 1 terminates 8-28-14.

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Missouri General Assembly

MISSOURI STANDARDS FOR TEACHER EDUCATION PROGRAMS (MoSTEP)

and

Benchmarks for Preliminary Teacher Education Programs

October 5, 2006

Missouri Department of Elementary and Secondary Education

Missouri Standards for Teacher Education Programs (MoSTEP)

Category I. Design of Professional Education

Standard 1: PERFORMANCE STANDARDS FOR EDUCATION PROFESSIONALS

The unit ensures that candidates possess the knowledge, skills, and competencies defined as appropriate to their area(s) of professional responsibility.

1.1 General Studies for the Preparation of Education Professionals (Initial)

Candidates have completed general studies courses and experiences in the liberal arts and sciences.

1.1.1 The general studies include the arts, communications, history, literature, mathematics, philosophy, sciences, and the social sciences.

1.1.2 The general studies incorporate multi-cultural and global perspectives.

1.2 Professional Competencies for Teacher Preparation (Initial)

Candidates for teacher certification have completed a program of content, professional, pedagogical, and integrative studies.

Quality Indicators:

1.2.1 The preservice teacher understands the central concepts, tools of inquiry and structures of the discipline(s) within the context of a global society and creates learning experiences that make these aspects of subject matter meaningful for students.

Performance Indicators: The preservice teacher

1.2.1.1 knows the discipline applicable to the certification area(s) as defined by Subject Competencies for Beginning Teachers in Missouri;

1.2.1.2 presents the subject matter in multiple ways;

1.2.1.3 uses students' prior knowledge when identifying learning objectives and choosing instructional strategies;

1.2.1.4 engages students in the methods of inquiry used in the discipline;

1.2.1.5 creates interdisciplinary learning.

1.2.2 The preservice teacher understands how students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students.

Performance Indicators: The preservice teacher

1.2.2.1 knows and identifies child/adolescent development;

1.2.2.2 strengthens prior knowledge with new ideas;

1.2.2.3 encourages student responsibility;

1.2.2.4 knows theories of learning.

1.2.3 The preservice teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

Performance Indicators: The preservice teacher

1.2.3.1 identifies prior experience, learning styles, strengths, and needs;

1.2.3.2 designs and implements individualized instruction for students based on their prior experience, learning styles, strengths, and needs;

1.2.3.3 knows when and how to access specialized services to meet students' needs;

1.2.3.4 connects instruction to students' prior experiences and family, culture, and community.

1.2.4 The preservice teacher recognizes the importance of long-range planning and curriculum development and develops, implements, and evaluates curriculum based upon student, district, and state performance standards.

Performance Indicators: The preservice teacher

1.2.4.1 selects and creates learning experiences that are appropriate for curriculum goals, relevant to learners, and based upon principles of effective instruction (e.g., encourages exploration and problem solving, building new skills from those previously acquired);

1.2.4.2 creates lessons and activities that recognize individual needs of diverse learners and variations in learning styles and performance;

1.2.4.3 evaluates plans relative to long and short-term goals and adjusts them to meet student needs and to enhance learning.

1.2.5 The preservice teacher uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

Performance Indicators: The preservice teacher

1.2.5.1 selects alternative teaching strategies, materials, and technology to achieve multiple instructional purposes and to meet student needs;

1.2.5.2 engages students in active learning that promotes the development of critical thinking, problem solving, and performance capabilities.

1.2.6 The preservice teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

Performance Indicators: The preservice teacher

1.2.6.1 knows motivation theories and behavior management strategies and techniques;

1.2.6.2 manages time, space, transitions, and activities effectively;

1.2.6.3 engages students in decision making.

1.2.7 The preservice teacher models effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Performance Indicators: The preservice teacher

1.2.7.1 models effective verbal/non-verbal communication skills;

1.2.7.2 demonstrates sensitivity to cultural, gender, intellectual, and physical ability differences in classroom communication and in responses to students' communications;

1.2.7.3 supports and expands learner expression in speaking, writing, listening, and other media;

1.2.7.4 uses a variety of media communication tools.

1.2.8 The preservice teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

Performance Indicators: The preservice teacher

1.2.8.1 employs a variety of formal and informal assessment techniques (e.g., observation, portfolios of student work, teacher-made tests, performance tasks, projects, student self-assessments, authentic assessments, and standardized tests) to enhance and monitor his/her knowledge of learning, to evaluate student progress and performances, and to modify instructional approaches and learning strategies;

1.2.8.2 uses assessment strategies to involve learners in self-assessment activities, to help them become aware of their learning behaviors, strengths, needs and progress, and to encourage them to set personal goals for learning;

1.2.8.3 evaluates the effect of class activities on both individual and the class as a whole, collecting information through observation of classroom interactions, questioning, and analysis of student work;

1.2.8.4 maintains useful records of student work and performances and can communicate student progress knowledgeably and responsibly, based on appropriate indicators, to student, parents, and other colleagues.

1.2.9 The preservice teacher is a reflective practitioner who applies the ethical practices of the profession

and continually assesses the effects of his/her choices and actions on others. This reflective practitioner actively seeks out opportunities to grow professionally and utilizes the assessment and professional growth to generate more learning for more students.

Performance Indicators: The preservice teacher

1.2.9.1 applies a variety of self-assessment and problem-solving strategies for reflecting on practice, their influences on students' growth and learning, and the complex interactions between them;

1.2.9.2 uses resources available for professional development;

1.2.9.3 practices professional ethics.

1.2.10 The preservice teacher fosters relationships with school colleagues, parents, and educational partners in the larger community to support student learning and well-being.

Performance Indicators: The preservice teacher

1.2.10.1 participates in collegial activities designed to make the entire school a productive learning environment;

1.2.10.2 talks with and listens to students, is sensitive and responsive to signs of distress, and seeks appropriate help as needed to solve students' problems;

1.2.10.3 seeks opportunities to develop relationships with the parents and guardians of students, and seeks to develop cooperative partnerships in support of student learning and well-being;

1.2.10.4 identifies and uses the appropriate school personnel and community resources to help students reach their full potential.

1.2.11 The preservice teacher understands theories and applications of technology in educational settings and has adequate technological skills to create meaningful learning opportunities for all students.

Performance Indicators: The preservice teacher

1.2.11.1 demonstrates an understanding of instructional technology concepts and operations;

1.2.11.2 plans and designs effective learning environments and experiences supported by informational and instructional technology;

1.2.11.3 implements curriculum plans that include methods and strategies for applying informational and instructional technology to maximize student learning;

1.2.11.4 uses technological applications to facilitate a variety of effective assessment and evaluation strategies;

1.2.11.5 uses technology to enhance personal productivity and professional practice;

1.2.11.6 demonstrates an understanding of the social, ethical, legal, and human issues surrounding the use of technology in pre-kindergarten through grade twelve (PK-12) schools and applies that understanding in practice.

1.3 Professional Competencies for School Administrator Preparation (Advanced)

Candidates for school administrator certification have completed a program of professional studies in educational leadership.

Quality Indicators:

1.3.1 A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.

Knowledge: The administrator has knowledge and understanding of**:**

- learning goals in a pluralistic society
- the principles of developing and implementing strategic plans
- systems theory
- information sources, data collection, and data analysis strategies**:**
- effective communication
- effective consensus-building and negotiation skills

Dispositions: The administrator believes in, values, and is committed to**:**

- the educability of all
- a school vision of high standards of learning
- continuous school improvement
- the inclusion of all members of the school community
- ensuring that students have the knowledge, skills, and values needed to become successful adults
- a willingness to continuously examine one's own assumptions, beliefs, and practices
- doing the work required for high levels of personal and organization performance

Performances: The administrator facilitates processes and engages in activities ensuring that:

- the vision and mission of the school are effectively communicated to staff, parents, students, and community members
- the vision and mission are communicated through the use of symbols, ceremonies, stories, and similar activities
- the core beliefs of the school vision are modeled for all stakeholders
- the vision is developed with and among stakeholders
- the contributions of school community members to the realization of the vision are recognized and celebrated
- progress toward the vision and mission is communicated to all stakeholders
- the school community is involved in school improvement efforts
- the vision shapes the educational programs, plans, and actions
- an implementation plan is developed in which objectives and strategies to achieve the vision and goals are clearly articulated
- assessment data related to student learning are used to develop the school vision and goals
- relevant demographic data pertaining to students and their families are used in developing the school mission and goals
- barriers to achieving the vision are identified, clarified, and addressed
- needed resources are sought and obtained to support the implementation of the school mission and goals
- existing resources are used in support of the school vision and goals
- the vision, mission, and implementation plans are regularly monitored, evaluated, and revised

1.3.2 A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.

Knowledge: The administrator has knowledge and understanding of:

- student growth and development
- applied learning theories

- applied motivational theories
- curriculum design, implementation, evaluation, and refinement
- principles of effective instruction
- measurement, evaluation, and assessment strategies
- diversity and its meaning for educational programs
- adult learning and professional development models
- the change process for systems, organizations, and individuals
- the role of technology in promoting student learning and professional growth
- school cultures

Dispositions: The administrator believes in, values, and is committed to:

- student learning as the fundamental purpose of schooling
- the proposition that all students can learn
- the variety of ways in which students can learn
- life long learning for self and others
- professional development as an integral part of school improvement
- the benefits that diversity brings to the school community
- a safe and supportive learning environment
- preparing students to be contributing members of society

Performances: The administrator facilitates processes and engages in activities ensuring that:

- all individuals are treated with fairness, dignity, and respect
- professional development promotes a focus on student learning consistent with the school vision and goals
- students and staff feel valued and important
- the responsibilities and contributions of each individual are acknowledged
- barriers to student learning are identified, clarified, and addressed
- diversity is considered in developing learning experiences
- life long learning is encouraged and modeled
- there is a culture of high expectations for self, student, and staff performance
- technologies are used in teaching and learning
- student and staff accomplishments are recognized and celebrated
- multiple opportunities to learn are available to all students
- the school is organized and aligned for success
- curricular, co-curricular, and extra-curricular programs are designed, implemented, evaluated, and refined
- curriculum decisions are based on research, expertise of teachers, and the recommendations of learned societies
- the school culture and climate are assessed on a regular basis
- a variety of sources of information is used to make decisions
- student learning is assessed using a variety of techniques
- multiple sources of information regarding performance are used by staff and students
- a variety of supervisory and evaluation models is employed
- pupil personnel programs are developed to meet the needs of students and their families

1.3.3 A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

Knowledge: The administrator has knowledge and understanding of:

- theories and models of organizations and the principles of organizational development
- operational procedures at the school and district level
- principles and issues relating to school safety and security

- human resources management and development
- principles and issues relating to fiscal operations of school management
- principles and issues relating to school facilities and use of space
- legal issues impacting school operations
- current technologies that support management functions

Dispositions: The administrator believes in, values, and is committed to:

- making management decisions to enhance learning and teaching
- taking risks to improve schools
- trusting people and their judgments
- accepting responsibility
- high-quality standards, expectations, and performances
- involving stakeholders in management processes
- a safe environment

Performances: The administrator facilitates processes and engages in activities ensuring that**:**

- knowledge of learning, teaching, and student development is used to inform management decisions
- operational procedures are designed and managed to maximize opportunities for successful learning
- emerging trends are recognized, studied, and applied as appropriate
- operational plans and procedures to achieve the vision and goals of the school are in place
- collective bargaining and other contractual agreements related to the school are effectively managed
- the school plant, equipment, and support systems operate safely, efficiently, and effectively
- time is managed to maximize attainment of organizational goals
- potential problems and opportunities are identified
- problems are confronted and resolved in a timely manner
- financial, human, and material resources are aligned to the goals of schools
- the school acts entrepreneurially to support continuous improvement
- organizational systems are regularly monitored and modified as needed
- stakeholders are involved in decisions affecting schools
- responsibility is shared to maximize ownership and accountability
- effective problem-framing and problem-solving skills are used
- effective conflict resolution skills are used
- effective group-process and consensus-building skills are used
- effective communication skills are used
- a safe, clean, and aesthetically pleasing school environment is created and maintained
- human resource functions support the attainment of school goals
- confidentiality and privacy of school records are maintained

1.3.4 A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

Knowledge: The administrator has knowledge and understanding of:

- emerging issues and trends that potentially impact the school community
- the conditions and dynamics of the diverse school community
- community resources
- community relations and marketing strategies and processes
- successful models of school, family, business, community, government and higher education partnerships

Dispositions: The administrator believes in, values, and is committed to:

- schools operating as an integral part of the larger community

- collaboration and communication with families
- involvement of families and other stakeholders in school decision-making processes
- the proposition that diversity enriches the school
- families as partners in the education of their children
- the proposition that families have the best interests of their children in mind
- resources of the family and community needing to be brought to bear on the education of students
- an informed public

Performances: The administrator facilitates processes and engages in activities ensuring that:

- high visibility, active involvement, and communication with the larger community is a priority
- relationships with community leaders are identified and nurtured
- information about family and community concerns, expectations, and needs is used regularly
- there is outreach to different business, religious, political, and service agencies and organizations
- credence is given to individuals and groups whose values and opinions may conflict
- the school and community serve one another as resources
- available community resources are secured to help the school solve problems and achieve goals
- partnerships are established with area businesses, institutions of higher education, and community groups to strengthen programs and support school goals
- community youth family services are integrated with school programs
- community stakeholders are treated equitably
- diversity is recognized and valued
- effective media relations are developed and maintained
- a comprehensive program of community relations is established
- public resources and funds are used appropriately and wisely
- community collaboration is modeled for staff
- opportunities for staff to develop collaborative skills are provided

1.3.5 A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness, and in an ethical manner.

Knowledge: The administrator has knowledge and understanding of:

- the purpose of education and the role of leadership in modern society
- various ethical frameworks and perspectives on ethics
- the values of the diverse school community
- professional codes of ethics
- the philosophy and history of education

Dispositions: The administrator believes in, values, and is committed to:

- the ideal of the common good
- the principles in the Bill of Rights
- the right of every student to a free, quality education
- bringing ethical principles to the decision-making process
- subordinating one's own interest to the good of the school community
- accepting the consequences for upholding one's principles and actions
- using the influence of one's office constructively and productively in the service of all students and their families
- development of a caring school community

Performances: The administrator:

- examines personal and professional values
- demonstrates a personal and professional code of ethics
- demonstrates values, beliefs, and attitudes that inspire others to higher levels of performance
- serves as a role model

- accepts responsibility for school operations
- considers the impact of one's administrative practices on others
- uses the influence of the office to enhance the educational program rather than for personal gain
- treats people fairly, equitably, and with dignity and respect
- protects the rights and confidentiality of students and staff
- demonstrates appreciation for and sensitivity to the diversity in the school community
- recognizes and respects the legitimate authority of others
- examines and considers the prevailing values of the diverse school community
- expects that others in the school community will demonstrate integrity and exercise ethical behavior
- opens the school to public scrutiny
- fulfills legal and contractual obligations
- applies laws and procedures fairly, wisely, and considerately

1.3.6 A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

Knowledge: The administrator has knowledge and understanding of:

- principles of representative governance that undergird the system of American schools
- the role of public education in developing and renewing a democratic society and an economically productive nation
- the law as related to education and schooling
- the political, social, cultural and economic systems and processes that impact schools
- models and strategies of change and conflict resolution as applied to the larger political, social, cultural and economic contexts of schooling
- global issues and forces affecting teaching and learning
- the dynamics of policy development and advocacy under our democratic political system
- the importance of diversity and equity in a democratic society

Dispositions: The administrator believes in, values, and is committed to:

- education as a key to opportunity and social mobility
- recognizing a variety of ideas, values, and cultures
- importance of a continuing dialogue with other decision makers affecting education
- actively participating in the political and policy-making context in the service of education
- using legal systems to protect student rights and improve student opportunities

Performances: The administrator facilitates processes and engages in activities ensuring that**:**

- the environment in which schools operate is influenced on behalf of students and their families
- communication occurs among the school community concerning trends, issues, and potential changes in the environment in which schools operate
- there is ongoing dialogue with representatives of diverse community groups
- the school community works within the framework of policies, laws, and regulations enacted by local, state, and federal authorities
- public policy is shaped to provide quality education for students
- lines of communication are developed with decision makers outside the school community

1.4 Professional Competencies for School Counselor Preparation (Initial and Advanced)

Candidates for school counselor certification have completed a program of professional studies in school counseling.

Quality Indicators:

1.4.1 The professional school counselor candidate knows and understands learners and how they develop, and facilitates learners' academic, interpersonal, social and career growth.

1.4.1.1 Human Growth and Development: The professional school counselor candidate knows and understands human development and personality and how these domains affect learners, and applies this knowledge in his/her work with learners.

Performance Indicators: The professional school counselor candidate:

- applies theories of individual and family development, transitions across the life span, and the range of human developmental variation
- applies knowledge of developmental stages of individual growth
- applies theories of learning and personality development
- applies factors that affect behavior, including but not limited to, developmental crises, disability, addiction, psychopathology, and environmental factors, in assisting learners to develop healthy life and learning styles
- applies developmental principles in working with learners in a variety of school counseling activities

1.4.1.2 Culture and Diversity: The professional school counselor candidate knows and understands how human diversity affects learning and development within the context of a global society and a diverse community of families. The professional school counselor candidate uses this understanding to assist learners, parents, and colleagues in developing opportunities for learning and personal growth.

Performance Indicators: The professional school counselor candidate:

- knows and understands multicultural and pluralistic trends
- knows and understands attitudes and behaviors related to diversity, and how the diversity in families impacts learners
- educates students, colleagues and others about diversity and its impact on learning, growth, and relationships
- facilitates the development of learners' tolerance and respect for, and valuing of, human diversity
- knows and understands how culture affects the counseling relationship and demonstrates cultural awareness and sensitivity in counseling

1.4.1.3 Assessment: The professional school counselor candidate knows and understands the principles of measurement and assessment, for both individual and group approaches, and applies these in working with all learners.

Performance Indicators: The professional school counselor candidate:

- knows and understands theoretical and historical bases for assessment techniques
- knows and understands the concepts of reliability and validity
- selects, administers, and interprets assessment and evaluation instruments and techniques in counseling
- applies assessment results to the counseling process
- knows, understands and applies ethical principles in assessment

1.4.1.4 Career Development and Planning: The professional school counselor candidate understands career development and planning processes across the lifespan, and assists all learners in their career exploration, decision-making and planning.

Performance Indicators: The professional school counselor candidate:

- knows and understands theories of career development, career decision-making and planning selects and applies career counseling models with learners
- promotes and supports the career decision-making and planning of learners
- uses various career assessment techniques to assist learners in understanding their abilities and career interests

- uses current career information to assist learners in understanding the world of work and making career plans and choices

1.4.2 The professional school counselor candidate promotes learners' growth and development through a district wide, comprehensive model for guidance and counseling for all students.

1.4.2.1 Guidance Curriculum: The professional school counselor candidate knows, understands, and uses classroom guidance methods and techniques.

Performance Indicators: The professional school counselor candidate:

- knows, understands, and conducts guidance needs assessments
- collaborates with other school personnel in the delivery of the guidance curriculum
- designs and implements developmentally appropriate guidance activities

1.4.2.2 Individual Planning: The professional school counselor candidate knows, understands, and uses planning and goal setting for the personal, educational, and career development of the learner.

Performance Indicators: The professional school counselor candidate:

- knows and understands planning and goal setting processes
- uses various tools, including technology, to assist learners in personal, educational, and career goal setting and planning.

1.4.2.3 Responsive Services: The professional school counselor candidate knows, understands and uses various methods for delivering responsive counseling services to learners in the school community.

Performance Indicators: The professional school counselor candidate:

- knows and understands a variety of individual and small group counseling theories and techniques
- knows and understands a variety of crisis intervention and consultation theories and techniques
- selects and uses counseling interventions appropriate to the needs of learners
- uses appropriate referral resources and procedures

1.4.2.4 System Support: The professional school counselor candidate knows, understands and uses various methods to develop and maintain a comprehensive guidance program that serves the needs of all learners.

Performance Indicators: The professional school counselor candidate:

- knows, understands, develops, and manages a comprehensive guidance program for all learners
- advocates for the guidance program throughout the school community
- knows, understands, and conducts program evaluation to monitor and improve the guidance program

1.4.2.5 Technology: The professional school counselor candidate knows, understands and uses technology as a management and counseling tool in promoting the personal, educational, social, and career development of the learner.

Performance Indicators: The professional school counselor candidate:

- knows, understands and uses a variety of technology in the delivery of guidance and counseling activities
- uses technology to manage a comprehensive guidance program

1.4.3 The professional school counselor candidate develops and promotes professional relationships in the school, family, and community.

1.4.3.1 The professional school counselor candidate understands, develops, and uses professional relationships in the school, family and community, through consultation and collaboration, to promote development of all learners.

Performance Indicators: The professional school counselor candidate:

- knows, understands and uses consultation strategies to improve communication and promote teamwork
- uses consultation strategies to coordinate resources and efforts of teachers, administrators, and support staff

- uses consultation strategies to promote school-home relationships through involvement of parents and other family members
- uses consultation methods with private and public agencies in the community that may be involved in the learner's development

1.4.4 The professional school counselor candidate knows, understands, and adheres to ethical, legal, and professional standards.

1.4.4.1 Ethical: The professional school counselor candidate knows, understands and practices in accord with the ethical principles of the school counseling profession.

Performance Indicators: The professional school counselor candidate:

- knows, understands and practices in accordance with the ethical principles of the counseling profession
- knows and understands the differences among legal, ethical, and moral principles
- knows, understands and practices in accordance with local school policy and procedures
- employs ethical decision-making models to recognize and resolve ethical dilemmas
- models ethical behavior in his/her work

1.4.4.2 Legal: The professional school counselor candidate knows, understands and adheres to the legal aspects of the role of the school counselor

Performance Indicators: The professional school counselor candidate:

- knows and understands the local, state, and federal statutory requirements pertaining to his/her work
- uses legal resources to inform and guide his/her practice
- practices in accordance with the legal restraints of local jurisdictions
- practices within the statutory limits of confidentiality

1.4.4.3 Professional: The professional school counselor candidate knows, understands and implements methods to promote his/her professional development and well-being.

Performance Indicators: The professional school counselor candidate:

- participates in professional organizations
- develops and implements a professional development plan
- uses personal reflection, consultation, and supervision to promote professional growth and development
- knows, understands, uses and models techniques of self-care
- evaluates his/her practice, seeks feedback from others, and uses this information to improve performance

1.5 Professional Competencies for Library Media Specialist Preparation (Initial and Advanced)

Candidates for library media specialist certification have completed a program of professional studies for school library media specialists.

Quality Indicators:

1.5.1 Use of Information and Ideas.

1.5.1.1 Efficient and Ethical Information-Seeking Behavior: Candidates apply a variety of strategies to ensure access to resources and information in a variety of formats to all members of the learning community.

1.5.1.2 Literacy and Reading: Candidates encourage reading and lifelong learning by fostering interests and competencies in the effective use of ideas and information.

1.5.1.3 Access to Information: Candidates promote efficient and ethical information-seeking behavior as part of the school library media program and its services.

1.5.1.4 Stimulating Learning Environment: Candidates demonstrate the ability to create a positive educational environment in a literate, technology-rich, and inviting library media center atmosphere.

1.5.2 Teaching and Learning.

1.5.2.1 Knowledge of Learners and Learning: Candidates design and implement instruction that engages the student's interests, passions, and needs which drive their learning.

1.5.2.2 Effective and Knowledgeable Teacher: Candidates model and promote collaborative planning with classroom teachers in order to teach concepts and skills of information processes integrated with classroom content.

1.5.2.3 Information Literacy Curriculum: Candidates partner with other education professionals to develop and deliver an integrated information skills curriculum.

1.5.3 Collaboration and Leadership.

1.5.3.1 Connection with the Library Community: Candidates provide leadership and establish connections with the greater library and education community.

1.5.3.2 Instructional Partner: Candidates demonstrate effective leadership principles and work with the learning community to create a productive educational environment.

1.5.3.3 Educational Leader: Candidates create school library media programs that focus on student learning and achievement; and encourage the personal and professional growth of teachers and other educators.

1.5.4 Program Administration.

1.5.4.1 Managing Information Resources: Selecting, Organizing, Using: Candidates apply knowledge and skills in building, managing, and providing free and equitable access to resource collections to enhance the school curriculum and offer leisure reading materials for the school community.

1.5.4.2 Managing Program Resources: Human, Financial, Physical: Candidates administer the library media program according to the principles of best practice in library science and program administration to support the mission of the school.

1.5.4.3 Comprehensive and Collaborative Strategic Planning and Assessment: Candidates apply leadership, collaboration, and technology skills to design and manage library media programs that are up-to-date, comprehensive, and integrated within the school.

Standard 2: PROGRAM AND CURRICULUM DESIGN (Initial and Advanced)

The unit has high quality professional education programs derived from a conceptual framework(s) that is knowledge-based, articulated, shared, coherent, consistent with the unit's and/or institution's mission, and continuously evaluated.

Quality Indicators:

2.1 The conceptual framework(s) is collaboratively developed, written, well articulated, and shared among professional education faculty, candidates, and other members of the professional community.

2.1.1 The framework(s) is defined and makes explicit the professional commitments, dispositions, and values that support it, including the commitment to acquire and use professional knowledge.

2.1.2 The framework(s) includes a philosophy and purposes; provides an associated rationale for course work and field experiences; contains assessment statements of desired results for candidates; and provides criteria for program evaluation.

2.1.3 The framework(s) reflects multi-cultural and global perspectives.

2.1.4 The framework(s) and knowledge bases that support each professional education program rest on established and contemporary research, the wisdom of effective practice, and emerging education policies and practices.

2.2 The high quality program (HQP) demonstrates coherence between the conceptual framework and course instruction, field experiences, evaluations and candidate outcomes.

2.2.1 Curriculum design, as evidenced by program requirements and course syllabi, is coherent. Program goals influence the design and implementation of courses and field experiences.

2.2.2 Candidate performance and unit/program assessments provide evidence of program coherence and effectiveness.

2.2.3 The elements and influence of diversity (age, gender, culture, language, race/ethnicity, socio-economic status, and special abilities/disabilities) are embedded in program curricula with an emphasis on closing the student achievement gap within the public schools of Missouri.

2.2.4 The HQP infuses knowledge and skills in using technology for teaching, learning and assessment.

2.3 The unit and its programs have a clearly identified, valid, fair, and unbiased assessment system. The system provides for the collection, analysis and use of data from applicants, candidates' and graduates' performance, and program/unit operations to inform decisions with regard to improvement.

2.3.1 The unit and its programs engage in regular and systematic evaluations, including, but not limited to, information obtained through candidate assessment (e.g., C-BASE, Praxis, course-embedded assessments, summative field experience evaluations and impact on PK-12 student achievement) and collection of data from candidates, recent graduates, employers, and other members of the professional community.

2.3.2 Fair, accurate, and consistent assessment procedures are established and efforts are made to eliminate sources of bias.

2.3.3 The unit and its programs have clearly identified schedules by which candidate, course, clinical experience, and program data are reviewed.

2.3.4 The assessment system is effectively maintained through the use of information technologies.

2.4 The unit assesses the impact of its candidates, faculty and programs on PK-12 education.

Standard 3: FIELD EXPERIENCES AND CLINICAL PRACTICE (Initial and Advanced)

The unit ensures that field experiences for initial and advanced programs are well-planned, early, on-going, integrated into the program sequence, of high quality, and continuously evaluated.

Quality Indicators:

3.1 Professional education programs prescribe field experiences, including student teaching and/or internships, to provide candidates with opportunities to relate principles and theories to actual practice. The field experiences are varied and include study and practice in schools with diverse populations in terms of age, gender, culture, language, race/ethnicity, socio-economic status, special abilities/disabilities, etc.

3.2 Field experiences encourage reflection by candidates and include feedback from a variety of sources close to the candidates' work, including higher education faculty, PK-12 school faculty, administrators, students and peers.

3.3 Clinical practices allow candidates to experience all duties and responsibilities of the professional role for which they are preparing.

3.4 The unit collaborates with PK-12 schools to provide quality clinical sites in which candidates may develop the knowledge and skills required for the area of responsibility. These sites are evaluated annually.

3.5 Clinical practice is accomplished in the certification area(s) and grade range(s) being sought by the candidate, and with a qualified cooperating teacher/mentor and a qualified faculty supervisor from the institution's professional education program.

3.5.1 Clinical practice shall provide opportunities for increasing responsibility for planning and instruction and communication with the supervising professional(s), including reflection on teaching, learning, and behaviors.

3.5.2 When possible, the cooperating teacher/mentor shall be selected collaboratively by the professional education unit and the PK-12 site administrator.

3.5.3 Candidates seeking certification for more than one grade range are assigned clinical practice in accordance with applicable state certification requirements.

3.6 The unit has a written policy to permit alternative clinical practice for candidates in lieu of conventional student teaching in accordance with Mo. Rev. Stat. § 168.400 (2005) and Mo. Code Regs. 5 CSR 80-805.040.

Category II. Candidates in Professional Education

Standard 4: COMPOSITION, QUALITY, AND COMPETENCE OF CANDIDATES (Initial and Advanced)

The unit implements written policies to recruit, admit, and retain a diverse pool of candidates who demonstrate potential for professional success in schools.

Quality Indicators:

4.1 The institution and the unit implement policies that commit scholarships, outreach efforts, and other human and financial resources to ensure a diverse candidate pool (e.g., individuals of diverse economic, cultural, racial, gender, and linguistic backgrounds, and individuals with disabilities) with acceptable academic and other qualifications.

4.1.1 The institution has and implements written policies with resources explicitly devoted to recruiting, admitting, and retaining a diverse student body.

4.1.2 Effort and success in meeting institutional goals for recruiting candidates from diverse backgrounds are evaluated annually, and steps are taken to strengthen, as necessary, plans for future efforts.

4.1.3 The unit has an admission policy for non-traditional and transfer students, including mutually approved institutional articulation agreements with Missouri community colleges.

4.1.4 The unit monitors professional education admission decisions to ensure that the published admissions criteria are equitably applied to all applicants.

4.2 A comprehensive system is used to assess the qualifications of candidates seeking admission.

4.2.1 The criteria for admission to undergraduate, and post-baccalaureate initial professional preparation programs include a comprehensive (i.e., multiple forms of data) assessment of academic proficiency (including basic academic subjects and written/oral communications), faculty recommendations, biographical information, and successful completion of any prior college/university course work with at least a 2.5 cumulative grade point average (GPA) on a 4-point scale, and appropriate background screening.

4.2.2 The criteria for admission to advanced programs include an assessment of academic proficiency (e.g., the MAT, GRE, and GPA), faculty recommendations, records of competence and effectiveness in professional work, graduation from a regionally accredited college/university and appropriate background screening.

4.3 The unit systematically monitors and formatively assesses the progress of candidates toward program goals and ensures that they receive appropriate academic and professional advisement from admission through completion of their professional education programs. Each program includes multiple, developmental, and diverse opportunities for growth.

4.3.1 The unit uses assessments and data from multiple sources at appropriate transitions. The unit ensures that those who are not able to demonstrate proficiency at any transition point have opportunities appropriate to their individual learning needs to increase their level of proficiency.

4.3.2 Criteria consistent with the conceptual framework(s) of programs and consistent with state standards (i.e., beginning teacher standards, beginning administrator standards, etc.) are used to determine eligibility for student teaching and other professional internships.

4.3.3 The unit ensures that the State Board adopted basic skills assessments are successfully completed prior to student teaching or other culminating field-based experiences.

4.3.4 Through publications and faculty advising, candidates are provided clear information about institutional policies and requirements, including assessment requirements and remediation strategies, needed for completing their professional education programs, the availability of social and psychological counseling services, and job opportunities.

4.3.5 The institution conducts systematic surveys of its current students and graduates in professional education in order to gather data pertaining to the effectiveness of its advisement. These data become the basis for improving those services.

4.4 The unit ensures that a candidate's competency to begin a professional role in schools is summatively assessed prior to completion of the program and/or recommendation for certification.

4.4.1 The unit establishes and publishes a set of criteria/outcomes for candidates in each professional education program consistent with professional competencies for the respective category of educator certification.

4.4.2 A candidate's mastery of a program's stated exit criteria or outcomes is measured through the use of multiple assessments, such as a culminating experience, portfolios or other work samples, observed performance in schools, surveys, standardized tests, etc. The assessments include measures of:

- content knowledge assessments required for state certification/licensure;
- at least one additional indicator of content knowledge;
- the candidate's ability to plan instruction, or (for non-teaching fields) to fulfill other identified professional responsibilities;
- the candidate's performance in clinical practice (student teaching, internship, etc.); and
- the candidate's impact on PK-12 student learning, or (for non-teaching fields) ability to create supportive learning environments.

4.4.3 The unit provides summative evidence that candidates completing educator preparation programs have attained knowledge and skills, in accordance with the professional competencies in Standard 1 for the respective category of educator certification, and have demonstrated such knowledge and skills with various types of learners in a variety of settings. Assessment(s) reflect the quality indicators in Standards 1.2 - 1.5, and the unit verifies the validity and reliability of the evidence.

4.4.4 The unit recommends for certification only those candidates who have achieved a grade point average of at least 2.5 (on a 4.0 scale) overall and in the major area of study, with no grade lower than a "C" in professional education coursework, and have successfully completed the assessment prescribed by the Missouri State Board of Education and other summative assessments required by the unit and its programs.

4.5 The unit provides follow-up support for its first and second-year education professionals who are employed in Missouri schools. Mo. Rev. Stat. § 168.400 (2005)

Category III. Professional Education Faculty

Standard 5: QUALIFICATIONS, COMPOSITION, ASSIGNMENTS, AND DEVELOPMENT OF PROFESSIONAL EDUCATION FACULTY, AND QUALITY OF INSTRUCTION

Professional education faculty are qualified for their assignments, recruited from diverse populations, and model effective professional practices in teaching, scholarship and service.

Quality Indicators:

5.1 The unit ensures that the professional education faculty are qualified for their assignments and are actively engaged in the professional community.

5.1.1 Professional education faculty, including clinical faculty, both full and part time, have earned an appropriate advanced degree and/or have exceptional expertise in the content, skill areas and/or grade range that they teach or supervise candidates.

5.1.2 Professional education and clinical faculty have knowledge and experiences related to preparing candidates to work with students from diverse backgrounds, including students with exceptionalities.

5.2 The unit ensures that professional education faculty are selected in accordance with the institution's recruiting and employment policies.

5.2.1 The institution has and implements written policies with resources devoted to recruiting, hiring, and retaining a diverse faculty.

5.2.2 The unit's efforts and success in meeting institutional goals for recruiting a diverse faculty are evaluated annually, and steps are taken to strengthen future efforts.

5.2.3 Part-time or adjunct faculty are employed on a limited basis when it is determined that they can benefit the unit or its programs.

5.3 The unit ensures that policies and assignments allow faculty to be involved effectively in teaching, scholarship, and service.

5.3.1 Work load policies and assignments accommodate faculty involvement in teaching, scholarship, and service, including working in PK-12 schools, curriculum development, advising, administration, institutional committee work, and other internal service responsibilities.

5.3.2 Faculty teaching loads, including, student teaching supervision, overloads, and off-campus teaching, are limited to allow faculty to engage effectively in teaching, scholarship and service.

5.4 The institution supports and promotes faculty development, and the unit has a systematic, comprehensive, and written plan for such experiences.

5.4.1 The institution has policies, resources and practices to ensure that faculty members are growing professionally through advanced study, scholarly inquiry, and participation in activities closely related to their instructional assignment.

5.4.2 Faculty members are actively involved in local, state, national, and/or international professional associations in their area(s) of expertise and assignment.

5.4.3 Faculty teaching or supervising candidates in professional education further their professional development through periodic, direct personal involvement in the PK-12 public schools, as required by Mo. Rev. Stat. § 168.400.3 (2005)

5.4.4 Faculty are regularly evaluated in terms of teaching, scholarship, and service. Evaluations are used systematically for faculty improvement.

5.5 Teaching in the unit is of high quality, consistent with the conceptual framework(s), and reflects current

research and effective practices.

5.5.1 Professional education faculty use a variety of instructional strategies that reflect an understanding of various models and approaches to learning. They also model the use of a variety of technology applications and skills appropriate for educational settings to create meaningful learning opportunities for all students.

5.5.2 Faculty teaching in the content areas use instructional strategies that reflect an understanding of their students educational needs. They also model the use of technology applications and skills appropriate for educational settings to create meaningful learning opportunities for all students.

5.5.3 Instruction encourages the candidate's development of skills in reflection, critical thinking, problem solving, and professional dispositions.

5.5.4 Teaching reflects knowledge of and experiences with diversity and exceptionalities.

Category IV. The Unit of Professional Education

Standard 6: GOVERNANCE, ORGANIZATION, AND AUTHORITY (Initial and Advanced)

Governing boards and administrators shall indicate commitment to the preparation of educational personnel, as related to the institution's mission and goals, by adopting and implementing policies and procedures supportive of programs for the preparation of professional educators.

Quality Indicators:

6.1 The control of the institution resides in a board of trustees or an otherwise designated board. The governing board establishes institutional philosophies and policies which promote sound educational programs. All policy decisions are recorded in writing.

6.2 A president, or an otherwise designated chief administration officer, makes provision for the performance of administrative functions affecting professional education programs.

6.3 The professional education unit is clearly identified, operates as a professional community, and has the responsibility, authority, and personnel to develop, administer, evaluate, and revise all professional education programs.

6.3.1 The unit has responsibility and authority in such areas as faculty selection, tenure, promotion, and retention decisions; recruitment of candidates, curriculum decisions; and the allocation of resources for unit activities.

6.3.2 The institution dedicates ongoing resources to the unit's systematic collection, analysis, and dissemination and use of candidate, program and unit assessment data.

Standard 7: PROFESSIONAL COMMUNITY (Initial and Advanced)

The professional education community collaborates to improve programs for the preparation of school personnel and to improve the quality of education in the PK-12 schools.

Quality Indicators:

7.1 Faculty who teach general education courses, content-area courses, and professional education courses collaborate regularly with each other and with educators in the public schools for the development, implementation and evaluation of PK-12 and professional education programs.

7.2 Candidates are provided opportunities to develop as professional educators via activities that may include but are not limited to participation in professional education organizations and attending professional conferences.

7.3 The unit collaborates with PK-12 schools to improve outcomes for PK-12 students and faculty, professional education candidates and faculty, and other stakeholders.

Standard 8: RESOURCES FOR OPERATING THE UNIT AND FOR SUPPORTING TEACHING AND LEARNING (Initial and Advanced)

The unit has sufficient budget, facilities, equipment, and other resources to fulfill its mission, offer quality programs, and support teaching and scholarship of faculty and candidates.

Quality Indicators:

8.1 Budget trends over the past five years and future planning indicate adequate support for the unit and its professional education programs. Resources are allocated to programs in a manner that allows each one to reach expected outcomes.

8.2 Facilities and equipment are adequate, functional, and well maintained. Faculty have sufficient office, instructional, and other space to carry out their work effectively.

8.3 Support of professional development is at least at the level of other units in the institution.

8.4 Higher education faculty and candidates have training in and access to education-related electronic information, video resources, computer hardware, software, related technologies, and other similar resources.

8.5 Instructional resources, including media, software and materials collections, are readily accessible. These resources provide adequate scope, breadth, currency, and multiple perspectives, and they are systematically reviewed and updated.

8.6 Sufficient library and technical staff are employed to support the institution's library and other instructional materials collections and the media/computer support operations.

Missouri Standards for Teacher Education Programs (MoSTEP)

Benchmarks for Preliminary Teacher Education Programs

STANDARD 1: PERFORMANCE STANDARDS FOR EDUCATION PROFESSIONALS.

Benchmark for Preliminary Teacher Education Programs: The program ensures that candidates possess the knowledge, skills, and competencies defined as appropriate to their area(s) of responsibility.

1.1 General Education for Preliminary Teacher Preparation

Benchmark for Preliminary Teacher Education Programs: The program ensures that candidates have completed general studies courses in the liberal arts and sciences that incorporate multicultural and global perspectives.

1.2 Professional Competencies for Preliminary Teacher Preparation.

Benchmark for Preliminary Teacher Education Programs: The program ensures that candidates have completed a preliminary program of content, professional, pedagogical and integrative studies.

Quality Indicator 1.2.1: The pre-service teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) within the context of a global society and creates learning experiences that make these aspects of subject matter meaningful for students.

Mid-Preparation Benchmark: The preliminary teacher candidate demonstrates a basic knowledge of the discipline(s); the candidate has observed, described, and reflected upon the presentation/teaching of this knowledge and basic tools of inquiry in the PK-12 setting; and the candidate has met the state's minimum passing score on the College Basic Academic Subjects Examination (CBASE).

Quality Indicator 1.2.2: The pre-service teacher understands how students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students**.**

Mid-Preparation Benchmark: The preliminary candidate demonstrates a basic knowledge of theories and principles of human development and learning. The preliminary candidate demonstrates an awareness of the importance of strengthening prior knowledge with new ideas and encouraging student responsibility. This may be accomplished through descriptions of and reflections on the performance of teachers PK-12 students and themselves.

Quality Indicator 1.2.3: The pre-service teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

Mid-Preparation Benchmark: Through observation, description, and reflection on their own and PK-12 students' prior experience, learning styles, strengths and needs, the preliminary candidate recognizes that students differ in their approaches to learning.

Quality Indicator 1.2.4: The pre-service teacher recognizes the importance of long-range planning and curriculum development and develops, implements, and evaluates curriculum based upon students, district, and state performance standards.

Mid-Preparation Benchmark: The preliminary candidate can create and implement simulated or actual classroom learning activities. The preliminary candidate observes, describes and reflects upon district, state and national performance standards, individual diversity, and long- and short-term learning goals.

Quality Indicator 1.2.5: The pre-service teacher uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

Mid-Preparation Benchmark: The preliminary candidate observes, describes, and reflects upon the uses of a variety of instructional strategies in his/her own learning and in that of PK-12 students. The preliminary candidate recognizes alternative strategies, materials, and technology based on the needs of diverse

learners.

Quality Indicator 1.2.6: The pre-service teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning and self-motivation.

Mid-Preparation Benchmark: The preliminary candidate demonstrates a basic knowledge of principles of classroom and behavior management and reflects upon classroom practice in the context of that knowledge.

Quality Indicator 1.2.7: The pre-service teacher models effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Mid-Preparation Benchmark: The preliminary candidate demonstrates effective oral and written communication skills and presentation techniques, including a variety of media communication tools used to foster active inquiry, collaboration, and supportive interaction in classrooms. The preliminary candidate demonstrates awareness of and sensitivity to student differences.

Quality Indicator 1.2.8: The pre-service teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

Mid-Preparation Benchmark: The preliminary candidate demonstrates a basic knowledge of formal and informal assessment strategies. The preliminary candidate observes, describes, and reflects upon the use of both formal and informal assessments from his/her own learning experiences and coursework.

Quality Indicator 1.2.9: The pre-service teacher is a reflective practitioner who continually assesses the effects of choice and action on others. The reflective practitioner actively seeks out opportunities to grow professionally and utilize the assessment and professional growth to generate more learning for more students.

Mid-Preparation Benchmark: The preliminary candidate understands the concept of reflective practice and the importance of continual professional growth. The preliminary candidate can articulate some professional ethical standards in situations posed to him/her. He/She uses reflection to refine his/her learning and practice. The preliminary candidate can begin to articulate and reflect upon a basic personal philosophy of education.

Quality Indicator 1.2.10: The pre-service teacher fosters relationships with school colleagues, parents and educational partners in the larger community to support student learning and well-being.

Mid-Preparation Benchmark: The preliminary candidate fosters appropriate relationships with other pre-service teachers and school personnel to support his/her own learning. He/She demonstrates knowledge of basic services available in the school and community to support children and their learning. The preliminary candidate observes, describes and reflects upon professional relationships in school settings.

Quality Indicator 1.2.11: The pre-service teacher understands the theory and practice of technological operations, concepts, tools, and software and can use these to create meaningful learning opportunities for all students.

Mid-Preparation Benchmark: The preliminary candidate demonstrates the ability to recognize and use a variety of technology operations and concepts to enhance personal learning and productivity. The preliminary candidate also demonstrates the ability to recognize the appropriate use of technologies to communicate, collaborate, conduct research and inquiry, manage information, and present results in PK-12 classrooms.

STANDARD 2: PROGRAM AND CURRICULUM DESIGN.

Benchmark for Preliminary Teacher Education Programs: The program has a high quality curriculum derived from a conceptual framework(s) that is knowledge-based, articulated, shared, coherent, consistent with the institution's mission, and continuously evaluated.

Benchmark Indicators:

- The conceptual framework(s) is collaboratively developed, written, well articulated, and shared among professional education faculty, students, other members of the college community, and supporting school districts.
- Coherence exists between the conceptual framework(s) and student outcomes, courses, field experiences, instruction, and evaluation.
- The program clearly reflects the institution's mission and meets preliminary teacher education program requirements.
- The program engages in regular and systematic evaluations and uses these results to increase student achievement through the modification and improvement of the conceptual framework and the program.
- The program enhances the entry-level academic preparation of a diverse student population.

STANDARD 3: FIELD EXPERIENCES.

Benchmark for Preliminary Teacher Education Programs: The program ensures that field experiences are well-planned, of high quality, integrated throughout the program sequence, and continuously evaluated.

Benchmark Indicators:

- The program requires a minimum of thirty clock hours of field observation in appropriate PK-12 school settings.
- Program syllabi demonstrate that observation requirements are part of a number of courses in the degree program.
- The program requires a variety of observation experiences in PK-12 school settings that reflect diverse school populations (i.e. age, cultural diversity, exceptional and special needs populations).
- The program provides documentation that the quality of the observation experiences is evaluated on a regular basis.
- The program provides documentation that faculty and certified PK-12 school personnel collaborate in providing observation experiences for the preliminary candidate.

STANDARD 4: COMPOSITION, QUALITY, AND COMPETENCE OF STUDENT BODY.

Benchmark for Preliminary Teacher Education Programs: The program has and implements plans to recruit, admit, and retain a diverse student population who demonstrate potential for professional success in schools.

Benchmark Indicators:

- The institution commits a variety of resources to ensure a diverse candidate pool (e.g. individuals of diverse economic, cultural, racial, gender, and linguistic backgrounds, and individuals with disabilities) with acceptable academic and other qualifications.
- The institution has in place a systematic assessment for evaluating both the success of the recruitment goals to ensure diversity and the equitable application of admissions criteria.
- The institution ensures that students attain passing scores on the CBASE, a GPA of 2.5 (on a 4.0 scale), and successful completion of an assessment that documents the achievement of mid-preparation benchmarks for Standard 1.2 in order to complete the preliminary teacher education program.
- The institution provides clear information about institutional policies and requirements through its publications, web site, and advising services.
- The institution conducts systematic and regular surveys of past students to assess the efficacy of its advisement services and the former students' perception of their preparation for entry into the final phases

of teacher education and uses that information to improve advising and the teacher education curriculum and instruction.

STANDARD 5: **PROFESSIONAL FACULTY.**

Benchmark for Preliminary Teacher Education Programs: The program implements institutional policies to recruit, employ, and retain a diverse faculty who demonstrate professional qualifications and high quality instruction.

Benchmark Indicators:

- The institution ensures that the professional education faculty (full-time and part-time) are qualified for their assignments and are actively engaged in the professional community.
- The institution recruits, hires, and retains a diverse higher education faculty.
- The institution ensures that policies and assignments allow faculty to be involved effectively in teaching, scholarship, and service.
- The institution supports and promotes professional development for education faculty, and has a systematic and comprehensive plan for such experiences.
- Teaching in the program is of high quality, is assessed against performance expectations for teachers, is consistent with the conceptual framework(s), and reflects research and best practices.

STANDARD 6: GOVERNANCE, ORGANIZATION, AND AUTHORITY**.**

Benchmark for Preliminary Teacher Education Programs: Governing boards and administrators shall indicate commitment to the preparation of education personnel, as related to the institution's mission and goals, by adopting and implementing policies and procedures supportive of its preliminary teacher education program.

Benchmark Indicators:

- Control of the institution resides in a board of trustees or an otherwise designated board. The governing board establishes institutional philosophies and policies that promote sound educational programs. All policy decisions are recorded in writing.
- A president, or otherwise designated chief administration officer, makes provisions for the performance of administrative functions affecting the preliminary teacher education program.
- The preliminary teacher education program is clearly identified, operates as a professional community, and has the responsibility, authority, and personnel to develop, administer, evaluate, and make revisions.

STANDARD 7: PROFESSIONAL COMMUNITY:

Benchmark for Preliminary Teacher Education Programs: The program and professional education community collaborate to improve the preparation of school personnel and to improve the quality of education in the schools.

Benchmark Indicators:

- The program collaborates with professional colleagues and fosters appropriate relationships with PK-12 school educators in the design and evaluation of the preliminary teacher education program.
- The program provides opportunities and encourages students to engage in professional activities such as joining professional organizations and attending professional conferences.

STANDARD 8: RESOURCES FOR OPERATING THE UNIT AND FOR SUPPORTING TEACHING AND LEARNING.

Benchmark for Preliminary Teacher Education Programs: The institution has sufficient budgets, facilities, equipment and other resources to fulfill its mission, offer quality programs and support teaching and scholarship for faculty and students.

Benchmark Indicators:

- The institution has sufficient facilities, equipment and budgetary resources to fulfill its mission and to offer high-quality learning experiences; program funding is consistent with the funding received by other comparable programs on campus.
- Support of professional development is at least at the level of other programs within the institution.
- Faculty and students have training in and access to education-related electronic information, video resources, computer hardware, software, related technologies, and other similar resources.
- Faculty have well-maintained and functional offices, instructional, and other space to carry out their work effectively.
- Library/media collections are relevant, readily accessible, and systematically reviewed and updated.
- Sufficient library and technical staff are employed to support the institution's library and media/computer support operations.

Glossary of MoSTEP Terms

Advanced Program. A post-baccalaureate professional education program for: 1) the continued education of individuals who have previously earned initial professional certification or 2) the preparation of professional school personnel for initial certification that requires a graduate degree. Advanced programs commonly award graduate credit and include masters, specialist, and doctoral degree programs, as well as non-degree licensure programs at the graduate level.

Annual Report. A written report prepared each year by the professional education unit verifying its continuing capacity to meet state standards and requirements. The report provides information regarding institutional demographics and candidate performance, as well as documentation of changes in the professional education unit's programs.

Assessment System. A comprehensive and integrated set of evaluation measures that provides information about candidate performance and the management and improvement of unit and program operations.

Benchmarks. Acceptable levels of quality or execution within a broader scope of definition or range of implementation.

Board. Missouri State Board of Education

Candidate. An individual who is seeking admission to or is enrolled in a program for initial or advanced certification of teachers or other professional school personnel. A candidates may be majoring in professional education and/or seeking initial or advanced certification.

Certification. Official recognition by a state governmental agency that an individual has met state requirements and is, therefore, approved to practice as a duly certified/licensed education professional.

Clinical Practice. Student teaching or internships in a school setting that provides candidates with extensive opportunities to develop and demonstrate competence in the professional roles for which they are preparing. The experiences are completed under the guidance and supervision of practicing professionals in the field.

Competencies. Knowledge or skills expected of teachers or other education professionals.

Conceptual Framework. The underlying structure that includes rationale and principles to guide the operation of the professional education unit and provide direction for programs, curriculum, faculty and candidate performance, and accountability.

Dispositions. The beliefs, values, commitments and professional ethics that influence an educator's behaviors toward students, families, colleagues and communities and affect student learning, motivation, and development, as well as his/her own professional growth.

Diversity. Differences among groups of people and individuals based upon age, gender, culture, language, race, ethnicity, religion, exceptionalities or socio-economic status.

Field Experiences. Activities for candidates in professional education that are completed in off-campus settings such as a school, a classroom or a community center. They include classroom observations, tutoring, assisting teachers and administrators, student teaching, and internships.

Formative Assessment. An assessment designed to provide data that leads to improvement in knowledge or performance.

General Studies. Courses and other learning experiences in the liberal arts and sciences that candidates in baccalaureate programs typically complete in the first two or three years of higher education.

Governance. The system and structure for defining policies, providing leadership and administering procedures and resources for the professional education unit.

Initial Programs. Programs at the baccalaureate or post-baccalaureate levels that prepare candidates for their first certificate of license to teach.

Integrative Studies: Courses and other learning experiences in which candidates learn to integrate their general and

content knowledge with professional and pedagogical knowledge.

Knowledge Base: The body of knowledge for effective teaching derived from empirical research, disciplined inquiry, informed theory, and the wisdom of practice.

License. Official recognition by a state governmental agency that an individual has met state requirements and is, therefore, approved to practice as a duly certified/licensed education professional. Licensure is often used interchangeably with certification.

Multicultural Perspective. An understanding of the social, political, economic, academic, and historical constructs of age, gender, culture, language, race, ethnicity, religion, exceptionalities or socio-economic status and how they impact the curriculum of professional education.

Part-time Faculty. Employees of a higher education institution with less than a full-time assignment within the professional education unit. Some part-time faculty are full-time employees of the college or university with a portion of their assignments in the professional education unit. Other part-time faculty are not full-time employees of the institution and are commonly considered adjunct faculty.

Pedagogical Studies. Courses and other learning experiences in which candidates study and apply concepts, theories, and research about effective teaching.

Performance Standards. Definitions of what individuals preparing for professional education responsibilities need to know and be able to do.

Preliminary Teacher Education Program. A program that provides the introductory or early phases of teacher preparation culminating in a two-year associate's degree.

Pre-service Teacher. Individuals enrolled in programs at the baccalaureate or post-baccalaureate levels leading to initial licensure/certification as classroom teachers.

Professional Community. A group of full- and part-time higher education faculty, practitioners in PK-12 schools, candidates, and other stakeholders involved in the preparation of professional education personnel.

Professional Development. The acquisition of new knowledge and skills through in-service education, conference attendance, sabbatical leave, summer leave, institutional visitations, fellowships, work in PK-12 schools, etc.

Professional Education Faculty. Those individuals who teach one or more courses in education, provide services to education students (e.g., advising or supervising student teaching), or administer some portion of the unit. Professional education faculty may include both higher education faculty and school-based personnel; they are considered to be members of an institution's professional education unit.

Professional Education Program. A planned sequence of courses and experiences for preparing teachers or other professional personnel to work in PK-12 schools.

Professional Education Unit. A college, school, department, or other administrative entity within an institution of higher education that is primarily responsible for coordinating all programs for the initial and advanced preparation of teachers and other professional school personnel.

Professional Studies. Courses and other learning experiences to teach candidates the historical, economic, sociological, philosophical, and psychological foundations of schooling and education.

Rubrics. Written criteria for judging performance that indicate the qualities by which levels of performance can be differentiated, and that anchor judgments about the degree of success on a candidate assessment.

Scholarship. The active involvement in one's area of specialization as demonstrated through such faculty activities as research, articles published, program evaluation studies, documentation of on-going activities, grant seeking, and presentations at professional meetings.

Service. Faculty contributions to college or university activities, schools, communities, and professional associations in ways that are consistent with the institution and unit's mission.

Student Teaching. Pre-service clinical practice for professional education candidates who are preparing to teach.

Summative Assessment. An assessment that measures the demonstration of knowledge and/or skills in comparison

to a standard.

Technology. The application of electronic and other media to facilitate (1) development, delivery, and assessment of instruction, (2) problem solving, (3) personal and professional productivity, (3) administration of programs, and (4) access and exchange of information.

Tools of Inquiry. The resources and practices that facilitate the acquisition and sharing of knowledge associated with a discipline.

Unit. A college, school, department, or other administrative entity within an institution of higher education that is primarily responsible for coordinating all programs for the initial and advanced preparation of teachers and other professional school personnel. Also known as the "professional education unit."

Unit Head. The individual officially designated to provide leadership for the unit (e.g., dean, director, or chair), with the authority and responsibility for its overall administration and operation.

Title 5-DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
Division 80-Teacher Quality and Urban Education
Chapter 800-Educator Certification

5 CSR 80-800.360 Certificate of License to Teach Classifications

PURPOSE: The State Board of Education is authorized to grant certificates of license to teach in any of the public schools of the state and establish requirements and qualifications for those certificates. This rule outlines the classification of certificates of license to teach.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) Certificates of license to teach are issued and renewed by the State Board of Education (board) pursuant to the certification requirements found in the *Compendium of Missouri Certification Requirements* (compendium), which is incorporated by reference and made a part of this rule, and the rules promulgated by the board. Anyone interested in viewing or requesting a copy of the compendium, published by the Department of Elementary and Secondary Education (revised April 2009), may contact the Educator Certification Section, 205 Jefferson Street, PO Box 480, Jefferson City, MO 65102-0480. This rule does not incorporate any subsequent amendments or additions.

(2) Effective dates for initial certificates of license to teach, except for substitutes certificates of license to teach, are as follows:

(A) June 1, when the application is received from May 1 through July 31;

(B) August 15, when the application is received from August 1 through November 30; or

(C) January 1, when the application is received from December 1 through April 30.

(3) If a certificate of license to teach is renewed, except for a substitute certificate of license to teach, the effective date of renewal will be the date of expiration of the certificate of license to teach, providing that the application for renewal and supporting materials are received by the Department of Elementary and Secondary Education (DESE) prior to or on the expiration date.

(A) If the renewal of the certificate of license to teach is received by DESE within eleven (11) months of the expiration date of the certificate or a shorter time if specified in the rules promulgated by the board, the effective date of renewal will be the certificate's expiration date.

(B) If an individual's certificate of license to teach renewal is received after the certificate has expired for more than eleven (11) months or a shorter time if specified in the rules promulgated by the board, the individual must meet the current certification requirements as set forth in the compendium unless extenuating circumstances exist and the individual

obtains the approval of the commissioner of education.

(4) Certificates of license to teach may be issued pursuant to the rules promulgated by the board, to individuals in the following classifications:

(A) Initial Professional Classification (IPC); and/or

(B) Career Continuous Professional Classification (CCPC) (doctoral applicants are ineligible to advance to the CCPC level).

(5) For the purpose of this rule, one (1) contact hour for professional development is defined as:

(A) Sixty (60) minutes of professional development; or

(B) One (1) hour college credit equals fifteen (15) contact hours of professional development.

(6) Initial Professional Classification (IPC):

(A) A four (4) year IPC classification will be issued to applicants who meet the certification requirements and possess less than four (4) years of state-approved teaching experience;

(B) During the valid dates of the IPC classification, the certificate holder shall complete the following requirements:

1. Verification of four (4) years of state-approved teaching experience;

2. Develop and implement a professional development plan of at least thirty (30) contact hours, approved by the employing school district, to include clearly stated goals for improvement and enrichment;

3. Participate in a mentoring program for a minimum of two (2) school years, the guidelines for which shall be established by the local board of education;

4. Participate in a beginning teacher assistance program designed in cooperation with a Missouri teacher education program to include, but not be limited to, assistance in classroom management, instructional strategies and ongoing support; and

5. Participate in the district's Performance-Based Teacher Evaluations (PBTEs); and/or

(C) Individuals who have not been employed in a school setting may renew their certificate upon a showing of good cause and the following:

1. Written request for renewal; and

2. Documentation of completion of a plan to complete twenty-four (24) contact hours of professional development within six (6) months prior to or after returning to an educational position.

(7) Career Continuous Professional Classification (CCPC):

(A) A CCPC classification will be issued to an applicant upon completion and verification of the following:

1. Four (4) years of state-approved teaching experience;

2. The development and implementation of a professional development plan of at least thirty (30) contact hours approved by the employing school district to include clearly stated goals for improvement and enrichment;

3. Participation in a mentoring program for a minimum of two (2) school years, the guidelines for which shall be established by the local board of education;

4. Participation in a beginning teacher assistance program designed in cooperation with a Missouri teacher education program to include, but not be limited to, assistance in classroom management, instructional strategies and ongoing support; and

5. Participation in the district's PBTEs;

(B) The CCPC classification is continuous upon verification by the employing school district that the certificate holder has completed fifteen (15) contact hours of professional development per school year;

1. Individuals possessing a CCPC who do not complete fifteen (15) contact hours of professional development each school year, may within two (2) school years make up the missing hours. The individual must first meet the fifteen (15)-hour requirement for the current school year and then count the excess hours as makeup hours;

2. A CCPC becomes inactive if the individual does not make up the requisite hours within two (2) school years; and/or

3. A CCPC may be reactivated by the individual completing twenty-four (24) contact hours of professional development within six (6) months prior to or after the reactivation of the certificate. Failure of the individual to complete the twenty-four (24) contact hours within six (6) months will result in the certificate becoming inactive; and

(C) The CCPC holder is exempt from the fifteen (15) contact hours of professional development, if the holder has a local professional development plan in place with the school and at least two (2) of the following:

1. Ten (10) years of state-approved teaching experience;

2. A master's degree from an accredited college or university; and/or

3. Certification from the National Board for Professional Teaching Standards, or for school psychologists, the certificate of nationally certified school psychologist issued by the National Association of School Psychologists (NASP).

(8) Any level of a Missouri professional classification shall be extended for a teacher whose

service is interrupted due to a reduction in force (RIF) or military service.

(9) Individuals who have not been employed in a school setting for three (3) or more school years may reactivate the appropriate level of professional classification certificate of license to teach by completing twenty-four (24) contact hours of professional development within six (6) months prior to or after returning to an educational position.

(10) The local district and teacher shall submit, on an upgrade application form provided by DESE, a request for renewal and/or continuation of a particular classification level; verification that the teacher has completed the requirements of a particular classification level and/or the request for advancement to the next classification level.

(11) Any certificate holder denied certification by the board pursuant to this rule may appeal the decision pursuant to the rules promulgated by the board.

(12) Any certificate holder's disagreement with the school district's verification of requirements for the classification levels shall be dealt with through an appeal process developed by the school district's local board of education.

(13) Approved teaching experience, as described in the rules promulgated by the board, must be in Missouri public schools, schools approved or accredited by the state education agency in states other than Missouri, or in nonpublic schools accredited by an affiliate of the National Federation of Nonpublic School State Accrediting Associations, or one (1) of the six (6) regional accrediting associations for schools and colleges, or by the University of Missouri-Columbia, or other schools accredited by a DESE-approved accrediting agency which incorporate standards that include an entry-year mentor program, professional development plans for faculty, in-service training for faculty, and PBTEs. Teaching experience must be contracted and at least half-time. Substitute teaching or serving as a teacher's aide or assistant will not be counted as teaching experience.

(14) Provisional certificates of license to teach may be issued to an individual for two (2) years and may be extended upon a showing of good cause. Provisional certificates of license to teach may be issued in the following situations:

(A) A two (2)-year provisional certificate of license to teach may be issued to an individual who has completed the academic requirements for a certificate of license to teach, but has not taken or passed the exit assessment(s) designated by the board; or

(B) A two (2)-year provisional certificate of license to teach may be issued to an individual who has been admitted into a state-approved post-baccalaureate or alternative professional education program at a Missouri institution of higher education and is actively engaged in coursework to satisfy the requirements of the program; or

(C) A two (2)-year provisional certificate of license to teach may be issued to an individual who has completed a teacher preparation program and is generally within twelve (12) semester hours of completion of the certification requirements as set forth in the compendium.

(15) Administrator certificates of license to teach may be issued to an individual and renewed pursuant to the requirements found in the compendium and the rules promulgated

by the board.

(16) Student services certificates of license to teach may be issued to an individual and renewed pursuant to the requirements found in the compendium and the rules promulgated by the board.

(17) Substitute certificates of license to teach may be issued to an individual for one (1) year pursuant to the requirements found in the compendium and the rules promulgated by the board.

(18) Career education certificates of license to teach may be issued to an individual and renewed pursuant to the requirements found in the compendium and the rules promulgated by the board.

(19) Adult education and literacy certificates of license to teach may be issued to an individual and may be renewed pursuant to the requirements found in the compendium and the rules promulgated by the board.

(20) Temporary authorization certificates of license to teach may be issued to an individual for one (1) year and may be renewed pursuant to the requirements found in the compendium and the rules promulgated by the board.

AUTHORITY: sections 161.092, 168.021, 168.071, 168.081, and 168.400, RSMo Supp. 2008 and sections 168.011, 168.128, 168.405, and 168.409, RSMo 2000. Original rule filed April 26, 2000, effective Nov. 30, 2000. Amended: Filed March 27, 2001, effective Oct. 30, 2001. Amended: Filed Oct. 25, 2001, effective June 30, 2002. Amended: Filed Aug. 13, 2002, effective March 30, 2003. Amended: Filed Sept. 12, 2003, effective April 30, 2004. Amended: Filed Sept. 22, 2004, effective April 30, 2005. Amended: Filed June 30, 2005, effective Jan. 30, 2006. Amended: Filed April 4, 2007, effective Nov. 30, 2007. Amended: Filed Jan. 18, 2008, effective Sept. 30, 2008. Amended: Filed Jan. 30, 2009, effective Aug. 30, 2009.*

**Original authority: 161.092, RSMo 1963, amended 1973, 2002, 2003; 168.011, RSMo 1963, amended 1984; 168.021, RSMo 1963, amended 1973, 1984, 1988, 1990, 1998, 2000, 2003, 2008; 168.071, RSMo 1963, amended 1973, 1978, 1984, 1988, 1993, 1998, 2002, 2003; 168.081, RSMo 1963, amended 1984, 2002; 168.128, RSMo 1969, amended 1983; 168.400, RSMo 1985, amended 1990, 2002; 168.405, RSMo 1985; and 168.409, RSMo 1985.*

For more information regarding this rule, please contact the Educator Certification Section at (573) 751-0051.

Missouri Revised Statutes

Chapter 161
State Department of Elementary and Secondary Education
Section *161.092*

August 28, 2009

Powers and duties of state board.

161.092. The state board of education shall:

(1) Adopt rules governing its own proceedings and formulate policies for the guidance of the commissioner of education and the department of elementary and secondary education;

(2) Carry out the educational policies of the state relating to public schools that are provided by law and supervise instruction in the public schools;

(3) Direct the investment of all moneys received by the state to be applied to the capital of any permanent fund established for the support of public education within the jurisdiction of the department of elementary and secondary education and see that the funds are applied to the branches of educational interest of the state that by grant, gift, devise or law they were originally intended, and if necessary institute suit for and collect the funds and return them to their legitimate channels;

(4) Cause to be assembled information which will reflect continuously the condition and management of the public schools of the state;

(5) Require of county clerks or treasurers, boards of education or other school officers, recorders and treasurers of cities, towns and villages, copies of all records required to be made by them and all other information in relation to the funds and condition of schools and the management thereof that is deemed necessary;

(6) Provide blanks suitable for use by officials in reporting the information required by the board;

(7) When conditions demand, cause the laws relating to schools to be published in a separate volume, with pertinent notes and comments, for the guidance of those charged with the execution of the laws;

(8) Grant, without fee except as provided in section 168.021, RSMo, certificates of qualification and licenses to teach in any of the public schools of the state, establish requirements therefor,

formulate regulations governing the issuance thereof, and cause the certificates to be revoked for the reasons and in the manner provided in section 168.071, RSMo;

(9) Classify the public schools of the state, subject to limitations provided by law, establish requirements for the schools of each class, and formulate rules governing the inspection and accreditation of schools preparatory to classification, with such requirements taking effect not less than two years from the date of adoption of the proposed rule by the state board of education, provided that this condition shall not apply to any requirement for which a time line for adoption is mandated in either federal or state law;

(10) Make an annual report on or before the first Wednesday after the first day of January to the general assembly or, when it is not in session, to the governor for publication and transmission to the general assembly. The report shall be for the last preceding school year, and shall include:

(a) A statement of the number of public schools in the state, the number of pupils attending the schools, their sex, and the branches taught;

(b) A statement of the number of teachers employed, their sex, their professional training, and their average salary;

(c) A statement of the receipts and disbursements of public school funds of every description, their sources, and the purposes for which they were disbursed;

(d) Suggestions for the improvement of public schools; and

(e) Any other information relative to the educational interests of the state that the law requires or the board deems important;

(11) Make an annual report to the general assembly and the governor concerning coordination with other agencies and departments of government that support family literacy programs and other services which influence educational attainment of children of all ages;

(12) Require from the chief officer of each division of the department of elementary and secondary education, on or before the thirty-first day of August of each year, reports containing information the board deems important and desires for publication;

(13) Cause fifty copies of its annual report to be reserved for the use of each division of the state department of elementary and secondary education, and ten copies for preservation in the state library;

(14) Have other powers and duties prescribed by law.

(L. 1963 p. 200 § 2-9, A.L. 1973 H.B. 158, A.L. 2002 H.B. 1711, A.L. 2003 S.B. 296)

(Source: RSMo 1959 § 160.090)

CROSS REFERENCES:

List of conforming publishers, RSMo 170.091

Multinational banks, securities and obligations of, investment in, when, RSMo 409.950

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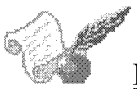 Missouri General Assembly

Missouri Revised Statutes

Chapter 162
School Districts
Section *162.081*

August 28, 2009

Lapse of district corporate organization, grounds, effect--hearing prior to determination of attachment of territory of lapsed district--special administrative board--employment interviews for teacher of lapsed district, when--division of district, vote, when.

162.081. 1. Whenever any school district in this state fails or refuses in any school year to provide for the minimum school term required by section 163.021, RSMo, or is classified unaccredited for two successive school years by the state board of education, its corporate organization shall lapse. The corporate organization of any school district that is classified as unaccredited shall lapse on June thirtieth of the second full school year of such unaccredited classification after the school year during which the unaccredited classification is initially assigned. The territory theretofore embraced within any district that lapses pursuant to this section or any portion thereof may be attached to any district for school purposes by the state board of education; but no school district, except a district classified as unaccredited pursuant to section 163.023, RSMo, and section 160.538, RSMo, shall lapse where provision is lawfully made for the attendance of the pupils of the district at another school district that is classified as provisionally accredited or accredited by the state board of education.

2. Prior to or at the time any school district in this state shall lapse, but after the school district has been classified as unaccredited, the department of elementary and secondary education shall conduct a public hearing at a location in the unaccredited school district. The purpose of the hearing shall be to:

(1) Review any plan by the district to return to accredited status; or

(2) Offer any technical assistance that can be provided to the district.

3. Except as otherwise provided in section 162.1100, in a metropolitan school district or an urban school district containing most or all of a city with a population greater than three hundred fifty thousand inhabitants and in any other school district if the local board of education does not anticipate a return to accredited status, the state board of education may appoint a special administrative board to supervise the financial operations, maintain and preserve the financial assets or, if warranted, continue operation of the educational programs within the district or what provisions might otherwise be made in the best interest of the education of the children of the

district. The special administrative board shall consist of two persons who are residents of the school district, who shall serve without compensation, and a professional administrator, who shall chair the board and shall be compensated, as determined by the state board of education, in whole or in part with funds from the district.

4. Upon lapse of the district, the state board of education may:

(1) Appoint a special administrative board, if such a board has not already been appointed, and authorize the special administrative board to retain the authority granted to a board of education for the operation of all or part of the district;

(2) Attach the territory of the lapsed district to another district or districts for school purposes; or

(3) Establish one or more school districts within the territory of the lapsed district, with a governance structure consistent with the laws applicable to districts of a similar size, with the option of permitting a district to remain intact for the purposes of assessing, collecting, and distributing property taxes, to be distributed equitably on a weighted average daily attendance basis, but to be divided for operational purposes, which shall take effect sixty days after the adjournment of the regular session of the general assembly next following the state board's decision unless a statute or concurrent resolution is enacted to nullify the state board's decision prior to such effective date.

The special administrative board may retain the authority granted to a board of education for the operation of the lapsed school district under the laws of the state in effect at the time of the lapse.

5. The authority of the special administrative board shall expire at the end of the third full school year following its appointment, unless extended by the state board of education. If the lapsed district is reassigned, the special administrative board shall provide an accounting of all funds, assets and liabilities of the lapsed district and transfer such funds, assets, and liabilities of the lapsed district as determined by the state board of education.

6. Upon recommendation of the special administrative board, the state board of education may assign the funds, assets and liabilities of the lapsed district to another district or districts. Upon assignment, all authority of the special administrative board shall transfer to the assigned districts.

7. Neither the special administrative board nor any district or other entity assigned territory, assets or funds from a lapsed district shall be considered a successor entity for the purpose of employment contracts, unemployment compensation payment pursuant to section 288.110, RSMo, or any other purpose.

8. If additional teachers are needed by a district as a result of increased enrollment due to the annexation of territory of a lapsed or dissolved district, such district shall grant an employment interview to any permanent teacher of the lapsed or dissolved district upon the request of such permanent teacher.

9. (1) The governing body of a school district, upon an initial declaration by the state board of education that such district is provisionally accredited, may, and, upon an initial declaration by the state board of education that such district is unaccredited, shall develop a plan to be submitted to the voters of the school district to divide the school district if the district cannot attain accreditation within three years of the initial declaration that such district is unaccredited. In the case of such a district being declared unaccredited, such plan shall be presented to the voters of the district before the district lapses. In the case of such a district being declared provisionally accredited, such plan may be presented before the close of the current accreditation cycle.

(2) The plan may provide that the school district shall remain intact for the purposes of assessing, collecting and distributing taxes for support of the schools, and the governing body of the district shall develop a plan for the distribution of such taxes equitably on a per-pupil basis if the district selects this option.

(3) The makeup of the new districts shall be racially balanced as far as the proportions of students allow.

(4) If a majority of the district's voters approve the plan, the state board of education shall cooperate with the local board of education to implement the plan, which may include use of the provisions of this section to provide an orderly transition to new school districts and achievement of accredited status for such districts.

10. In the event that a school district with an enrollment in excess of five thousand pupils lapses, no school district shall have all or any part of such lapsed school district attached without the approval of the board of the receiving school district.

(L. 1963 p. 200 § 3-8, A.L. 1973 H.B. 158, A.L. 1992 S.B. 581, A.L. 1993 S.B. 380, A.L. 1998 S.B. 781, A.L. 2005 S.B. 287)

(Source: RSMo 1959 § 165.013)

Effective 7-01-06

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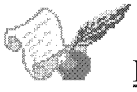
Missouri General Assembly

Missouri Revised Statutes

Chapter 163
State Aid
Section *163.021*

August 28, 2009

Eligibility for state aid, requirements--evaluation of correlation of rates and assessed valuation, report, calculation--further requirements--exception--operating levy less than performance levy, requirements.

163.021. 1. A school district shall receive state aid for its education program only if it:

(1) Provides for a minimum of one hundred seventy-four days and one thousand forty-four hours of actual pupil attendance in a term scheduled by the board pursuant to section 160.041, RSMo, for each pupil or group of pupils, except that the board shall provide a minimum of one hundred seventy-four days and five hundred twenty-two hours of actual pupil attendance in a term for kindergarten pupils. If any school is dismissed because of inclement weather after school has been in session for three hours, that day shall count as a school day including afternoon session kindergarten students. When the aggregate hours lost in a term due to inclement weather decreases the total hours of the school term below the required minimum number of hours by more than twelve hours for all-day students or six hours for one-half-day kindergarten students, all such hours below the minimum must be made up in one-half day or full day additions to the term, except as provided in section 171.033, RSMo;

(2) Maintains adequate and accurate records of attendance, personnel and finances, as required by the state board of education, which shall include the preparation of a financial statement which shall be submitted to the state board of education the same as required by the provisions of section 165.111, RSMo, for districts;

(3) Levies an operating levy for school purposes of not less than one dollar and twenty-five cents after all adjustments and reductions on each one hundred dollars assessed valuation of the district;

(4) Computes average daily attendance as defined in subdivision (2) of section 163.011 as modified by section 171.031, RSMo. Whenever there has existed within the district an infectious disease, contagion, epidemic, plague or similar condition whereby the school attendance is substantially reduced for an extended period in any school year, the apportionment of school funds and all other distribution of school moneys shall be made on the basis of the school year next preceding the year in which such condition existed.

2. For the 2006-07 school year and thereafter, no school district shall receive more state aid, as calculated under subsections 1 and 2 of section 163.031, for its education program, exclusive of categorical add-ons, than it received per weighted average daily attendance for the school year 2005-06 from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts, unless it has an operating levy for school purposes, as determined pursuant to section 163.011, of not less than two dollars and seventy-five cents after all adjustments and reductions. Any district which is required, pursuant to article X, section 22 of the Missouri Constitution, to reduce its operating levy below the minimum tax rate otherwise required under this subsection shall not be construed to be in violation of this subsection for making such tax rate reduction. Pursuant to section 10(c) of article X of the state constitution, a school district may levy the operating levy for school purposes required by this subsection less all adjustments required pursuant to article X, section 22 of the Missouri Constitution if such rate does not exceed the highest tax rate in effect subsequent to the 1980 tax year. Nothing in this section shall be construed to mean that a school district is guaranteed to receive an amount not less than the amount the school district received per eligible pupil for the school year 1990-91. The provisions of this subsection shall not apply to any school district located in a county of the second classification which has a nuclear power plant located in such district or to any school district located in a county of the third classification which has an electric power generation unit with a rated generating capacity of more than one hundred fifty megawatts which is owned or operated or both by a rural electric cooperative except that such school districts may levy for current school purposes and capital projects an operating levy not to exceed two dollars and seventy-five cents less all adjustments required pursuant to article X, section 22 of the Missouri Constitution.

3. No school district shall receive more state aid, as calculated in section 163.031, for its education program, exclusive of categorical add-ons, than it received per eligible pupil for the school year 1993-1994, if the state board of education determines that the district was not in compliance in the preceding school year with the requirements of section 163.172, until such time as the board determines that the district is again in compliance with the requirements of section 163.172.

4. No school district shall receive state aid, pursuant to section 163.031, if such district was not in compliance, during the preceding school year, with the requirement, established pursuant to section 160.530, RSMo, to allocate revenue to the professional development committee of the district.

5. No school district shall receive more state aid, as calculated in subsections 1 and 2 of section 163.031, for its education program, exclusive of categorical add-ons, than it received per weighted average daily attendance for the school year 2005-06 from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts, if the district did not comply in the preceding school year with the requirements of subsection 6 of section 163.031.

6. Any school district that levies an operating levy for school purposes that is less than the performance levy, as such term is defined in section 163.011, shall provide written notice to the department of elementary and secondary education asserting that the district is providing an

adequate education to the students of such district. If a school district asserts that it is not providing an adequate education to its students, such inadequacy shall be deemed to be a result of insufficient local effort. The provisions of this subsection shall not apply to any special district established under sections 162.815 to 162.940, RSMo.

(L. 1963 p. 200 § 4-2, A.L. 1973 H.B. 38, A.L. 1982 S.B. 832, A.L. 1983 S.B. 39, A.L. 1984 H.B. 1456 & 1197, A.L. 1988 S.B. 797, A.L. 1992 H.B. 1478, et al., A.L. 1993 S.B. 380, A.L. 1996 S.B. 795, et al., A.L. 1997 H.B. 105, A.L. 1998 S.B. 781, A.L. 2005 S.B. 287, A.L. 2006 S.B. 894)

(Source: RSMo 1959 § 161.025)

(1972) The phrase "No levy for public schools or libraries shall be reduced below a point that would entitle them to participate in state funds" in § 137.073, RSMo, prohibits a reduction in the rate of levy to a point where no state funds would be available, i.e., a reduction below a rate of $1.00, and does not prohibit a reduction below a rate that would only cut off participation in additional state aid under § 163.031. Mo. Pacific Rd. Co. v. Kuehle (Mo.), 482 S.W.2d 505.

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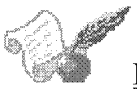
Missouri General Assembly

Title 5 - DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
Division 50 - Division of School Improvement
Chapter 345 - Missouri School Improvement Program

5 CSR 50-345.100 Missouri School Improvement Program

PURPOSE: This rule implements a program of comprehensive assessments of school districts' educational resources, instructional processes and educational outcomes designed to stimulate and encourage improvement in the efficiency and effectiveness of instruction, and provides information which will enable the State Board of Education to accredit and classify the districts as required by state law.

PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

(1) This rule is to be effective July 1, 2006, and incorporated by reference and made a part of this rule the *Missouri School Improvement Program (MSIP) Standards and Indicators Manual* which is comprised of qualitative and quantitative standards for school districts. As referenced in the *MSIP Standards and Indicators Manual*, the standards are organized in three (3) sections—Resource Standards, Process Standards and Performance Standards. The standards are supported by appendices which include: the minimum graduation requirements, media standards for school learning resource centers, teacher certification requirements and assessment program standards. Anyone interested in viewing or requesting a copy of the MSIP Manual (Revised September, 2004) may contact the School Improvement and Accreditation Section, 205 Jefferson Street, PO Box 480, Jefferson City, MO 65102-0480.

(2) During each year, the Department of Elementary and Secondary Education (DESE) will select school districts which will be reviewed and classified in accordance with this rule, including the standards, with the appropriate scoring guide and forms and procedures outlined in the annual MSIP.

(3) The State Board of Education (board) will assign classification designations of unaccredited, provisionally accredited and accredited based on the standards of the MSIP.

(4) As a condition of receiving a classification designation other than unaccredited, each school district reviewed under MSIP must file, within sixty (60) days of the board's decision, a school improvement plan in a form specified by DESE and implement it in accordance with a specified schedule approved by DESE.

(5) A school district's classification designation based on the standards of the MSIP will remain in effect until the board approves another designation. The board may consider changing a district's classification designation after its regularly scheduled review or upon its determination that the district has:

(A) Failed to implement its school improvement plan at an acceptable level;

(B) Implemented its school improvement plan substantially and, therefore, may qualify for a higher classification designation;

(C) Employed a superintendent or chief executive officer without a valid Missouri superintendent's certificate in a K-12 school district; or employed a superintendent or chief executive officer without a valid Missouri superintendent's or elementary principal's certificate in a K-8 school district; and/or

(D) Altered significantly the scope or effectiveness of the programs, services or financial integrity upon which the original classification designation was based.

(6) A school district designated unaccredited by the board under the provisions of this rule will be liable for tuition and transportation for resident students legally transferring to another district pursuant to applicable state laws and regulations from the date of the action by the board through the end of the school year during which the board awards the district a designation of provisionally accredited or higher.

(7) Any school district which on June 30, 1997, or thereafter, has been classified unaccredited by the board in two (2) successive years will be subject to lapsing, pursuant to applicable state laws and regulations. A school district that is classified as unaccredited shall lapse on June 30 of the second full year after the school year during which the unaccredited classification is initially assigned.

(8) A school district designated provisionally accredited twice sequentially or a school district designated provisionally accredited after being unaccredited will be designated provisionally accredited for three (3) years, at which time a re-review will be conducted. A district's accreditation designation may not be raised more than one (1) level during a re-review.

(A) The board may lower a district's accreditation if a district fails to gain full accreditation after being designated provisionally accredited twice sequentially; or after being designated provisionally accredited after being unaccredited and the district fails to make significant or consistent improvement in student achievement in order to gain accreditation.

(9) The board of education of any school district which is dissatisfied with the classification designation assigned by the board may request a hearing before the commissioner of education for the purpose of showing cause why its classification designation should be reconsidered. Each request must be submitted in writing within thirty (30) days of the board's classification designation, setting forth the specific reasons for the request, including any errors of fact upon which the board relied in making the classification designation. If the commissioner of education agrees that sufficient cause has been shown, s/he will request the board to reconsider the district's classification designation together with the additional or corrected information.

AUTHORITY: sections 161.092 and 168.081, RSMo Supp. 2003 and 162.081 and 167.131, RSMo 2000. Original rule filed June 30, 2004, effective Jan. 30, 2005.*

**Original authority: 161.092, RSMo 1963, amended 1973, 2002, 2003; 168.081, RSMo 1963, amended 1984, 2002; 162.081, RSMo 1963, amended 1973, 1992, 1993, 1998; 167.131, RSMo 1963, amended 1973, 1993.*

For more information regarding this rule, please contact School Improvement and Accreditation Section at (573) 751-4426.

Appendix 24 FY 2008 SPENDING ON FREE PUBLIC SCHOOLS PER ARTICLE IX SECTION 3(b)

Approp	HB Section	Item	Amount	Fund
0944	2.010	Desegregation - St. Louis	11,000,000	GR
0678	2.015	School Foundation Program	586,115,086	OSTF
multiple*	2.015	School Foundation Program	2,222,265,281	SSMF
2079	2.015	School Foundation Program	311,285,315	CRTF
2081	2.015	School Foundation Program--Small Schools Program	15,000,000	SSMF
multiple*	2.015	School Foundation Program	143,268,465	LPF
0015, 2298	2.015	School Foundation Program - Board Operated Schools	42,539,529	GR
2303	2.015	School Foundation Program - Board Operated Schools	1,707,167	BPEF
4269	2.015	Virtual Schools	3,817,156	LPF
2535	2.020	Early Grade Literacy Program	101,850	GR
3864	2.020	Early Grade Literacy Program	250,000	OSTF
1284	2.020	Early Grade Literacy Program	140,650	LPF
0495	2.025	School Food Services	3,412,151	GR
5240	2.030	Proposition C	772,820,016	SDTF
0113	2.035	School district bonds	341,237	SDBF
7646	2.075	Scholars Academy	599,906	GR
2536	2.095	Performance Based Assessment	367,004	GR
2796	2.095	Performance Based Assessment	128,125	OSTF
1289	2.095	Performance Based Assessment	4,431,571	LPF
2538	2.115	Safe Schools	2,975,942	GR
1631	2.205	Adult Basic Education	824,480	OSTF
9427	2.205	Adult Basic Education	4,410,257	GR
0657	2.225	High Need Program	19,047,300	LPF
4112	2.230	First Steps	14,211,181	GR
3180	2.230	First Steps	578,644	ECDEC
2542	2.235	DMH and DFS payments to school districts	2,330,731	GR
5677	2.235	DMH and DFS payments to school districts	7,768,606	LPF
2268	2.245	Reader's for the Blind	25,000	SSMF
1861	2.250	Blind Literacy Program	237,649	GR
0543	2.255	School for the Deaf Trust Fund	10,249	SDTF
9806	2.260	School for the Blind Trust Fund	591,094	SBTF
2280	2.270	Handicapped Children Trust Fund	58,832	HCTF
T454	2.300	County Foreign Insurance	97,301,746	GR
T438	2.305	Fair Share Fund	23,260,291	FSF
1033	13.005	State Schools for the Severely Handicapped Leasing	340,271	GR
7326	14.015	High Need Program	1,964,263	GR
2876	17.005	State Schools CI	43,425	HCTF
3222	17.010	State Schools CI	96,510	BPEF
multiple*	17.015	Career Education Facilities	893,443	GR
0698	17.045	State Schools Maintenance & Repair	1,653,804	FMRF
0703	17.045	State Schools Maintenance & Repair	463,005	BPEF
2879	17.060	State Schools CI	375	GR
multiple*	18.005	Operational maintenance and repair at State Schools	730,358	FMRF
3808	18.010	Operational maintenance and repair at State Schools	126	FMRF
0520	18.015	Operational maintenance and repair at State Schools	325,114	FMRF
		Total Spending on Free Public Schools	**4,299,733,205**	

The State Revenue per Article IX, Section 3(b)	11,617,272,788
% of The State Revenue spent on Free Public Schools	37.01%
25% Requirement for the Free Public Schools per Article IX, Section 3(b)	2,904,318,197
Amount in excess of 25% requirement	1,395,415,008
State revenue per Article XI, Section 3(b)	11,617,272,788

Minus Prop C (including MV sales tax part that highways gets)	(807,214,841)
Minus Prop C interest	(3,019,896)
	10,807,038,050
Expenditures for free public schools	4,299,733,205
Minus Prop C	(772,820,016)
	3,526,913,189
Percentage spent on free public schools net of Prop C	**32.64%**

Note: Additional programs have not previously been included in calculations but are program expenditures for Education
Spending from Outstanding Schools Trust Fund is a result of a transfer from general revenue.
Spending from State Schools Moneys Fund is largely a result of a transfer from general revenue.

* The multiple School Foundation Program approps for SSMF include: #'s 0679, 0684, 0702, 0720, 0722, 2363, 4293.
* The multiple School Foundation Program approps for LPF include: #'s 5667, 5645, 2362.
* The multiple Career Education Facilities approps for GR include: #'s 3491, 3492, 3494.
* The multiple OPMR work at State Schools includes FMRF approps: #'s 0232, 0298, 0299, 0300, 0301, 0444, 0445, 0482, 0483, 0488, 0489, 0501, 0502, 0503, 0504, 0505, 0508, 0509, 0510, 0516, 0517, 0518, 0519, 1132.

Appendix 25 FY 2009 SPENDING ON FREE PUBLIC SCHOOLS PER ARTICLE IX SECTION 3(b)

Approp	HB Section	Item	Amount	Fund
0944	2.010	Desegregation - St. Louis	10,000,000	GR
0678	2.015	School Foundation Program	644,165,086	OSTF
multiple*	2.015	School Foundation Program	2,294,566,819	SSMF
2079	2.015	School Foundation Program	307,880,397	CRTF
2081	2.015	School Foundation Program--Small Schools Program	15,000,000	SSMF
multiple*	2.015	School Foundation Program	108,979,553	LPF
0015, 2298	2.015	School Foundation Program - Board Operated Schools	41,984,911	GR
2303	2.015	School Foundation Program - Board Operated Schools	1,707,167	BPEF
4269	2.015	Virtual Schools	4,897,381	LPF
2535	2.020	Early Grade Literacy Program	101,850	GR
3864	2.020	Early Grade Literacy Program	250,000	OSTF
1284	2.020	Early Grade Literacy Program	140,650	LPF
0495	2.025	School Food Services	3,412,151	GR
5240	2.030	Proposition C	730,325,409	SDTF
0113	2.035	School district bonds	346,306	SDBF
7646	2.075	Scholars Academy	642,757	GR
2536	2.095	Performance Based Assessment	298,142	GR
2796	2.095	Performance Based Assessment	128,125	OSTF
1289	2.095	Performance Based Assessment	4,286,052	LPF
2538	2.115	Safe Schools	2,969,897	GR
1631	2.195	Adult Basic Education	824,480	OSTF
9427	2.195	Adult Basic Education	4,530,849	GR
7326	2.215	High Need Program	1,421,563	GR
0657	2.215	High Need Program	19,590,000	LPF
4112	2.220	First Steps	15,590,703	GR
3180	2.220	First Steps	561,285	ECDEC
2542	2.225	DMH and DFS payments to school districts	2,330,731	GR
5677	2.225	DMH and DFS payments to school districts	7,768,606	LPF
2268	2.235	Reader's for the Blind	25,000	SSMF
1861	2.240	Blind Literacy Program	237,950	GR
0543	2.245	School for the Deaf Trust Fund	22,255	SDTF
9806	2.250	School for the Blind Trust Fund	359,731	SBTF
2280	2.260	Handicapped Children Trust Fund	99,121	HCTF
T454	2.285	County Foreign Insurance	99,271,991	GR
T438	2.290	Fair Share Fund	22,668,937	FSF
1033	13.005	State Schools for the Severely Handicapped Leasing	347,054	GR
4488, 4517	14.005	School Foundation Program	17,429,408	SFEIF
4527	14.030	High Need Program	2,500,000	SFEIF
multiple*	23.003	Career Education Facilities	11,100,966	GR
multiple*	23.003	Career Education Facilities	3,782,916	LPF
		Total Spending on Free Public Schools	**4,382,546,200**	

The State Revenue per Article IX, Section 3(b)	10,637,708,063
% of The State Revenue spent on Free Public Schools	41.20%
25% Requirement for the Free Public Schools per Article IX, Section 3(b)	2,659,427,016
Amount in excess of 25% requirement	1,723,119,184
State revenue per Article XI, Section 3(b)	10,637,708,063
Minus Prop C (including MV sales tax part that highways gets)	(758,897,169)
Minus Prop C interest	(1,509,032)
	9,877,301,862
Expenditures for free public schools	4,382,546,200
Minus Prop C	(730,325,409)
	3,652,220,790

Appendix 25 FY 2009 SPENDING ON FREE PUBLIC SCHOOLS PER ARTICLE IX SECTION 3(b)

Percentage spent on free public schools net of Prop C	36.98%

Note: Additional programs have not previously been included in calculations but are program expenditures for Education.

Spending from Outstanding Schools Trust Fund is a result of a transfer from general revenue.

Spending from State Schools Moneys Fund is largely a result of a transfer from general revenue.

* The multiple School Foundation Program approps for SSMF include: #'s 0679, 0684, 0702, 0720, 0722, 2363, 4293.
* The multiple School Foundation Program approps for LPF include: #'s 5667, 5645, 2362.
* The multiple Career Education Facilities approps for GR include: #'s 1355, 1370, 1384, 1385, 1400, 1862.
* The multiple Career Education Facilities approps for LPF include: #'s 3977, 3982, 4003.

There were no FY 2009 expenditures on OPMR, State Schools M&R or CI.

Missouri Revised Statutes

Chapter 163
State Aid
Section *163.011*

August 28, 2009

Definitions--method of calculating state aid.

163.011. As used in this chapter unless the context requires otherwise:

(1) "Adjusted operating levy", the sum of tax rates for the current year for teachers' and incidental funds for a school district as reported to the proper officer of each county pursuant to section 164.011, RSMo;

(2) "Average daily attendance", the quotient or the sum of the quotients obtained by dividing the total number of hours attended in a term by resident pupils between the ages of five and twenty-one by the actual number of hours school was in session in that term. To the average daily attendance of the following school term shall be added the full-time equivalent average daily attendance of summer school students. "Full-time equivalent average daily attendance of summer school students" shall be computed by dividing the total number of hours, except for physical education hours that do not count as credit toward graduation for students in grades nine, ten, eleven, and twelve, attended by all summer school pupils by the number of hours required in section 160.011, RSMo, in the school term. For purposes of determining average daily attendance under this subdivision, the term "resident pupil" shall include all children between the ages of five and twenty-one who are residents of the school district and who are attending kindergarten through grade twelve in such district. If a child is attending school in a district other than the district of residence and the child's parent is teaching in the school district or is a regular employee of the school district which the child is attending, then such child shall be considered a resident pupil of the school district which the child is attending for such period of time when the district of residence is not otherwise liable for tuition. Average daily attendance for students below the age of five years for which a school district may receive state aid based on such attendance shall be computed as regular school term attendance unless otherwise provided by law;

(3) "Current operating expenditures":

(a) For the fiscal year 2007 calculation, "current operating expenditures" shall be calculated using data from fiscal year 2004 and shall be calculated as all expenditures for instruction and support services except capital outlay and debt service expenditures minus the revenue from federal categorical sources; food service; student activities; categorical payments for

transportation costs pursuant to section 163.161; state reimbursements for early childhood special education; the career ladder entitlement for the district, as provided for in sections 168.500 to 168.515, RSMo; the vocational education entitlement for the district, as provided for in section 167.332, RSMo; and payments from other districts;

(b) In every fiscal year subsequent to fiscal year 2007, current operating expenditures shall be the amount in paragraph (a) of this subdivision plus any increases in state funding pursuant to sections 163.031 and 163.043 subsequent to fiscal year 2005, not to exceed five percent, per recalculation, of the state revenue received by a district in the 2004-05 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments for any district from the first preceding calculation of the state adequacy target. Beginning on July 1, 2010, current operating expenditures shall be the amount in paragraph (a) of this subdivision plus any increases in state funding pursuant to sections 163.031 and 163.043 subsequent to fiscal year 2005 received by a district in the 2004-05 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments for any district from the first preceding calculation of the state adequacy target;

(4) "District's tax rate ceiling", the highest tax rate ceiling in effect subsequent to the 1980 tax year or any subsequent year. Such tax rate ceiling shall not contain any tax levy for debt service;

(5) "Dollar-value modifier", an index of the relative purchasing power of a dollar, calculated as one plus fifteen percent of the difference of the regional wage ratio minus one, provided that the dollar value modifier shall not be applied at a rate less than 1.0:

(a) "County wage per job", the total county wage and salary disbursements divided by the total county wage and salary employment for each county and the city of St. Louis as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year;

(b) "Regional wage per job":

a. The total Missouri wage and salary disbursements of the metropolitan area as defined by the Office of Management and Budget divided by the total Missouri metropolitan wage and salary employment for the metropolitan area for the county signified in the school district number or the city of St. Louis, as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year and recalculated upon every decennial census to incorporate counties that are newly added to the description of metropolitan areas; or if no such metropolitan area is established, then:

b. The total Missouri wage and salary disbursements of the micropolitan area as defined by the Office of Management and Budget divided by the total Missouri micropolitan wage and salary employment for the micropolitan area for the county signified in the school district number, as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year, if a micropolitan area for such county has been

established and recalculated upon every decennial census to incorporate counties that are newly added to the description of micropolitan areas; or

c. If a county is not part of a metropolitan or micropolitan area as established by the Office of Management and Budget, then the county wage per job, as defined in paragraph (a) of this subdivision, shall be used for the school district, as signified by the school district number;

(c) "Regional wage ratio", the ratio of the regional wage per job divided by the state median wage per job;

(d) "State median wage per job", the fifty-eighth highest county wage per job;

(6) "Free and reduced lunch pupil count", the number of pupils eligible for free and reduced lunch on the last Wednesday in January for the preceding school year who were enrolled as students of the district, as approved by the department in accordance with applicable federal regulations;

(7) "Free and reduced lunch threshold" shall be calculated by dividing the total free and reduced lunch pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(8) "Limited English proficiency pupil count", the number in the preceding school year of pupils aged three through twenty-one enrolled or preparing to enroll in an elementary school or secondary school who were not born in the United States or whose native language is a language other than English or are Native American or Alaskan native, or a native resident of the outlying areas, and come from an environment where a language other than English has had a significant impact on such individuals' level of English language proficiency, or are migratory, whose native language is a language other than English, and who come from an environment where a language other than English is dominant; and have difficulties in speaking, reading, writing, or understanding the English language sufficient to deny such individuals the ability to meet the state's proficient level of achievement on state assessments described in Public Law 107-10, the ability to achieve successfully in classrooms where the language of instruction is English, or the opportunity to participate fully in society;

(9) "Limited English proficiency threshold" shall be calculated by dividing the total limited English proficiency pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(10) "Local effort":

(a) For the fiscal year 2007 calculation, "local effort" shall be computed as the equalized assessed valuation of the property of a school district in calendar year 2004 divided by one

hundred and multiplied by the performance levy less the percentage retained by the county assessor and collector plus one hundred percent of the amount received in fiscal year 2005 for school purposes from intangible taxes, fines, escheats, payments in lieu of taxes and receipts from state-assessed railroad and utility tax, one hundred percent of the amount received for school purposes pursuant to the merchants' and manufacturers' taxes under sections 150.010 to 150.370, RSMo, one hundred percent of the amounts received for school purposes from federal properties under sections 12.070 and 12.080, RSMo, except when such amounts are used in the calculation of federal impact aid pursuant to P.L. 81-874, fifty percent of Proposition C revenues received for school purposes from the school district trust fund under section 163.087, and one hundred percent of any local earnings or income taxes received by the district for school purposes. Under this paragraph, for a special district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, a tax levy of zero shall be utilized in lieu of the performance levy for the special school district;

(b) In every year subsequent to fiscal year 2007, "local effort" shall be the amount calculated under paragraph (a) of this subdivision plus any increase in the amount received for school purposes from fines. If a district's assessed valuation has decreased subsequent to the calculation outlined in paragraph (a) of this subdivision, the district's local effort shall be calculated using the district's current assessed valuation in lieu of the assessed valuation utilized in the calculation outlined in paragraph (a) of this subdivision;

(11) "Membership" shall be the average of:

(a) The number of resident full-time students and the full-time equivalent number of part-time students who were enrolled in the public schools of the district on the last Wednesday in September of the previous year and who were in attendance one day or more during the preceding ten school days; and

(b) The number of resident full-time students and the full-time equivalent number of part-time students who were enrolled in the public schools of the district on the last Wednesday in January of the previous year and who were in attendance one day or more during the preceding ten school days, plus the full-time equivalent number of summer school pupils. "Full-time equivalent number of part-time students" is determined by dividing the total number of hours for which all part-time students are enrolled by the number of hours in the school term. "Full-time equivalent number of summer school pupils" is determined by dividing the total number of hours for which all summer school pupils were enrolled by the number of hours required pursuant to section 160.011, RSMo, in the school term. Only students eligible to be counted for average daily attendance shall be counted for membership;

(12) "Operating levy for school purposes", the sum of tax rates levied for teachers' and incidental funds plus the operating levy or sales tax equivalent pursuant to section 162.1100, RSMo, of any transitional school district containing the school district, in the payment year, not including any equalized operating levy for school purposes levied by a special school district in which the district is located;

(13) "Performance district", any district that has met all performance standards and indicators as established by the department of elementary and secondary education for purposes of accreditation under section 161.092, RSMo, and as reported on the final annual performance report for that district each year;

(14) "Performance levy", three dollars and forty-three cents;

(15) "School purposes" pertains to teachers' and incidental funds;

(16) "Special education pupil count", the number of public school students with a current individualized education program or services plan and receiving services from the resident district as of December first of the preceding school year, except for special education services provided through a school district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, in which case the sum of the students in each district within the county exceeding the special education threshold of each respective district within the county shall be counted within the special district and not in the district of residence for purposes of distributing the state aid derived from the special education pupil count;

(17) "Special education threshold" shall be calculated by dividing the total special education pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(18) "State adequacy target", the sum of the current operating expenditures of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, divided by the total average daily attendance of all included performance districts. The department of elementary and secondary education shall first calculate the state adequacy target for fiscal year 2007 and recalculate the state adequacy target every two years using the most current available data. The recalculation shall never result in a decrease from the previous state adequacy target amount. Should a recalculation result in an increase in the state adequacy target amount, fifty percent of that increase shall be included in the state adequacy target amount in the year of recalculation, and fifty percent of that increase shall be included in the state adequacy target amount in the subsequent year. The state adequacy target may be adjusted to accommodate available appropriations;

(19) "Teacher", any teacher, teacher-secretary, substitute teacher, supervisor, principal, supervising principal, superintendent or assistant superintendent, school nurse, social worker, counselor or librarian who shall, regularly, teach or be employed for no higher than grade twelve more than one-half time in the public schools and who is certified under the laws governing the certification of teachers in Missouri;

(20) "Weighted average daily attendance", the average daily attendance plus the product of twenty-five hundredths multiplied by the free and reduced lunch pupil count that exceeds the free

and reduced lunch threshold, plus the product of seventy-five hundredths multiplied by the number of special education pupil count that exceeds the special education threshold, plus the product of six-tenths multiplied by the number of limited English proficiency pupil count that exceeds the limited English proficiency threshold. For special districts established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, weighted average daily attendance shall be the average daily attendance plus the product of twenty-five hundredths multiplied by the free and reduced lunch pupil count that exceeds the free and reduced lunch threshold, plus the product of seventy-five hundredths multiplied by the sum of the special education pupil count that exceeds the threshold for each county district, plus the product of six-tenths multiplied by the limited English proficiency pupil count that exceeds the limited English proficiency threshold. None of the districts comprising a special district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, shall use any special education pupil count in calculating their weighted average daily attendance.

(L. 1963 p. 200 § 4-1 merged with p. 335 § 161.021, A.L. 1967 p. 245, A.L. 1973 H.B. 38, H.B. 158, A.L. 1977 H.B. 130, H.B. 131, H.B. 187 (text taken from H.B. 131), A.L. 1982 adopted by Initiative, Proposition C, November 2, 1982, A.L. 1985 S.B. 152, A.L. 1986 S.B. 707 merged with H.B. 1441, A.L. 1988 S.B. 797, A.L. 1992 H.B. 1478, et al., A.L. 1993 S.B. 380, A.L. 1996 S.B. 795, et al., A.L. 1997 H.B. 628, A.L. 1998 S.B. 535, S.B. 781, A.L. 1999 H.B. 889, A.L. 2001 S.B. 353, A.L. 2002 H.B. 1711, A.L. 2005 S.B. 287, A.L. 2006 S.B. 894, A.L. 2007 S.B. 22 merged with S.B. 456, A.L. 2008 Adopted by Initiative, Proposition A, November 4, 2008, A.L. 2009 S.B. 291)

(Source: RSMo 1959 § 161.021)

Effective 7-13-09

*Revisor's note: The language as enacted by Proposition A on November 4, 2008, follows.

As used in this chapter unless the context requires otherwise:

(1) "Adjusted operating levy", the sum of tax rates for the current year for teachers' and incidental funds for a school district as reported to the proper officer of each county pursuant to section 164.011, RSMo;

(2) "Average daily attendance", the quotient or the sum of the quotients obtained by dividing the total number of hours attended in a term by resident pupils between the ages of five and twenty-one by the actual number of hours school was in session in that term. To the average daily attendance of the following school term shall be added the full-time equivalent average daily attendance of summer school students. "Full-time equivalent average daily attendance of summer school students" shall be computed by dividing the total number of hours, except for physical education hours that do not count as credit toward graduation for students in grades nine, ten, eleven, and twelve, attended by all summer school pupils by the number of hours required in section 160.011, RSMo, in the school term. For purposes of determining average daily attendance under this subdivision, the term "resident pupil" shall include all children between the ages of five and twenty-one who are residents of the school district and who are attending kindergarten through grade twelve in such district. If a child is attending school in a district other than the district of residence and the child's parent is teaching in the school district or is a regular employee of the school district which the child is attending, then such child shall be considered a resident pupil of the school district which the child is attending for such period of time when the district of residence is not otherwise liable for tuition. Average daily attendance for students below the age of five years for which a school district may receive state aid based on such attendance shall be computed as regular school term attendance unless otherwise provided by law;

(3) "Current operating expenditures":

(a) For the fiscal year 2007 calculation, "current operating expenditures" shall be calculated using data from fiscal year 2004 and shall be calculated as all expenditures for instruction and support services except capital outlay and debt service expenditures minus the revenue from federal categorical sources; food service; student activities; categorical payments for transportation costs pursuant to section 163.161; state reimbursements for early childhood special education; the career ladder entitlement for the district, as provided for in sections 168.500 to 168.515, RSMo; the vocational education entitlement for the district, as provided for in section 167.332, RSMo; and payments from other districts;

(b) In every fiscal year subsequent to fiscal year 2007, current operating expenditures shall be the amount in paragraph (a) plus any increases in state funding pursuant to sections 163.031 and 163.043 subsequent to fiscal year 2005, not to exceed five percent, per recalculation, of the state revenue received by a district in the 2004-05 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments for any district from the first preceding calculation of the state adequacy target;

(4) "District's tax rate ceiling", the highest tax rate ceiling in effect subsequent to the 1980 tax year or any subsequent year. Such tax rate ceiling shall not contain any tax levy for debt service;

(5) "Dollar-value modifier", an index of the relative purchasing power of a dollar, calculated as one plus fifteen percent of the difference of the regional wage ratio minus one, provided that the dollar value modifier shall not be applied at a rate less than 1.0:

(a) "County wage per job", the total county wage and salary disbursements divided by the total county wage and salary employment for each county and the city of St. Louis as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year;

(b) "Regional wage per job":

a. The total Missouri wage and salary disbursements of the metropolitan area as defined by the Office of Management and Budget divided by the total Missouri metropolitan wage and salary employment for the metropolitan area for the county signified in the school district number or the city of St. Louis, as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year and recalculated upon every decennial census to incorporate counties that are newly added to the description of metropolitan areas; or if no such metropolitan area is established, then:

b. The total Missouri wage and salary disbursements of the micropolitan area as defined by the Office of Management and Budget divided by the total Missouri micropolitan wage and salary employment for the micropolitan area for the county signified in the school district number, as reported by the Bureau of Economic Analysis of the United States Department of Commerce for the fourth year preceding the payment year, if a micropolitan area for such county has been established and recalculated upon every decennial census to incorporate counties that are newly added to the description of micropolitan areas; or

c. If a county is not part of a metropolitan or micropolitan area as established by the Office of Management and Budget, then the county wage per job, as defined in paragraph (a) of this subdivision, shall be used for the school district, as signified by the school district number;

(c) "Regional wage ratio", the ratio of the regional wage per job divided by the state median wage per job;

(d) "State median wage per job", the fifty-eighth highest county wage per job;

(6) "Free and reduced lunch pupil count", the number of pupils eligible for free and reduced lunch on the last Wednesday in January for the preceding school year who were enrolled as students of the district, as approved by the department in accordance with applicable federal regulations;

(7) "Free and reduced lunch threshold" shall be calculated by dividing the total free and reduced lunch pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(8) "Limited English proficiency pupil count", the number in the preceding school year of pupils aged three through twenty-one enrolled or preparing to enroll in an elementary school or secondary school who were not born in the United States or whose native language is a language other than English or are Native American or Alaskan native, or a native resident of the outlying areas, and come from an environment where a language other than English has had a significant impact on such individuals' level of English language proficiency, or are migratory, whose native language is a language other than English, and who come from an environment where a language other than English is dominant; and have difficulties in speaking, reading, writing, or understanding the English language sufficient to deny such individuals the ability to meet the state's proficient level of achievement on state assessments described in Public Law 107-10, the ability to achieve successfully in classrooms where the language of instruction is English, or the opportunity to participate fully in society;

(9) "Limited English proficiency threshold" shall be calculated by dividing the total limited English proficiency pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(10) "Local effort":

(a) For the fiscal year 2007 calculation, "local effort" shall be computed as the equalized assessed valuation of the property of a school district in calendar year 2004 divided by one hundred and multiplied by the performance levy less the percentage retained by the county assessor and collector plus one hundred percent of the amount received in fiscal year 2005 for school purposes from intangible taxes, fines, escheats, payments in lieu of taxes and receipts from state-assessed railroad and utility tax, one hundred percent of the amount received for school purposes pursuant to the merchants' and manufacturers' taxes under sections 150.010 to 150.370, RSMo, one hundred percent of the amounts received for school purposes from federal properties under sections 12.070 and 12.080, RSMo, except when such amounts are used in the calculation of federal impact aid pursuant to P.L. 81-874, fifty percent of Proposition C revenues received for school purposes from the school district trust fund under section 163.087, and one hundred percent of any local earnings or income taxes received by the district for school purposes. Under this paragraph, for a special district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, a tax levy of zero shall be utilized in lieu of the performance levy for the special school district;

(b) In every year subsequent to fiscal year 2007, "local effort" shall be the amount calculated under paragraph (a) of this subdivision plus any increase in the amount received for school purposes from fines. If a district's assessed valuation has decreased subsequent to the calculation outlined in paragraph (a) of this subdivision, the district's local effort shall be calculated using the district's current assessed valuation in lieu of the assessed valuation utilized in calculation outlined in paragraph (a) of this subdivision;

(11) "Membership" shall be the average of:

(a) The number of resident full-time students and the full-time equivalent number of part-time students who were enrolled in the public schools of the district on the last Wednesday in September of the previous year and who were in attendance one day or more during the preceding ten school days; and

(b) The number of resident full-time students and the full-time equivalent number of part-time students who were enrolled in the public schools of the district on the last Wednesday in January of the previous year and who were in attendance one day or more during the preceding ten school days, plus the full-time equivalent number of summer school pupils. "Full-time equivalent number of part-time students" is determined by dividing the total number of hours for which all part-time students are enrolled by the number of hours in the school term. "Full-time equivalent number of summer school pupils" is determined by dividing the total number of hours for which all summer school pupils were enrolled by the number of hours required pursuant to section 160.011, RSMo, in the school term. Only students eligible to be counted for average daily attendance shall be counted for membership;

(12) "Operating levy for school purposes", the sum of tax rates levied for teachers' and incidental funds plus the operating levy or sales tax equivalent pursuant to section 162.1100, RSMo, of any transitional school district containing the school district, in the payment year, not including any equalized operating levy for school purposes levied by a special school district in which the district is located;

(13) "Performance district", any district that has met all performance standards and indicators as established by the department of elementary and secondary education for purposes of accreditation under section 161.092, RSMo, and as reported on the final annual performance report for that district each year;

(14) "Performance levy", three dollars and forty-three cents;

(15) "School purposes" pertains to teachers' and incidental funds;

(16) "Special education pupil count", the number of public school students with a current individualized education program and receiving services from the resident district as of December first of the preceding school year, except for special education services provided through a school district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, in which case the sum of the students in each district within the county exceeding the special education threshold of each respective district within the county shall be counted within the special district and not in the district of residence for purposes of distributing the state aid derived from the special education pupil count;

(17) "Special education threshold" shall be calculated by dividing the total special education pupil count of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, by the total average daily attendance of all included performance districts;

(18) "State adequacy target", the sum of the current operating expenditures of every performance district that falls entirely above the bottom five percent and entirely below the top five percent of average daily attendance, when such districts are rank-ordered based on their current operating expenditures per average daily attendance, divided by the total average daily attendance of all included performance districts plus the total amount of funds placed in the schools first elementary and secondary education improvement fund in the preceding fiscal year divided by the total average daily attendance of all school districts for the preceding fiscal year. The department of elementary and secondary education shall first calculate the state adequacy target for fiscal year 2007 and recalculate the state adequacy target every two years using the most current available data; provided that the state adequacy target shall be recalculated every year to reflect the per-pupil amount of funds placed in the schools first elementary and secondary education improvement fund in the preceding fiscal year. The recalculation shall never result in a decrease from the previous state adequacy target amount. Should a recalculation result in an increase in the state adequacy target amount, fifty percent of that increase shall be included in the state adequacy target amount in the year of recalculation, and fifty percent of that increase shall be included in the state adequacy target amount in the subsequent year. The state adequacy target may be adjusted to accommodate available appropriations;

(19) "Teacher", any teacher, teacher-secretary, substitute teacher, supervisor, principal, supervising principal, superintendent or assistant superintendent, school nurse, social worker, counselor or librarian who shall, regularly, teach or be employed for no higher than grade twelve more than one-half time in the public schools and who is certified under the laws governing the certification of teachers in Missouri;

(20) "Weighted average daily attendance", the average daily attendance plus the product of twenty-five hundredths multiplied by the free and reduced lunch pupil count that exceeds the free and reduced lunch threshold, plus the product of seventy-five hundredths multiplied by the number of special education pupil count that exceeds the special education threshold, and plus the product of six-tenths multiplied by the number of limited English proficiency pupil count that exceeds the limited English proficiency threshold. For special districts established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, weighted average daily attendance shall be the average daily attendance plus the product of twenty-five hundredths multiplied by the free and reduced lunch pupil count that exceeds the free and reduced lunch threshold, plus the product of seventy-five hundredths multiplied by the sum of the special education pupil count that exceeds the threshold for each county district, plus the product of six-tenths multiplied by the limited English proficiency pupil count that exceeds the limited English proficiency threshold. None of the districts comprising a special district established under sections 162.815 to 162.940, RSMo, in a county with a charter form of government and with more than one million inhabitants, shall use any special education pupil count in calculating their weighted average daily attendance.

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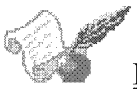 Missouri General Assembly

Missouri Revised Statutes

Chapter 163
State Aid
Section *163.031*

August 28, 2009

State aid--amount, how determined--categorical add-on revenue, determination of amount--district apportionment, determination of--waiver of rules--deposits to teachers' fund and incidental fund, when.

163.031. 1. The department of elementary and secondary education shall calculate and distribute to each school district qualified to receive state aid under section 163.021 an amount determined by multiplying the district's weighted average daily attendance by the state adequacy target, multiplying this product by the dollar value modifier for the district, and subtracting from this product the district's local effort and, in years not governed under subsection 4 of this section, subtracting payments from the classroom trust fund under section 163.043.

2. Other provisions of law to the contrary notwithstanding:

(1) For districts with an average daily attendance of more than three hundred fifty in the school year preceding the payment year:

(a) For the 2006-07 school year, the state revenue per weighted average daily attendance received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the state revenue received by a district in the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the sum of one plus the product of one-third multiplied by the remainder of the dollar value modifier minus one, and dividing this product by the weighted average daily attendance computed for the 2005-06 school year;

(b) For the 2007-08 school year, the state revenue per weighted average daily attendance received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the state revenue received by a district in the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the sum of one plus the product of two-thirds multiplied by the remainder of the dollar value modifier minus one, and dividing this product by the weighted average daily attendance computed for the 2005-06 school year;

(c) For the 2008-09 school year, the state revenue per weighted average daily attendance received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the state revenue received by a district in the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the dollar value modifier, and dividing this product by the weighted average daily attendance computed for the 2005-06 school year;

(d) For each year subsequent to the 2008-09 school year, the amount shall be no less than that computed in paragraph (c) of this subdivision, multiplied by the weighted average daily attendance pursuant to section 163.036, less any increase in revenue received from the classroom trust fund under section 163.043;

(2) For districts with an average daily attendance of three hundred fifty or less in the school year preceding the payment year:

(a) For the 2006-07 school year, the state revenue received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the greater of state revenue received by a district in the 2004-05 or 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the sum of one plus the product of one-third multiplied by the remainder of the dollar value modifier minus one;

(b) For the 2007-08 school year, the state revenue received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the greater of state revenue received by a district in the 2004-05 or 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the sum of one plus the product of two-thirds multiplied by the remainder of the dollar value modifier minus one;

(c) For the 2008-09 school year, the state revenue received by a district from the state aid calculation under subsections 1 and 4 of this section, as applicable, and the classroom trust fund under section 163.043 shall not be less than the greater of state revenue received by a district in the 2004-05 or 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payment amounts multiplied by the dollar value modifier;

(d) For each year subsequent to the 2008-09 school year, the amount shall be no less than that computed in paragraph (c) of this subdivision;

(3) The department of elementary and secondary education shall make an addition in the payment amount specified in subsection 1 of this section to assure compliance with the provisions contained in this subsection.

3. School districts that meet the requirements of section 163.021 shall receive categorical add-on revenue as provided in this subsection. The categorical add-on for the district shall be the sum of: seventy-five percent of the district allowable transportation costs under section 163.161; the career ladder entitlement for the district, as provided for in sections 168.500 to 168.515, RSMo; the vocational education entitlement for the district, as provided for in section 167.332, RSMo; and the district educational and screening program entitlements as provided for in sections 178.691 to 178.699, RSMo. The categorical add-on revenue amounts may be adjusted to accommodate available appropriations.

4. In the 2006-07 school year and each school year thereafter for five years, those districts entitled to receive state aid under the provisions of subsection 1 of this section shall receive state aid in an amount as provided in this subsection.

(1) For the 2006-07 school year, the amount shall be fifteen percent of the amount of state aid calculated for the district for the 2006-07 school year under the provisions of subsection 1 of this section, plus eighty-five percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(2) For the 2007-08 school year, the amount shall be thirty percent of the amount of state aid calculated for the district for the 2007-08 school year under the provisions of subsection 1 of this section, plus seventy percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(3) For the 2008-09 school year, the amount of state aid shall be forty-four percent of the amount of state aid calculated for the district for the 2008-09 school year under the provisions of subsection 1 of this section plus fifty-six percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(4) For the 2009-10 school year, the amount of state aid shall be fifty-eight percent of the amount of state aid calculated for the district for the 2009-10 school year under the provisions of subsection 1 of this section plus forty-two percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(5) For the 2010-11 school year, the amount of state aid shall be seventy-two percent of the amount of state aid calculated for the district for the 2010-11 school year under the provisions of subsection 1 of this section plus twenty-eight percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted,

remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(6) For the 2011-12 school year, the amount of state aid shall be eighty-six percent of the amount of state aid calculated for the district for the 2011-12 school year under the provisions of subsection 1 of this section plus fourteen percent of the total amount of state revenue received by the district for the 2005-06 school year from the foundation formula, line 14, gifted, remedial reading, exceptional pupil aid, fair share, and free textbook payments less any amounts received under section 163.043.

(7) (a) Notwithstanding subdivision (18) of section 163.011, the state adequacy target may not be adjusted downward to accommodate available appropriations in any year governed by this subsection.

(b) a. For the 2006-07 school year, if a school district experiences a decrease in summer school average daily attendance of more than twenty percent from the district's 2005-06 summer school average daily attendance, an amount equal to the product of the percent reduction that is in excess of twenty percent of the district's summer school average daily attendance multiplied by the funds generated by the district's summer school program in the 2005-06 school year shall be subtracted from the district's current year payment amount.

b. For the 2007-08 school year, if a school district experiences a decrease in summer school average daily attendance of more than thirty percent from the district's 2005-06 summer school average daily attendance, an amount equal to the product of the percent reduction that is in excess of thirty percent of the district's summer school average daily attendance multiplied by the funds generated by the district's summer school program in the 2005-06 school year shall be subtracted from the district's payment amount.

c. For the 2008-09 school year, if a school district experiences a decrease in summer school average daily attendance of more than thirty-five percent from the district's 2005-06 summer school average daily attendance, an amount equal to the product of the percent reduction that is in excess of thirty-five percent of the district's summer school average daily attendance multiplied by the funds generated by the district's summer school program in the 2005-06 school year shall be subtracted from the district's payment amount.

d. Notwithstanding the provisions of this paragraph, no such reduction shall be made in the case of a district that is receiving a payment under section 163.044 or any district whose regular school term average daily attendance for the preceding year was three hundred fifty or less.

e. This paragraph shall not be construed to permit any reduction applied under this paragraph to result in any district receiving a current-year payment that is less than the amount calculated for such district under subsection 2 of this section.

(c) If a school district experiences a decrease in its gifted program enrollment of more than twenty percent from its 2005-06 gifted program enrollment in any year governed by this subsection, an amount equal to the product of the percent reduction in the district's gifted

program enrollment multiplied by the funds generated by the district's gifted program in the 2005-06 school year shall be subtracted from the district's current year payment amount.

5. For any school district meeting the eligibility criteria for state aid as established in section 163.021, but which is considered an option district under section 163.042 and therefore receives no state aid, the commissioner of education shall present a plan to the superintendent of the school district for the waiver of rules and the duration of said waivers, in order to promote flexibility in the operations of the district and to enhance and encourage efficiency in the delivery of instructional services as provided in section 163.042.

6. (1) No less than seventy-five percent of the state revenue received under the provisions of subsections 1, 2, and 4 of this section shall be placed in the teachers' fund, and the remaining percent of such moneys shall be placed in the incidental fund. No less than seventy-five percent of one-half of the funds received from the school district trust fund distributed under section 163.087 shall be placed in the teachers' fund. One hundred percent of revenue received under the provisions of section 163.161 shall be placed in the incidental fund. One hundred percent of revenue received under the provisions of sections 168.500 to 168.515, RSMo, shall be placed in the teachers' fund.

(2) A school district shall spend for certificated compensation and tuition expenditures each year:

(a) An amount equal to at least seventy-five percent of the state revenue received under the provisions of subsections 1, 2, and 4 of this section;

(b) An amount equal to at least seventy-five percent of one-half of the funds received from the school district trust fund distributed under section 163.087 during the preceding school year; and

(c) Beginning in fiscal year 2008, as much as was spent per the second preceding year's weighted average daily attendance for certificated compensation and tuition expenditures the previous year from revenue produced by local and county tax sources in the teachers' fund, plus the amount of the incidental fund to teachers' fund transfer calculated to be local and county tax sources by dividing local and county tax sources in the incidental fund by total revenue in the incidental fund. In the event a district fails to comply with this provision, the amount by which the district fails to spend funds as provided herein shall be deducted from the district's state revenue received under the provisions of subsections 1, 2, and 4 of this section for the following year, provided that the state board of education may exempt a school district from this provision if the state board of education determines that circumstances warrant such exemption.

7. If a school district's annual audit discloses that students were inappropriately identified as eligible for free and reduced lunch, special education, or limited English proficiency and the district does not resolve the audit finding, the department of elementary and secondary education shall require that the amount of aid paid pursuant to the weighting for free and reduced lunch, special education, or limited English proficiency in the weighted average daily attendance on the inappropriately identified pupils be repaid by the district in the next school year and shall additionally impose a penalty of one hundred percent of such aid paid on such pupils, which

penalty shall also be paid within the next school year. Such amounts may be repaid by the district through the withholding of the amount of state aid.

(L. 1963 p. 200 § 4-3 and p. 335 § 161.031, A.L. 1965 p. 284, A.L. 1965 2d Ex. Sess. p. 894, A.L. 1967 p. 246, A.L. 1967 1st Ex. Sess. p. 881, A.L. 1969 p. 268, A.L. 1975 H.B. 945, A.L. 1976 S.B. 524, A.L. 1977 H.B. 131, A.L. 1982 Adopted by Initiative, Proposition C, November 2, 1982, A.L. 1984 H.B. 856 & 1358, A.L. 1985 H.B. 463, A.L. 1986 S.B. 707, A.L. 1993 S.B. 380, A.L. 1996 S.B. 795, et al., A.L. 1997 H.B. 641 & 593, A.L. 1998 S.B. 781, A.L. 2000 S.B. 944, A.L. 2004 S.B. 968 and S.B. 969, A.L. 2005 S.B. 287, A.L. 2006 S.B. 894, A.L. 2009 S.B. 291)

(Source: RSMo 1959 §§ 161.031, 161.061)

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Missouri General Assembly

Missouri Revised Statutes

Chapter 163
State Aid
Section *163.044*

August 28, 2009

Annual appropriation of fifteen million dollars for specified uses.

163.044. 1. Beginning with the 2007 fiscal year and each subsequent fiscal year, the general assembly shall appropriate fifteen million dollars to be directed in the following manner to school districts with an average daily attendance of three hundred fifty students or less in the school year preceding the payment year:

(1) Ten million dollars shall be distributed to the eligible districts in proportion to their average daily attendance; and

(2) Five million dollars shall be directed to the eligible districts that have an operating levy for school purposes in the current year equal to or greater than the performance levy and any school districts which have an operating levy for school purposes in the current year less than the performance levy solely due to a modification of such district's levy required under subdivision (4) of subsection 5 of section 137.073, RSMo. A tax-rate-weighted average daily attendance shall be calculated for each eligible district in proportion to its operating levy for school purposes for the current year divided by the performance levy with that result multiplied by the district's average daily attendance in the school year preceding the payment year. The total appropriation pursuant to this subdivision shall then be divided by the sum of the tax-rate-weighted average daily attendance of the eligible districts, and the resulting amount per tax-rate-weighted average daily attendance shall be multiplied by each eligible district's tax-rate-weighted average daily attendance to determine the amount to be paid to each eligible district.

2. The payment under this section shall not be transferred to the capital projects fund.

3. Except as provided in subsection 2 of this section, districts receiving payments under this section may use the moneys for, including but not limited to, the following:

(1) Distance learning;

(2) Extraordinary transportation costs;

(3) Rural teacher recruitment; and

(4) Student learning opportunities not available within the district.

(L. 2005 S.B. 287, A.L. 2008 S.B. 711)

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Missouri General Assembly

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Academie Lafayette	Based on its Title I share, this LEA would receive $178,840 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,710 X 4 years	$178,840
Adair Co. R-I	Based on its Title I share, this LEA would receive $111,333 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$27,833 X 4 years	$111,333
Adair Co. R-II	Based on its Title I share, this LEA would receive $122,540 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,635 X 4 years	$122,540
Adrian R-III	Based on its Title I share, this LEA would receive $148,062 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$37,016 X 4 years	$148,062
Advance R-IV	Based on its Title I share, this LEA would receive $159,996 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$39,999 X 4 years	$159,996
Affton 101	Based on its Title I share, this LEA would receive $524,572 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$131,143 X 4 years	$524,572
Albany R-III	Based on its Title I share, this LEA would receive $124,108 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,027 X 4 years	$124,108
Allen Village	Based on its Title I share, this LEA would receive $502,025 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$125,506 X 4 years	$502,025
Alta Vista Charter Sch.	Based on its Title I share, this LEA would receive $191,208 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$47,802 X 4 years	$191,208
Altenburg 48	Based on its Title I share, this LEA would receive $30,448 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,612 X 4 years	$30,448
Alton R-IV	Based on its Title I share, this LEA would receive $542,625 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$135,656 X 4 years	$542,625
Appleton City R-II	Based on its Title I share, this LEA would receive $224,254 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$56,064 X 4 years	$224,254
Arcadia Valley R-II	Based on its Title I share, this LEA would receive $849,495 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$212,374 X 4 years	$849,495
Archie R-V	Based on its Title I share, this LEA would receive $78,867 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$19,717 X 4 years	$78,867
Ash Grove R-IV	Based on its Title I share, this LEA would receive $259,428 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$64,857 X 4 years	$259,428
Atlanta C-3	Based on its Title I share, this LEA would receive $121,043 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,261 X 4 years	$121,043
Aurora R-VIII	Based on its Title I share, this LEA would receive $990,222 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$247,556 X 4 years	$990,222
Ava R-I	Based on its Title I share, this LEA would receive $1,014,567 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$253,642 X 4 years	$1,014,567
Avenue City R-IX	Based on its Title I share, this LEA would receive $13,378 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$3,344 X 4 years	$13,378
Avilla R-XIII	Based on its Title I share, this LEA would receive $70,296 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,574 X 4 years	$70,296
B. Banneker Academy	Based on its Title I share, this LEA would receive $323,411 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$80,853 X 4 years	$323,411

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Bakersfield R-IV	Based on its Title I share, this LEA would receive $271,939 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$67,985 X 4 years	$271,939
Ballard R-II	Based on its Title I share, this LEA would receive $62,347 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,587 X 4 years	$62,347
Bayless	Based on its Title I share, this LEA would receive $528,432 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$132,108 X 4 years	$528,432
Bell City R-II	Based on its Title I share, this LEA would receive $186,537 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$46,634 X 4 years	$186,537
Belleview R-III	Based on its Title I share, this LEA would receive $125,346 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,336 X 4 years	$125,346
Belton 124	Based on its Title I share, this LEA would receive $1,133,271 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$283,318 X 4 years	$1,133,271
Bernie R-XIII	Based on its Title I share, this LEA would receive $297,223 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$74,306 X 4 years	$297,223
Bevier C-4	Based on its Title I share, this LEA would receive $53,742 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,435 X 4 years	$53,742
Billings R-IV	Based on its Title I share, this LEA would receive $161,001 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$40,250 X 4 years	$161,001
Bismarck R-V	Based on its Title I share, this LEA would receive $365,408 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$91,352 X 4 years	$365,408
Blackwater R-II	Based on its Title I share, this LEA would receive $61,214 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,303 X 4 years	$61,214
Blair Oaks R-II	Based on its Title I share, this LEA would receive $63,850 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,962 X 4 years	$63,850
Bloomfield R-XIV	Based on its Title I share, this LEA would receive $496,205 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$124,051 X 4 years	$496,205
Blue Eye R-V	Based on its Title I share, this LEA would receive $217,085 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$54,271 X 4 years	$217,085
Blue Springs R-IV	Based on its Title I share, this LEA would receive $1,751,045 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$437,761 X 4 years	$1,751,045
Bolivar R-I	Based on its Title I share, this LEA would receive $1,072,643 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$268,161 X 4 years	$1,072,643
Boonville R-I	Based on its Title I share, this LEA would receive $406,420 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$101,605 X 4 years	$406,420
Bosworth R-V	Based on its Title I share, this LEA would receive $69,780 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,445 X 4 years	$69,780
Bowling Green R-I	Based on its Title I share, this LEA would receive $490,261 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$122,565 X 4 years	$490,261
Bradleyville R-I	Based on its Title I share, this LEA would receive $115,377 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,844 X 4 years	$115,377
Branson R-IV	Based on its Title I share, this LEA would receive $1,212,944 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$303,236 X 4 years	$1,212,944

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Braymer C-4	Based on its Title I share, this LEA would receive $124,073 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,018 X 4 years	$124,073
Breckenridge R-I	Based on its Title I share, this LEA would receive $62,902 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,725 X 4 years	$62,902
Brentwood	Based on its Title I share, this LEA would receive $196,297 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$49,074 X 4 years	$196,297
Bronaugh R-VII	Based on its Title I share, this LEA would receive $101,353 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,338 X 4 years	$101,353
Brookfield R-III	Based on its Title I share, this LEA would receive $463,586 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$115,896 X 4 years	$463,586
Brookside Charter Sch.	Based on its Title I share, this LEA would receive $412,066 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$103,017 X 4 years	$412,066
Brunswick R-II	Based on its Title I share, this LEA would receive $92,499 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$23,125 X 4 years	$92,499
Buchanan Co. R-IV	Based on its Title I share, this LEA would receive $66,413 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,603 X 4 years	$66,413
Bucklin R-II	Based on its Title I share, this LEA would receive $120,621 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,155 X 4 years	$120,621
Bunker R-III	Based on its Title I share, this LEA would receive $206,884 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,721 X 4 years	$206,884
Butler R-V	Based on its Title I share, this LEA would receive $460,759 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$115,190 X 4 years	$460,759
Cabool R-IV	Based on its Title I share, this LEA would receive $507,893 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$126,973 X 4 years	$507,893
Calhoun R-VIII	Based on its Title I share, this LEA would receive $105,403 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,351 X 4 years	$105,403
Callao C-8	Based on its Title I share, this LEA would receive $67,456 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,864 X 4 years	$67,456
Camdenton R-III	Based on its Title I share, this LEA would receive $1,497,775 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$374,444 X 4 years	$1,497,775
Cameron R-I	Based on its Title I share, this LEA would receive $413,443 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$103,361 X 4 years	$413,443
Campbell R-II	Based on its Title I share, this LEA would receive $378,150 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$94,538 X 4 years	$378,150
Canton R-V	Based on its Title I share, this LEA would receive $258,150 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$64,538 X 4 years	$258,150
Cape Girardeau 63	Based on its Title I share, this LEA would receive $1,823,502 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$455,875 X 4 years	$1,823,502
Carl Junction R-I	Based on its Title I share, this LEA would receive $797,444 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$199,361 X 4 years	$797,444
Carrollton R-VII	Based on its Title I share, this LEA would receive $398,919 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$99,730 X 4 years	$398,919

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Carthage R-IX	Based on its Title I share, this LEA would receive $1,524,396 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$381,099 X 4 years	$1,524,396
Caruthersville 18	Based on its Title I share, this LEA would receive $1,670,307 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$417,577 X 4 years	$1,670,307
Cassville R-IV	Based on its Title I share, this LEA would receive $980,187 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$245,047 X 4 years	$980,187
Center 58	Based on its Title I share, this LEA would receive $1,199,447 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$299,862 X 4 years	$1,199,447
Centerville R-I	Based on its Title I share, this LEA would receive $96,498 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$24,125 X 4 years	$96,498
Central R-III	Based on its Title I share, this LEA would receive $1,102,958 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$275,739 X 4 years	$1,102,958
Centralia R-VI	Based on its Title I share, this LEA would receive $238,323 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$59,581 X 4 years	$238,323
Chadwick R-I	Based on its Title I share, this LEA would receive $139,005 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,751 X 4 years	$139,005
Chaffee R-II	Based on its Title I share, this LEA would receive $264,054 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$66,013 X 4 years	$264,054
Charleston R-I	Based on its Title I share, this LEA would receive $1,437,250 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$359,312 X 4 years	$1,437,250
Chilhowee R-IV	Based on its Title I share, this LEA would receive $71,653 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,913 X 4 years	$71,653
Chillicothe R-II	Based on its Title I share, this LEA would receive $634,335 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$158,584 X 4 years	$634,335
City Garden Montessori	Based on its Title I share, this LEA would receive $123,087 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,772 X 4 years	$123,087
Clark Co. R-I	Based on its Title I share, this LEA would receive $482,837 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$120,709 X 4 years	$482,837
Clarksburg C-2	Based on its Title I share, this LEA would receive $62,806 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,701 X 4 years	$62,806
Clarkton C-4	Based on its Title I share, this LEA would receive $507,883 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$126,971 X 4 years	$507,883
Clayton	Based on its Title I share, this LEA would receive $587,795 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$146,949 X 4 years	$587,795
Clearwater R-I	Based on its Title I share, this LEA would receive $1,100,443 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$275,111 X 4 years	$1,100,443
Clever R-V	Based on its Title I share, this LEA would receive $206,515 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,629 X 4 years	$206,515
Climax Springs R-IV	Based on its Title I share, this LEA would receive $185,605 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$46,401 X 4 years	$185,605
Clinton	Based on its Title I share, this LEA would receive $741,944 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$185,486 X 4 years	$741,944

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Clinton Co. R-III	Based on its Title I share, this LEA would receive $139,896 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,974 X 4 years	$139,896
Cole Camp R-I	Based on its Title I share, this LEA would receive $373,605 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$93,401 X 4 years	$373,605
Cole Co. R-I	Based on its Title I share, this LEA would receive $114,829 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,707 X 4 years	$114,829
Cole Co. R-V	Based on its Title I share, this LEA would receive $152,352 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$38,088 X 4 years	$152,352
Columbia 93	Based on its Title I share, this LEA would receive $6,121,323 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,530,331 X 4 years	$6,121,323
Community R-VI	Based on its Title I share, this LEA would receive $78,594 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$19,649 X 4 years	$78,594
Concordia R-II	Based on its Title I share, this LEA would receive $145,291 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$36,323 X 4 years	$145,291
Confluence Academies	Based on its Title I share, this LEA would receive $5,595,194 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,398,799 X 4 years	$5,595,194
Construction Careers Center	Based on its Title I share, this LEA would receive $585,385 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$146,346 X 4 years	$585,385
Cooter R-IV	Based on its Title I share, this LEA would receive $112,742 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,185 X 4 years	$112,742
Couch R-I	Based on its Title I share, this LEA would receive $199,260 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$49,815 X 4 years	$199,260
Cowgill R-VI	Based on its Title I share, this LEA would receive $29,554 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,389 X 4 years	$29,554
Craig R-III	Based on its Title I share, this LEA would receive $47,057 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$11,764 X 4 years	$47,057
Crane R-III	Based on its Title I share, this LEA would receive $340,799 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$85,200 X 4 years	$340,799
Crawford Co. R-I	Based on its Title I share, this LEA would receive $496,327 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$124,082 X 4 years	$496,327
Crawford Co. R-II	Based on its Title I share, this LEA would receive $675,651 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$168,913 X 4 years	$675,651
Crystal City 47	Based on its Title I share, this LEA would receive $151,739 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$37,935 X 4 years	$151,739
Dadeville R-II	Based on its Title I share, this LEA would receive $70,832 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,708 X 4 years	$70,832
Dallas Co. R-I	Based on its Title I share, this LEA would receive $1,090,405 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$272,601 X 4 years	$1,090,405
Davis R-XII	Based on its Title I share, this LEA would receive $15,152 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$3,788 X 4 years	$15,152
Della Lamb Elem.	Based on its Title I share, this LEA would receive $584,167 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$146,042 X 4 years	$584,167

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Delta C-7	Based on its Title I share, this LEA would receive $167,168 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$41,792 X 4 years	$167,168
Delta R-V	Based on its Title I share, this LEA would receive $120,918 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,230 X 4 years	$120,918
Dent-Phelps R-III	Based on its Title I share, this LEA would receive $235,890 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$58,973 X 4 years	$235,890
Derrick Thomas Academy	Based on its Title I share, this LEA would receive $1,069,839 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$267,460 X 4 years	$1,069,839
DeSoto 73	Based on its Title I share, this LEA would receive $920,018 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$230,005 X 4 years	$920,018
Dexter R-XI	Based on its Title I share, this LEA would receive $767,889 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$191,972 X 4 years	$767,889
Diamond R-IV	Based on its Title I share, this LEA would receive $360,379 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$90,095 X 4 years	$360,379
Dixon R-I	Based on its Title I share, this LEA would receive $400,576 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$100,144 X 4 years	$400,576
Don Bosco Education Ctr.	Based on its Title I share, this LEA would receive $197,377 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$49,344 X 4 years	$197,377
Doniphan R-I	Based on its Title I share, this LEA would receive $1,222,830 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$305,708 X 4 years	$1,222,830
Dora R-III	Based on its Title I share, this LEA would receive $188,385 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$47,096 X 4 years	$188,385
Drexel R-IV	Based on its Title I share, this LEA would receive $84,314 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,079 X 4 years	$84,314
Dunklin R-V	Based on its Title I share, this LEA would receive $515,375 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$128,844 X 4 years	$515,375
East Buchanan Co. C-1	Based on its Title I share, this LEA would receive $105,115 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,279 X 4 years	$105,115
East Carter Co. R-II	Based on its Title I share, this LEA would receive $621,933 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$155,483 X 4 years	$621,933
East Newton Co. R-VI	Based on its Title I share, this LEA would receive $1,035,239 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$258,810 X 4 years	$1,035,239
East Prairie R-II	Based on its Title I share, this LEA would receive $854,041 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$213,510 X 4 years	$854,041
El Dorado Springs R-II	Based on its Title I share, this LEA would receive $818,350 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$204,588 X 4 years	$818,350
Eldon R-I	Based on its Title I share, this LEA would receive $935,742 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$233,936 X 4 years	$935,742
Elsberry R-II	Based on its Title I share, this LEA would receive $283,440 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$70,860 X 4 years	$283,440
Eminence R-I	Based on its Title I share, this LEA would receive $227,767 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$56,942 X 4 years	$227,767

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Ethel Hedgeman Lyle Academy	Based on its Title I share, this LEA would receive $1,360,817 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$340,204 X 4 years	$1,360,817
Excelsior Springs 40	Based on its Title I share, this LEA would receive $700,787 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$175,197 X 4 years	$700,787
Exeter R-VI	Based on its Title I share, this LEA would receive $149,928 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$37,482 X 4 years	$149,928
Fair Grove R-X	Based on its Title I share, this LEA would receive $313,687 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$78,422 X 4 years	$313,687
Fair Play R-II	Based on its Title I share, this LEA would receive $199,514 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$49,879 X 4 years	$199,514
Fairfax R-III	Based on its Title I share, this LEA would receive $57,875 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$14,469 X 4 years	$57,875
Fairview R-XI	Based on its Title I share, this LEA would receive $299,903 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$74,976 X 4 years	$299,903
Farmington R-VII	Based on its Title I share, this LEA would receive $1,197,027 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$299,257 X 4 years	$1,197,027
Fayette R-III	Based on its Title I share, this LEA would receive $205,835 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,459 X 4 years	$205,835
Ferguson-Florissant R-II	Based on its Title I share, this LEA would receive $4,538,919 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,134,730 X 4 years	$4,538,919
Festus R-VI	Based on its Title I share, this LEA would receive $756,205 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$189,051 X 4 years	$756,205
Fordland R-III	Based on its Title I share, this LEA would receive $353,347 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$88,337 X 4 years	$353,347
Forsyth R-III	Based on its Title I share, this LEA would receive $579,477 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$144,869 X 4 years	$579,477
Fort Osage R-I	Based on its Title I share, this LEA would receive $1,001,825 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$250,456 X 4 years	$1,001,825
Fox C-6	Based on its Title I share, this LEA would receive $1,846,196 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$461,549 X 4 years	$1,846,196
Francis Howell R-III	Based on its Title I share, this LEA would receive $597,650 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$149,412 X 4 years	$597,650
Franklin Co. R-II	Based on its Title I share, this LEA would receive $27,954 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$6,989 X 4 years	$27,954
Fredericktown R-I	Based on its Title I share, this LEA would receive $1,065,251 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$266,313 X 4 years	$1,065,251
Frontier School Of Innovation	Based on its Title I share, this LEA would receive $246,721 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$61,680 X 4 years	$246,721
Ft. Zumwalt R-II	Based on its Title I share, this LEA would receive $608,501 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$152,125 X 4 years	$608,501
Fulton 58	Based on its Title I share, this LEA would receive $741,482 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$185,370 X 4 years	$741,482

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Gainesville R-V	Based on its Title I share, this LEA would receive $526,505 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$131,626 X 4 years	$526,505
Galena R-II	Based on its Title I share, this LEA would receive $444,696 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$111,174 X 4 years	$444,696
Gasconade Co. R-I	Based on its Title I share, this LEA would receive $260,293 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$65,073 X 4 years	$260,293
Gasconade Co. R-II	Based on its Title I share, this LEA would receive $522,226 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$130,556 X 4 years	$522,226
Gideon 37	Based on its Title I share, this LEA would receive $269,502 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$67,375 X 4 years	$269,502
Gilliam C-4	Based on its Title I share, this LEA would receive $23,893 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$5,973 X 4 years	$23,893
Gilman City R-IV	Based on its Title I share, this LEA would receive $87,705 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,926 X 4 years	$87,705
Glasgow	Based on its Title I share, this LEA would receive $125,618 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,404 X 4 years	$125,618
Glenwood R-VIII	Based on its Title I share, this LEA would receive $164,702 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$41,175 X 4 years	$164,702
Golden City R-III	Based on its Title I share, this LEA would receive $156,194 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$39,048 X 4 years	$156,194
Gordon Parks Elem.	Based on its Title I share, this LEA would receive $274,476 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$68,619 X 4 years	$274,476
Gorin R-III	Based on its Title I share, this LEA would receive $81,517 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$20,379 X 4 years	$81,517
Grain Valley R-V	Based on its Title I share, this LEA would receive $233,307 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$58,327 X 4 years	$233,307
Grandview C-4	Based on its Title I share, this LEA would receive $1,871,948 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$467,987 X 4 years	$1,871,948
Grandview R-II	Based on its Title I share, this LEA would receive $232,551 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$58,138 X 4 years	$232,551
Green City R-I	Based on its Title I share, this LEA would receive $129,708 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,427 X 4 years	$129,708
Green Forest R-II	Based on its Title I share, this LEA would receive $206,225 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,556 X 4 years	$206,225
Green Ridge R-VIII	Based on its Title I share, this LEA would receive $115,058 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,765 X 4 years	$115,058
Greenfield R-IV	Based on its Title I share, this LEA would receive $289,237 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$72,309 X 4 years	$289,237
Greenville R-II	Based on its Title I share, this LEA would receive $579,984 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$144,996 X 4 years	$579,984
Grundy Co. R-V	Based on its Title I share, this LEA would receive $67,962 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,991 X 4 years	$67,962

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Hale R-I	Based on its Title I share, this LEA would receive $65,749 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,437 X 4 years	$65,749
Halfway R-III	Based on its Title I share, this LEA would receive $203,176 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$50,794 X 4 years	$203,176
Hallsville R-IV	Based on its Title I share, this LEA would receive $286,694 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$71,674 X 4 years	$286,694
Hamilton R-II	Based on its Title I share, this LEA would receive $240,550 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$60,137 X 4 years	$240,550
Hancock Place	Based on its Title I share, this LEA would receive $1,034,896 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$258,724 X 4 years	$1,034,896
Hannibal 60	Based on its Title I share, this LEA would receive $1,370,452 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$342,613 X 4 years	$1,370,452
Hardeman R-X	Based on its Title I share, this LEA would receive $1,507 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$377 X 4 years	$1,507
Harrisburg R-VIII	Based on its Title I share, this LEA would receive $170,554 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$42,639 X 4 years	$170,554
Harrisonville R-IX	Based on its Title I share, this LEA would receive $415,797 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$103,949 X 4 years	$415,797
Hartville R-II	Based on its Title I share, this LEA would receive $534,547 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$133,637 X 4 years	$534,547
Hayti R-II	Based on its Title I share, this LEA would receive $1,329,744 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$332,436 X 4 years	$1,329,744
Hazelwood	Based on its Title I share, this LEA would receive $5,559,183 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,389,796 X 4 years	$5,559,183
Henry Co. R-I	Based on its Title I share, this LEA would receive $362,458 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$90,614 X 4 years	$362,458
Hermitage R-IV	Based on its Title I share, this LEA would receive $237,618 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$59,404 X 4 years	$237,618
Hickman Mills C-1	Based on its Title I share, this LEA would receive $4,262,628 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,065,657 X 4 years	$4,262,628
Hickory Co. R-I	Based on its Title I share, this LEA would receive $508,825 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$127,206 X 4 years	$508,825
Higbee R-VIII	Based on its Title I share, this LEA would receive $84,452 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,113 X 4 years	$84,452
High Point R-III	Based on its Title I share, this LEA would receive $35,940 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$8,985 X 4 years	$35,940
Hogan Preparatory Academy	Based on its Title I share, this LEA would receive $311,484 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$77,871 X 4 years	$311,484
Holcomb R-III	Based on its Title I share, this LEA would receive $287,830 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$71,957 X 4 years	$287,830
Holden R-III	Based on its Title I share, this LEA would receive $373,081 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$93,270 X 4 years	$373,081

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Holliday C-2	Based on its Title I share, this LEA would receive $28,239 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,060 X 4 years	$28,239
Hollister R-V	Based on its Title I share, this LEA would receive $754,252 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$188,563 X 4 years	$754,252
Hope Academy	Based on its Title I share, this LEA would receive $228,216 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$57,054 X 4 years	$228,216
Houston R-I	Based on its Title I share, this LEA would receive $663,588 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$165,897 X 4 years	$663,588
Howell Valley R-I	Based on its Title I share, this LEA would receive $104,160 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,040 X 4 years	$104,160
Hudson R-IX	Based on its Title I share, this LEA would receive $14,510 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$3,627 X 4 years	$14,510
Humansville R-IV	Based on its Title I share, this LEA would receive $328,280 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$82,070 X 4 years	$328,280
Hurley R-I	Based on its Title I share, this LEA would receive $139,390 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,848 X 4 years	$139,390
Iberia R-V	Based on its Title I share, this LEA would receive $320,349 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$80,087 X 4 years	$320,349
Imagine Acad. Academic Success	Based on its Title I share, this LEA would receive $856,232 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$214,058 X 4 years	$856,232
Imagine Academy Es And Math	Based on its Title I share, this LEA would receive $2,345,640 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$586,410 X 4 years	$2,345,640
Imagine Academy Of Careers	Based on its Title I share, this LEA would receive $2,576,865 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$644,216 X 4 years	$2,576,865
Imagine Ren Acad Env Sci & Ma	Based on its Title I share, this LEA would receive $1,311,650 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$327,912 X 4 years	$1,311,650
Independence 30	Based on its Title I share, this LEA would receive $5,829,793 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,457,448 X 4 years	$5,829,793
Iron Co. C-4	Based on its Title I share, this LEA would receive $232,321 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$58,080 X 4 years	$232,321
Jackson R-II	Based on its Title I share, this LEA would receive $771,375 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$192,844 X 4 years	$771,375
Jamestown C-1	Based on its Title I share, this LEA would receive $63,378 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,845 X 4 years	$63,378
Jasper Co. R-V	Based on its Title I share, this LEA would receive $186,390 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$46,597 X 4 years	$186,390
Jefferson C-123	Based on its Title I share, this LEA would receive $53,862 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,465 X 4 years	$53,862
Jefferson City	Based on its Title I share, this LEA would receive $2,548,963 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$637,241 X 4 years	$2,548,963
Jefferson Co. R-VII	Based on its Title I share, this LEA would receive $121,088 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$30,272 X 4 years	$121,088

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Jennings	Based on its Title I share, this LEA would receive $2,775,769 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$693,942 X 4 years	$2,775,769
Johnson Co. R-VII	Based on its Title I share, this LEA would receive $146,964 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$36,741 X 4 years	$146,964
Joplin Schools	Based on its Title I share, this LEA would receive $3,987,416 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$996,854 X 4 years	$3,987,416
Junction Hill C-12	Based on its Title I share, this LEA would receive $153,702 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$38,425 X 4 years	$153,702
Kansas City 33	Based on its Title I share, this LEA would receive $19,978,347 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$4,994,587 X 4 years	$19,978,347
Kearney R-I	Based on its Title I share, this LEA would receive $296,531 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$74,133 X 4 years	$296,531
Kennett 39	Based on its Title I share, this LEA would receive $1,902,310 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$475,577 X 4 years	$1,902,310
Keytesville R-III	Based on its Title I share, this LEA would receive $65,379 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,345 X 4 years	$65,379
King City R-I	Based on its Title I share, this LEA would receive $114,923 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,731 X 4 years	$114,923
Kingston 42	Based on its Title I share, this LEA would receive $25,990 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$6,498 X 4 years	$25,990
Kingston K-14	Based on its Title I share, this LEA would receive $583,462 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$145,865 X 4 years	$583,462
Kingsville R-I	Based on its Title I share, this LEA would receive $70,781 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,695 X 4 years	$70,781
Kipp: Endeavor Academy	Based on its Title I share, this LEA would receive $126,445 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,611 X 4 years	$126,445
Kirbyville R-VI	Based on its Title I share, this LEA would receive $140,902 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$35,226 X 4 years	$140,902
Kirksville R-III	Based on its Title I share, this LEA would receive $895,959 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$223,990 X 4 years	$895,959
Kirkwood R-VII	Based on its Title I share, this LEA would receive $685,217 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$171,304 X 4 years	$685,217
Knob Noster R-VIII	Based on its Title I share, this LEA would receive $346,763 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$86,691 X 4 years	$346,763
Knox Co. R-I	Based on its Title I share, this LEA would receive $369,452 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$92,363 X 4 years	$369,452
La Monte R-IV	Based on its Title I share, this LEA would receive $285,861 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$71,465 X 4 years	$285,861
La Plata R-II	Based on its Title I share, this LEA would receive $275,347 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$68,837 X 4 years	$275,347
Laclede Co. C-5	Based on its Title I share, this LEA would receive $221,457 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$55,364 X 4 years	$221,457

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Laclede Co. R-I	Based on its Title I share, this LEA would receive $391,468 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$97,867 X 4 years	$391,468
Ladue	Based on its Title I share, this LEA would receive $129,815 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,454 X 4 years	$129,815
Lafayette Co. C-1	Based on its Title I share, this LEA would receive $250,450 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$62,613 X 4 years	$250,450
Lakeland R-III	Based on its Title I share, this LEA would receive $224,545 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$56,136 X 4 years	$224,545
Laquey R-V	Based on its Title I share, this LEA would receive $338,792 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$84,698 X 4 years	$338,792
Laredo R-VII	Based on its Title I share, this LEA would receive $44,455 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$11,114 X 4 years	$44,455
Lathrop R-II	Based on its Title I share, this LEA would receive $141,148 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$35,287 X 4 years	$141,148
Lawson R-XIV	Based on its Title I share, this LEA would receive $142,615 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$35,654 X 4 years	$142,615
Lebanon R-III	Based on its Title I share, this LEA would receive $1,575,790 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$393,948 X 4 years	$1,575,790
Lee A. Tolbert Com. Academy	Based on its Title I share, this LEA would receive $676,138 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$169,034 X 4 years	$676,138
Lee's Summit R-VII	Based on its Title I share, this LEA would receive $1,574,351 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$393,588 X 4 years	$1,574,351
Leesville R-IX	Based on its Title I share, this LEA would receive $67,291 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,823 X 4 years	$67,291
Leeton R-X	Based on its Title I share, this LEA would receive $101,185 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,296 X 4 years	$101,185
Leopold R-III	Based on its Title I share, this LEA would receive $26,693 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$6,673 X 4 years	$26,693
Lesterville R-IV	Based on its Title I share, this LEA would receive $522,792 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$130,698 X 4 years	$522,792
Lewis Co. C-1	Based on its Title I share, this LEA would receive $357,389 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$89,347 X 4 years	$357,389
Lexington R-V	Based on its Title I share, this LEA would receive $434,564 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$108,641 X 4 years	$434,564
Liberal R-II	Based on its Title I share, this LEA would receive $227,158 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$56,789 X 4 years	$227,158
Liberty 53	Based on its Title I share, this LEA would receive $882,830 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$220,707 X 4 years	$882,830
Licking R-VIII	Based on its Title I share, this LEA would receive $512,580 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$128,145 X 4 years	$512,580
Lindbergh R-VIII	Based on its Title I share, this LEA would receive $475,163 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$118,791 X 4 years	$475,163

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Linn Co. R-I	Based on its Title I share, this LEA would receive $177,705 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,426 X 4 years	$177,705
Livingston Co. R-III	Based on its Title I share, this LEA would receive $49,351 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$12,338 X 4 years	$49,351
Lockwood R-I	Based on its Title I share, this LEA would receive $163,455 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$40,864 X 4 years	$163,455
Logan-Rogersville R-VIII	Based on its Title I share, this LEA would receive $352,700 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$88,175 X 4 years	$352,700
Lonedell R-XIV	Based on its Title I share, this LEA would receive $124,134 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,034 X 4 years	$124,134
Louisiana R-II	Based on its Title I share, this LEA would receive $398,148 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$99,537 X 4 years	$398,148
Luray 33	Based on its Title I share, this LEA would receive $18,768 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$4,692 X 4 years	$18,768
Lutie R-VI	Based on its Title I share, this LEA would receive $201,176 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$50,294 X 4 years	$201,176
Macks Creek R-V	Based on its Title I share, this LEA would receive $131,649 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,912 X 4 years	$131,649
Macon Co. R-I	Based on its Title I share, this LEA would receive $372,522 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$93,131 X 4 years	$372,522
Macon Co. R-IV	Based on its Title I share, this LEA would receive $50,857 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$12,714 X 4 years	$50,857
Madison C-3	Based on its Title I share, this LEA would receive $106,372 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,593 X 4 years	$106,372
Malden R-I	Based on its Title I share, this LEA would receive $849,392 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$212,348 X 4 years	$849,392
Malta Bend R-V	Based on its Title I share, this LEA would receive $71,204 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,801 X 4 years	$71,204
Manes	Based on its Title I share, this LEA would receive $109,335 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$27,334 X 4 years	$109,335
Mansfield R-IV	Based on its Title I share, this LEA would receive $566,010 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$141,503 X 4 years	$566,010
Maplewood-Richmond Heights	Based on its Title I share, this LEA would receive $376,930 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$94,233 X 4 years	$376,930
Marceline R-V	Based on its Title I share, this LEA would receive $179,354 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,839 X 4 years	$179,354
Maries Co. R-II	Based on its Title I share, this LEA would receive $268,364 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$67,091 X 4 years	$268,364
Marion C. Early R-V	Based on its Title I share, this LEA would receive $300,534 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$75,134 X 4 years	$300,534
Marion Co. R-II	Based on its Title I share, this LEA would receive $60,684 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,171 X 4 years	$60,684

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Marionville R-IX	Based on its Title I share, this LEA would receive $274,454 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$68,613 X 4 years	$274,454
Marquand-Zion R-VI	Based on its Title I share, this LEA would receive $141,434 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$35,358 X 4 years	$141,434
Marshall	Based on its Title I share, this LEA would receive $1,524,718 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$381,179 X 4 years	$1,524,718
Marshfield R-I	Based on its Title I share, this LEA would receive $888,181 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$222,045 X 4 years	$888,181
Maryville R-II	Based on its Title I share, this LEA would receive $220,733 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$55,183 X 4 years	$220,733
Maysville R-I	Based on its Title I share, this LEA would receive $194,076 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$48,519 X 4 years	$194,076
McDonald Co. R-I	Based on its Title I share, this LEA would receive $2,525,456 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$631,364 X 4 years	$2,525,456
Meadow Heights R-II	Based on its Title I share, this LEA would receive $179,509 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,877 X 4 years	$179,509
Meadville R-IV	Based on its Title I share, this LEA would receive $43,465 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$10,866 X 4 years	$43,465
Mehlville R-IX	Based on its Title I share, this LEA would receive $2,373,312 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$593,328 X 4 years	$2,373,312
Meramec Valley R-III	Based on its Title I share, this LEA would receive $1,155,134 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$288,783 X 4 years	$1,155,134
Mexico 59	Based on its Title I share, this LEA would receive $1,026,093 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$256,523 X 4 years	$1,026,093
Miami R-I	Based on its Title I share, this LEA would receive $43,430 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$10,857 X 4 years	$43,430
Miami R-I	Based on its Title I share, this LEA would receive $128,949 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,237 X 4 years	$128,949
Mid-Buchanan Co. R-V	Based on its Title I share, this LEA would receive $128,669 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,167 X 4 years	$128,669
Middle Grove C-1	Based on its Title I share, this LEA would receive $231,980 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$57,995 X 4 years	$231,980
Milan C-2	Based on its Title I share, this LEA would receive $431,419 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$107,855 X 4 years	$431,419
Miller Co. R-III	Based on its Title I share, this LEA would receive $90,033 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$22,508 X 4 years	$90,033
Miller R-II	Based on its Title I share, this LEA would receive $265,439 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$66,360 X 4 years	$265,439
Moberly	Based on its Title I share, this LEA would receive $1,210,957 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$302,739 X 4 years	$1,210,957
Monett R-I	Based on its Title I share, this LEA would receive $956,961 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$239,240 X 4 years	$956,961

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Moniteau Co. R-I	Based on its Title I share, this LEA would receive $328,035 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$82,009 X 4 years	$328,035
Moniteau Co. R-V	Based on its Title I share, this LEA would receive $126,281 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,570 X 4 years	$126,281
Monroe City R-I	Based on its Title I share, this LEA would receive $168,577 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$42,144 X 4 years	$168,577
Montgomery Co. R-II	Based on its Title I share, this LEA would receive $416,688 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$104,172 X 4 years	$416,688
Montrose R-XIV	Based on its Title I share, this LEA would receive $45,638 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$11,410 X 4 years	$45,638
Morgan Co. R-I	Based on its Title I share, this LEA would receive $588,601 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$147,150 X 4 years	$588,601
Morgan Co. R-II	Based on its Title I share, this LEA would receive $1,084,876 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$271,219 X 4 years	$1,084,876
Mound City R-II	Based on its Title I share, this LEA would receive $98,419 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$24,605 X 4 years	$98,419
Mountain Grove R-III	Based on its Title I share, this LEA would receive $1,152,183 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$288,046 X 4 years	$1,152,183
Mountain View-Birch Tree R-III	Based on its Title I share, this LEA would receive $1,195,691 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$298,923 X 4 years	$1,195,691
Mt. Vernon R-V	Based on its Title I share, this LEA would receive $747,136 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$186,784 X 4 years	$747,136
Naylor R-II	Based on its Title I share, this LEA would receive $305,489 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$76,372 X 4 years	$305,489
Neelyville R-IV	Based on its Title I share, this LEA would receive $331,007 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$82,752 X 4 years	$331,007
Nell Holcomb R-IV	Based on its Title I share, this LEA would receive $94,671 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$23,668 X 4 years	$94,671
Neosho R-V	Based on its Title I share, this LEA would receive $2,419,296 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$604,824 X 4 years	$2,419,296
Nevada R-V	Based on its Title I share, this LEA would receive $1,204,372 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$301,093 X 4 years	$1,204,372
New Bloomfield R-III	Based on its Title I share, this LEA would receive $116,654 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$29,163 X 4 years	$116,654
New Franklin R-I	Based on its Title I share, this LEA would receive $178,708 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,677 X 4 years	$178,708
New Haven	Based on its Title I share, this LEA would receive $74,886 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$18,722 X 4 years	$74,886
New Madrid Co. R-I	Based on its Title I share, this LEA would receive $1,618,730 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$404,682 X 4 years	$1,618,730
New York R-IV	Based on its Title I share, this LEA would receive $13,615 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$3,404 X 4 years	$13,615

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Newburg R-II	Based on its Title I share, this LEA would receive $249,052 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$62,263 X 4 years	$249,052
Niangua R-V	Based on its Title I share, this LEA would receive $133,930 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$33,483 X 4 years	$133,930
Nixa R-II	Based on its Title I share, this LEA would receive $1,048,674 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$262,169 X 4 years	$1,048,674
Nodaway-Holt R-VII	Based on its Title I share, this LEA would receive $114,843 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,711 X 4 years	$114,843
Norborne R-VIII	Based on its Title I share, this LEA would receive $76,629 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$19,157 X 4 years	$76,629
Normandy	Based on its Title I share, this LEA would receive $3,914,653 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$978,663 X 4 years	$3,914,653
North Andrew Co. R-VI	Based on its Title I share, this LEA would receive $100,411 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,103 X 4 years	$100,411
North Callaway Co. R-I	Based on its Title I share, this LEA would receive $554,413 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$138,603 X 4 years	$554,413
North Daviess R-III	Based on its Title I share, this LEA would receive $53,829 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,457 X 4 years	$53,829
North Kansas City 74	Based on its Title I share, this LEA would receive $3,634,860 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$908,715 X 4 years	$3,634,860
North Mercer Co. R-III	Based on its Title I share, this LEA would receive $110,556 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$27,639 X 4 years	$110,556
North Nodaway Co. R-VI	Based on its Title I share, this LEA would receive $54,799 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,700 X 4 years	$54,799
North Pemiscot Co. R-I	Based on its Title I share, this LEA would receive $340,664 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$85,166 X 4 years	$340,664
North Platte Co. R-I	Based on its Title I share, this LEA would receive $137,088 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,272 X 4 years	$137,088
North Shelby	Based on its Title I share, this LEA would receive $110,151 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$27,538 X 4 years	$110,151
North Side Community School	Based on its Title I share, this LEA would receive $142,944 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$35,736 X 4 years	$142,944
North St. Francois Co. R-I	Based on its Title I share, this LEA would receive $1,059,822 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$264,956 X 4 years	$1,059,822
North Wood R-IV	Based on its Title I share, this LEA would receive $204,208 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,052 X 4 years	$204,208
Northeast Nodaway Co. R-V	Based on its Title I share, this LEA would receive $48,343 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$12,086 X 4 years	$48,343
Northeast Randolph Co. R-IV	Based on its Title I share, this LEA would receive $101,665 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,416 X 4 years	$101,665
Northeast Vernon Co. R-I	Based on its Title I share, this LEA would receive $198,218 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$49,555 X 4 years	$198,218

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Northwest R-I	Based on its Title I share, this LEA would receive $1,532,041 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$383,010 X 4 years	$1,532,041
Northwestern R-I	Based on its Title I share, this LEA would receive $91,233 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$22,808 X 4 years	$91,233
Norwood R-I	Based on its Title I share, this LEA would receive $484,604 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$121,151 X 4 years	$484,604
Oak Grove R-VI	Based on its Title I share, this LEA would receive $383,430 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$95,858 X 4 years	$383,430
Oak Hill R-I	Based on its Title I share, this LEA would receive $65,167 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,292 X 4 years	$65,167
Oak Ridge R-VI	Based on its Title I share, this LEA would receive $87,650 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,912 X 4 years	$87,650
Odessa R-VII	Based on its Title I share, this LEA would receive $493,837 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$123,459 X 4 years	$493,837
Oran R-III	Based on its Title I share, this LEA would receive $132,848 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$33,212 X 4 years	$132,848
Orchard Farm R-V	Based on its Title I share, this LEA would receive $244,217 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$61,054 X 4 years	$244,217
Orearville R-IV	Based on its Title I share, this LEA would receive $16,277 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$4,069 X 4 years	$16,277
Oregon-Howell R-III	Based on its Title I share, this LEA would receive $180,342 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$45,085 X 4 years	$180,342
Orrick R-XI	Based on its Title I share, this LEA would receive $80,519 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$20,130 X 4 years	$80,519
Osage Co. R-II	Based on its Title I share, this LEA would receive $152,307 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$38,077 X 4 years	$152,307
Osage Co. R-III	Based on its Title I share, this LEA would receive $117,705 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$29,426 X 4 years	$117,705
Osborn R-O	Based on its Title I share, this LEA would receive $24,443 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$6,111 X 4 years	$24,443
Osceola	Based on its Title I share, this LEA would receive $284,297 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$71,074 X 4 years	$284,297
Otterville R-VI	Based on its Title I share, this LEA would receive $126,295 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$31,574 X 4 years	$126,295
Ozark R-VI	Based on its Title I share, this LEA would receive $889,572 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$222,393 X 4 years	$889,572
Paideia Academy	Based on its Title I share, this LEA would receive $981,088 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$245,272 X 4 years	$981,088
Palmyra R-I	Based on its Title I share, this LEA would receive $226,798 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$56,699 X 4 years	$226,798
Paris R-II	Based on its Title I share, this LEA would receive $146,989 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$36,747 X 4 years	$146,989

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Park Hill	Based on its Title I share, this LEA would receive $1,121,345 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$280,336 X 4 years	$1,121,345
Parkway C-2	Based on its Title I share, this LEA would receive $2,569,978 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$642,495 X 4 years	$2,569,978
Pathway Academy	Based on its Title I share, this LEA would receive $613,717 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$153,429 X 4 years	$613,717
Pattonsburg R-II	Based on its Title I share, this LEA would receive $85,737 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,434 X 4 years	$85,737
Pattonville R-III	Based on its Title I share, this LEA would receive $1,092,153 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$273,038 X 4 years	$1,092,153
Pemiscot Co. R-III	Based on its Title I share, this LEA would receive $82,144 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$20,536 X 4 years	$82,144
Pemiscot Co. Spec. Sch. Dist.			$0
Perry Co. 32	Based on its Title I share, this LEA would receive $436,162 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$109,041 X 4 years	$436,162
Pettis Co. R-V	Based on its Title I share, this LEA would receive $139,941 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,985 X 4 years	$139,941
Pettis Co. R-XII	Based on its Title I share, this LEA would receive $75,559 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$18,890 X 4 years	$75,559
Phelps Co. R-III	Based on its Title I share, this LEA would receive $94,079 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$23,520 X 4 years	$94,079
Pierce City R-VI	Based on its Title I share, this LEA would receive $422,098 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$105,525 X 4 years	$422,098
Pike Co. R-III	Based on its Title I share, this LEA would receive $168,130 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$42,033 X 4 years	$168,130
Pilot Grove C-4	Based on its Title I share, this LEA would receive $52,474 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,119 X 4 years	$52,474
Plainview R-VIII	Based on its Title I share, this LEA would receive $78,873 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$19,718 X 4 years	$78,873
Plato R-V	Based on its Title I share, this LEA would receive $183,391 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$45,848 X 4 years	$183,391
Platte Co. R-III	Based on its Title I share, this LEA would receive $280,962 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$70,240 X 4 years	$280,962
Pleasant Hope R-VI	Based on its Title I share, this LEA would receive $624,383 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$156,096 X 4 years	$624,383
Polo R-VII	Based on its Title I share, this LEA would receive $72,282 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$18,070 X 4 years	$72,282
Poplar Bluff R-I	Based on its Title I share, this LEA would receive $3,303,555 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$825,889 X 4 years	$3,303,555
Portageville	Based on its Title I share, this LEA would receive $558,677 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$139,669 X 4 years	$558,677
Potosi R-III	Based on its Title I share, this LEA would receive $1,495,630 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$373,907 X 4 years	$1,495,630

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Prairie Home R-V	Based on its Title I share, this LEA would receive $32,553 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$8,138 X 4 years	$32,553
Purdy R-II	Based on its Title I share, this LEA would receive $349,838 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$87,460 X 4 years	$349,838
Putnam Co. R-I	Based on its Title I share, this LEA would receive $351,196 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$87,799 X 4 years	$351,196
Puxico R-VIII	Based on its Title I share, this LEA would receive $382,837 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$95,709 X 4 years	$382,837
Ralls Co. R-II	Based on its Title I share, this LEA would receive $176,202 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,050 X 4 years	$176,202
Raymondville R-VII	Based on its Title I share, this LEA would receive $137,913 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,478 X 4 years	$137,913
Raytown C-2	Based on its Title I share, this LEA would receive $2,387,783 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$596,946 X 4 years	$2,387,783
Reeds Spring R-IV	Based on its Title I share, this LEA would receive $921,673 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$230,418 X 4 years	$921,673
Renick R-V	Based on its Title I share, this LEA would receive $62,787 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,697 X 4 years	$62,787
Republic R-III	Based on its Title I share, this LEA would receive $829,473 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$207,368 X 4 years	$829,473
Rich Hill R-IV	Based on its Title I share, this LEA would receive $213,200 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$53,300 X 4 years	$213,200
Richards R-V	Based on its Title I share, this LEA would receive $366,851 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$91,713 X 4 years	$366,851
Richland R-I	Based on its Title I share, this LEA would receive $136,323 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,081 X 4 years	$136,323
Richland R-IV	Based on its Title I share, this LEA would receive $332,361 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$83,090 X 4 years	$332,361
Richwoods R-VII	Based on its Title I share, this LEA would receive $104,560 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,140 X 4 years	$104,560
Ridgeway R-V	Based on its Title I share, this LEA would receive $87,792 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,948 X 4 years	$87,792
Ripley Co. R-III	Based on its Title I share, this LEA would receive $157,041 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$39,260 X 4 years	$157,041
Risco R-II	Based on its Title I share, this LEA would receive $85,217 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,304 X 4 years	$85,217
Ritenour	Based on its Title I share, this LEA would receive $2,468,733 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$617,183 X 4 years	$2,468,733
Riverview Gardens	Based on its Title I share, this LEA would receive $4,321,641 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,080,410 X 4 years	$4,321,641
Rock Port R-II	Based on its Title I share, this LEA would receive $94,152 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$23,538 X 4 years	$94,152

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Rockwood R-VI	Based on its Title I share, this LEA would receive $2,864,549 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$716,137 X 4 years	$2,864,549
Rolla 31	Based on its Title I share, this LEA would receive $1,693,619 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$423,405 X 4 years	$1,693,619
Salem R-80	Based on its Title I share, this LEA would receive $589,535 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$147,384 X 4 years	$589,535
Salisbury R-IV	Based on its Title I share, this LEA would receive $100,628 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,157 X 4 years	$100,628
Santa Fe R-X	Based on its Title I share, this LEA would receive $72,035 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$18,009 X 4 years	$72,035
Sarcoxie R-II	Based on its Title I share, this LEA would receive $545,134 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$136,284 X 4 years	$545,134
Savannah R-III	Based on its Title I share, this LEA would receive $380,052 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$95,013 X 4 years	$380,052
School Of The Osage	Based on its Title I share, this LEA would receive $970,780 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$242,695 X 4 years	$970,780
Schuyler Co. R-I	Based on its Title I share, this LEA would receive $373,476 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$93,369 X 4 years	$373,476
Scotland Co. R-I	Based on its Title I share, this LEA would receive $255,743 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$63,936 X 4 years	$255,743
Scott City R-I	Based on its Title I share, this LEA would receive $418,051 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$104,513 X 4 years	$418,051
Scott Co. Central	Based on its Title I share, this LEA would receive $244,598 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$61,150 X 4 years	$244,598
Scott Co. R-IV	Based on its Title I share, this LEA would receive $317,226 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$79,307 X 4 years	$317,226
Scuola Vita Nuova	Based on its Title I share, this LEA would receive $262,140 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$65,535 X 4 years	$262,140
Sedalia 200	Based on its Title I share, this LEA would receive $1,891,054 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$472,764 X 4 years	$1,891,054
Senath-Hornersville C-8	Based on its Title I share, this LEA would receive $526,561 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$131,640 X 4 years	$526,561
Seneca R-VII	Based on its Title I share, this LEA would receive $620,256 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$155,064 X 4 years	$620,256
Seymour R-II	Based on its Title I share, this LEA would receive $1,633,870 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$408,467 X 4 years	$1,633,870
Shawnee R-III	Based on its Title I share, this LEA would receive $40,947 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$10,237 X 4 years	$40,947
Shelby Co. R-IV	Based on its Title I share, this LEA would receive $448,614 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$112,153 X 4 years	$448,614
Sheldon R-VIII	Based on its Title I share, this LEA would receive $89,288 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$22,322 X 4 years	$89,288

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Shell Knob 78	Based on its Title I share, this LEA would receive $289,566 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$72,391 X 4 years	$289,566
Sikeston R-6	Based on its Title I share, this LEA would receive $2,311,402 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$577,851 X 4 years	$2,311,402
Silex R-I	Based on its Title I share, this LEA would receive $114,585 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$28,646 X 4 years	$114,585
Skyline R-II	Based on its Title I share, this LEA would receive $106,677 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,669 X 4 years	$106,677
Slater	Based on its Title I share, this LEA would receive $182,070 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$45,517 X 4 years	$182,070
Smithton R-VI	Based on its Title I share, this LEA would receive $163,834 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$40,958 X 4 years	$163,834
Smithville R-II	Based on its Title I share, this LEA would receive $134,897 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$33,724 X 4 years	$134,897
South Callaway Co. R-II	Based on its Title I share, this LEA would receive $175,588 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$43,897 X 4 years	$175,588
South Harrison Co. R-II	Based on its Title I share, this LEA would receive $336,320 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$84,080 X 4 years	$336,320
South Holt Co. R-I	Based on its Title I share, this LEA would receive $60,145 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,036 X 4 years	$60,145
South Nodaway Co. R-IV	Based on its Title I share, this LEA would receive $53,360 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,340 X 4 years	$53,360
South Pemiscot Co. R-V	Based on its Title I share, this LEA would receive $582,895 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$145,724 X 4 years	$582,895
Southern Boone Co. R-I	Based on its Title I share, this LEA would receive $155,271 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$38,818 X 4 years	$155,271
Southern Reynolds Co. R-II	Based on its Title I share, this LEA would receive $382,338 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$95,585 X 4 years	$382,338
Southland C-9	Based on its Title I share, this LEA would receive $321,886 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$80,472 X 4 years	$321,886
Southwest Livingston Co. R-I	Based on its Title I share, this LEA would receive $111,201 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$27,800 X 4 years	$111,201
Southwest R-V	Based on its Title I share, this LEA would receive $511,464 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$127,866 X 4 years	$511,464
Sparta R-III	Based on its Title I share, this LEA would receive $306,414 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$76,604 X 4 years	$306,414
Specl. Sch. Dst. St. Louis Co.	Based on its Title I share, this LEA would receive $713,364 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$178,341 X 4 years	$713,364
Spickard R-II	Based on its Title I share, this LEA would receive $65,800 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$16,450 X 4 years	$65,800
Spokane R-VII	Based on its Title I share, this LEA would receive $250,569 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$62,642 X 4 years	$250,569

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Spring Bluff R-XV	Based on its Title I share, this LEA would receive $35,054 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$8,764 X 4 years	$35,054
Springfield R-XII	Based on its Title I share, this LEA would receive $12,779,654 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$3,194,914 X 4 years	$12,779,654
St Louis Lang Immersion School	Based on its Title I share, this LEA would receive $377,778 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$94,444 X 4 years	$377,778
St. Charles R-VI	Based on its Title I share, this LEA would receive $1,196,972 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$299,243 X 4 years	$1,196,972
St. Clair R-XIII	Based on its Title I share, this LEA would receive $585,853 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$146,463 X 4 years	$585,853
St. Elizabeth R-IV	Based on its Title I share, this LEA would receive $34,666 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$8,666 X 4 years	$34,666
St. James R-I	Based on its Title I share, this LEA would receive $1,397,024 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$349,256 X 4 years	$1,397,024
St. Joseph	Based on its Title I share, this LEA would receive $4,893,863 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$1,223,466 X 4 years	$4,893,863
St. Louis Charter School	Based on its Title I share, this LEA would receive $1,221,202 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$305,300 X 4 years	$1,221,202
St. Louis City	Based on its Title I share, this LEA would receive $35,419,873 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$8,854,968 X 4 years	$35,419,873
Stanberry R-II	Based on its Title I share, this LEA would receive $116,667 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$29,167 X 4 years	$116,667
Ste. Genevieve Co. R-II	Based on its Title I share, this LEA would receive $473,585 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$118,396 X 4 years	$473,585
Steelville R-III	Based on its Title I share, this LEA would receive $559,171 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$139,793 X 4 years	$559,171
Stet R-XV	Based on its Title I share, this LEA would receive $20,575 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$5,144 X 4 years	$20,575
Stewartsville C-2	Based on its Title I share, this LEA would receive $29,687 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,422 X 4 years	$29,687
Stockton R-I	Based on its Title I share, this LEA would receive $612,029 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$153,007 X 4 years	$612,029
Strafford R-VI	Based on its Title I share, this LEA would receive $335,747 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$83,937 X 4 years	$335,747
Strasburg C-3	Based on its Title I share, this LEA would receive $29,803 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,451 X 4 years	$29,803
Sturgeon R-V	Based on its Title I share, this LEA would receive $318,848 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$79,712 X 4 years	$318,848
Sullivan	Based on its Title I share, this LEA would receive $624,267 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$156,067 X 4 years	$624,267
Summersville R-II	Based on its Title I share, this LEA would receive $442,461 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$110,615 X 4 years	$442,461

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Sunrise R-IX	Based on its Title I share, this LEA would receive $136,954 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$34,239 X 4 years	$136,954
Swedeborg R-III	Based on its Title I share, this LEA would receive $52,636 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,159 X 4 years	$52,636
Sweet Springs R-VII	Based on its Title I share, this LEA would receive $152,838 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$38,209 X 4 years	$152,838
Taneyville R-II	Based on its Title I share, this LEA would receive $105,192 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$26,298 X 4 years	$105,192
Tarkio R-I	Based on its Title I share, this LEA would receive $130,359 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$32,590 X 4 years	$130,359
Thayer R-II	Based on its Title I share, this LEA would receive $438,733 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$109,683 X 4 years	$438,733
Thornfield R-I	Based on its Title I share, this LEA would receive $69,242 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$17,311 X 4 years	$69,242
Tina-Avalon R-II	Based on its Title I share, this LEA would receive $49,869 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$12,467 X 4 years	$49,869
Tipton R-VI	Based on its Title I share, this LEA would receive $176,047 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$44,012 X 4 years	$176,047
Trenton R-IX	Based on its Title I share, this LEA would receive $540,320 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$135,080 X 4 years	$540,320
Tri-County R-VII	Based on its Title I share, this LEA would receive $281,480 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$70,370 X 4 years	$281,480
Troy R-III	Based on its Title I share, this LEA would receive $1,000,501 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$250,125 X 4 years	$1,000,501
Twin Rivers R-X	Based on its Title I share, this LEA would receive $426,375 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$106,594 X 4 years	$426,375
Union R-XI	Based on its Title I share, this LEA would receive $478,694 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$119,674 X 4 years	$478,694
Union Star R-II	Based on its Title I share, this LEA would receive $31,695 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$7,924 X 4 years	$31,695
University Academy	Based on its Title I share, this LEA would receive $1,235,246 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$308,812 X 4 years	$1,235,246
University City	Based on its Title I share, this LEA would receive $1,951,528 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$487,882 X 4 years	$1,951,528
Urban Com. Leadership Academy	Based on its Title I share, this LEA would receive $215,882 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$53,970 X 4 years	$215,882
Valley R-VI	Based on its Title I share, this LEA would receive $221,882 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$55,470 X 4 years	$221,882
Van Buren R-I	Based on its Title I share, this LEA would receive $456,091 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$114,023 X 4 years	$456,091
Van-Far R-I	Based on its Title I share, this LEA would receive $308,449 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$77,112 X 4 years	$308,449

Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Verona R-VII	Based on its Title I share, this LEA would receive $427,325 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$106,831 X 4 years	$427,325
Walnut Grove R-V	Based on its Title I share, this LEA would receive $60,202 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$15,050 X 4 years	$60,202
Warren Co. R-III	Based on its Title I share, this LEA would receive $722,983 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$180,746 X 4 years	$722,983
Warrensburg R-VI	Based on its Title I share, this LEA would receive $885,543 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$221,386 X 4 years	$885,543
Warsaw R-IX	Based on its Title I share, this LEA would receive $885,276 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$221,319 X 4 years	$885,276
Washington	Based on its Title I share, this LEA would receive $639,589 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$159,897 X 4 years	$639,589
Waynesville R-VI	Based on its Title I share, this LEA would receive $939,582 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$234,896 X 4 years	$939,582
Weaubleau R-III	Based on its Title I share, this LEA would receive $429,062 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$107,266 X 4 years	$429,062
Webb City R-VII	Based on its Title I share, this LEA would receive $1,522,731 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$380,683 X 4 years	$1,522,731
Webster Groves	Based on its Title I share, this LEA would receive $840,212 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$210,053 X 4 years	$840,212
Wellington-Napoleon R-IX	Based on its Title I share, this LEA would receive $55,570 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$13,892 X 4 years	$55,570
Wellsville Middletown R-I	Based on its Title I share, this LEA would receive $316,648 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$79,162 X 4 years	$316,648
Wentzville R-IV	Based on its Title I share, this LEA would receive $1,080,821 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$270,205 X 4 years	$1,080,821
West Nodaway Co. R-I	Based on its Title I share, this LEA would receive $85,273 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$21,318 X 4 years	$85,273
West Plains R-VII	Based on its Title I share, this LEA would receive $1,312,457 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$328,114 X 4 years	$1,312,457
West Platte Co. R-II	Based on its Title I share, this LEA would receive $75,845 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$18,961 X 4 years	$75,845
West St. Francois Co. R-IV	Based on its Title I share, this LEA would receive $577,467 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$144,367 X 4 years	$577,467
Westran R-I	Based on its Title I share, this LEA would receive $341,563 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$85,391 X 4 years	$341,563
Westview C-6	Based on its Title I share, this LEA would receive $102,096 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$25,524 X 4 years	$102,096
Wheatland R-II	Based on its Title I share, this LEA would receive $246,120 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$61,530 X 4 years	$246,120
Willard R-II	Based on its Title I share, this LEA would receive $972,938 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$243,235 X 4 years	$972,938

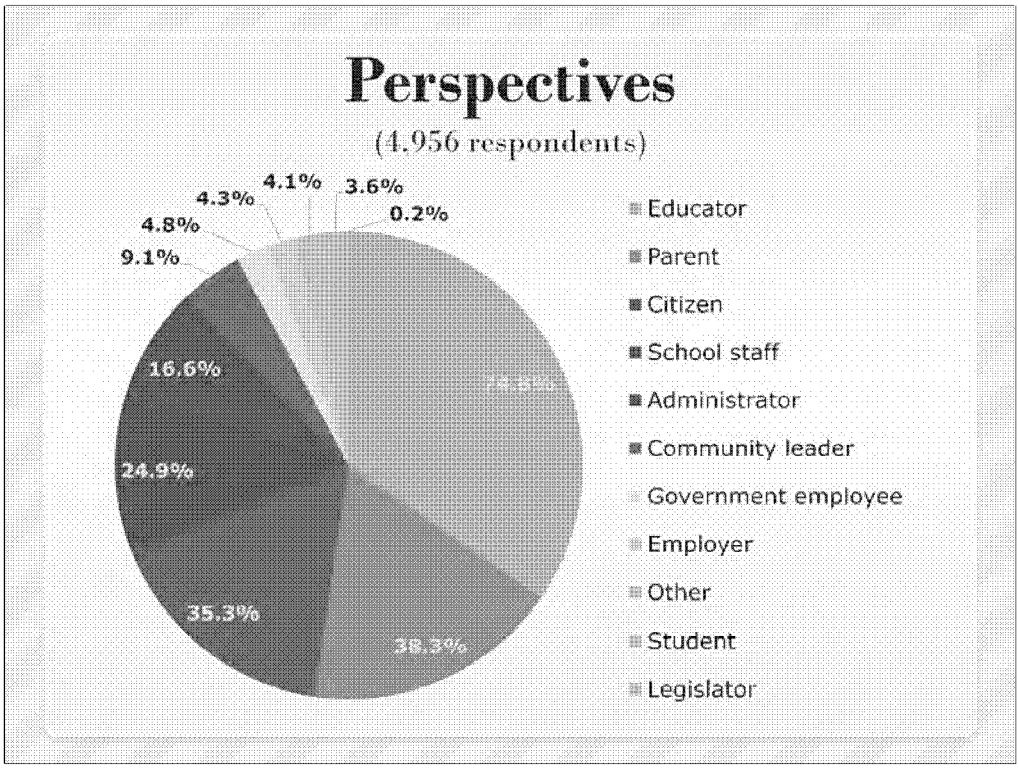
Appendix 29: Funding Subgranted to Participating LEAs (50% of Total Grant)

LEA	Rationale	Supplemental Subgrant Cost	Total
Willow Springs R-IV	Based on its Title I share, this LEA would receive $1,025,942 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$256,486 X 4 years	$1,025,942
Windsor C-1	Based on its Title I share, this LEA would receive $473,937 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$118,484 X 4 years	$473,937
Winfield R-IV	Based on its Title I share, this LEA would receive $389,422 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$97,356 X 4 years	$389,422
Winston R-VI	Based on its Title I share, this LEA would receive $51,780 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$12,945 X 4 years	$51,780
Woodland R-IV	Based on its Title I share, this LEA would receive $459,448 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$114,862 X 4 years	$459,448
Worth Co. R-III	Based on its Title I share, this LEA would receive $175,569 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$43,892 X 4 years	$175,569
Wright City R-II	Based on its Title I share, this LEA would receive $331,151 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$82,788 X 4 years	$331,151
Zalma R-V	Based on its Title I share, this LEA would receive $207,892 of the State's Race to the Top grant; this subgrant from the State's 50% increases the LEA's funding to allow it to fully participate in all State plans	$51,973 X 4 years	$207,892

As part of the state's proposal development team to gathering stakeholder input on education reform priorities, DESE collected feedback from stakeholders statewide through an online survey from December 15 to December 23, 2009. We received nearly 5,000 responses.

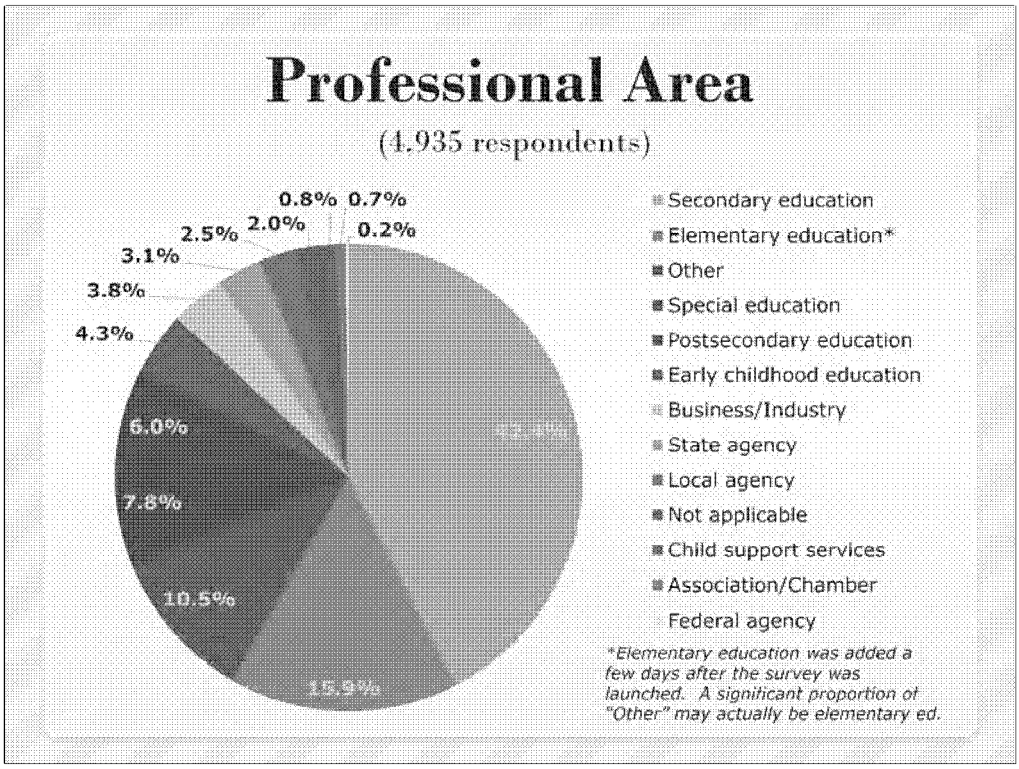
The survey was organized around the four key themes which states must address in their federal Race to the Top application:
1). Academic Standards and Assessments;
2). Data Systems That Support Instruction;
3). Recruiting and Retaining Great Teachers and Leaders; and
4). Turning Around Low-performing Schools.

DESE's survey concluded with four questions about statewide systemic support, plus a question about data collection and research. Throughout the survey, respondents had opportunities to add their suggestions and comments. This presentation summarizes the responses received to the statewide stakeholder survey.



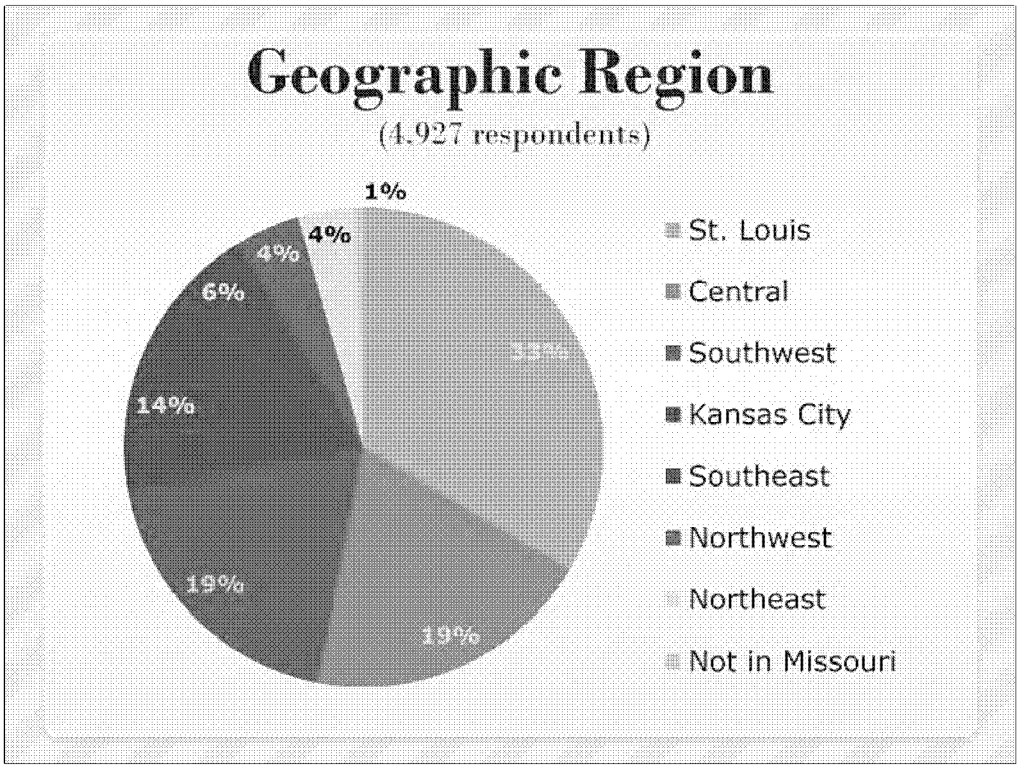
First, we collected some demographic information, so we can understand issues based on various points-of-view of the nearly 5,000 respondents.

In the first question, respondents were asked to indicate their perspective(s) as they began the survey. Note that respondents could mark as many categories as were applicable. For instance, an educator may also indicate their perspectives are offered as a parent and a citizen.



While education professionals comprised 75% of all responses, the largest responding group were those working in secondary education. Elementary education and special education were the next largest responding groups. Individuals from business and industry represented 3.8% of responses.

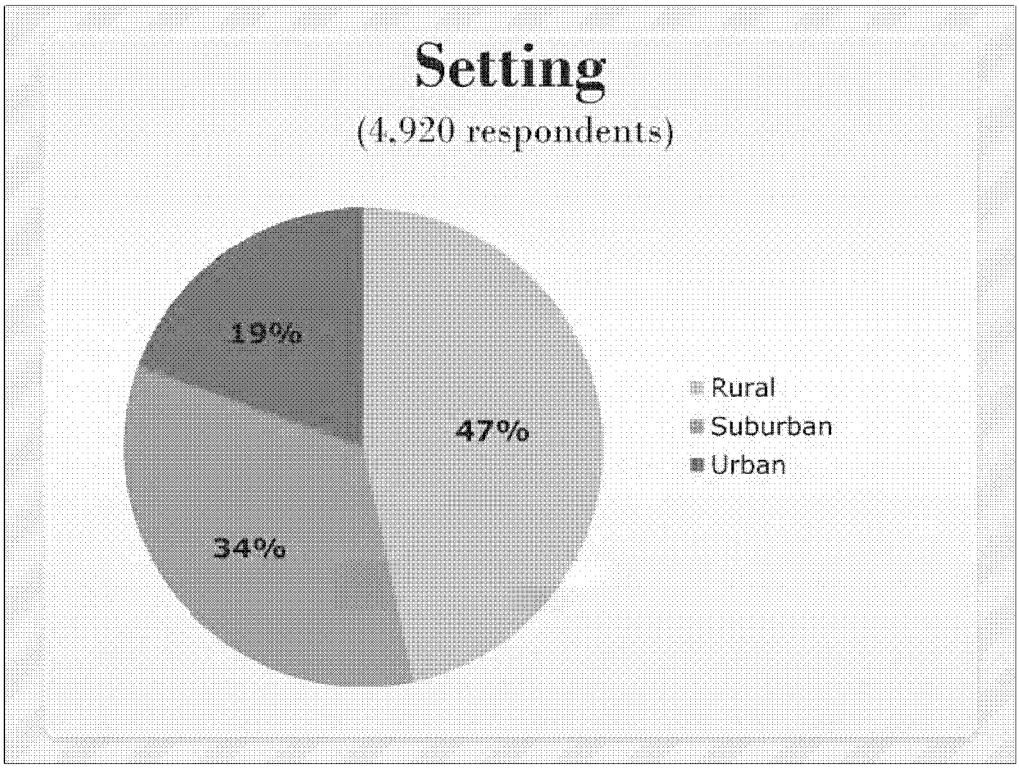
Note: Elementary education professionals are likely under-represented on this pie chart. That category was inadvertently omitted initially but was added after the survey launched. At that point, more than 300 individuals had selected the "Other" category. After adding Elementary education, the rate of growth for "Other" responses slowed dramatically.



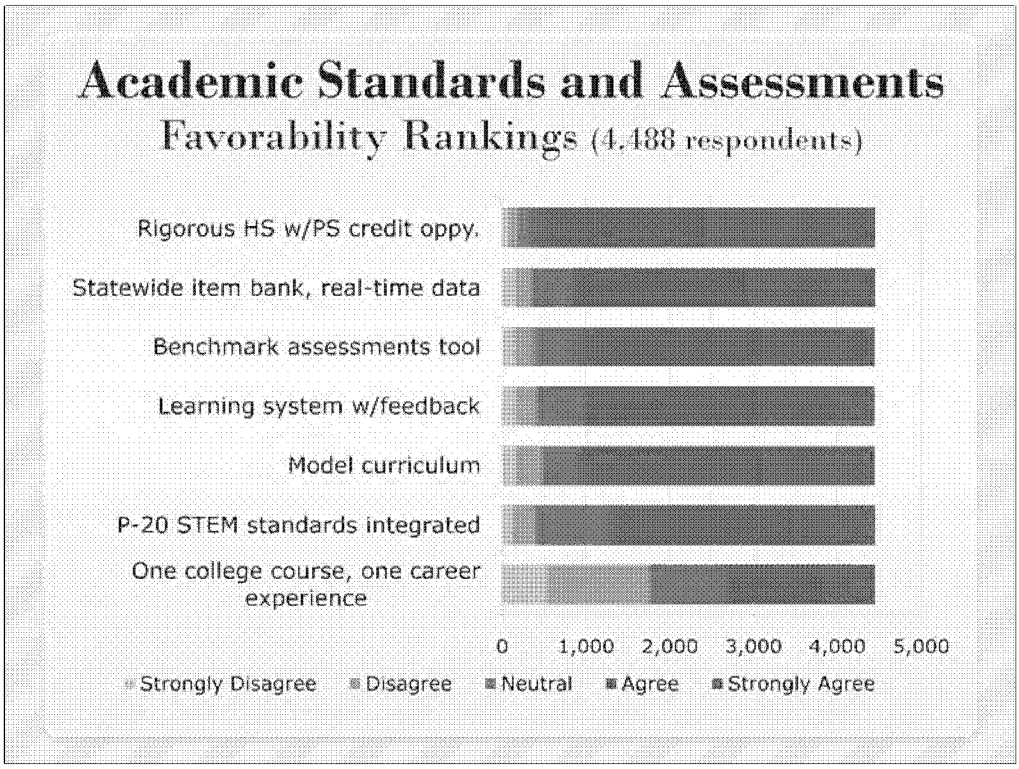
We are pleased to have heard from such a large number of individuals all across the state for Missouri's Race to the Top application. A number of "drivers" may have facilitated getting the word out to people across the state about the stakeholder survey. DESE's (Dec. 15) news release was posted to the website and distributed statewide. We noticed the announcement was picked up by the St. Louis Post-Dispatch the next day directing all its readers to the RT3 Web site to participate in the online survey.

In addition, many distribution lists of DESE and its organizational partners helped get the word out to primary stakeholders.

Social networks also facilitated getting the word out. The survey was "tweeted" and "re-tweeted" among some teacher groups, such as the case of a tweet to Family & Consumer Science Teachers, which was picked up by the Missouri State Teachers Association and re-tweeted to its members.



The perspectives of rural, urban, and suburban citizens are well represented. Nearly half (47%) of all responses were from individuals in rural areas, while the other half was split 19% urban and 34% suburban.



For the first of the four categories, Academic Standards and Assessments, seven ideas were presented for respondents to indicate their level of agreement (based on a scale from strongly disagree to strongly agree).

Nearly all ideas received an overwhelming or acceptable level of agreement. The most agreeable item is the idea of promoting a rigorous high school program with an opportunity for college credit.

The item within this grouping which received the least amount of concensus was the idea to require each high school student to take at least one college-level course and have at least one career experience. Based on the comments, however, this last item probably should have been two separate questions – there appears to be a good level of support for every high school student having a real-life career experience, while not everyone agrees that successfully completing a college-level course is feasible for all students.

Academic Standards and Assessments
Top 3 Priority Rankings (4,282 respondents)

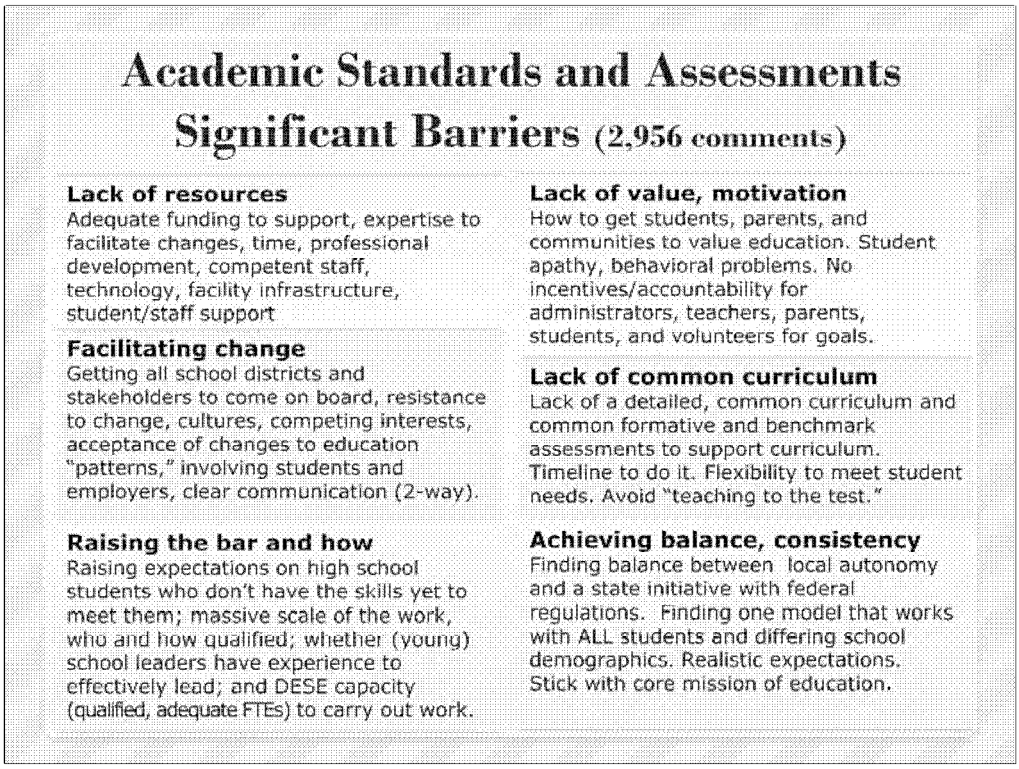
Item	#1 votes	#2 votes	#3 votes	Total Points
Tool to help teachers create benchmark assessments and generate real-time data	778	**908**	801	2,487
Statewide model curriculum linked to Common Core Standards	**975**	624	552	2,151
Learning system linking Common Core Standards, statewide model curriculum, and assessments	626	673	**713**	2,012

When respondents were asked to rank their Top 3 items, these came to the top of the list:

* Tool to help teachers create benchmark assessments and generate real-time data;
* Statewide model curriculum linked to Common Core Standards; and
* Learning system linking Common Core Standards, statewide model curriculum, and assessments.

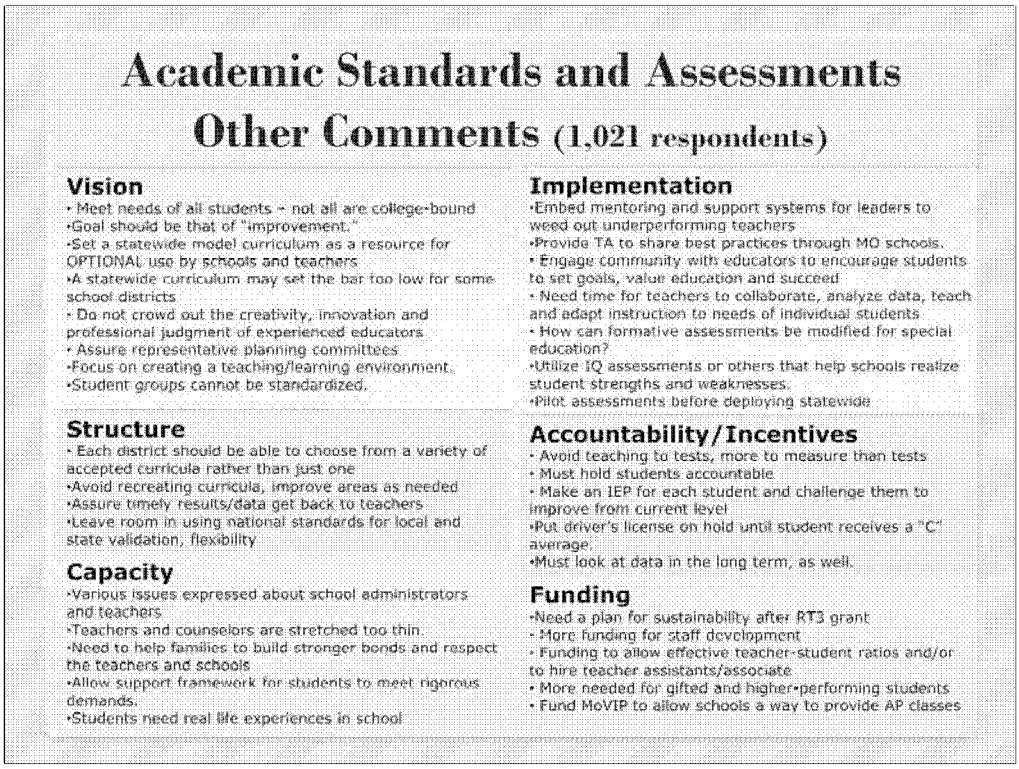
Just missing the Top 3 priority list was the overall, most agreeable item: Rigorous high school programs with potential for college credit.

The last-place item on the priority list (with 922 points) was for integrating P-20 STEM standards into state standards.



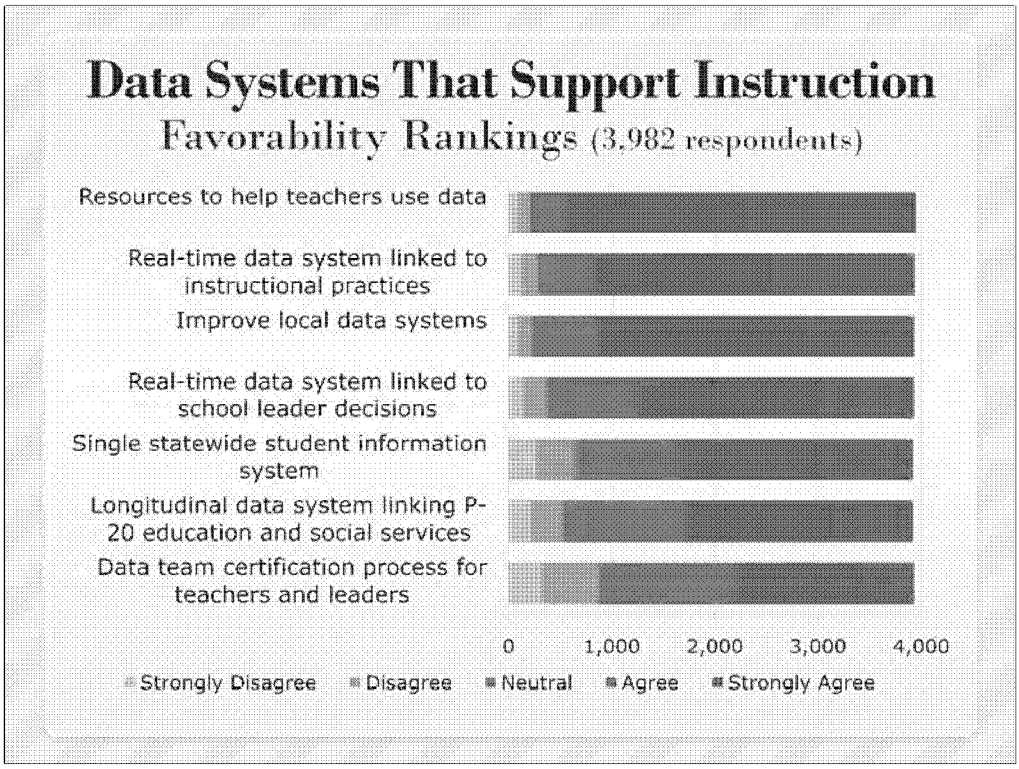
Nearly 3,000 thoughtful comments were given to the question of "What do you believe will be the most significant barrier(s) to implementing initiatives within this component.

The prevailing concepts may be summarized in these six buckets:
- Lack of resources
- Facilitating change
- Raising the bar – and how
- Lack of value, *motivation* in education
- Lack of common curriculum
- Achieving balance, consistency, and flexibility



More than 1,000 thoughtful comments were given to the opportunity to add any other comments or suggestions within this component. These are a sample of the comments. The committee working on this component is delving deeper into the feedback.

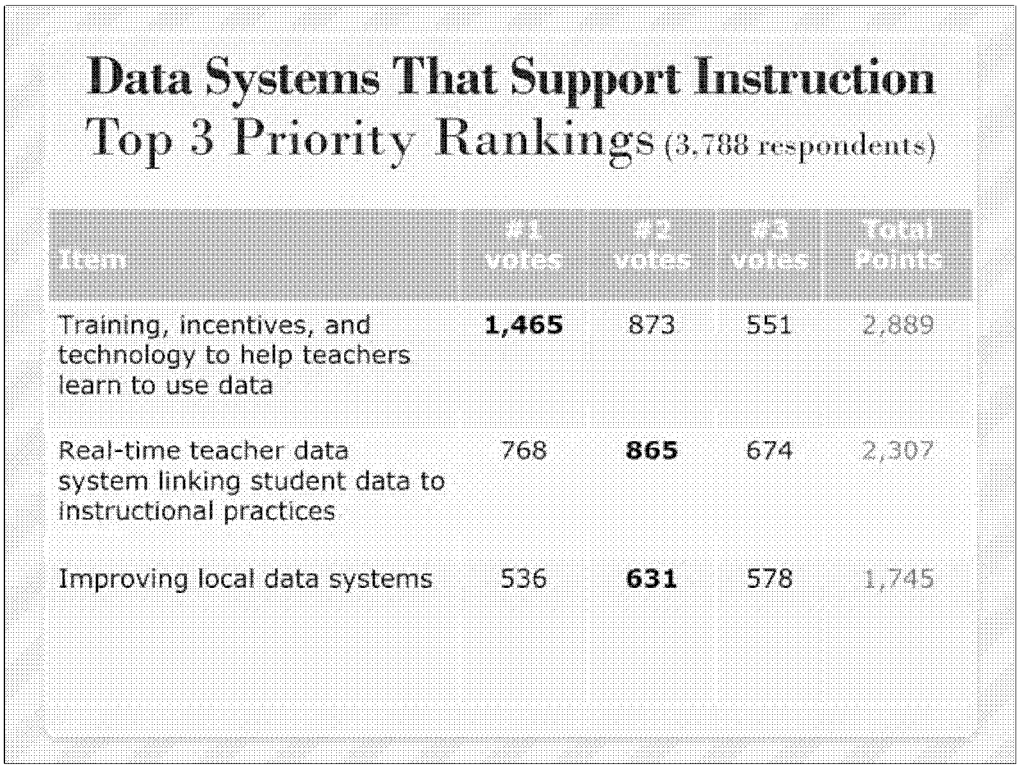
The prevailing concepts appear to relate to:
•Vision
•Structure
•Capacity
•Accountability/Incentives
•Funding



For the second category, Data Systems That Support Instruction, seven ideas were presented for respondents to indicate their level of agreement (strongly disagree to strongly agree) to achieve the vision for education in Missouri.

Most ideas received an overwhelming or acceptable level of agreement. The top item is the idea of providing training, incentives, and cutting-edge technologies that can help teachers use data.

Some of these items, particularly the last three on this list, had a higher proportion of "neutral" responses. The last item had the highest level of disagreement within this component, but in total less than the number of agreeable ratings for that item.



Data Systems That Support Instruction
Top 3 Priority Rankings (3,788 respondents)

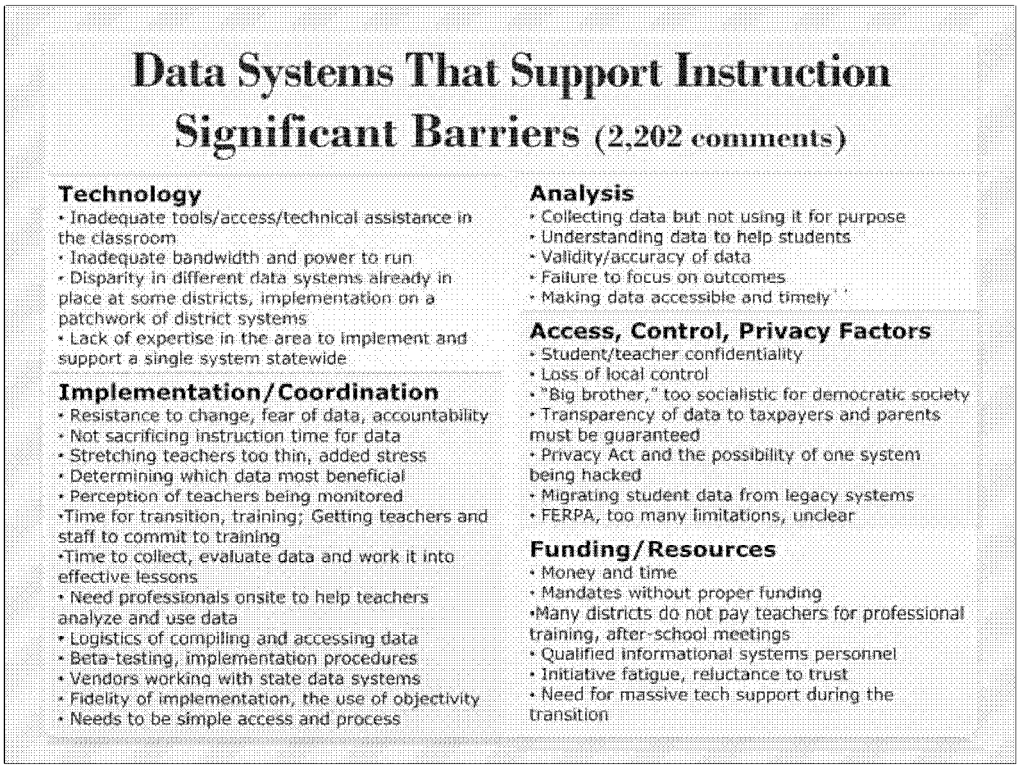
Item	#1 votes	#2 votes	#3 votes	Total Points
Training, incentives, and technology to help teachers learn to use data	**1,465**	873	551	2,889
Real-time teacher data system linking student data to instructional practices	768	**865**	674	2,307
Improving local data systems	536	**631**	578	1,745

When asked to rank their Top 3 items, these came to the top of the list:

- Training, incentives, and technology to help teachers learn to use data;
- Real-time teacher data system linking student data to instructional practices; and
- Improving local data systems

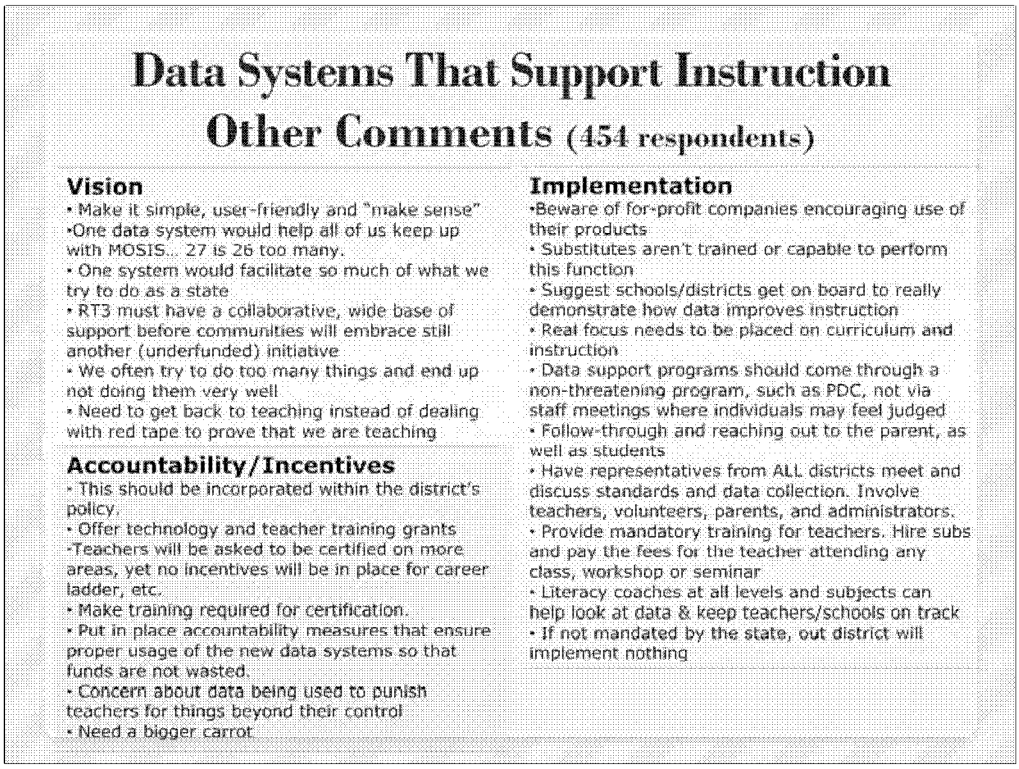
In fourth place was "Creating a single statewide student information system," which received 499 #1 priority votes and a 1,377 overall point count.

The last place item on the priority list (with 706 points) was creating a "Data team certification process for teachers and leaders."



Over 2,000 comments were given to the question of "What do you believe will be the most significant barrier(s) to implementing initiatives within this component.

The prevailing concepts may be summarized in these five broad buckets:
•Adequate technology
•Implementation/Coordination
•Privacy factors
•Analysis
•Funding/Resources



Data Systems That Support Instruction
Other Comments (454 respondents)

Vision
- Make it simple, user-friendly and "make sense"
- One data system would help all of us keep up with MOSIS... 27 is 26 too many.
- One system would facilitate so much of what we try to do as a state
- RT3 must have a collaborative, wide base of support before communities will embrace still another (underfunded) initiative
- We often try to do too many things and end up not doing them very well
- Need to get back to teaching instead of dealing with red tape to prove that we are teaching

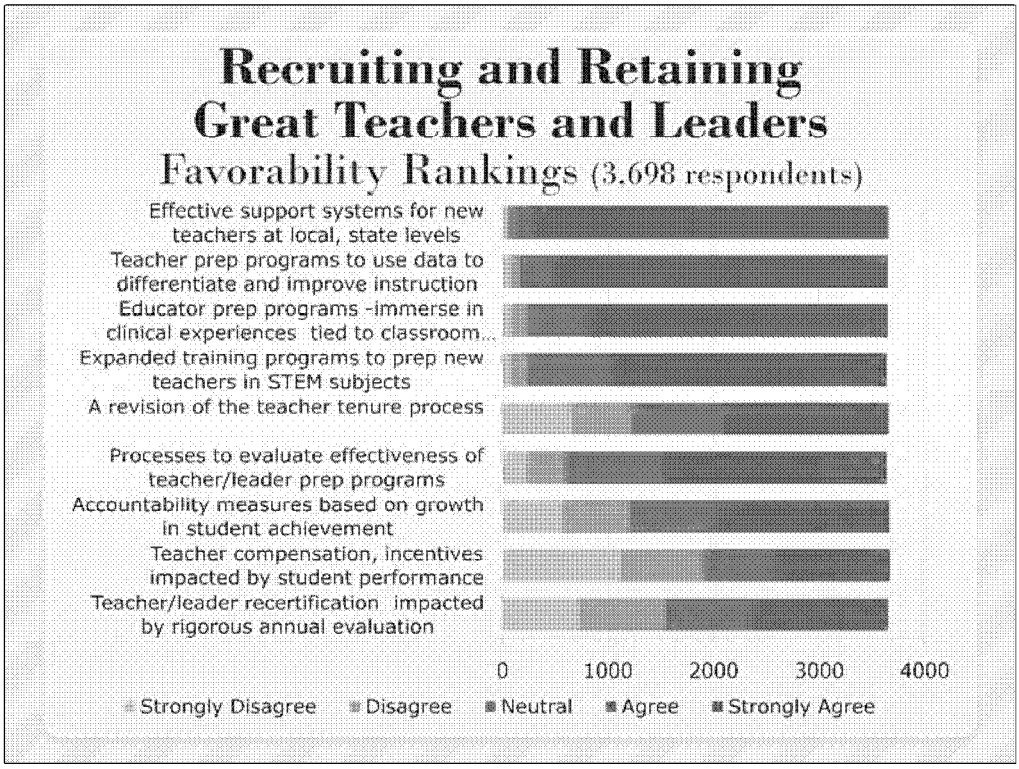
Accountability/Incentives
- This should be incorporated within the district's policy.
- Offer technology and teacher training grants
- Teachers will be asked to be certified on more areas, yet no incentives will be in place for career ladder, etc.
- Make training required for certification.
- Put in place accountability measures that ensure proper usage of the new data systems so that funds are not wasted.
- Concern about data being used to punish teachers for things beyond their control
- Need a bigger carrot

Implementation
- Beware of for-profit companies encouraging use of their products
- Substitutes aren't trained or capable to perform this function
- Suggest schools/districts get on board to really demonstrate how data improves instruction
- Real focus needs to be placed on curriculum and instruction
- Data support programs should come through a non-threatening program, such as PDC, not via staff meetings where individuals may feel judged
- Follow-through and reaching out to the parent, as well as students
- Have representatives from ALL districts meet and discuss standards and data collection. Involve teachers, volunteers, parents, and administrators.
- Provide mandatory training for teachers. Hire subs and pay the fees for the teacher attending any class, workshop or seminar
- Literacy coaches at all levels and subjects can help look at data & keep teachers/schools on track
- If not mandated by the state, out district will implement nothing

About 450 additional comments were received within this component. These are a sample of the comments. The committee working on this component is delving deeper into the feedback.

The prevailing concepts appear to relate to:
- Vision
- Accountability/Incentives
- Implementation

Note that Capacity and funding were overwhelmingly brought up in the first open response opportunity, so do not appear so much in this second comment box.



For the third category, Recruiting and Retaining Great Teachers and Leaders, nine ideas were presented for respondents to indicate their level of agreement (strongly disagree to strongly agree) to achieve the vision for education in Missouri.

This component received the most diverse range of opinion. Five of the nine items received a majority of agreement. The top item of agreement is the idea to provide effective support systems at the local and state level for new teachers. Items two through four on this bar chart also receiving a high level of agreement are:
•Teacher preparation programs that prepare candidates to use data to differentiate and improve instruction,
• Educator preparation programs that immerse candidates in diverse, sustained clinical experiences that are integrated with classroom theory, and
• Expanded training programs to prepare new teachers in Science, Technology, Engineering & Mathematics, or "STEM" subjects.

Another idea that respondents mostly agree with is item #6 on this list, Processes for evaluating the effectiveness of teacher/leader preparation programs through links to student data from schools in which program graduates are placed.

As expected, the remainder of the list shows the ideas that are controversial across the state, with many people both in favor and not in favor of the ideas presented for stakeholder response:
• A revision of the teacher tenure process;
• Accountability measures for teachers, administrators, and schools based on growth in student achievement;
• Teacher compensation and other incentives impacted by student performance; and
• Teacher/leader certification requirements that are impacted by rigorous annual evaluation, including peer evaluation and/or outside evaluators.

Looking at the item related to the teacher tenure issue, while split, all respondent groups except educators were slightly more agreeable to revising the teacher tenure process than disagreeable (1,573 agreeable / 1,222 disagreeable / 903 neutral). Educators as a whole responded fairly evenly on both sides, yet were the only respondent group to be (slightly) more disagreeable than agreeable (994 agreeable to 1,092 disagreeable). The majority of parents were agreeable to revising the teacher tenure process with 619 responses to 476 disagreeable responses. Business and industry representatives were most agreeable with 108 to 15. Association and chamber respondents were split, 11 to 9, agreeable over disagreeable . Community setting does not appear to a factor in the distribution of responses, as rural, urban, and suburban were fairly consistent in their opinions.

The item with the highest level of disagreement within this RT3 category is tying teacher compensation to student performance, followed by the teacher/leader recertification. Open-response comments throughout the survey frequently echo the sentiment against tying teacher compensation to student performance.

Recruiting and Retaining Great Teachers and Leaders

Top 3 Priority Rankings (3,607 respondents)

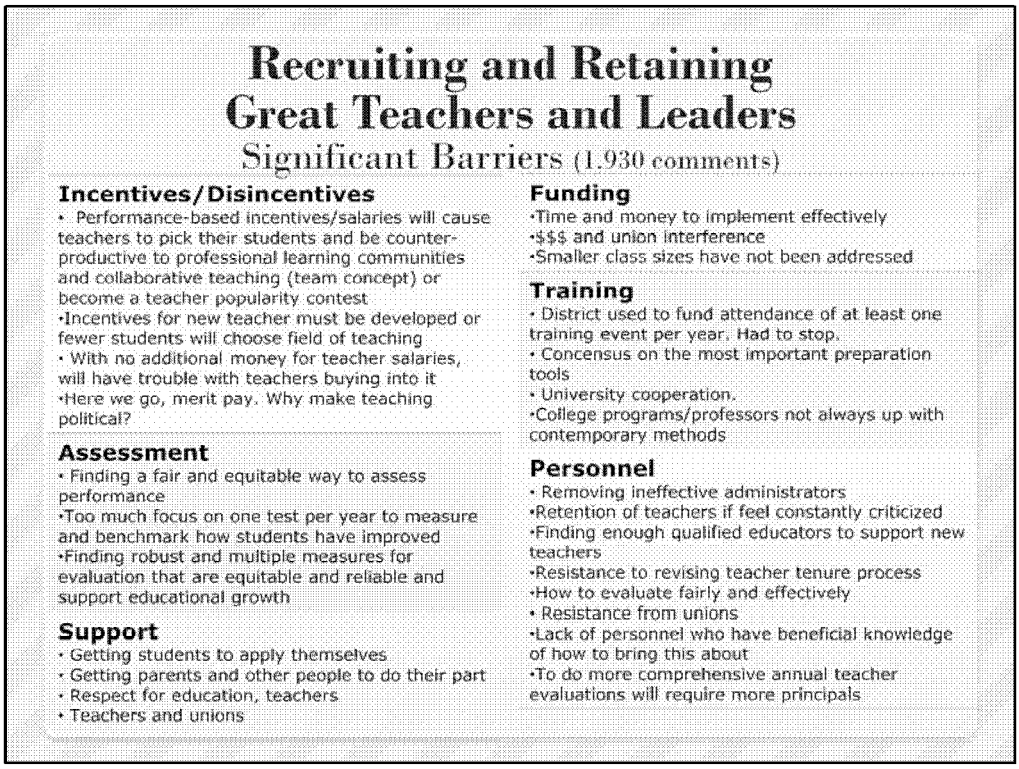
Item	#1 votes	#2 votes	#3 votes	Total Points
Effective support systems at the local and state level for new teachers	**1,002**	691	555	2,248
Teacher preparation programs that prepare candidates to use data to differentiate and improve instruction	**825**	758	603	2,186
Educator preparation programs that immerse candidates in diverse, sustained clinical experiences that are integrated with classroom theory	**762**	686	508	1,956

When asked to rank their Top 3 items, these came to the top of the list:

- Effective support systems at the local and state level for new teachers
- Teacher preparation programs that prepare candidates to use data to differentiate and improve instruction
- Educator preparation programs that immerse candidates in diverse, sustained clinical experiences that are integrated with classroom theory

In (distant) fourth place was "Expanded training programs to prepare new teachers in STEM subjects," which received 274 #1 priority votes and an overall point count of 1,239.

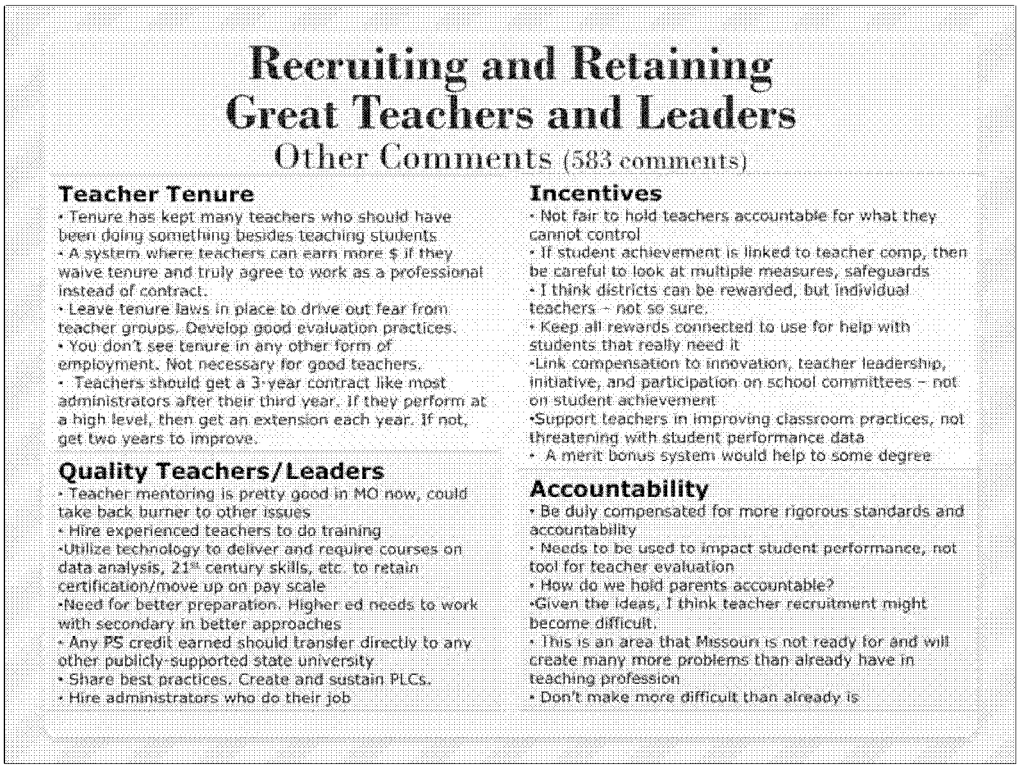
The remaining five ideas on the list scored less than 1,000 points each, which reflects the favorability ratings we reviewed on the previous chart.



Over 1,900 comments were given to the question of "What do you believe will be the most significant barrier(s) to implementing initiatives within this component."

The prevailing concepts may be summarized in these areas:

Incentives and disincentives
•Assessment
•Support
•Funding
•Training
•Personnel
•And more….



Recruiting and Retaining Great Teachers and Leaders

Other Comments (583 comments)

Teacher Tenure

- Tenure has kept many teachers who should have been doing something besides teaching students
- A system where teachers can earn more $ if they waive tenure and truly agree to work as a professional instead of contract.
- Leave tenure laws in place to drive out fear from teacher groups. Develop good evaluation practices.
- You don't see tenure in any other form of employment. Not necessary for good teachers.
- Teachers should get a 3-year contract like most administrators after their third year. If they perform at a high level, then get an extension each year. If not, get two years to improve.

Quality Teachers/Leaders

- Teacher mentoring is pretty good in MO now, could take back burner to other issues
- Hire experienced teachers to do training
- Utilize technology to deliver and require courses on data analysis, 21st century skills, etc. to retain certification/move up on pay scale
- Need for better preparation. Higher ed needs to work with secondary in better approaches
- Any PS credit earned should transfer directly to any other publicly-supported state university
- Share best practices. Create and sustain PLCs.
- Hire administrators who do their job

Incentives

- Not fair to hold teachers accountable for what they cannot control
- If student achievement is linked to teacher comp, then be careful to look at multiple measures, safeguards
- I think districts can be rewarded, but individual teachers – not so sure.
- Keep all rewards connected to use for help with students that really need it
- Link compensation to innovation, teacher leadership, initiative, and participation on school committees – not on student achievement
- Support teachers in improving classroom practices, not threatening with student performance data
- A merit bonus system would help to some degree

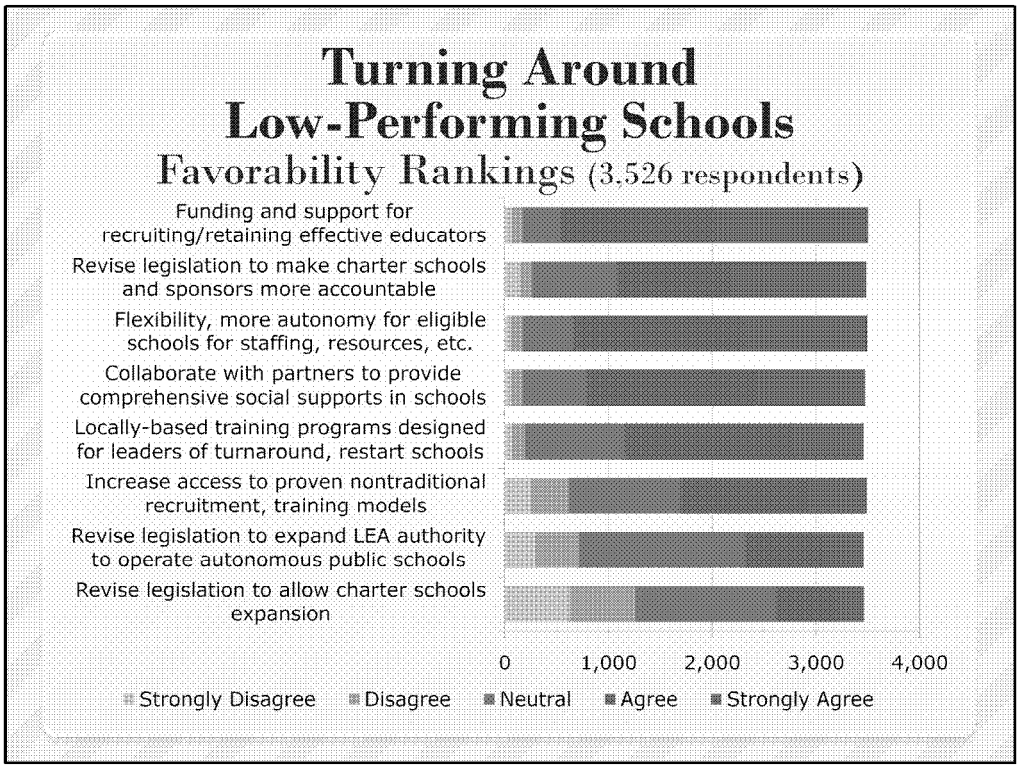
Accountability

- Be duly compensated for more rigorous standards and accountability
- Needs to be used to impact student performance, not tool for teacher evaluation
- How do we hold parents accountable?
- Given the ideas, I think teacher recruitment might become difficult.
- This is an area that Missouri is not ready for and will create many more problems than already have in teaching profession
- Don't make more difficult than already is

DESE received nearly 600 additional comments in the component addressing "Recruiting and Retaining Great Teachers and Leaders."

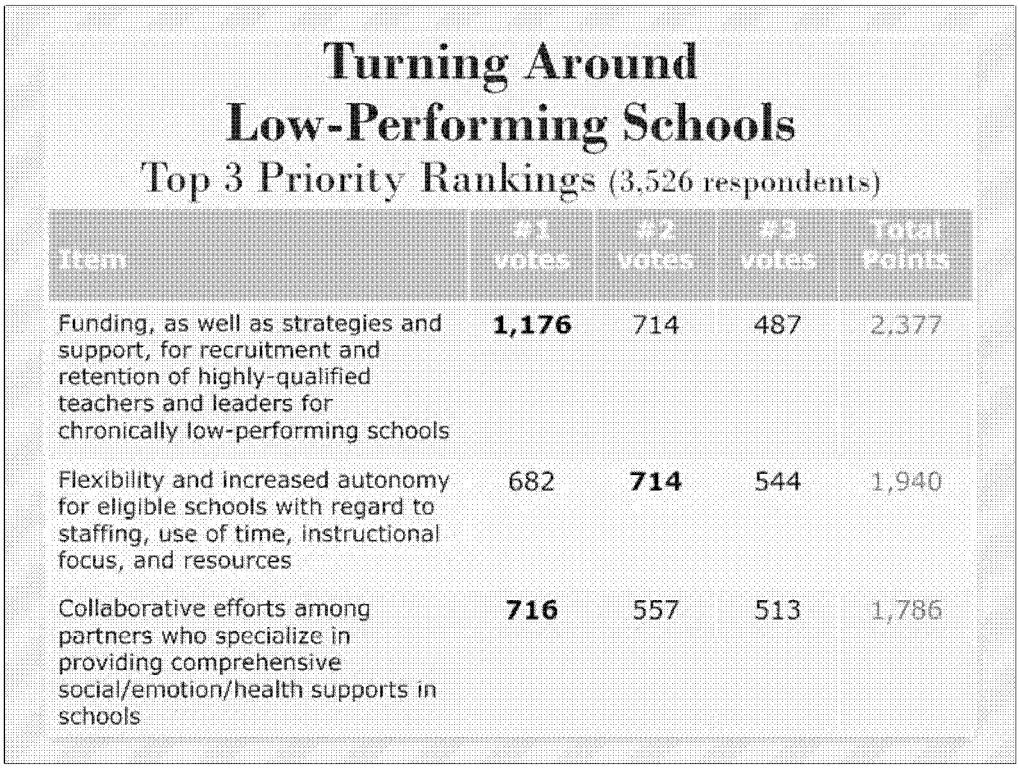
The prevailing concepts may be summarized in these areas:
- Teacher Tenure
- Quality Teachers and Leaders
- Incentives
- Accountability

A significant number of comments were insightful as to concerns about pay-for-performance, teacher tenure and teacher evaluation. Many excellent and innovative ideas were submitted in the nearly 600 comments, and will give the development committee much to consider.



For the last of the four components of the Race to the Top criteria, Turning Around Low-Performing Schools, eight ideas were presented for respondents to indicate their level of agreement (strongly disagree to strongly agree) to achieve the vision for education in Missouri.

Most ideas received an overwhelming or acceptable level of agreement. The most agreeable item is the idea of providing funding, as well as strategies and support, for recruitment and retention of effective teachers and leaders for chronically low-performing schools. The least agreeable item is an idea to revise legislation to allow charter schools expansion.



Turning Around Low-Performing Schools

Top 3 Priority Rankings (3,526 respondents)

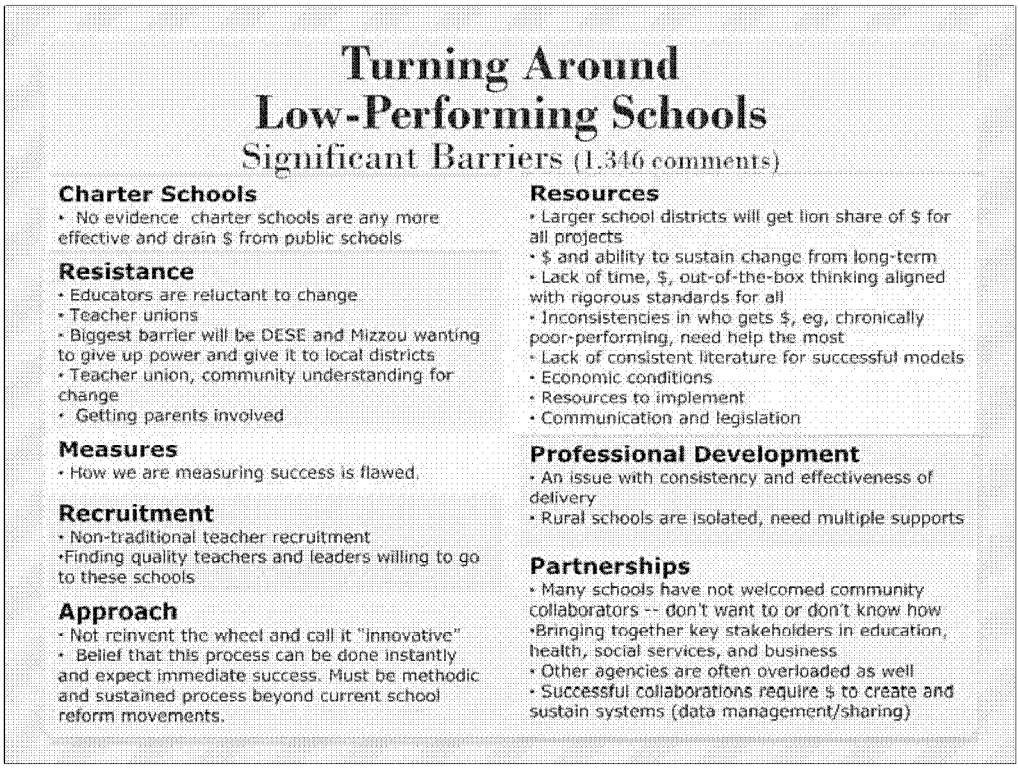
Item	#1 votes	#2 votes	#3 votes	Total Points
Funding, as well as strategies and support, for recruitment and retention of highly-qualified teachers and leaders for chronically low-performing schools	**1,176**	714	487	2,377
Flexibility and increased autonomy for eligible schools with regard to staffing, use of time, instructional focus, and resources	682	**714**	544	1,940
Collaborative efforts among partners who specialize in providing comprehensive social/emotion/health supports in schools	**716**	557	513	1,786

When asked to rank their Top 3 items, these came to the top of the list:

•Funding, as well as strategies and support, for recruitment and retention of highly-qualified teachers and leaders for chronically low-performing schools;
•Flexibility and increased autonomy for eligible schools with regard to staffing, use of time, instructional focus, and resources; and
•Collaborative efforts among partners who specialize in providing comprehensive social/emotion/health supports in schools.

In (distant) fourth place was "Increased access to proven non-traditional recruitment and training models for teachers and leaders, as well as innovative locally-based programs," which received 249 #1 priority votes and an overall point count of 1,211.

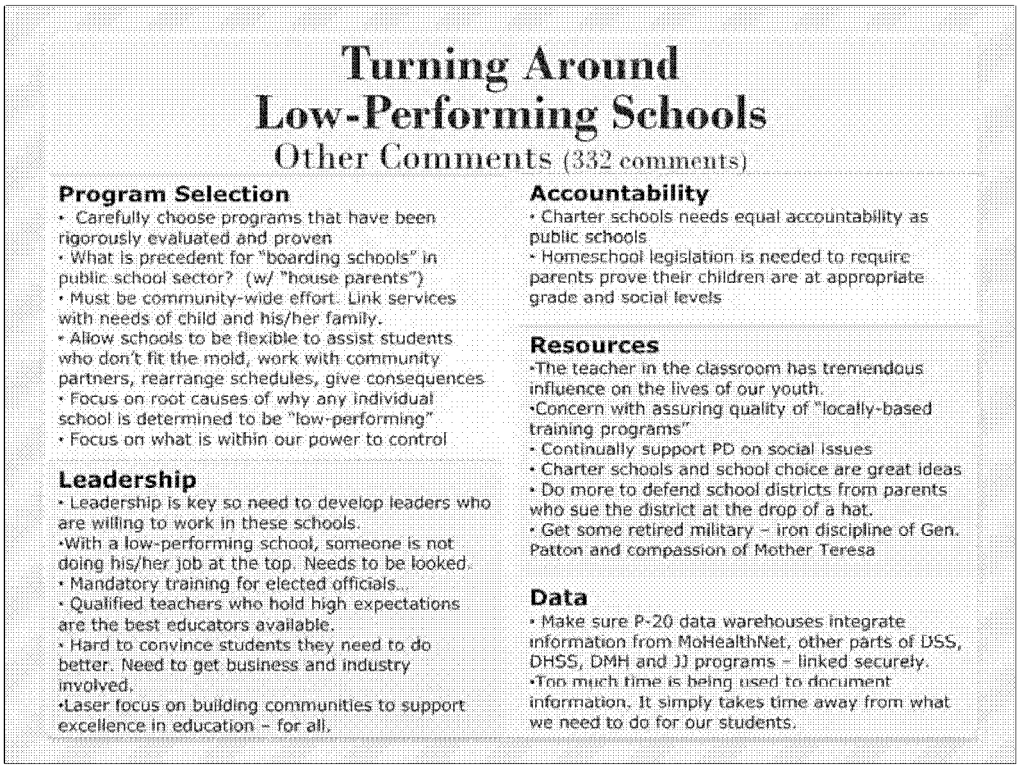
Of the eight ideas on the list, the remaining four scored less than 1,000 points each.



Over 1,300 comments were given to the question of "What do you believe will be the most significant barrier(s) to implementing initiatives within this component."

The prevailing concepts may be summarized in these areas:
•Charter schools
•Resistance to expect
•Measures
•Recruitment
•Approach
•Resources
•Professional Development
•Partnerships
•And more

Here is a small sample of the comments which represent the type of the barriers to expect in this component.



Turning Around Low-Performing Schools

Other Comments (332 comments)

Program Selection

- Carefully choose programs that have been rigorously evaluated and proven
- What is precedent for "boarding schools" in public school sector? (w/ "house parents")
- Must be community-wide effort. Link services with needs of child and his/her family.
- Allow schools to be flexible to assist students who don't fit the mold, work with community partners, rearrange schedules, give consequences
- Focus on root causes of why any individual school is determined to be "low-performing"
- Focus on what is within our power to control

Leadership

- Leadership is key so need to develop leaders who are willing to work in these schools.
- With a low-performing school, someone is not doing his/her job at the top. Needs to be looked.
- Mandatory training for elected officials.
- Qualified teachers who hold high expectations are the best educators available.
- Hard to convince students they need to do better. Need to get business and industry involved.
- Laser focus on building communities to support excellence in education – for all.

Accountability

- Charter schools needs equal accountability as public schools
- Homeschool legislation is needed to require parents prove their children are at appropriate grade and social levels

Resources

- The teacher in the classroom has tremendous influence on the lives of our youth.
- Concern with assuring quality of "locally-based training programs"
- Continually support PD on social issues
- Charter schools and school choice are great ideas
- Do more to defend school districts from parents who sue the district at the drop of a hat.
- Get some retired military – iron discipline of Gen. Patton and compassion of Mother Teresa

Data

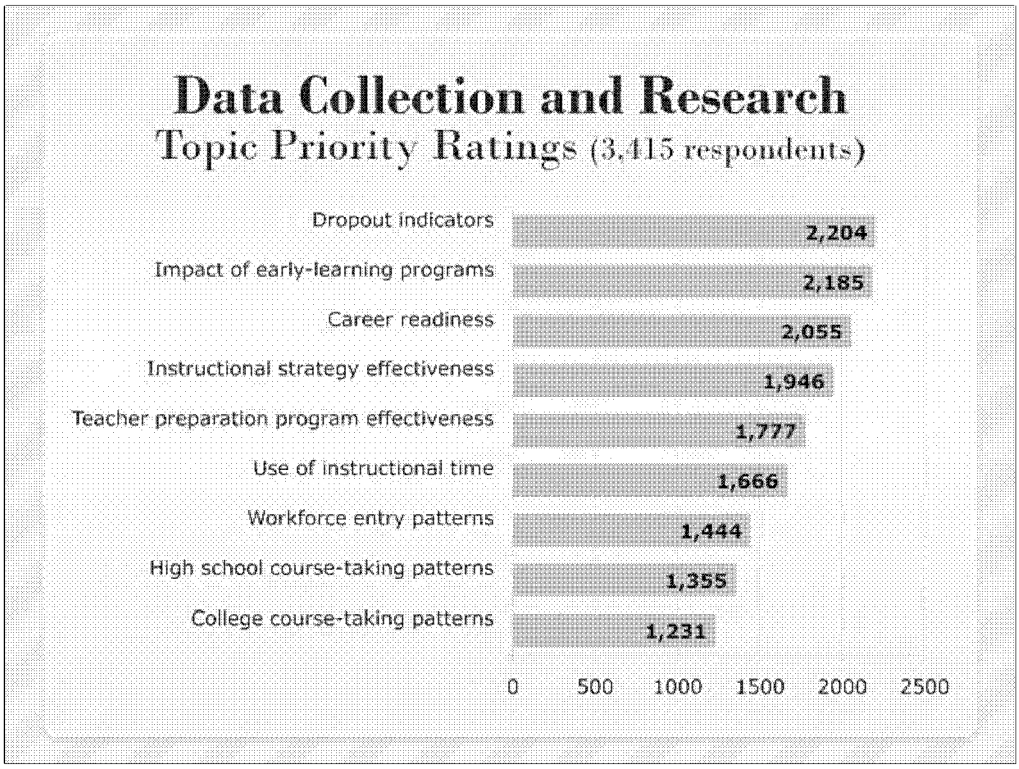
- Make sure P-20 data warehouses integrate information from MoHealthNet, other parts of DSS, DHSS, DMH and JJ programs – linked securely.
- Too much time is being used to document information. It simply takes time away from what we need to do for our students.

DESE received more than 300 additional comments in the component addressing "Turning Around Low-Performing Schools."

In addition to the comments previously reviewed, the prevailing concepts may be summarized in these areas:

- Program Selection
- Leadership
- Accountability
- Resources
- Data
- And more….

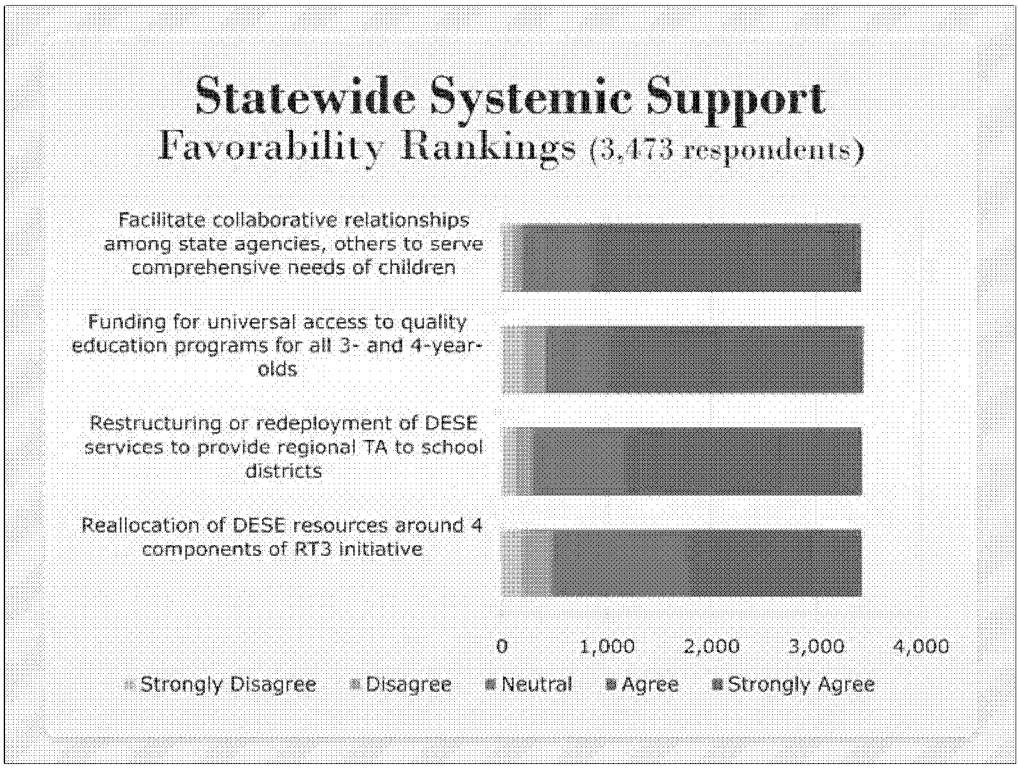
A significant number of comments were insightful as to concerns about causes and effects and possible solutions. Many excellent and innovative ideas were submitted in the comments, and will give the development committee much to consider, as well.



In collaboration with MERIC, the Missouri Economic Research Information Center, we also collected information about research topics.

Longitudinal data systems, such as those that could be funded by the Race to the Top initiative, will make it possible to follow students' progress from entry into the public education system through graduation and entry into postsecondary education or the workforce. Linked data from a comprehensive longitudinal data system will better inform students, parents, teachers, and policymakers about educational issues.

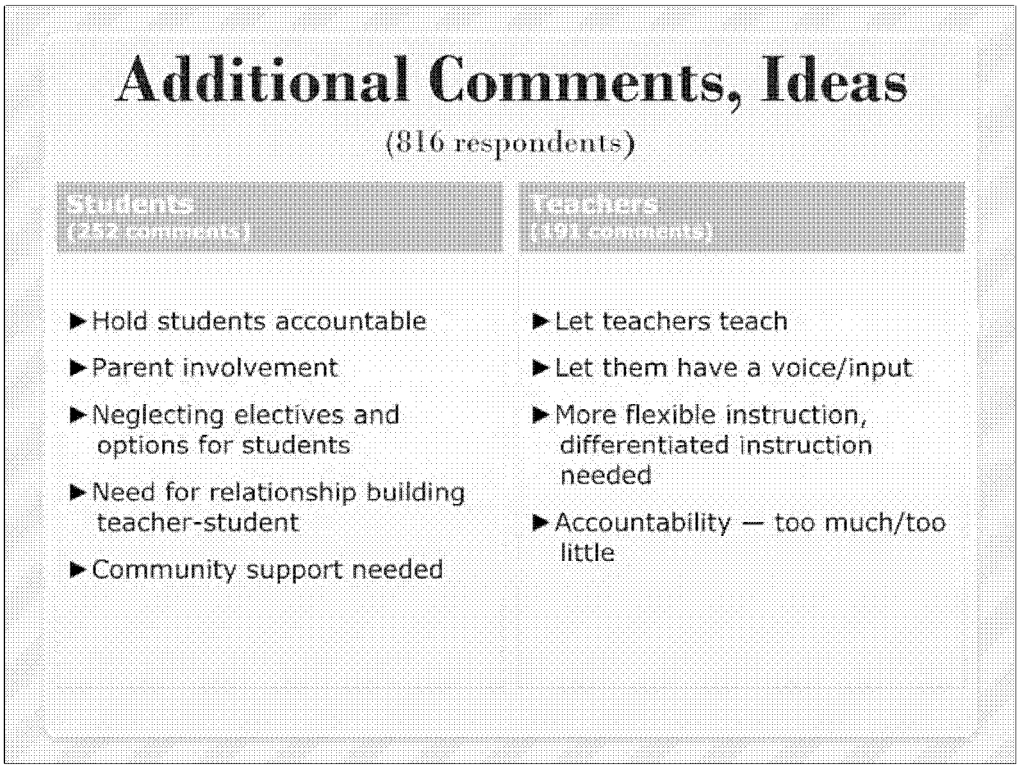
In addition to the topics rated here, an addition 268 comments were received. MERIC staff and the P-20 Council are further analyzing this information, as well as suggestions for the most usable formats for sharing research findings, which may include short research briefs released periodically, ad hoc data queries on a website, quarterly reports, annual reports, and/or downloadable formats.



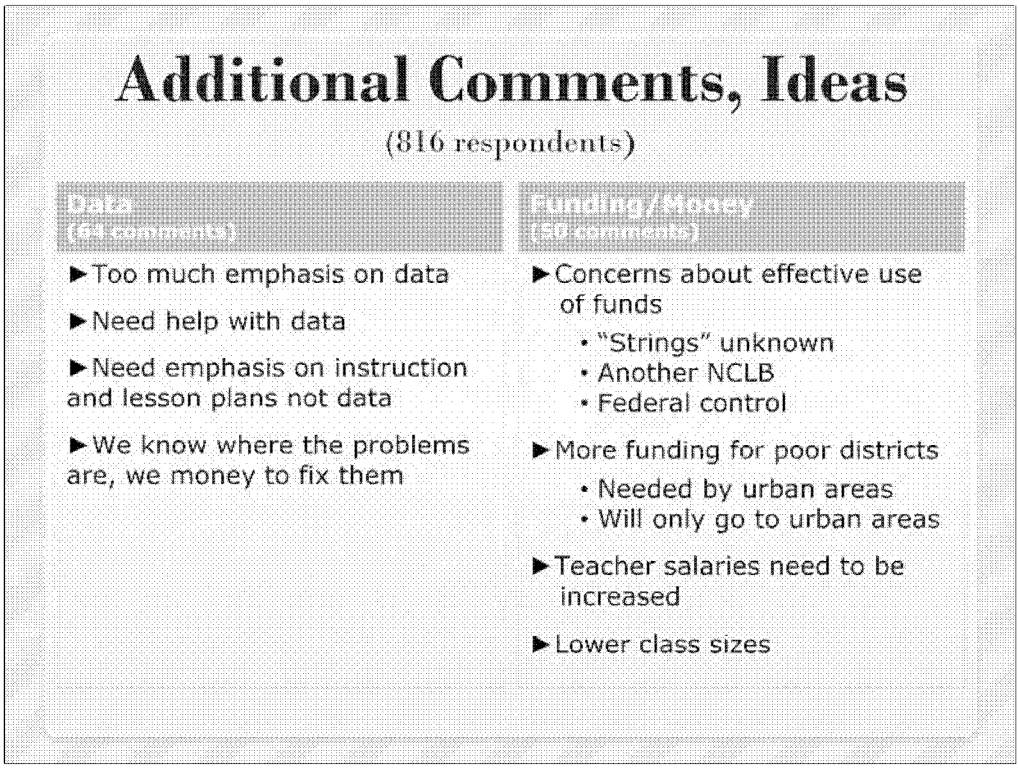
The Department of Elementary and Secondary Education also asked Missouri education stakeholders to rank the following four comments related to providing statewide systemic support to achieve the vision for education in Missouri.

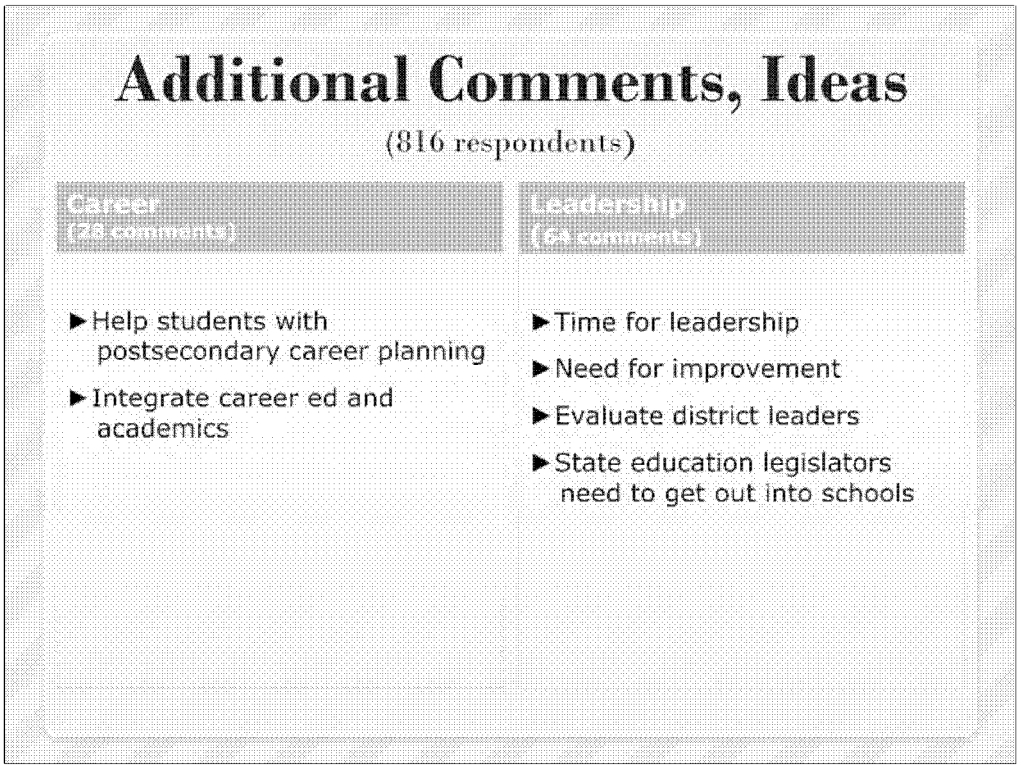
Most ideas received an overwhelming or acceptable level of agreement. The most agreeable item is the idea of facilitating collaborative relationships among state agencies and other agencies outside of state government to serve comprehensive needs of children.

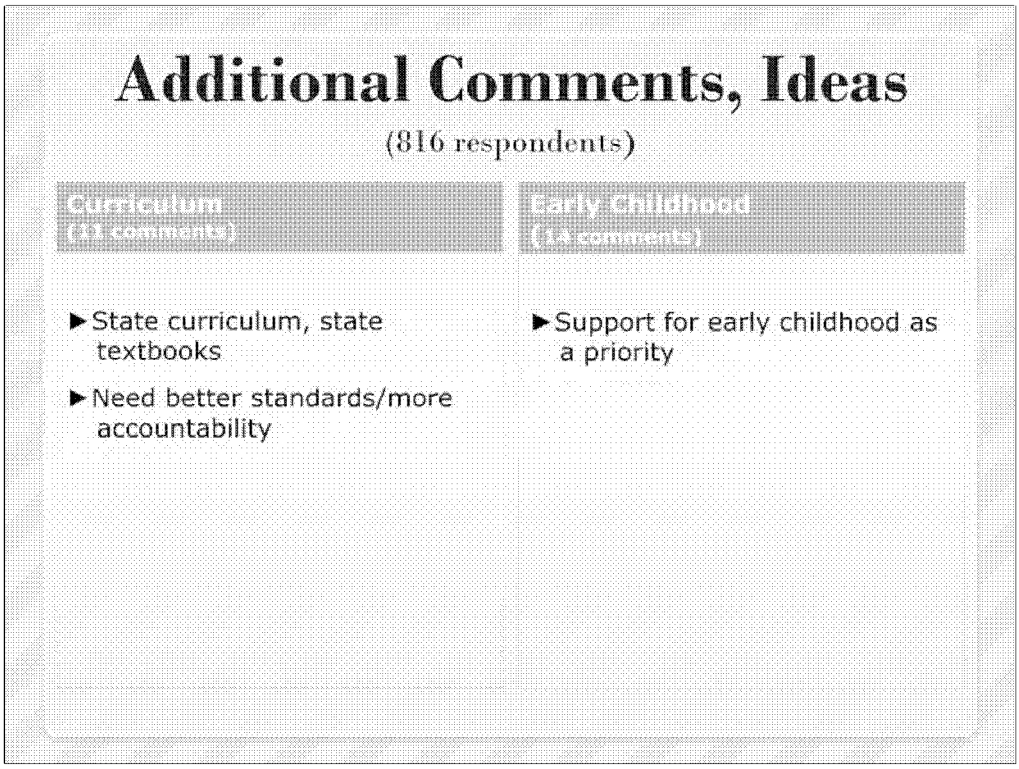
The item with the least amount of stakeholder opinion is whether to reallocate human and financial resources within DESE around the four components of the Race to the Top initiative. The agreeable/neutral tone may suggest stakeholders will leave that one to DESE leadership to decide.

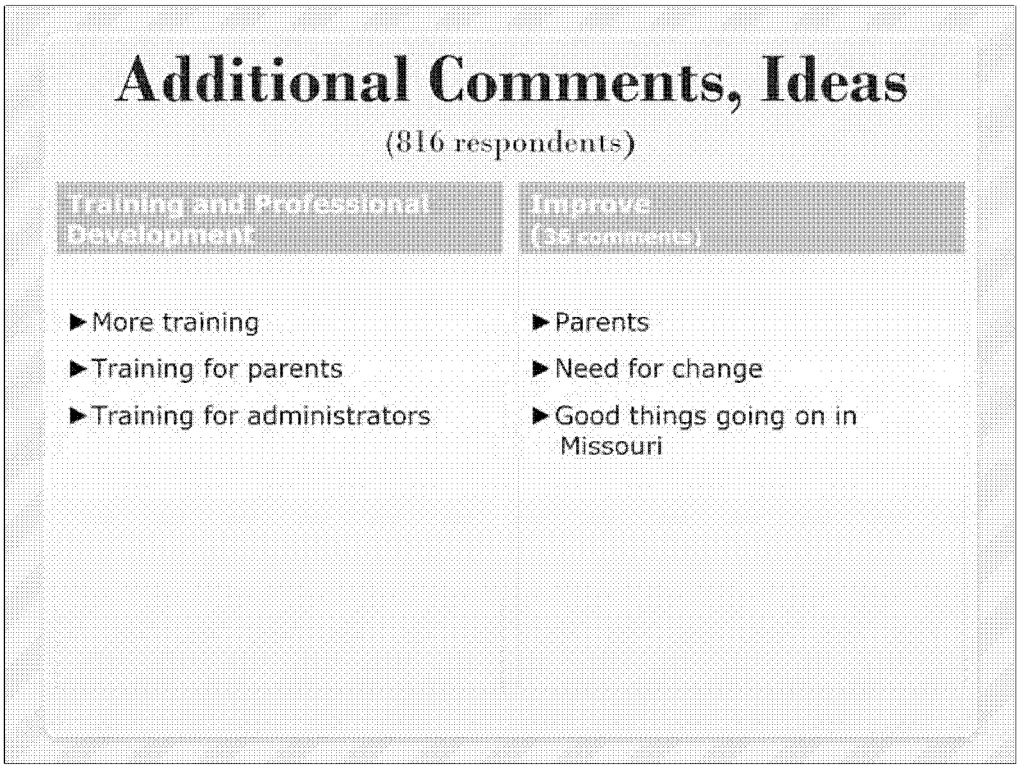


This last segment of information collected from stakeholders is an open opportunity to submit additional comments and ideas for consideration. The following slides summarize these ideas. It is also important to note that not included in this summary are a good number of "Thank yous" for asking and "Good luck" comments submitted by Missouri citizens.


Additional Comments, Ideas
(816 respondents)
Data
(63 comments)
Too much emphasis on data
Need help with data
Need emphasis on instruction and lesson plans not data
We know where the problems are, we money to fix them
Funding/Money
(50 comments)
Concerns about effective use of funds
"Strings" unknown
Another NCLB
Federal control
More funding for poor districts
Needed by urban areas
Will only go to urban areas
Teacher salaries need to be increased
Lower class sizes


Additional Comments, Ideas
(816 respondents)
Career
(28 comments)
Leadership
(24 comments)
Help students with postsecondary career planning
Integrate career ed and academics
Time for leadership
Need for improvement
Evaluate district leaders
State education legislators need to get out into schools


Additional Comments, Ideas
(816 respondents)
Curriculum
(37 comments)
Early Childhood
(13 comments)
State curriculum, state textbooks
Need better standards/more accountability
Support for early childhood as a priority


Additional Comments, Ideas
(816 respondents)
Training and Professional Development
More training
Training for parents
Training for administrators
Improve
(35 comments)
Parents
Need for change
Good things going on in Missouri

Additional Comments, Ideas
(816 respondents)
Vision and Structure
(33 comments)
Incentives
(3 comments)
Need innovation, need change
Need a strong plan
Need local accountability
Need fresh ideas, nothing innovative presented
System should address individual needs
Just another bureaucratic program
Need incentives for teachers
Incentives and consequences for parents

Office of the President

December 31, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Avila University, a private Catholic University sponsored by the Sisters of St. Joseph of Carondelet enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. The members of our learning community will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Ronald A. Slepitza

Ronald A. Slepitza, Ph.D., CSJA
President

AVILA UNIVERSITY *Sponsored by the Sisters of St. Joseph of Carondelet*
11901 WORNALL ROAD • KANSAS CITY, MO 64145 • 816-501-3750 • FAX 816-501-2451 • WWW.AVILA.EDU

Office of the President

January 8, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Columbia College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Gerald T. Brouder

Gerald T. Brouder
President

1001 Rogers Street
Columbia, MO 65216
Telephone (573) 875-7200
Fax (573) 449-7769
gbrouder@ccis.edu

CROWDER COLLEGE

OFFICE OF THE PRESIDENT
(417) 455-5534 / FAX: (417) 455-5747
amarble@crowder.edu

Dept. of Elementary & Secondary Education
JAN 6 2010
Office of the Commissioner of Education

January 4, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Crowder College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Alan D. Marble

Alan D. Marble, Ph.D.
President

CULVER-STOCKTON

One College Hill

Ion, MO 65435-1299 U.S.A.

573-288-6000

Fax 573-288-6611

www.culver.edu

January 5, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As an important leader in higher education in Missouri, Culver-Stockton College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Culver-Stockton is committed to the belief that student success is dependent upon cooperation between the school, the home and the community. We believe learning that begins at home impacts future endeavors in the community and spreads to our state and to our nation. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Richard D. Valentine
President

Office of the President
Phone: (573)288-6323 ~ Fax (573)288-6614 ~ rvalentine@culver.edu

JAN-06-2010 WED 04:42 PM C-SC PRESIDENT OFFICE FAX No. 573 288 6614 P.002

EAST CENTRAL COLLEGE

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition for early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, East Central College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. East Central College will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Edward D. Jackson
President

1964 Prairie Dell Road • Union, MO 63084
636-583-5193 • 636-583-6602 fax

EVANGEL
UNIVERSITY
A CHRISTIAN LEARNING-CENTERED UNIVERSITY

Dept. of Elementary
& Secondary Education
JAN 11 2010
Office of the
Commissioner of Education

January 6, 2009

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [name of college/university] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Robert H. Spence
President

Colleen Hardy, Ed.D
Education Department Chair

Fontbonne University
Learn more. Be more.
Department of Education/Special Education

6800 Wydown Boulevard
St. Louis, Missouri 63105-3098
(314) 889-1430
(314) 719-8002 fax
www.fontbonne.edu

January 8, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Fontbonne University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

William W. Freeman
Dean of Education

HARRIS-STOWE STATE UNIVERSITY

OFFICE OF THE PRESIDENT

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Harris-Stowe State University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Henry Givens, Jr.
President

HG:ls

3026 LACLEDE AVENUE • ST. LOUIS, MISSOURI 63103 • (314) 340-3380 • FAX: (314) 340-3399

Jefferson College

1000 Viking Drive, Hillsboro, Missouri 63050 • (636) 797-3000/942-3000, ext. 100
Fax: (636) 789-4012 • E-mail: rcummisk@jeffco.edu

Dr. Raymond V. Cummiskey
President

January 8, 2010

To Whom It May Concern:

Please accept this letter of support for the Missouri Department of Education's (MDE) participation in the Race to the Top (RT3) competition. Missouri's RT3 proposal will present a statewide vision by building on strengths, extending existing reform work, and developing a comprehensive plan for improving our educational system that will directly impact Missouri students over the next decade.

The state educational system in Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the MDE has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

As President of Jefferson College, a comprehensive two year college in Missouri, I support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. The college will work with the MDE and our other partners to produce a workforce prepared to compete in a global economy.

Your consideration on behalf of Missouri's students will be appreciated.

Sincerely,

Raymond V. Cummiskey, Ph.D.
President

LINCOLN UNIVERSITY
Office of the President

820 Chestnut St.
Jefferson City, MO 65102-0029

Phone: (573) 681-5042
FAX: (573) 681-6074

January 6, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Dear Commissioner Nicastro:

Lincoln University recognizes the unique opportunities that the United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition presents Missouri. It is an opportunity to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. It holds the promise of significantly contributing to the systematic educational reform efforts that that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit students from Missouri to be successful competitors in the global economy and will ultimately benefit our citizenry, and the citizens of the nation as a whole.

Missouri has shown a commitment to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

Lincoln University supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Carolyn R. Mahoney

Carolyn R. Mahoney, Ph.D.
President, Lincoln University

LINDENWOOD

LINDENWOOD UNIVERSITY ST. CHARLES, MISSOURI

Office of the President

Post-it® Fax Note 7671	Date 1/7/10	# of pages ▶ 1
To Robin Coffman	From Pres. Evans	
Co./Dept. Commissioner's ofc of Edu	Co. Lindenwood	
Phone #	Phone # 636 949 4900	
Fax # 573-751-1179	Fax # 636 949 4992	

January 7, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Lindenwood University, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Cynthia Bice, EdD
Dean, School of Education
Lindenwood University

James D Evans, PhD
President
Lindenwood University

LINN STATE
TECHNICAL COLLEGE

One Technology Drive
Linn, Missouri 65051

Phone 573-897-5000
Fax 573-897-4656
www.linnstate.edu

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students and in turn the State of Missouri.

The RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Linn State Technical College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration will be appreciated.

Sincerely,

Donald M. Claycomb, Ph.D.
President

cc: Chris L. Nicastro, Ph.D.
Robert Stein, Ph.D.

MARYVILLE UNIVERSITY
ST. LOUIS

January 5, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition presents an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will build on Maryville University's partnership renewal efforts and help bring systematic educational renewal that will directly impact Missouri students and teachers. Maryville University is committed to working with the state and local districts to promote the successful transition from early childhood through post-secondary education and into the workforce in ways that will permit equitable competition in the global economy and develop democratic citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." Maryville University has actively participated in these processes.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a long term partner with school districts in Missouri, Maryville University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state and local partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Mary Ellen Finch

Mary Ellen Finch, Ph.D.
Vice President Academic Affairs

Metropolitan Community College

Jacqueline I. Snyder
Chancellor

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Metropolitan Community College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jacqueline I. Snyder, Ed.D.
Chancellor

Mineral Area College

Serving Communities Since 1922

January 4, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies.

To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Mineral Area College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system.

Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Steven J. Kurtz
President

MISSOURI SOUTHERN STATE UNIVERSITY

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Bruce W. Speck

Bruce W. Speck, Ph.D

President's Office • 3950 E. Newman Road • Joplin, Missouri 64801-1595 • 417.625.9501 FAX: 417.625.9781

MISSOURI SOUTHERN STATE UNIVERSITY

January 5, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

Missouri Southern State University enthusiastically supports the development of the Race to the Top (RT3) application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Glenn Coltharp
Dean, School of Education

Dean, School of Education • 3950 E. Newman Road • Taylor Hall 220 • Joplin, Missouri 64801-1595 • Phone: 417.625.9314 • FAX: 417 625 9771

Missouri State
UNIVERSITY

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Best regards,

Michael T. Nietzel
President

blh

OFFICE OF THE PRESIDENT
901 South National Avenue • Springfield, Missouri 65897 • 417-836-8500 • Fax 417-836-7669
President@missouristate.edu • www.missouristate.edu
An Equal Opportunity/Affirmative Action Institution

Missouri State
UNIVERSITY

COLLEGE OF EDUCATION
Office of the Dean, Hill Hall 304
Phone 417-836-5254
Fax 417-836-4884

January 7, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving Missouri's educational system.

Such efforts will bring systematic educational reform and directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all stakeholders. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Missouri State University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dennis J. Kear

Dennis J. Kear, Dean and
Professional Education Unit Head

Missouri Western State University
4525 Downs Drive, St. Joseph MO 64507
www.missouriwestern.edu

The Western Advantage

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Missouri Western State University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Robert A. Vartabedian

Robert A. Vartabedian
President

Moberly Area Community College
101 College Avenue
Moberly, MO 65270-1304

Phone (660) 263-4110
Fax (660) 263-6252
Website www.macc.edu

Evelyn E. Jorgenson, Ph.D., ***President***

January 8, 2010

To Whom It May Concern:

The Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies.

As a major Missouri stakeholder, Moberly Area Community College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other state partners to produce the highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children would be appreciated.

Sincerely,

Evelyn E. Jorgenson

NorthCentral
MISSOURI COLLEGE

1301 Main Street
Trenton, MO 64683
800-880-6180
660-359-3948

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, North Central Missouri College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly education workforce needed to launch Missouri and our nation into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Neil Nuttall, Ed.D.
President

postmark
Jan 11, 2010

NORTHWEST
MISSOURI STATE UNIVERSITY

Office of the President

143 Administration Building
660.562.1110 office
660.562.1897 fax
johnj@nwmissouri.edu

January 4, 2010

Dept. of Elementary & Secondary Education
JAN 13 2010
Office of the Commissioner of Education

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, MO 65102-0480

Commissioner Nicastro:

The invitation from the United States Department of Education that encourages states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Northwest Missouri State University has long been a strong advocate in this state for P-20 collaboration and articulation. RT3 initiative will provide support for systemic educational reform that will directly impact Missouri students. As a result, students should successfully transition through elementary, secondary, and post-secondary education into the workforce, enabling Missouri and its citizens to compete in the global economy.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. The Missouri Department of Education has convened a successful "stakeholder forum" to discuss the RT3 grant proposal, which involved the state's 556 schools and launched an online "Stakeholder Survey."

Based on Northwest's participation in the Stakeholder Forum, we recognize that this effort is more than just a request for federal funding. The RT3 proposal commits us to putting forward a statewide vision and a bold, innovative plan for systemic education reform in Missouri over the next decade – reform that can fundamentally change the dynamics for our state.

As a major Missouri stakeholder, Northwest Missouri State University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff have a history of working closely with the Missouri Department of Elementary & Secondary Education, and we pledge to re-double these efforts as we continue working with our many state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children is appreciated.

Sincerely,

John Jasinski

John Jasinski, Ph.D.
President

800 University Drive
Maryville, MO 64468-6001
www.nwmissouri.edu

OZARKS TECHNICAL COMMUNITY COLLEGE

Office of the President

January 5, 2010

To Whom It May Concern:

As one of the twelve community college districts in Missouri, Ozarks Technical Community College (OTC) is excited about participating in the Race to the Top (RT3) project proposed by the Missouri Department of Elementary and Secondary Education. OTC looks forward to working closely with the public school districts in the State to create a seamless transition into post-secondary education for high school graduates. As a result, successful transition from early childhood programs through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire State.

As a community college, we are committed to providing accessible, high quality, affordable education for all students. Therefore, OTC will commit to working closely with the Department of Education to define ways to better serve all students and design a process that will reflect best practices resulting in systemic educational reform for the P-20 system. We look forward to partnering with school districts in our region to provide professional development opportunities for K-12 classroom teachers to work closely with college instructors; to offer quality dual credit programs for all students; and to create unique alternative paths to high school graduation such as our current Middle College program at OTC. All initiatives would have one primary goal--to prepare students to succeed in college and enter the workplace with the skills to compete in a global economy.

Ozarks Technical Community College looks forward to working with the Department of Education and participating in the Race to the Top project to create a statewide vision and a bold, innovative plan for educational reform in Missouri over the coming decade.

Sincerely,

Hal L. Higdon, Ph.D.
President

1001 East Chestnut Expressway • Springfield, Missouri 65802 • (417) 447-2602

PARK UNIVERSITY℠

OFFICE OF THE PRESIDENT

Dept. of Elementary & Secondary Education
JAN 6 2010
Office of the Commissioner of Education

January 4, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Park University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Sincerely,

Michael H. Droge, Ph.D.
President

8700 N.W. River Park Drive • Parkville, MO 64152
(816) 584-6201 • Fax: (816) 741-5812 • www.park.edu

RANKEN

TECHNICAL COLLEGE

Technical Training + General Education + Work Ethic = Technical Competence + Critical Thinking + Success

December 23, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, Ranken Technical College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Ranken Technical College's administration will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Stan Shoun
President
Ranken Technical College

4431 FINNEY AVENUE
ST.LOUIS, MISSOURI 63113

T 314.371.0236
F 314.371.0241
W WWW.RANKEN.EDU

ROCKHURST
A Jesuit University

January 12, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

Missouri has an outstanding opportunity to participate in the United States Department of Education's Race to the Top (RT3) competition. This offers a chance to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Missouri's students will benefit from a program of systematic educational reform. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

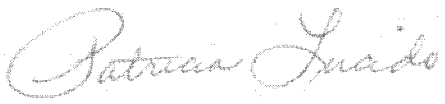
Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. It was exciting to attend the Missouri Department of Education's "stakeholders forum" to discuss the RT3 grant proposal. The RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Rockhurst University's Department of Education enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Patricia Lucido, Ph.D.
Professor and Department Chair
Sincerely,



Patricia Lucido, Ph.D.

Professor and Department Chair

Department of Education
1100 Rockhurst Road | Kansas City, Mo 64110-2561 | Phone 816-501-4140 | Fax 816-501-4169
www.rockhurst.edu

Southeast
Missouri State University

ONE UNIVERSITY PLAZA • CAPE GIRARDEAU, MISSOURI 63701-4799 • (573) 651-2000 • http://www.semo.edu

January 4, 2010

To Whom It May Concern,

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Southeast Missouri State University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Kenneth W. Dobbins
President

KWD:lh

OFFICE OF THE PRESIDENT
(573) 651-2222 • MAIL STOP 3300 • FAX (573) 651-5061

Southeast
Missouri State University

ONE UNIVERSITY PLAZA • CAPE GIRARDEAU, MISSOURI 63701-4799 • (573) 651-2000 • http://www.semo.edu

January 6, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

Southeast Missouri State University looks forward to the opportunity to participate in Missouri's Race to the Top (RT3) initiative for Missouri. We believe that the United States Department of Education's invitation for states to participate in the RT3 competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

Such efforts will continue the systematic educational reform efforts that directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will strategically place Missouri for equitable competition in the global economy and benefit our citizenry.

Missouri leadership demonstrated their commitment to an open and transparent process designed to seek and reflect the best thinking of all constituencies. I was very pleased that I and my staff were invited to participate in "stakeholders forum." Over 300 stakeholders including parents, citizens and students were actively engaged. Moreover, over 5000 Missouri citizens also submitted their input via electronic surveys. More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As Dean of the College of Education at Southeast Missouri State University and a major Missouri stakeholder, I enthusiastically support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our university is committed to excellence and accountability. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration and initiatives on behalf of Missouri's children are greatly appreciated.

Sincerely,

Margaret A. Noe

Margaret A. Noe, J.D., Ph.D., Dean
College of Education

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri's educational system to build on and extend existing reform work, and develop a comprehensive plan for improving our expansive educational system. Efforts geared toward educational reform will directly impact present as well as, future Missouri students. As a result, Missouri students will hold the resources necessary to successfully transition from early childhood education through the completion of post-secondary education.

As a post-secondary institution, Southwest Baptist University has set the standards for educational excellence. We are unashamedly academically rigorous as we prepare students to successfully lead within every aspect of our global society. We are dedicated to providing students with an education that prepares them for job attainment within the state of Missouri, our nation and our globe.

Due to the demanding academics offered at Southwest Baptist University, we are quite supportive of all efforts to restructure courses for students' early childhood through high school education, to better prepare them for completion of their post-secondary education. Southwest Baptist University also supports efforts to reform schools that continually fail to meet educational standards, based upon benchmark assessments.

The RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. The RT3 proposal allows universities, such as Southwest Baptist University to look toward the future with hopeful anticipation for students well prepared to successfully complete post-secondary education.

As a major Missouri stakeholder, Southwest Baptist University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system.

Your consideration on behalf of Missouri's students is greatly appreciated.

Sincerely,

C. Pat Taylor
President

CPT:sk

State Fair
Community College

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, State Fair Community College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our Board of Trustees, faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

With warmest regards,

Marsha K. Drennon

Marsha K. Drennon, Ed.D.
President

St. Charles
COMMUNITY COLLEGE

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, St. Charles Community College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our College will work with the Missouri Department of Education and our other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully yours,

John M. McGuire, Ph.D.
President

St. Louis Community College

OFFICE OF THE CHANCELLOR

Zelema Harris, Ed.D. • Joseph P. Cosand Community College Center • 300 South Broadway • St. Louis, MO 63102-2800
Phone: 314-539-5150 • Fax: 314-539-5499 • www.stlcc.edu • zharris@stlcc.edu

Board of Trustees
Joann L. Ordinachev, Ph.D., Chair
E. Libby Fitzgerald, Vice Chair
Denise R. Chachere
Melissa Hattman
Margo G. McNeil
Robert C. Nelson

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "stakeholder survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, St. Louis Community College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri and our nation into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Zelema Harris
Chancellor

3750 Lindell Blvd.
St. Louis, MO 63108
Phone: 314-977-2479
Fax: 314-977-3290
www.slu.edu

SAINT LOUIS
UNIVERSITY

College of Education and Public Service
Office of the Dean

01/04/2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the College of Education and Public Service at Saint Louis Univeristy enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

John Watzke

John Watzke, Ph.D.
Dean

STEPHENS
COLLEGE

OFFICE OF THE PRESIDENT

Educating women since 1833

January 5, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Stephens College enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Dianne Lynch

Dr. Dianne Lynch
President

1200 E. Broadway ■ Columbia, Missouri 65215 ■ (573) 876-7210 ■ (573) 876-7165 Fax
president@stephens.edu ■ www.stephens.edu

Three Rivers Community College

Dr. Devin Stephenson
President
Suite 215, Westover Administration Building
2080 Three Rivers Blvd. • Poplar Bluff, MO 63901
Phone: 573.840.9698 • *Fax:* 573.840.9169 • *e-mail:* dstephenson@trcc.edu

January 10, 2010

Dear Sir or Madam:

Three Rivers Community College is proud to support the Missouri Department of Education's effort to compete in the Race to the Top (RT3) federal funding.

The RT3 competition is an excellent opportunity for Missouri to build on its strengths, extend the existing reform work, and develop a comprehensive plan for improving our educational system. The effort will bring systemic educational reform that will directly impact Missouri students. The result will be a successful transition from early childhood through post-secondary education and into the workforce, permitting equitable competition in the global economy, benefitting our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. The Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participatory role, and launched and online "Stakeholder Survey". The RT3 proposal will present a statewide vision and a bold, innovative plan for systemic education reform in Missouri over the next decade.

As a stakeholder in this effort, **Three Rivers Community College** supports the development of the RT3 proposal and the subsequent implementation of a comprehensive and seamless education system. Three Rivers Community College will work with the Missouri Department of Education and our other numerous partners to produce the workforce needed to ensure a prosperous future for Missouri and the United States.

Your consideration on behalf of Missouri's citizens and children will be greatly appreciated.

Sincerely:

Devin Stephenson
President

Darrell W. Krueger
President
660.785.4100
660.785.4030 FAX

TRUMAN
STATE UNIVERSITY

Office of the President
McClain Hall 200
100 East Normal
Kirksville, MO 63501-4221

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is a fabulous opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring universal educational reform that will directly impact Missouri students, ensuring their successful transition from early childhood through post-secondary education and into the workforce.

Missouri is committed to an open process designed to identify and represent the best ideas of all constituencies. To date, the Missouri Department of Education has assembled a successful "stakeholders forum" to discuss the RT3 grant proposal, invited the state's 556 schools to define their involvement, and launched an online "Stakeholder Survey." The RT3 proposal will unite us under a statewide vision as well as offer a progressive, innovative plan for systemic educational reform in Missouri over the next decade.

Truman State University fully supports the development of the RT3 application and the implementation of a comprehensive and seamless education system that will follow. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the highly skilled and educated workforce needed to launch Missouri, and this great nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Darrell W. Krueger
President

UNIVERSITY OF CENTRAL MISSOURI

Office of the President
Administration 202
Warrensburg, MO 64093
Office 660-543-4112
FAX 660-543-8020

January 4, 2010

RE: U.S. Department of Education Race to the Top Grant Program

To Whom It May Concern:

The University of Central Missouri (UCM) is proud to support the Missouri Department of Elementary and Secondary Education's Race to the Top grant application and subsequent implementation of a comprehensive and seamless education system. UCM is a major comprehensive university, and we are excited to share in the dream of a broadly served and highly educated citizenry that embraces the opportunities and challenges of our global society. The Race to the Top program will facilitate making that dream a reality for Missouri's citizens.

The U.S. Department of Education's invitation to participate in the Race to the Top grant competition is a tremendous opportunity for Missouri to build on its strengths and develop a comprehensive plan for improving our education system. Such systematic education reform will encourage and enable Missouri's students to successfully transition from early childhood through postsecondary education and into the workforce. A Race to the Top grant award will help ensure Missouri's education partners have the necessary resources to visualize, develop and implement a strategy for success.

The University of Central Missouri enthusiastically supports the Missouri Department of Elementary and Secondary Education's development of a Race to the Top application and the ensuing realization of a comprehensive and seamless education system. I encourage you to give the application thorough and positive review.

Sincerely,

Aaron M. Podolefsky

Aaron M. Podolefsky, Ph.D.
President

January 4, 2010

To Whom It May Concern:

Missouri's educational system is at a critical juncture and needs strengthening if it is to produce students who are well qualified to take on tomorrow's challenges. Only a fraction of our students graduate from high school and go on to attain a college education, resulting in a workforce that is increasingly unable to keep pace with the demand for jobs in a rapidly changing technological economy. Strong intervention is required to break this cycle. The Race to the Top (RT3) grant program sponsored by the U.S. Department of Education provides a welcome framework to address these challenges.

The University of Missouri System recently conducted a study of P-20 programs and initiatives administered by our four campuses to determine what is effective and what is not. The study concluded that a holistic approach to educational preparation in such areas as math, science, information technology and critical thinking must begin with the development of a seamless educational system that supports and encourages students to set and achieve aspirational goals.

The University of Missouri has focused its efforts to produce better educational outcomes. Our campuses have adopted accountability measures to gauge progress in achieving meaningful goals, developed programs that directly address society's future work force needs, and encouraged students to enroll early in STEM-related fields of study. We also have engaged in a dialog with the two-year community college sector to promote seamless transition for students from two-to-four-year degree programs.

As a major beneficiary of a strong and adaptive education system, the University of Missouri System and its four campuses strongly support the development and implementation of the RT3 grant proposal for Missouri. We will work with the Missouri Department of Education and

other stakeholders to achieve the program's long-term goal of a healthy and highly educated workforce.

Sincerely,

Gary D. Forsee
President

John F. Carney III, Chancellor
Missouri University of Science and technology

Brady J. Deaton, Chancellor
University of Missouri-Columbia

Thomas F. George, Chancellor
University of Missouri-St. Louis

Leo E. Morton, Chancellor
University of Missouri-Kansas City

UNIVERSITY *of* MISSOURI

OFFICE OF THE CHANCELLOR

January 4, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit successful competition in the global economy.

We appreciate your committment to an open process designed to seek and reflect the best thinking of all stakeholders and believe that your "stakeholders forum" was an outstanding and successful first step.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the University of Missouri enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your work on behalf of Missouri's children is greatly appreciated.

Sincerely,

Brady J. Deaton
Chancellor

BJD/vp

105 Jesse Hall Columbia, MO 65211 Phone: 573-882-3387 Fax: 573-882-9907 Web: chancellor.missouri.edu

Association of American Universities Member Since 1908

College of Education
University of Missouri–Columbia

Department of Special Education
303 Townsend Hall
Columbia, MO 65211-2400
PHONE 573-882-3741
FAX 573-884-0520
WEB sped.missouri.edu

December 15, 2009

Dept. of Elementary
& Secondary Education
DEC 21 2009
Office of the
Commissioner of Education

Chris Nicastro, Ph.D.
Commissioner of Education
Department of Elementary and Secondary Education
205 Jefferson Street
PO Box 480
Jefferson City, MO 65102

Dear Dr. Nicastro,

The purpose of this unsolicited letter is to provide my strong support for Missouri's "Race to the Top" grant application. As an educator who works with hundreds of schools across our state, the application and the opportunities it will afford are both timely and of critical importance. The application is timely in that Missouri is strategically poised to implement a large-scale school improvement initiative. Through our work focusing on both social and academic behavioral improvement through a continuum of supports, the *Missouri School-wide Positive Behavior Support* (SW-PBS) initiative has become a model across the United States. By simultaneously focusing on parallel processes at the school and district level, SW-PBS has demonstrated significant improvements in social behavior and academic achievement. Equally important, the SW-PBS work here in Missouri and across the nation has demonstrated that teams of educators can build local capacity to implement and sustain meaningful evidence-based school reform process.

As you are well aware, the application is also of critical importance to the students and educators within our state. Complex social challenges continue to place students at-risk for social and academic failure, while post-secondary achievement expectations in 21st century employment continue to increase. These two converging pressures will necessitate the re-thinking of how we deliver education within our public schools. This is especially acute for Missouri given our two large urban centers and multiple small rural districts, which pose additional challenges and limitations. Given the Department of Elementary and Secondary Education's (DESE) recent national partnerships with the *OSEP Center for Positive Behavioral Interventions and Supports*, the *National Center on Response to Intervention*, and the *State Implementation and Scaling Up of Evidence-based Practices Center* to name just a few, I am especially optimistic that DESE has laid a solid foundation to build and maintain systemic and meaningful educational reform.

If we at the *University of Missouri Center for School-wide Positive Behavior Support* or the *OSEP Center on Positive Behavioral Interventions and Supports* can provide any additional assistance with DESE's application, or implementation if funded, please do not hesitate to contact us.

Sincerely,

Tim Lewis, Ph.D.
Professor
Director, MU Center for School-wide PBS
Co-Director, OSEP Center on PBIS

OFFICE OF THE DEAN
College of Education
University of Missouri-St. Louis
One University Boulevard
St. Louis, MO 63121-4499 USA

January 3, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Dear Chris:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into The workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the University of Missouri-St. Louis enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Charles D. Schmitz, Ph.D.
Dean and Professor

University of Phoenix™

College of Education
4615 East Elwood Street
Mail Stop AA-C205
Phoenix, Arizona 85040
480 557-1264
Fax 480 557-1588

January 5, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry. More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a Missouri stakeholder, the University of Phoenix supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education to produce the highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Sincerely,

Meredith Curley

Dr. Meredith Curley, Dean
College of Education
University of Phoenix

Washington University in St. Louis

ARTS & SCIENCES

William F. Tate, IV
Edward Mallinckrodt Distinguished University Professor in Arts & Sciences

January 6, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The Department of Education at Washington University in St. Louis enthusiastically supports the development of the Race to the Top (RT3) application and subsequent implementation of a comprehensive and seamless education system. The four primary focus areas of standards and assessments, data systems, developing great teachers and leaders, and turning around low achieving schools are the means to continuous improvement in the schools that are educating Missouri's students.

Our faculty and staff will work with the Missouri Department of Education and other state partners to produce the highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

The United States Department of Education's invitation for states to participate in the RT3 competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

Sincerely,

William F. Tate
Chair and Edward Mallinckrodt Distinguished University Professor in Arts & Sciences

Washington University in St. Louis, Campus Box 1183, One Brookings Drive, St. Louis, Missouri 63130-4899
(314) 935-6730, *Fax:* (314) 935-4982, wtate@wustl.edu, www.wustl.edu

Webster UNIVERSITY

School of Education

January 6, 2010

Commissioner Chris Nicastro
Missouri Department of Education
Post Office Box 480
Jefferson City, Missouri 65102-0480

Commissioner Nicastro:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systematic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." Webster's representative at that meeting reported his enthusiasm and appreciation about the process for drawing out the best thinking among the many different groups represented at the forum.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Webster University's School of Education enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Sincerely,

Brenda Fyfe

Dr. Brenda Fyfe
Dean. School of Education
Webster University
470 E. Lockwood
St. Louis, MO 63119-3197

Jahnae H. Barnett
President

William Woods University
Founded 1870

6 January 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving its educational system. Such efforts will bring systemic educational reform that will directly impact students in Missouri. As a result, successful transition from early childhood through post-secondary education and into the workforce will encourage equitable competition in the global economy and benefit the entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituency groups. To date, the Missouri Department of Education has convened a successful stakeholders' forum to gather input for the RT3 grant proposal, involved the state's 556 school districts to define their participation, and launched an online stakeholders' survey.

More than simply a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder and educator of K-12 teachers and administrators, William Woods University enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our faculty and staff will work with the Missouri Department of Education and our other Missouri partners to prepare the healthy and highly educated workforce needed to propel Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully submitted,

Jahnae H. Barnett

President

One University Avenue
Fulton, MO 65251-2388
573-592-4216

January 7, 2010

To Whom It May Concern

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will As a result; successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the Rt3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Ad Hoc Group Against Crime enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Alvin Brooks
President

OFFICERS
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VICE-CHAIR
Deputy Chief
Vincent Ortega
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Fr. John Wandless
Henry Wash

PRESIDENT/CEO Alvin Brooks

AGCST.LOUIS

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the AGC of St. Louis enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Leonard Toenjes, CAE
President

ASSOCIATED GENERAL CONTRACTORS OF ST. LOUIS
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314/781-2356 • Fax 314/781-2874 • www.agcstl.org

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January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Baumann Colonial Chapel enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Mitchell A. Wilson, President

BJC HealthCare

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, BJC HealthCare, through its School Outreach & Youth Development department enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

DIANA WILHOLD

Diana Wilhold
Director
BJC HealthCare-School Outreach & Youth Development
600 S. Taylor, Ste 124
MS: 90-94-205
St. Louis, MO 63110
314.286.0431

Civic Progress

January 12, 2010

To Whom It May Concern:

Missouri's growth and prosperity will depend on its ability to successfully educate and train its current and future workforce to acquire the skills needed to help companies grow in this highly technical global economy. The members of Civic Progress have supported education efforts around Missouri, and in particular in the St. Louis region, for many years. We recognize the Race to the Top grant from the United States Department of Education is an important opportunity for Missouri and support the Missouri Department of Education's focus on developing bold reforms to move Missouri forward.

Civic Progress is comprised of approximately 30 of the St. Louis region's largest businesses and employers. Our members work in cooperation with local university and elected officials and devote their time and corporate resources to projects designed to improve the St. Louis region's economy, education system, and quality of life. Quality education is essential to building a vibrant region and our members are committed to working with all stakeholders to improve the education provided students in the St. Louis region. Many of our initiatives have focused on providing resources for programs that demonstrate results, such as Teach for America.

The Department's proposal focusing on student achievement, support for teachers and leaders, early childhood and locating department resources closer to schools through regional centers are important steps forward. Civic Progress looks forward to working with the Department to develop and implement these important reforms for Missouri schools and appreciate the United States Department of Education's consideration of our proposal.

Sincerely,

(b)(6)

Thomas J. Irwin
Executive Director

TJI/dmm

800 MARKET STREET, SUITE 1900, ST. LOUIS, MISSOURI 63101-2695 PHONE 314.206.8523 FAX 314.206.8514

PRESIDENT
David N. Farr

EXECUTIVE DIRECTOR
Thomas J. Irwin

MEMBERS' COMPANIES
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Anheuser-Busch
Arch Coal
AT&T
Bank of America
BJC HealthCare
Boeing
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Nestlé Purina
Peabody Energy
Schnuck Markets
UniGroup
U.S. Bank
Washington University
Wells Fargo Advisors
World Wide Technology

JEREMIAH W. (JAY) NIXON
GOVERNOR

VALERI LANE, PH.D.
CHAIR

STATE OF MISSOURI
Coordinating Board for Early Childhood
615 HOWERTON COURT
JEFFERSON CITY, MO 65103

January 8, 2010

To Whom It May Concern:

The Missouri Coordinating Board for Early Childhood (CBEC) supports Missouri's Department of Elementary and Secondary Education (DESE) application for Race to the Top funds to extend the education reform agenda from early childhood to post-secondary education. Since its statutory inception in 2004, the CBEC has collaborated with DESE on various early childhood endeavors and remains committed to these and other efforts, including the proposed Race to the Top activities.

The CBEC is the state's public/private entity for coordinating a cohesive system of early childhood programs and services intended to support the healthy development and school readiness of all Missouri children from birth through age five. The CBEC will function as Missouri's State Advisory Council on Early Childhood Care and Education under the federal Improving Head Start for School Readiness Act of 2007, Public Law 110-134, and is pursuing those American Recovery and Reinvestment Act funds to extend our work in early childhood policy coordination across state agencies. Missouri's Race to the Top reform contains key elements of strengthening and expanding this early childhood system and dovetails well into the CBEC's strategies.

Respectfully submitted,

(b)(6)

Valeri J. Lane, Ph.D.
CBEC Chairperson

(b)(6)

Angela M. Hull, Ph.D.
CBEC Executive Director

VJL/amh

00002

El Dorado Springs R-2 School District

901 S. Grand, El Dorado Springs, MO 64744 417-876-3112 417-876-2128(fax)

Roger Barnes - Superintendent, Kim Calvin, -Special Education Director,
David Hedrick - H.S. Principal, Brad Steward - M.S. Principal-Tracy Lanser- Elem. Principal,
Jeni Hearting - Asst. Elem. Principal, Chad Depee - Athletic Director,
Bryce Payne - Dir. of Building and Grounds, Darrell Eason - Board President

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

As an integral part of our local educational system, the El Dorado Springs R-II Community Teachers Association supports the development of the RT3 application and implementation processes with the intent of improving academic achievement, professional development, and preparing young adults for success beyond the local K-12 program. Our CTA members will work with the Missouri Department of Education and other partners to achieve these successes for a better community, state, and nation.

Sincerely,

El Dorado Springs R-II Community Teachers Association

FENTON AREA CHAMBER OF COMMERCE
964 S. Highway Drive Suite 103
Fenton MO 63026
(636) 717-0200 FAX: (636) 717-0214
www.fentonmochamber.com

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Fenton Area Chamber of Commerce enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systematic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Jim Nottelmann, President
Fenton Area Chamber of Commerce

050002

GRANDVIEW R-II SCHOOL DISTRICT

11470 Highway C
HILLSBORO, MISSOURI 63050

H. Michael Brown Ed. D.
Superintendent
(636) 944-3941
(636) 944-5239 FAX

Kimberly Bequette
Elementary Principal
(636) 944-3291
(636) 944-3870 FAX

James Keeling
Middle School Principal
(636) 944-3931
(636) 944-5238

Jaret Tomlinson
High School Principal
(636) 944-3390
(636) 944-3515 FAX

Jack Mann
Director of Special Ed.
(636) 944-3291

01/04/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview RII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Channa Hires

Channa Hires
Grandview Athletic Boosters

GRANDVIEW R-II SCHOOL DISTRICT

11470 Highway C
HILLSBORO, MISSOURI 63050

H. Michael Brown Ed. D.
Superintendent
(636) 944-3941
(636) 944-5239 FAX

Kimberly Bequette
Elementary Principal
(636) 944-3291
(636) 944-3870 FAX

James Keeling
Middle School Principal
(636) 944-3931
(636) 944-5238

Jaret Tomlinson
High School Principal
(636) 944-3390
(636) 944-3515 FAX

Jack Mann
Director of Special Ed.
(636) 944-3291

01/04/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview RII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sherry Stehr

Sherry Stehr
MSTA Representative

048074

GRANDVIEW
CHAMBER OF COMMERCE

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder and a business organization actively involved in educational excellence and workforce development, the Grandview Chamber of Commerce enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our 235 members, Board of Directors and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Kim Curtis
President

12500 South 71 Highway, Suite 100, Grandview, MO 64030
www.grandview.org/chamber
816-761-6505

Hancock Alumni & Community Association
243 West Ripa Avenue
Lemay, MO 63125
www.hancock.k12.mo.us; click on Alumni Association at left of page

Tuesday, December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity which would assist Hancock Place School District to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Hancock Place students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Hancock Place is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.
As a supporter, the Hancock Alumni & Community Association enthusiastically believes in the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association will work with the Hancock Place School District and other associates to assist produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Thank you,

Thomas Dittrich, Jr.

Hancock Alumni & Community Association President

President: Thomas Dittrich, Jr.
tdittrich@hancock.k12.mo.us
314-544-6423, 501
Class of 1993

Vice-President: Nikki Beseda
nikkibeseda@yahoo.com
Class of 1998

Treasurer: Audrey Winkler
audreywink@att.net
314-631-8974
Class of 1958

Secretary: Bridget Fusco
bfusco@hancock.k12.mo.us
Class of 1998

Hancock PATHS (Parents And Teachers Helping Students)
9101 South Broadway
Lemay, MO 63125
www.hancock.k12.mo.us; click on Parent Information at left of page, then Parent's Club

Tuesday, December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity which would assist Hancock Place School District to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Hancock Place students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Hancock Place is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.
As a supporter, the Hancock PATHS (Parents And Teachers Helping Students) enthusiastically believes in the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association will work with the Hancock Place School District and other associates to assist produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Thank you,

Erin R. Dittrich

Hancock PATHS President
President: Erin R. Dittrich
Erindittrich2000@yahoo.com
314-565-0015
Class of 1998

080116

Board of Trustees
Village of Hughesville
P.O. Box 11
Hughesville, Missouri 65334

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic education reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic education reform in Missouri over the next decade.

As a major Missouri stakeholder, the Village of Hughesville, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Hughesville Board of Trustees
Paul James, Chairperson

001091

KIRKSVILLE
REGIONAL ECONOMIC DEVELOPMENT INC.

January 5, 2010

To Whom It May Concern:

Kirksville Regional Economic Development, Inc.(K-REDI) wants to place its strongest support for the Kirksville R-III School District and the Missouri Department of Elementary and Secondary Education in their application to the United States Department of Education for the *Race To The Top (RT3) competition.*

K-REDI is the organization responsible for recruiting new business and industry to the community of Kirksville in the state of Missouri. Our organization and its members understand the value of a quality and seamless education system. Never in our history has education been more important, and we attempt to prepare a changing workforce for the challenges of our economy.

The RT3 program would provide a statewide strategy and vision for educational reform in Missouri. This is the kind of reform that is needed, and Kirksville Regional Economic Development, Inc. is proud to support this effort. Additionally, the augmentation of a state-wide data system resulting from this project would be a further enhancement that is much needed in our state.

Thanking you in advance for your consideration in this request.

(b)(6)

Phil Tate
Executive Director

201 S. Franklin Street • Kirksville, MO 63501
Phone: 660.665.2003 • Toll Free: 866.675.7334 • Fax: 660.627.1026

M
Home of the Wildcats

Milan C-2 School District

373 S. Market St., Milan, MO 63556 Phone 660-265-4414 FAX 660-265-4315
Bill Lewis ~ Superintendent
Mark Forster ~ High School Principal Tennille Banner ~ Middle School Principal
Duane Hazelton ~ Elementary Principal

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grand proposal, involved the state's 556 school to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan Missouri National Education Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Shannon Starr

Shannon Starr
Milan MNEA President

105124

M
Home of the Wildcats

Milan C-2 School District

373 S. Market St., Milan, MO 63556 Phone 660-265-4414 FAX 660-265-4315
Bill Lewis ~ Superintendent
Mark Forster ~ High School Principal Tennille Banner ~ Middle School Principal
Duane Hazelton ~ Elementary Principal

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan C-2 CTA/MSTA enthusiastically supports the development of the RT3 application and subsequent implementation of comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Felicia Bratcher

Felicia Bratcher
Milan C-2 CTA/MSTA President

105124

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT#) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Ministerial Alliance, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

(b)(6)

Andrew Woods
Vice Chairman
Milan Ministerial Alliance

105124

THE CITY OF MILAN

January 4, 2010

212 E. 2ND ST., MILAN, MISSOURI 63556 (660) 265-4491

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey".

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of Milan enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Brian M. Wilson
City Administrator

Date Jan 4 · 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely yours

(b)(6)

Exalted Ruler
Milan Elks Lodge

105124

Great Western Bank℠

Date 1-6-09

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

(b)(6)

Branch Manager

Milan Mo.

Milan Rotary Club President

Former Milan C II Board Member

www.greatwesternbank.com
Member FDIC

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT#) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan Athletic Booster Club, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Rick Gardner
President
Milan Athletic Booster Club

MISSOURI ACTE

Missouri Association for Career and Technical Education
213 E. Capitol Ave., P.O. Box 1955, Jefferson City, MO 65102
• 573-634-7366 • Fax: 573-636-7142 • www.mo-acte.org

William A. Gamble
Governmental Relations Consultant

Donna Vossen
Executive Director
donna@molobby.com

Margie Wilson
Membership Director
marg e@molobby.com

Sarah Topp
Governmental Relations Consultant

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Association for Career and Technical Education, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

(b)(6)

Executive Director
Missouri Association for Career and Technical Education

Missouri Association of Elementary School Principals

MAESP

AN AFFILIATE OF NAESP

3550 Amazonas Drive • Jefferson City, MO 65109-5716 • 573-638-2460 • Fax 573-636-6270

January 4, 2010

To Whom It May Concern:

Please accept this as a Memorandum of Understanding from the Officers and Executive Director of the Missouri Association of Elementary School Principals (MAESP) on behalf of elementary principals in Missouri. MAESP commends the United States Department of Education for the invitation to participate in the Race to the Top (RT3) competition and to provide an opportunity for Missouri to build on strengths, to extend existing reform work, and to develop a comprehensive plan for improving our educational system. We salute Commissioner Chris Nicastro for her vision, enthusiasm and energy as well as her desire to guarantee that all Missouri students have a top quality education. Missouri education leaders under the direction of Dr. Nicastro's leadership will press for systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

The Missouri Department of Elementary and Secondary Education (DESE) is committed to an open process designed to seek and reflect the best thinking of all constituencies. MAESP leaders appreciate that DESE invited the state association leaders to a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

As a major Missouri stakeholder, MAESP enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our Association officers, staff and members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri and our nation into a prosperous future.

Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade while also serving as a request for federal funding to assist in this effort. It will also provide opportunities for the youth in Missouri and allow all stakeholders to move forward with improvement to implement these reforms.

Your consideration on behalf of providing an improved education opportunity for all of Missouri's children will be appreciated.

Sincerely,

Faye Peters
MAESP Executive Director

Connie Browning
MAESP President

Mark Leech, Executive Director
Missouri Association of School Business Officials
203 Prairie Ridge Drive, Hermann, Missouri 65041
Phone/Fax: 573-252-4879, Cell: 573-619-1533
E-mail: mleech@moasbo.org

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Association of School Business Officials enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully Submitted

Mark D. Leech
Executive Director
Missouri Association of School Business Officials.

MISSOURI ASSOCIATION OF SCHOOL ADMINISTRATORS

3550 AMAZONAS DRIVE • JEFFERSON CITY, MO 65109-5716 • 573-638-4825 • FAX 573-556-6270

Dr. Paul Kinder
Blue Springs R-IV
President

Dr. Bruce Johnson
Stanberry R-II
President-Elect

Mr. Eric Churchwell
Palmyra R-I
Secretary

Mrs. Mary Beth Scherer
Concordia R-II
Treasurer

Dr. VeAnn Tilson
Union R-XI
Past-President

Mr. Roger Kurtz
Executive Director

December 23, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade

As a major Missouri stakeholder, the Missouri Association of School Administrators (MASA) supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Roger Kurtz
MASA Executive Director

MISSOURI ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS
MASSP, 2409 West Ash ST, Columbia, MO 65203-0045
Tel: 573-445-5071 Fax: 573-445-6416 www.moassp.org

Serving All Middle Level and High School Administrators

Jim L. King, Executive Director
jking@moassp.org

Dave Backer, Conference Director
dave@moassp.org

December 31, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri Association of Secondary School Principals (MASSP) supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. MASSP members are concerned about identifying and supporting quality school leaders and our association will work with the Missouri Department of Education and other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jim L. King, Ed.D.
MASSP Executive Director

MASSP BOARD OF DIRECTORS 2009-2010

Executive Committee:
President — **JOHN FAULKENBERRY**, Lee's Summit HS
President Elect — **SCOTT ANTLE**, East Buchanan HS
Past President — **RON HELMS**, Lindbergh HS
Coordinator — **KEN TREASTER**, Hannibal MS

At-Large Representatives:
Assistant Principals — **DAYLE BURGDORF**, University City HS
Middle Level — **JESS GRIZZELL**, Waynesville MS
Non-Public — **JOE MONACHINO**, St. Pius X HS

District Representatives:
Central — **FRANK DAHMAN**, Clinton HS
Kansas City — **MATTHEW LINDSEY**, Winnetonka HS
Northeast — **TROY CLAWSON**, S. Callaway HS
Northwest — **JASON EGGERS**, Maryville HS
St. Louis — **JENNIFER TILLER**, Sperreng MS
South Central — **KURT KELLER**, Owensville HS
Southeast — **TOM WILLIAMS**, Sikeston HS
Southwest — **DAVID STEWARD**, Monett HS

Missouri Charter Public School Association

3908A Bell Street
Kansas City, MO 64111
Office: (816) 569-5305
Fax: (816) 569-5306

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation and launched an online "Stakeholders Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Charter Public School Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and out nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Cheri Shannon

Cheri Shannon, Executive Director
Missouri Charter Public School Association

MCCTA
missouri council of career & technical administrators

December 30, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Council of Career & Technical Administrators enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association leaders will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Bob Larivee, Executive Director
Missouri Council of Career & Technical Administrators

post office box 622 • cape girardeau, missouri 63702 • 573.803.0028 phone/fax • mccta1@charter.net

MISSOURI METS
mathematics engineering technology science
COALITION

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Mathematics, Engineering, Technology and Science (METS) Coalition enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Byron Keelin, CAE
Executive Director
Missouri METS Coalition

428 East Capitol | P.O. Box 149 | Jefferson City, MO 65102-0149 | Phone: 573-634-3511 | Fax: 573-634-8855
www.missourimets.com

Missouri PTA
everychild. onevoice.® Together

2100 I-70 Drive SW, Columbia, MO 65203-0099
1-800-328-7330 Fax: 1-573-445-4163 1-573-445-4161
office@mopta.org www.mopta.org

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri PTA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless educational system. Our members will work with the Missouri Department of Education and our other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future. Specifically, we will work to ensure that family engagement is a priority in school-level reforms, ongoing mechanism for family and community engagement are implemented in school transformation strategy, and the positive family and community engagement is included as a measure of effective school leaders. As well, it is our hope that all children in the state will benefit, particularly those who have difficulty achieving within the current educational standards. Missouri PTA is determined to see that every child has the opportunity to reach their full potential. Together we can do great things.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Wendy Jackson
Missouri PTA President

"Alone we can do so little, together we can do so much"
Helen Keller

MISSOURI SCHOOL BOARDS' ASSOCIATION
HELPING PUBLIC SCHOOLS SUCCEED

January 8, 2010

Dr. Chris Nicastro
Commissioner
Department of Elementary and Secondary Education
PO Box 480
Jefferson City, MO 65102

Dear Chris:

The Missouri School Boards' Association supports Missouri's application to secure "Race to the Top" funding in order to continue and expand our state's efforts to ensure that all Missouri students are equipped to thrive in the world of the 21st century.

The Missouri School Boards' Association believes Race to the Top funding should help us extend research-supported, field-proven, governance-focused training and development of school boards beyond the minimum requirements of statute to help both performance-challenged and historically successful school districts ensure that every student is learning, in every subject, every year. We strongly urge DESE to include governance topics as mentioned above. School board members understand the critical value of strong classroom, building, and district leadership and look forward to Race to the Top-supported opportunities to strengthen Missouri's performance standards for students, teachers, and administrators. Our members have promoted the value of data-driven decision making for school success for nearly two decades, and we know that more robust data collection and data-analysis infrastructures must be created if our schools are to be competitive in the 21st century. The costs of these infrastructures can be met with the prudent use of Race to the Top funds.

We also strongly support the inclusion of an "opt-out" provision for local school districts. This is important since local school officials may not have the opportunity to review the entire application prior to submission.

Given what we know at this time, we support DESE's efforts to present the U.S. Department of Education with a proposal that reflects these values, needs, and goals and we appreciate the promised future opportunity to review that proposal's specific contents as we consider its benefits to individual districts.

Sincerely,

Carter D. Ward, Ph.D.
Executive Director

CDW/bg

2100 I-70 Drive Southwest Columbia, Missouri 65203 VOICE **573 445-9920** FAX **573 445-9981** INTERNET **www.msbanet.org**

CAPITOL OFFICE
STATE CAPITOL, ROOM 331
JEFFERSON CITY, MISSOURI 65101
TELEPHONE 573-751-3859
FAX 573-526-1384
TDD 573-751-3969
TOLL FREE 877-291-3584
E-MAIL: rob.mayer@senate.mo.gov

DISTRICT OFFICE
P.O. BOX 571
21 VINE STREET
DEXTER, MO 63841
TELEPHONE: 573-624-2200

MISSOURI SENATE

JEFFERSON CITY

ROBERT MAYER

25TH DISTRICT

COMMITTEES
APPROPRIATIONS, Vice-Chair
EDUCATION, Chair
MEMBER
AGRICULTURE, CONSERVATION, PARKS AND NATURAL RESOURCES
GOVERNMENTAL ACCOUNTABILITY AND FISCAL OVERSIGHT
JUDICIARY AND CIVIL AND CRIMINAL JURISPRUDENCE

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

I, and many other Missouri State Senators, enthusiastically support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. I will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

SENATOR ROBERT N. MAYER

CITY OF NIXA

ADMINISTRATION
P.O. Box 395
715 W. Mt. Vernon
Nixa, Missouri 65714
Phone: 417-725-3785
Fax: 417-725-6394

January 4, 2010

Nixa RII School District
Dr. Stephen Kleinsmith, Ed.D
205 North Street
Nixa, MO 65714

Re: Race to the top (RT3) application

Dear Dr. Kleinsmith:

The City of Nixa is in full support of the Nixa RII School District's receipt of RT3 grant funds to partnership with the State to effect important educational reform(s).

The City relies on the Nixa RII School District to provide the best educational opportunities for our constituents. Nixa RII School District's record clearly shows that not only are you contributing positively to your students' educational growth, but that you provide an invaluable economic development attribute for our entire community and region.

I have no doubt that if the Nixa RII School District were to benefit from receipt of these RT3 funds you would successfully achieve an unprecedented reform of our educational system not only for the district but for the State as a whole.

Good luck, and please let us know if there is anything further that we can do to assist you in your efforts.

Sincerely,

Brian J. Bingle
City of Nixa, Administrator

December 31, 2009

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

Dow Clayton

Nixa Lions Club President

PO Box 1331
Nixa, MO
65714

Elizabeth Aley
President

elizabetha@mopta.org
417-724-0331

Monday, December 28, 2009

Dr. Chris NiCastro
Commissioner of Education
Missouri Department of Elementary and Secondary Education
205 Jefferson Street
Po Box 480
Jefferson City Mo 65102-0480

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

Elizabeth Aley
Nixa PTA Council
President

The ratio of We's to I's is the best indicator of the development of a team.
- Lewis B. Ergen

None of us, including me, ever do great things. But we can all do small things, with great love, and together we can do something wonderful.
Mother Teresa

022089

NIXA

Ministerial Alliance

P.O. BOX 1272 Nixa, MO 65714

December 23, 2009

Dear Commissioner NiCastro,

I am grateful for the opportunity to discuss why Nixa Public Schools should receive significant consideration in the Race to the Top program. With a little research, you will quickly discover that our school district continues to set the bar in Missouri and in the nation as a whole when it comes to preparing students for their next step following an excellent education experience. Whether on to higher education or direct engagement into the workplace, Nixa students leave well equipped to enter the world as highly contributing members of society.

As a father of a special needs elementary child, I have also witnessed the school's commitment to equip the student, parent, and teacher to collectively work together in not only forming a well designed plan for progress but revealing the resolve to make sure that plan propels the child to completion.

The key to Nixa's success is clearly found in those who lead. From a school district that continues to attain the highest accolades, to an administration which fosters a spirit of positive perseverance, to teachers allowed to openly pursue better and more productive processes that well match their own particular gifts and talents.

Though in many ways Nixa already resides upon the top, the school pursues even higher summits yet discovered. Without hesitation, I highly recommend our Nixa Public Schools to participate in the Race to the Top program.

Sincerely,

(b)(6)

Dr. Steve Martin,
President of the Nixa Ministerial Alliance
(417) 353-5903; smartin@nixafire.org

NIXA
AREA CHAMBER of COMMERCE

105 Sherman Way, Suite 108 | Nixa, MO 65714 | PH: 417.725.1545 | FX: 417.725.4532

January 5, 2010

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

(b)(6)

Sharon Whitehill Gray
President/CEO

096088

North County Incorporated
3508 Village Square Drive
Hazelwood, MO 63042
314.895.6241
(fax) 314.895.6244
www.NorthStLouisCounty.com

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful stakeholders forum to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online Stakeholder Survey.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, North County Incorporated (NCI), a regional development association, supports the development of the RT3 application. NCI will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Rebecca Zoll
President/CEO

NORTHWEST
CHAMBER OF COMMERCE
Since 1951

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Northwest Chamber of Commerce supports the development of the RT3 application. Northwest Chamber of Commerce will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Lawrence F. Feney
President/CEO

Northwest Chamber of Commerce • 11965 St. Charles Rock Road • Suite 203 • Bridgeton, MO 63044
p:. 314.291.2131 f:. 314.291.2153 w:. www.northwestchamber.com

Serving the following communities in Northwest St. Louis County:

Breckenridge	Charlack	Edmundson	Overland	St. John	Vinita Park
Bridgeton	Earth City	Hazelwood	St. Ann	Sycamore Hills	Woodson Terrace

OBA

Overland Business Association
P.O. Box 142784
Overland, Missouri 63114
www.overlandbusinessassociation.org

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Overland Business Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

(b)(6)

Mitchell A. Wilson, President

Mike Schneider
MAYOR

9119 LACKLAND ROAD
CITY OF OVERLAND, MISSOURI 63114
TELEPHONE: (314) 428-4321
mayorschneider@overlandmo.org

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of Overland enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Mike Schneider
Mayor

January 8, 2010

REGIONAL
BUSINESS
COUNCIL

To Whom It May Concern:

The St. Louis Regional Business Council (RBC) believes the vitality of the region will depend on the education provided to the students across Missouri. It is to this point, that one of the areas members of the RBC have decided to focus their attention on is education. We believe the Missouri Department of Education's efforts to reorganize the Department and provide more effective and efficient support for schools and students are the right steps to helping not only the students in the St. Louis region, but students throughout Missouri.

The RBC is composed of 100 CEO's representing some of the region's largest employers. RBC companies collectively employ over 100,000 individuals and are headquartered in the region, with a vested interest in the development and quality of education within the region's 16 counties. RBC members have directed significant resources to the St. Louis Public School District, one of Missouri's struggling districts, by supporting programs that send principals to leadership academies, as well as other programs committed to preparing our students to be competitive in today's global economy and instituting educational reforms to achieve that vision. Supporting teachers and leaders is a focus of our organization because the research supports that strong teachers and leaders provide real results for student achievement. Therefore, we are excited Missouri's application includes a focus on providing supports for teachers and leaders.

The United States Department of Education's Race to the Top (RT3) competition allows states to develop and implement effective reform measures to improve education and prepare students to be competitive in today's global economy. The RBC believes Missouri is well suited for this grant due to the strong programs already available in the state that can be leveraged to support struggling Missouri schools and students, combined with the strong vision and support from a variety of Missouri stakeholders ready to be involved in providing bold reforms.

We are committed to working with the Missouri Department of Education and appreciate your consideration of our proposal.

Regards,

(b)(6)

Kathleen T. Osborn
Executive Director
The Regional Business Council

7701 FORSYTH BLVD.
SUITE 205
SAINT LOUIS,
MISSOURI 63105

tel 314.225.2100
fax 314.225.2109

WWW.STLRBC.ORG

096111

January 6, 2010

To Whom It May Concern,

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a Missouri stakeholder, the Riverview Gardens Parent Advisory Council enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the school district to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Doris Wilson, President
Riverview Gardens School District Parent Advisory Council

057001

SILEX R-I SCHOOL DISTRICT

"WORKING TO BE THE BEST SMALL SCHOOL IN MISSOURI"

P.O. Box 46 64 Highway UU Silex, MO 63377

T: 573-384-5227 F: 573-384-5996
www.silex.k12.mo.us

Elaine Eversmeyer Henderson
Superintendent

Bruce Werkmeister
High School Principal

Suzie Plackemeier
Elementary Principal

Date: January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Silex R-I CTA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Michelle L. Medcalf

Michelle L. Medcalf
President
Silex R-I CTA

096119

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special Education Employees Association (SEEA) of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Linda Cruise

Linda Cruise
President
Special Education Employees Association
Special School District of St. Louis County, Missouri

096119

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special Education Support Personnel Association (SESPA), of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Angie Vaughn
President
Special Education Support Personnel Association
Special School District of St. Louis County, Missouri

CARPET, LINOLEUM, HARDWOOD AND TILE LAYERS TRAINING TRUST FUND
Carpenters' District Council of Greater St. Louis and Vicinity

Joint Apprenticeship and Training Committee

8300 Valcour Avenue
St. Louis, MO 63123-9822
314/457-8301
FAX 314/457-8309

January 8, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the St. Louis Floor Layers' Training Program enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Greg Hefele
Coordinator
St. Louis Floor Layers' Training Program

8 JAN '10 AM 8:05

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special District Visual Language Specialists (SDVLS) of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Karen Sater

Karen Sater
President
Special District Visual Language Specialists
Special School District of St. Louis County, Missouri

* Note: Please see three attached pages.

MSTA

St. Joseph School District

To: Department of Elementary and Secondary Education
From: St. Joseph School District's Teacher Organization
(Missouri State Teacher's Association)
Date: January 5, 2010
Re: Memorandum of Understanding

The respective teacher organization presidents sign on behalf of the School District of St. Joseph with strong reservation because we are being asked to support the state plan that we have not been given an opportunity to read. We share concerns raised by our organizations. In addition, it is not clear as to how our support can be withdrawn once the final version of the state plan is written and implementation begins. It is our understanding that any district who does not have their MOU into DESE by the deadline will not be able to apply for competitive grants should the state's application be successful. We also believe that even though we have agreed to the terms of the MOU, our district has the option of not applying, and therefore we would potentially be released from any of the MOU assurances.

We commend the RTT effort and we appreciate the program's intent to reform American public education.

Sincerely,

Terri Zeamer

Terri Zeamer
CTA President
Missouri State Teacher's Association

P.O. Box 188, 118 South 5th
St. Joseph, MO 64502
816-364-2381, Fax 816-364-6030
sjuway@ponyexpress.net
www.stjosephunitedway.org

United Way
United Way
of Greater St. Joseph

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the United Way of Greater St. Joseph enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work continue to work with the local school district to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Brenda K. Shields
President

think ahead
emPowerU

January 5, 2010

To Whom It May Concern:

Heartland Foundation submits this letter of support on behalf of the St. Joseph School District, St. Joseph, MO, for consideration as a participant in "Race to the Top" (RT3). The State of Missouri's involvement in the U.S. Department of Education's RT3 program provides a very timely opportunity to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our education system. This work will directly impact Missouri students by providing a successful transition from early childhood through post-secondary education, leading them into the workforce with strong, competitive skills for the global economy.

The St. Joseph School District plays a key partnership role with Heartland Foundation and our Healthy Communities Regional Investors through active participation in our P-20 Business and Education Council. This Council, which has received statewide attention, brings education, business and community leaders together to advocate for higher levels of education for the future workforce. A number of regional strategies are in place to open doors in preparing individuals to become self-sufficient, lifelong learners. In addition, the St. Joseph School District participates in a number of Heartland Foundation's innovative programs to empower youth: emPower Plant, Jump Starters, Project Fit, and Public Achievement.

As major Missouri stakeholders, Heartland Foundation and our Healthy Communities Regional Investor Council enthusiastically support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. We will work with the MO Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

We appreciate your consideration of St. Joseph School District, our young people, and the future of our communities. Please feel free to contact me at 816 271 7200 if you have questions or would like to visit with me. Thank you.

(b)(6)

Judith K. Sabbert
Chief Operating Officer

818 S. 6th Street -- St. Joseph, MO 64501-9820 -- 816.271.7200 -- 1.800.447.1083 -- 816.271.7269 -- www.heartlandfoundation.org

YMCA
ACTIVATE
ST. JOSEPH

January 5, 2010

To Whom It May Concern:

The United State Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the St. Joseph Family YMCA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our Staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Mark F. Cartledge

Mark F. Cartledge
Executive Director/CEO

MFC:cas

St. Joseph Family YMCA
315 S. Sixth Street • St. Joseph, Missouri 64501
(816) 233-YMCA (9622) • Fax (816) 233-8288 • Website www.stjoymca.org

MISSION: To put Christian principles into practice through programs that build healthy spirit, mind and body for all.

United Way

City of St. Joseph

1100 Frederick Avenue, St. Joseph, Missouri 64501

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Vincent J. Capell
City Manager

Heartland Health

HEALTHY CHOICES.
Healthy Lives

5325 Faraon Street St. Joseph, Missouri 64506-3398 Phone 816-271-6000

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Heartland Health enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Yours truly,

(b)(6)

Mark Laney, MD
President & CEO

Community Alliance of Saint Joseph

3003 FREDERICK AVENUE
ST. JOSEPH, MO 64506

PHONE: (816) 364-4109
FAX: (816) 364-4873

January 4 2010

To Whom It May Concern:

The US Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire state.

The state of Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey "

The RT3 proposal will present a statewide vision and a bold innovative plan for systemic educational reform in Missouri over the next decade.

The Community Alliance of Saint Joseph, as a major Missouri stakeholder enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our partner members include the St. Joseph Area Chamber of Commerce, Heartland Health, Missouri Western State University, the St. Joseph School District, the City of St. Joseph, Buchanan County and the St. Joseph Convention & Visitors Bureau will work in partnership with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future. Nothing could be more important to our state. The Community Alliance goals include increased education opportunity and attainment, quality jobs and improved livability.

Your consideration on behalf of Missouri's children will be very much appreciated We look forward to this new partnership opportunity

Please don't hesitate to contact me if you have additional questions or if we can be of further assistance.

Kindest regards

(b)(6)

Steve Johnston
Director

Buchanan County Commission

411 Jules Street, Room 122

St. Joseph, Missouri 64501-1786

(816) 271-1503 • Fax (816) 271-1569

Ron Hook
Commissioner
Western District

Royal Turner
Presiding Commissioner
Buchanan County

Dan Hausman
Commissioner
Eastern District

January 11, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Buchanan County Commission enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Royal Turner
Presiding Commissioner

Dan Hausman
Eastern District Commissioner

Ron Hook
Western District Commissioner

036137

Sullivan Teachers' Association
Susan Lindaman, President
PO Box 824
Sullivan MO 63080

Subject: Support for RT3

12/22/09

To Whom It May Concern:

The Sullivan Teachers' Association has providing the children with a high quality educational experience as one of its goals. Our teaching staff will be supportive of any grant that helps our students.

We believe that the United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Sullivan Teachers' Association of the Sullivan School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

Susan Lindaman

Susan Lindaman, Sullivan Teachers' Association President

036137

Missouri Preschool Project Parent Advisory Committee
Amy Wiegers, President
Sullivan Primary School
Sullivan School District
1132 Elmont Road
Sullivan MO 63080

Subject: Support for RT3

January 4, 2010

To Whom It May Concern:

As parents we support anything that will help our children and we believe that the United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri Preschool Project Parent Advisory Committee of the Sullivan School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our families will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

Amy Wiegers

Sullivan Missouri Preschool Project Parent Advisory Board President

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." I was honored and happy to attend that forum.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, our company enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education in any manner we can, along with other numerous state partners, to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

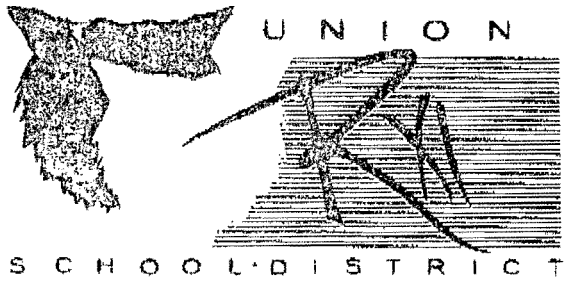
Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Rod Wright, Ph.D.
President/UNICOM•ARC

036131



P.O. Box 440 Union, Mo. 63084

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated

Megan Julius NEA Local President
Dianne Buchholz Chair of the Legislative Support Team

096112

City of University City

Office of Mayor
6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 505-8606, Fax: (314) 863-9146

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of University City enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our City will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely yours,

Joseph L. Adams
Mayor
University City

Urban League
of Metropolitan St. Louis, Inc.
Empowering Communities. Changing Lives

James H. Buford
President, CEO

Officers 2009-2010
Stephen C. Jones
Chairman
[illegible]
Vice Chairman
Denise Denham
Treasurer
Francis [illegible]
Secretary
Mark Levison
General Counsel

Board of Directors
Dr. [illegible]
Dr. Robert [illegible]
[illegible]
Andrew [illegible]
Richard [illegible]
Robert [illegible]
[illegible]
Lynn [illegible]
Robert [illegible]
Raymond [illegible]
Michael [illegible]
Jack [illegible]
Christine [illegible]
Debra [illegible]
Frances [illegible]
Richard [illegible]
David [illegible]
Rabbi [illegible]
[illegible]
Frances [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Debora [illegible]
Asan [illegible]
[illegible]
Reverend [illegible]
Stephen C. Jones
Kenneth [illegible]
Anthony [illegible]
[illegible]
[illegible]
Mark Levison
[illegible]
[illegible]
Patrick [illegible]
Richard [illegible]
[illegible]
[illegible]
[illegible]
David [illegible]
Kathleen T. [illegible]
[illegible]
Robert [illegible]
[illegible]
Dr. Constance [illegible]
William [illegible]
William [illegible]
Todd R. [illegible]
Bryan [illegible]
[illegible]
Armando [illegible]
[illegible]
[illegible]
[illegible]
Dr. [illegible]
[illegible]
[illegible]
Robert [illegible]
[illegible]
[illegible]
[illegible]
Col. William H. Young

January 8, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Urban League of Metropolitan St. Louis enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Respectfully,

(b)(6)

James H. Buford
President & CEO

BBB ACCREDITED CHARITY

Affiliated with the National Urban League

United Way of Greater St. Louis

Agency Headquarters 3701 Grandel Square St. Louis, MO 63108 (314) 615-3600 www.ulstl.org

049144

Webb City Area Chamber of Commerce

At the Entrance to King Jack Park
P.O. Box 287, Webb City, MO 64870
Telephone: 417-673-1154
Fax: 417-673-2856
Lou Cutheil, President
Dixie Meredith, Executive Director
www.webbcitychamber.com

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Webb City Area Chamber of Commerce enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

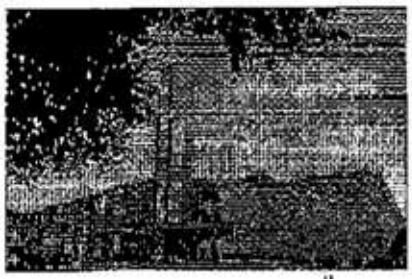
Sincerely,

(b)(6)

Dixie Meredith
Executive Director

Webb City
We Love It Here!

Our mission is to expand, retain and advocate for our economic base, to support our educational programs and to promote the quality of life in our community.



Zion Grove Missionary Baptist Church

H.O.P.E. Outreach Ministry of Kansas City

2801 Swope Parkway
Kansas City, MO 64130
(816)924-1818 or (816)924-1821(fax)
www.ziongrove.org

Senior Pastor
Michael E. Brooks

Youth Pastor
Loren Reed

Trustee Chair
Linda Rollins

Deaconate Team
C.A. Collins
Ross Harris
John McIntosh
Pamela McMickle

Executive Admin. Assistant
Lisa Ross

The Place of God's Presence

The Place of God's People

The Place of God's Praise

The Place of God's Peace

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students.
As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the Rt3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Zion Grove Missionary Baptist Church enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Yours in Christ,

(b)(6)

Michael E. Brooks, Senior Pastor

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a parent of children in the Missouri education system, I enthusiastically support the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Penny J. Rusk

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, Larry and Joyce Opinsky enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Larry Opinsky

(b)(6)

1/6/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum' to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the PTO enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be greatly appreciated.

Sincerely,

Sabrina Cook

Sabrina Cook PTO President

January 7, 2010

To Whom It May Concern

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will As a result; successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Ad Hoc Group Against Crime enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Alvin Brooks
President

OFFICERS
CHAIR
Peter Ye'orda
VICE-CHAIR
Deputy Chief
Vincent Ortega
SECRETARY
David Ross
TREASURER
Stancia Jenkins

BOARD MEMBERS
Stacey Daniels-Young
Deputy Chief
Darryl Forte
Hon. Jon Gray
Kevin Harrell
Steve Israelite
Roger Kemp
Gayle Krigel
Margaret J. May
Rev. Kenneth Ray
Ryan Reid
Fr. John Wandless
Henry Wash

PRESIDENT/CEO Alvin Brooks

AGCST.LOUIS

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the AGC of St. Louis enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Leonard Toenjes, CAE
President

ASSOCIATED GENERAL CONTRACTORS OF ST. LOUIS
6330 Knox Industrial Drive • Suite 200 • St. Louis, MO 63139-3039
314/781-2356 • Fax 314/781-2874 • www.agcstl.org

"A Part Of Your Family In Your Time Of Need"
BAUMANN
COLONIAL CHAPEL
Family Owned and Operated Since 1880
2504 Woodson Road Overland, Missouri 63114
(314) 427-2345 • 1-800-427-5145
www.baumannchapel.com

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Baumann Colonial Chapel enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Mitchell A. Wilson, President

BJC HealthCare

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, BJC HealthCare, through its School Outreach & Youth Development department enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

DIANA WILHOLD

Diana Wilhold
Director
BJC HealthCare-School Outreach & Youth Development
600 S. Taylor, Ste 124
MS: 90-94-205
St. Louis, MO 63110
314.286.0431

Civic Progress

January 12, 2010

To Whom It May Concern:

Missouri's growth and prosperity will depend on its ability to successfully educate and train its current and future workforce to acquire the skills needed to help companies grow in this highly technical global economy. The members of Civic Progress have supported education efforts around Missouri, and in particular in the St. Louis region, for many years. We recognize the Race to the Top grant from the United States Department of Education is an important opportunity for Missouri and support the Missouri Department of Education's focus on developing bold reforms to move Missouri forward.

Civic Progress is comprised of approximately 30 of the St. Louis region's largest businesses and employers. Our members work in cooperation with local university and elected officials and devote their time and corporate resources to projects designed to improve the St. Louis region's economy, education system, and quality of life. Quality education is essential to building a vibrant region and our members are committed to working with all stakeholders to improve the education provided students in the St. Louis region. Many of our initiatives have focused on providing resources for programs that demonstrate results, such as Teach for America.

The Department's proposal focusing on student achievement, support for teachers and leaders, early childhood and locating department resources closer to schools through regional centers are important steps forward. Civic Progress looks forward to working with the Department to develop and implement these important reforms for Missouri schools and appreciate the United States Department of Education's consideration of our proposal.

Sincerely,

(b)(6)

Thomas J. Irwin
Executive Director

TJI/dmm

800 MARKET STREET, SUITE 1900, ST. LOUIS, MISSOURI 63101-2695 PHONE 314.206.8523 FAX 314.206.8514

PRESIDENT
David N. Farr

EXECUTIVE DIRECTOR
Thomas J. Irwin

MEMBERS' COMPANIES
Ameren
Anheuser-Busch
Arch Coal
AT&T
Bank of America
BJC HealthCare
Boeing
Brown Shoe
Centene Corporation
Coin Acceptors
Commerce Bancshares
Edward Jones
Emerson
Energizer
Enterprise Holdings Inc.
Express Scripts
Graybar
Harbour Group
Hunter Engineering
The Kroenke Group
The Laclede Group
Maritz Holdings Inc.
Monsanto
Nestlé Purina
Peabody Energy
Schnuck Markets
UniGroup
U.S. Bank
Washington University
Wells Fargo Advisors
World Wide Technology

JEREMIAH W. (JAY) NIXON
GOVERNOR

VALERI LANE, PH.D.
CHAIR

STATE OF MISSOURI
Coordinating Board for Early Childhood

615 HOWERTON COURT
JEFFERSON CITY, MO 65103

January 8, 2010

To Whom It May Concern:

The Missouri Coordinating Board for Early Childhood (CBEC) supports Missouri's Department of Elementary and Secondary Education (DESE) application for Race to the Top funds to extend the education reform agenda from early childhood to post-secondary education. Since its statutory inception in 2004, the CBEC has collaborated with DESE on various early childhood endeavors and remains committed to these and other efforts, including the proposed Race to the Top activities.

The CBEC is the state's public/private entity for coordinating a cohesive system of early childhood programs and services intended to support the healthy development and school readiness of all Missouri children from birth through age five. The CBEC will function as Missouri's State Advisory Council on Early Childhood Care and Education under the federal Improving Head Start for School Readiness Act of 2007, Public Law 110-134, and is pursuing those American Recovery and Reinvestment Act funds to extend our work in early childhood policy coordination across state agencies. Missouri's Race to the Top reform contains key elements of strengthening and expanding this early childhood system and dovetails well into the CBEC's strategies.

Respectfully submitted,

Valeri J. Lane, Ph.D.
CBEC Chairperson

Angela M. Hull, Ph.D.
CBEC Executive Director

VJL/amh

00002

El Dorado Springs R-2 School District

901 S. Grand, El Dorado Springs, MO 64744 417-876-3112 417-876-2128(fax)

Roger Barnes - Superintendent, Kim Calvin, -Special Education Director,
David Hedrick - H.S. Principal, Brad Steward - M.S. Principal-Tracy Lanser- Elem. Principal,
Jeni Hearting - Asst. Elem. Principal, Chad Depee - Athletic Director,
Bryce Payne - Dir. of Building and Grounds, Darrell Eason - Board President

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

As an integral part of our local educational system, the El Dorado Springs R-II Community Teachers Association supports the development of the RT3 application and implementation processes with the intent of improving academic achievement, professional development, and preparing young adults for success beyond the local K-12 program. Our CTA members will work with the Missouri Department of Education and other partners to achieve these successes for a better community, state, and nation.

Sincerely,

El Dorado Springs R-II Community Teachers Association

FENTON AREA CHAMBER OF COMMERCE
964 S. Highway Drive Suite 103
Fenton MO 63026
(636) 717-0200 FAX: (636) 717-0214
www.fentonmochamber.com

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Fenton Area Chamber of Commerce enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systematic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Jim Nottelmann, President
Fenton Area Chamber of Commerce

050002

GRANDVIEW R-II SCHOOL DISTRICT

11470 Highway C
HILLSBORO, MISSOURI 63050

H. Michael Brown Ed. D.
Superintendent
(636) 944-3941
(636) 944-5239 FAX

Kimberly Bequette
Elementary Principal
(636) 944-3291
(636) 944-3870 FAX

James Keeling
Middle School Principal
(636) 944-3931
(636) 944-5238

Jaret Tomlinson
High School Principal
(636) 944-3390
(636) 944-3515 FAX

Jack Mann
Director of Special Ed.
(636) 944-3291

01/04/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview RII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Channa Hires

Channa Hires
Grandview Athletic Boosters

GRANDVIEW R-II SCHOOL DISTRICT

11470 Highway C
HILLSBORO, MISSOURI 63050

H. Michael Brown Ed. D.
Superintendent
(636) 944-3941
(636) 944-5239 FAX

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Elementary Principal
(636) 944-3291
(636) 944-3870 FAX

James Keeling
Middle School Principal
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(636) 944-3390
(636) 944-3515 FAX

Jack Mann
Director of Special Ed.
(636) 944-3291

01/04/2010

To Whom It May Concern:

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Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview RII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sherry Stehr

Sherry Stehr
MSTA Representative

048074

GRANDVIEW
CHAMBER OF COMMERCE

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder and a business organization actively involved in educational excellence and workforce development, the Grandview Chamber of Commerce enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our 235 members, Board of Directors and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Kim Curtis
President

12500 South 71 Highway, Suite 100, Grandview, MO 64030
www.grandview.org/chamber
816-761-6505

Hancock Alumni & Community Association
243 West Ripa Avenue
Lemay, MO 63125
www.hancock.k12.mo.us; click on Alumni Association at left of page

Tuesday, December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity which would assist Hancock Place School District to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Hancock Place students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Hancock Place is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.
As a supporter, the Hancock Alumni & Community Association enthusiastically believes in the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association will work with the Hancock Place School District and other associates to assist produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Thank you,

Thomas Dittrich, Jr.

Hancock Alumni & Community Association President

President: Thomas Dittrich, Jr.
tdittrich@hancock.k12.mo.us
314-544-6423, 501
Class of 1993

Vice-President: Nikki Beseda
nikkibeseda@yahoo.com
Class of 1998

Treasurer: Audrey Winkler
audreywink@att.net
314-631-8974
Class of 1958

Secretary: Bridget Fusco
bfusco@hancock.k12.mo.us
Class of 1998

Hancock PATHS (Parents And Teachers Helping Students)
9101 South Broadway
Lemay, MO 63125
www.hancock.k12.mo.us; click on Parent Information at left of page, then Parent's Club

Tuesday, December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity which would assist Hancock Place School District to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Hancock Place students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Hancock Place is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.
As a supporter, the Hancock PATHS (Parents And Teachers Helping Students) enthusiastically believes in the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association will work with the Hancock Place School District and other associates to assist produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Thank you,

Erin R. Dittrich

Hancock PATHS President
President: Erin R. Dittrich
Erindittrich2000@yahoo.com
314-565-0015
Class of 1998

080116

Board of Trustees
Village of Hughesville
P.O. Box 11
Hughesville, Missouri 65334

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic education reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic education reform in Missouri over the next decade.

As a major Missouri stakeholder, the Village of Hughesville, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Hughesville Board of Trustees
Paul James, Chairperson

001091

KIRKSVILLE
REGIONAL ECONOMIC DEVELOPMENT INC.

January 5, 2010

To Whom It May Concern:

Kirksville Regional Economic Development, Inc.(K-REDI) wants to place its strongest support for the Kirksville R-III School District and the Missouri Department of Elementary and Secondary Education in their application to the United States Department of Education for the *Race To The Top (RT3) competition.*

K-REDI is the organization responsible for recruiting new business and industry to the community of Kirksville in the state of Missouri. Our organization and its members understand the value of a quality and seamless education system. Never in our history has education been more important, and we attempt to prepare a changing workforce for the challenges of our economy.

The RT3 program would provide a statewide strategy and vision for educational reform in Missouri. This is the kind of reform that is needed, and Kirksville Regional Economic Development, Inc. is proud to support this effort. Additionally, the augmentation of a state-wide data system resulting from this project would be a further enhancement that is much needed in our state.

Thanking you in advance for your consideration in this request.

Most sincerely,

(b)(6)

Phil Tate
Executive Director

201 S. Franklin Street • Kirksville, MO 63501
Phone: 660.665.2003 • Toll Free: 866.675.7334 • Fax: 660.627.1026

M
Home of the Wildcats

Milan C-2 School District

373 S. Market St., Milan, MO 63556 Phone 660-265-4414 FAX 660-265-4315
Bill Lewis ~ Superintendent
Mark Forster ~ High School Principal Tennille Banner ~ Middle School Principal
Duane Hazelton ~ Elementary Principal

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grand proposal, involved the state's 556 school to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan Missouri National Education Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Shannon Starr

Shannon Starr
Milan MNEA President

105124

M
Home of the Wildcats

Milan C-2 School District

373 S. Market St., Milan, MO 63556 Phone 660-265-4414 FAX 660-265-4315
Bill Lewis ~ Superintendent
Mark Forster ~ High School Principal Tennille Banner ~ Middle School Principal
Duane Hazelton ~ Elementary Principal

January 5, 2010

To Whom It May Concern:

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan C-2 CTA/MSTA enthusiastically supports the development of the RT3 application and subsequent implementation of comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Felicia Bratcher

Felicia Bratcher
Milan C-2 CTA/MSTA President

105124

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT#) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Ministerial Alliance, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

(b)(6)

Andrew Woods
Vice Chairman
Milan Ministerial Alliance

105124

THE CITY OF MILAN

January 4, 2010

212 E. 2ND ST., MILAN, MISSOURI 63556 (660) 265-4491

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of Milan enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Brian M. Wilson
City Administrator

Date Jan 4 · 2010

To Whom It May Concern:

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely yours

(b)(6)

Exalted Ruler
Milan Elks Lodge

105124

Great Western Bank℠

Date 1-6-09

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

(b)(6)

Branch Manager

Milan Mo.

Milan Rotary Club President

Former Milan C II Board Member

www.greatwesternbank.com
Member FDIC

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT#) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Milan Athletic Booster Club, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Rick Gardner

Rick Gardner
President
Milan Athletic Booster Club

MISSOURI ACTE

Missouri Association for Career and Technical Education
213 E. Capitol Ave., P.O. Box 1955, Jefferson City, MO 65102
• 573-634-7366 • Fax: 573-636-7142 • www.mo-acte.org

William A. Gamble
Governmental Relations Consultant

Donna Vossen
Executive Director
donna@molobby.com

Margie Wilson
Membership Director
margie@molobby.com

Sarah Topp
Governmental Relations Consultant

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Association for Career and Technical Education, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Donna Vossen

Executive Director
Missouri Association for Career and Technical Education

Missouri Association of Elementary School Principals

MAESP

AN AFFILIATE OF NAESP

3550 Amazonas Drive • Jefferson City, MO 65109-5716 • 573-638-2460 • Fax 573-636-6270

January 4, 2010

To Whom It May Concern:

Please accept this as a Memorandum of Understanding from the Officers and Executive Director of the Missouri Association of Elementary School Principals (MAESP) on behalf of elementary principals in Missouri. MAESP commends the United States Department of Education for the invitation to participate in the Race to the Top (RT3) competition and to provide an opportunity for Missouri to build on strengths, to extend existing reform work, and to develop a comprehensive plan for improving our educational system. We salute Commissioner Chris Nicastro for her vision, enthusiasm and energy as well as her desire to guarantee that all Missouri students have a top quality education. Missouri education leaders under the direction of Dr. Nicastro's leadership will press for systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

The Missouri Department of Elementary and Secondary Education (DESE) is committed to an open process designed to seek and reflect the best thinking of all constituencies. MAESP leaders appreciate that DESE invited the state association leaders to a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

As a major Missouri stakeholder, MAESP enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our Association officers, staff and members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri and our nation into a prosperous future.

Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade while also serving as a request for federal funding to assist in this effort. It will also provide opportunities for the youth in Missouri and allow all stakeholders to move forward with improvement to implement these reforms.

Your consideration on behalf of providing an improved education opportunity for all of Missouri's children will be appreciated.

Sincerely,

Faye Peters
MAESP Executive Director

Connie Browning
MAESP President

Mark Leech, Executive Director
Missouri Association of School Business Officials
203 Prairie Ridge Drive, Hermann, Missouri 65041
Phone/Fax: 573-252-4879, Cell: 573-619-1533
E-mail: mleech@moasbo.org

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Association of School Business Officials enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully Submitted

Mark D. Leech
Executive Director
Missouri Association of School Business Officials.

MISSOURI ASSOCIATION OF SCHOOL ADMINISTRATORS

3550 AMAZONAS DRIVE • JEFFERSON CITY, MO 65109-5716 • 573-638-4825 • FAX 573-556-6270

Dr. Paul Kinder
Blue Springs R-IV
President

Dr. Bruce Johnson
Stanberry R-II
President-Elect

Mr. Eric Churchwell
Palmyra R-I
Secretary

Mrs. Mary Beth Scherer
Concordia R-II
Treasurer

Dr. VeAnn Tilson
Union R-XI
Past-President

Mr. Roger Kurtz
Executive Director

December 23, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade

As a major Missouri stakeholder, the Missouri Association of School Administrators (MASA) supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Roger Kurtz
MASA Executive Director

MISSOURI ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS
MASSP, 2409 West Ash ST, Columbia, MO 65203-0045
Tel: 573-445-5071 Fax: 573-445-6416 www.moassp.org

Serving All Middle Level and High School Administrators

Jim L. King, Executive Director
jking@moassp.org

Dave Backer, Conference Director
dave@moassp.org

December 31, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri Association of Secondary School Principals (MASSP) supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. MASSP members are concerned about identifying and supporting quality school leaders and our association will work with the Missouri Department of Education and other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jim L. King, Ed.D.
MASSP Executive Director

MASSP BOARD OF DIRECTORS 2009-2010

Executive Committee:
President — **JOHN FAULKENBERRY**, Lee's Summit HS
President Elect — **SCOTT ANTLE**, East Buchanan HS
Past President — **RON HELMS**, Lindbergh HS
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St. Louis — **JENNIFER TILLER**, Sperreng MS
South Central — **KURT KELLER**, Owensville HS
Southeast — **TOM WILLIAMS**, Sikeston HS
Southwest — **DAVID STEWARD**, Monett HS

Missouri Charter Public School Association

3908A Bell Street
Kansas City, MO 64111
Office: (816) 569-5305
Fax: (816) 569-5306

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Charter Public School Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and out nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Cheri Shannon

Cheri Shannon, Executive Director
Missouri Charter Public School Association

MCCTA
missouri council of career & technical administrators

December 30, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Council of Career & Technical Administrators enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our association leaders will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Bob Larivee, Executive Director
Missouri Council of Career & Technical Administrators

post office box 622 • cape girardeau, missouri 63702 • 573.803.0028 phone/fax • mccta1@charter.net

MISSOURI METS
mathematics engineering technology science
COALITION

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Mathematics, Engineering, Technology and Science (METS) Coalition enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Byron Keelin, CAE
Executive Director
Missouri METS Coalition

428 East Capitol | P.O. Box 149 | Jefferson City, MO 65102-0149 | Phone: 573-634-3511 | Fax: 573-634-8855
www.missourimets.com

Missouri PTA
everychild. onevoice.® Together

2100 I-70 Drive SW, Columbia, MO 65203-0099
1-800-328-7330 Fax: 1-573-445-4163 1-573-445-4161
office@mopta.org www.mopta.org

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri PTA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless educational system. Our members will work with the Missouri Department of Education and our other state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future. Specifically, we will work to ensure that family engagement is a priority in school-level reforms, ongoing mechanism for family and community engagement are implemented in school transformation strategy, and the positive family and community engagement is included as a measure of effective school leaders. As well, it is our hope that all children in the state will benefit, particularly those who have difficulty achieving within the current educational standards. Missouri PTA is determined to see that every child has the opportunity to reach their full potential. Together we can do great things.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Wendy Jackson
Missouri PTA President

"Alone we can do so little, together we can do so much"
Helen Keller

MISSOURI SCHOOL BOARDS' ASSOCIATION
HELPING PUBLIC SCHOOLS SUCCEED

January 8, 2010

Dr. Chris Nicastro
Commissioner
Department of Elementary and Secondary Education
PO Box 480
Jefferson City, MO 65102

Dear Chris:

The Missouri School Boards' Association supports Missouri's application to secure "Race to the Top" funding in order to continue and expand our state's efforts to ensure that all Missouri students are equipped to thrive in the world of the 21st century.

The Missouri School Boards' Association believes Race to the Top funding should help us extend research-supported, field-proven, governance-focused training and development of school boards beyond the minimum requirements of statute to help both performance-challenged and historically successful school districts ensure that every student is learning, in every subject, every year. We strongly urge DESE to include governance topics as mentioned above. School board members understand the critical value of strong classroom, building, and district leadership and look forward to Race to the Top-supported opportunities to strengthen Missouri's performance standards for students, teachers, and administrators. Our members have promoted the value of data-driven decision making for school success for nearly two decades, and we know that more robust data collection and data-analysis infrastructures must be created if our schools are to be competitive in the 21st century. The costs of these infrastructures can be met with the prudent use of Race to the Top funds.

We also strongly support the inclusion of an "opt-out" provision for local school districts. This is important since local school officials may not have the opportunity to review the entire application prior to submission.

Given what we know at this time, we support DESE's efforts to present the U.S. Department of Education with a proposal that reflects these values, needs, and goals and we appreciate the promised future opportunity to review that proposal's specific contents as we consider its benefits to individual districts.

Sincerely,

Carter D. Ward, Ph.D.
Executive Director

CDW/bg

2100 I-70 Drive Southwest Columbia, Missouri 65203 VOICE **573 445-9920** FAX **573 445-9981** INTERNET **www.msbanet.org**

CAPITOL OFFICE
STATE CAPITOL, ROOM 331
JEFFERSON CITY, MISSOURI 65101
TELEPHONE 573-751-3859
FAX 573-526-1384
TDD 573-751-3969
TOLL FREE 877-291-3584
E-MAIL: rob.mayer@senate.mo.gov

DISTRICT OFFICE
P.O. BOX 571
21 VINE STREET
DEXTER, MO 63841
TELEPHONE: 573-624-2200

MISSOURI SENATE

JEFFERSON CITY

ROBERT MAYER

25TH DISTRICT

COMMITTEES
APPROPRIATIONS, Vice-Chair
EDUCATION, Chair
MEMBER
AGRICULTURE, CONSERVATION, PARKS AND NATURAL RESOURCES
GOVERNMENTAL ACCOUNTABILITY AND FISCAL OVERSIGHT
JUDICIARY AND CIVIL AND CRIMINAL JURISPRUDENCE

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

I, and many other Missouri State Senators, enthusiastically support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. I will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

SENATOR ROBERT N. MAYER

CITY OF NIXA

ADMINISTRATION
P.O. Box 395
715 W. Mt. Vernon
Nixa, Missouri 65714
Phone: 417-725-3785
Fax: 417-725-6394

January 4, 2010

Nixa RII School District
Dr. Stephen Kleinsmith, Ed.D
205 North Street
Nixa, MO 65714

Re: Race to the top (RT3) application

Dear Dr. Kleinsmith:

The City of Nixa is in full support of the Nixa RII School District's receipt of RT3 grant funds to partnership with the State to effect important educational reform(s).

The City relies on the Nixa RII School District to provide the best educational opportunities for our constituents. Nixa RII School District's record clearly shows that not only are you contributing positively to your students' educational growth, but that you provide an invaluable economic development attribute for our entire community and region.

I have no doubt that if the Nixa RII School District were to benefit from receipt of these RT3 funds you would successfully achieve an unprecedented reform of our educational system not only for the district but for the State as a whole.

Good luck, and please let us know if there is anything further that we can do to assist you in your efforts.

Sincerely,

Brian J. Bingle
City of Nixa, Administrator

December 31, 2009

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

Dow Clayton

Nixa Lions Club President

PO Box 1331
Nixa, MO
65714

Elizabeth Aley
President

elizabetha@mopta.org
417-724-0331

Monday, December 28, 2009

Dr. Chris NiCastro
Commissioner of Education
Missouri Department of Elementary and Secondary Education
205 Jefferson Street
Po Box 480
Jefferson City Mo 65102-0480

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

Elizabeth Aley
Nixa PTA Council
President

The ratio of We's to I's is the best indicator of the development of a team.
- Lewis B. Ergen

None of us, including me, ever do great things. But we can all do small things, with great love, and together we can do something wonderful.
Mother Teresa

022089

NIXA

Ministerial Alliance

P.O. BOX 1272 Nixa, MO 65714

December 23, 2009

Dear Commissioner NiCastro,

I am grateful for the opportunity to discuss why Nixa Public Schools should receive significant consideration in the Race to the Top program. With a little research, you will quickly discover that our school district continues to set the bar in Missouri and in the nation as a whole when it comes to preparing students for their next step following an excellent education experience. Whether on to higher education or direct engagement into the workplace, Nixa students leave well equipped to enter the world as highly contributing members of society.

As a father of a special needs elementary child, I have also witnessed the school's commitment to equip the student, parent, and teacher to collectively work together in not only forming a well designed plan for progress but revealing the resolve to make sure that plan propels the child to completion.

The key to Nixa's success is clearly found in those who lead. From a school district that continues to attain the highest accolades, to an administration which fosters a spirit of positive perseverance, to teachers allowed to openly pursue better and more productive processes that well match their own particular gifts and talents.

Though in many ways Nixa already resides upon the top, the school pursues even higher summits yet discovered. Without hesitation, I highly recommend our Nixa Public Schools to participate in the Race to the Top program.

Sincerely,

(b)(6)

Dr. Steve Martin,
President of the Nixa Ministerial Alliance
(417) 353-5903; smartin@nixafire.org

NIXA
AREA CHAMBER of COMMERCE

105 Sherman Way, Suite 108 | Nixa, MO 65714 | PH: 417.725.1545 | FX: 417.725.4532

January 5, 2010

Dear Commissioner NiCastro,

I am writing this letter in support of Nixa Public School's desire to participate in the Race to the Top program. This program is a great opportunity for Missouri to continue to improve its educational system. Nixa is a shining example of excellence in education, and the district's participation in the program would be a great example of a school district that is successful and would be successful in this program.

The program's desire to help students succeed from early childhood through post-secondary education or workforce placement will help Nixa continue the tradition of success that will directly impact the community, state, country, and the world.

Sincerely,

(b)(6)

Sharon Whitehill Gray
President/CEO

096088

North County Incorporated
3508 Village Square Drive
Hazelwood, MO 63042
314.895.6241
(fax) 314.895.6244
www.NorthStLouisCounty.com

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful stakeholders forum to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online Stakeholder Survey.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, North County Incorporated (NCI), a regional development association, supports the development of the RT3 application. NCI will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Rebecca Zoll
President/CEO

NORTHWEST
CHAMBER OF COMMERCE
Since 1951

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful stakeholders forum to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online Stakeholder Survey.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Northwest Chamber of Commerce supports the development of the RT3 application. Northwest Chamber of Commerce will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Lawrence F. Perney
President/CEO

Northwest Chamber of Commerce • 11965 St. Charles Rock Road • Suite 203 • Bridgeton, MO 63044
p:. 314.291.2131 f:. 314.291.2153 w:. www.northwestchamber.com

Serving the following communities in Northwest St. Louis County:

Breckenridge	Charlack	Edmundson	Overland	St. John	Vinita Park
Bridgeton	Earth City	Hazelwood	St. Ann	Sycamore Hills	Woodson Terrace

OBA

Overland Business Association
P.O. Box 142784
Overland, Missouri 63114
www.overlandbusinessassociation.org

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Overland Business Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Mitchell A. Wilson, President

Mike Schneider
MAYOR

9119 LACKLAND ROAD
CITY OF OVERLAND, MISSOURI 63114
TELEPHONE: (314) 428-4321
mayorschneider@overlandmo.org

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of Overland enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Mike Schneider
Mayor

January 8, 2010

REGIONAL
BUSINESS
COUNCIL

To Whom It May Concern:

The St. Louis Regional Business Council (RBC) believes the vitality of the region will depend on the education provided to the students across Missouri. It is to this point, that one of the areas members of the RBC have decided to focus their attention on is education. We believe the Missouri Department of Education's efforts to reorganize the Department and provide more effective and efficient support for schools and students are the right steps to helping not only the students in the St. Louis region, but students throughout Missouri.

The RBC is composed of 100 CEO's representing some of the region's largest employers. RBC companies collectively employ over 100,000 individuals and are headquartered in the region, with a vested interest in the development and quality of education within the region's 16 counties. RBC members have directed significant resources to the St. Louis Public School District, one of Missouri's struggling districts, by supporting programs that send principals to leadership academies, as well as other programs committed to preparing our students to be competitive in today's global economy and instituting educational reforms to achieve that vision. Supporting teachers and leaders is a focus of our organization because the research supports that strong teachers and leaders provide real results for student achievement. Therefore, we are excited Missouri's application includes a focus on providing supports for teachers and leaders.

The United States Department of Education's Race to the Top (RT3) competition allows states to develop and implement effective reform measures to improve education and prepare students to be competitive in today's global economy. The RBC believes Missouri is well suited for this grant due to the strong programs already available in the state that can be leveraged to support struggling Missouri schools and students, combined with the strong vision and support from a variety of Missouri stakeholders ready to be involved in providing bold reforms.

We are committed to working with the Missouri Department of Education and appreciate your consideration of our proposal.

Regards,

(b)(6)

Kathleen T. Osborn
Executive Director
The Regional Business Council

7701 FORSYTH BLVD.
SUITE 205
SAINT LOUIS,
MISSOURI 63105

tel 314.225.2100
fax 314.225.2109

WWW.STLRBC.ORG

096111

January 6, 2010

To Whom It May Concern,

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a Missouri stakeholder, the Riverview Gardens Parent Advisory Council enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the school district to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Doris E. Wilson

Doris Wilson, President
Riverview Gardens School District Parent Advisory Council

057001

SILEX R-I SCHOOL DISTRICT

"WORKING TO BE THE BEST SMALL SCHOOL IN MISSOURI"

P.O. Box 46 64 Highway UU Silex, MO 63377

T: 573-384-5227 F: 573-384-5996
www.silex.k12.mo.us

Elaine Eversmeyer Henderson
Superintendent

Bruce Werkmeister
High School Principal

Suzie Plackemeier
Elementary Principal

Date: January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Silex R-I CTA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Michelle L. Medcalf

Michelle L. Medcalf
President
Silex R-I CTA

096119

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special Education Employees Association (SEEA) of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Linda Cruise

Linda Cruise
President
Special Education Employees Association
Special School District of St. Louis County, Missouri

096119

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special Education Support Personnel Association (SESPA), of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Angie Vaughn
President
Special Education Support Personnel Association
Special School District of St. Louis County, Missouri

CARPET, LINOLEUM, HARDWOOD AND TILE LAYERS TRAINING TRUST FUND
Carpenters' District Council of Greater St. Louis and Vicinity

Joint Apprenticeship and Training Committee

8300 Valcour Avenue
St. Louis, MO 63123-9822
314/457-8301
FAX 314/457-8309

January 8, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the St. Louis Floor Layers' Training Program enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Greg Hefele
Coordinator
St. Louis Floor Layers' Training Program

8 JAN '10 AM 8:05

January 6, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Special District Visual Language Specialists (SDVLS) of the Special School District of St. Louis County enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

Karen Sater

Karen Sater
President
Special District Visual Language Specialists
Special School District of St. Louis County, Missouri

* Note: Please see three attached pages.

MSTA

St. Joseph School District

To: Department of Elementary and Secondary Education
From: St. Joseph School District's Teacher Organization
(Missouri State Teacher's Association)
Date: January 5, 2010
Re: Memorandum of Understanding

The respective teacher organization presidents sign on behalf of the School District of St. Joseph with strong reservation because we are being asked to support the state plan that we have not been given an opportunity to read. We share concerns raised by our organizations. In addition, it is not clear as to how our support can be withdrawn once the final version of the state plan is written and implementation begins. It is our understanding that any district who does not have their MOU into DESE by the deadline will not be able to apply for competitive grants should the state's application be successful. We also believe that even though we have agreed to the terms of the MOU, our district has the option of not applying, and therefore we would potentially be released from any of the MOU assurances.

We commend the RTT effort and we appreciate the program's intent to reform American public education.

Sincerely,

Terri Zeamer

Terri Zeamer
CTA President
Missouri State Teacher's Association

P.O. Box 188, 118 South 5th
St. Joseph, MO 64502
816-364-2381, Fax 816-364-6030
sjuway@ponyexpress.net
www.stjosephunitedway.org

United Way
United Way
of Greater St. Joseph

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the United Way of Greater St. Joseph enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work continue to work with the local school district to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Brenda K. Shields
President

think ahead
emPowerU

January 5, 2010

To Whom It May Concern:

Heartland Foundation submits this letter of support on behalf of the St. Joseph School District, St. Joseph, MO, for consideration as a participant in "Race to the Top" (RT3). The State of Missouri's involvement in the U.S. Department of Education's RT3 program provides a very timely opportunity to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our education system. This work will directly impact Missouri students by providing a successful transition from early childhood through post-secondary education, leading them into the workforce with strong, competitive skills for the global economy.

The St. Joseph School District plays a key partnership role with Heartland Foundation and our Healthy Communities Regional Investors through active participation in our P-20 Business and Education Council. This Council, which has received statewide attention, brings education, business and community leaders together to advocate for higher levels of education for the future workforce. A number of regional strategies are in place to open doors in preparing individuals to become self-sufficient, lifelong learners. In addition, the St. Joseph School District participates in a number of Heartland Foundation's innovative programs to empower youth: emPower Plant, Jump Starters, Project Fit, and Public Achievement.

As major Missouri stakeholders, Heartland Foundation and our Healthy Communities Regional Investor Council enthusiastically support the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. We will work with the MO Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

We appreciate your consideration of St. Joseph School District, our young people, and the future of our communities. Please feel free to contact me at 816 271 7200 if you have questions or would like to visit with me. Thank you.

Sincerely,

(b)(6)

Judith K Sabbert
Chief Operating Officer

818 S. 6th Street – St. Joseph, MO 64501-9820 – 816.271.7200 – 1.800.447.1083 – 816.271.7269 – www.heartlandfoundation.org

YMCA
ACTIVATE
ST. JOSEPH

January 5, 2010

To Whom It May Concern:

The United State Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the St. Joseph Family YMCA enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our Staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Mark F. Cartledge

Mark F. Cartledge
Executive Director/CEO

MFC:cas

St. Joseph Family YMCA
315 S. Sixth Street • St. Joseph, Missouri 64501
(816) 233-YMCA (9622) • Fax (816) 233-8288 • Website www.stjoymca.org

MISSION: To put Christian principles into practice through programs that build healthy spirit, mind and body for all.

United Way

City of St. Joseph

1100 Frederick Avenue, St. Joseph, Missouri 64501

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Vincent J. Capell
City Manager

Heartland Health

HEALTHY CHOICES.
Healthy Lives

5325 Faraon Street St. Joseph, Missouri 64506-3398 Phone 816-271-6000

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Heartland Health enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Yours truly,

(b)(6)

Mark Laney, MD
President & CEO

Community Alliance of Saint Joseph

3003 FREDERICK AVENUE
ST. JOSEPH, MO 64506

PHONE: (816) 364-4109
FAX: (816) 364-4873

January 4 2010

To Whom It May Concern:

The US Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire state.

The state of Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey "

The RT3 proposal will present a statewide vision and a bold innovative plan for systemic educational reform in Missouri over the next decade.

The Community Alliance of Saint Joseph, as a major Missouri stakeholder enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our partner members include the St. Joseph Area Chamber of Commerce, Heartland Health, Missouri Western State University, the St. Joseph School District, the City of St. Joseph, Buchanan County and the St. Joseph Convention & Visitors Bureau will work in partnership with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future. Nothing could be more important to our state. The Community Alliance goals include increased education opportunity and attainment, quality jobs and improved livability.

Your consideration on behalf of Missouri's children will be very much appreciated We look forward to this new partnership opportunity

Please don't hesitate to contact me if you have additional questions or if we can be of further assistance.

Kindest regards

(b)(6)

Steve Johnston
Director

Buchanan County Commission

411 Jules Street, Room 122

St. Joseph, Missouri 64501-1786

(816) 271-1503 • Fax (816) 271-1569

Ron Hook
Commissioner
Western District

Royal Turner
Presiding Commissioner
Buchanan County

Dan Hausman
Commissioner
Eastern District

January 11, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Buchanan County Commission enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Royal Turner
Presiding Commissioner

Dan Hausman
Eastern District Commissioner

Ron Hook
Western District Commissioner

036137

Sullivan Teachers' Association
Susan Lindaman, President
PO Box 824
Sullivan MO 63080

Subject: Support for RT3

12/22/09

To Whom It May Concern:

The Sullivan Teachers' Association has providing the children with a high quality educational experience as one of its goals. Our teaching staff will be supportive of any grant that helps our students.

We believe that the United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Sullivan Teachers' Association of the Sullivan School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

Susan Lindaman

Susan Lindaman, Sullivan Teachers' Association President

036137

Missouri Preschool Project Parent Advisory Committee
Amy Wiegers, President
Sullivan Primary School
Sullivan School District
1132 Elmont Road
Sullivan MO 63080

Subject: Support for RT3

January 4, 2010

To Whom It May Concern:

As parents we support anything that will help our children and we believe that the United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Missouri Preschool Project Parent Advisory Committee of the Sullivan School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our families will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely

Amy Wiegers

Sullivan Missouri Preschool Project Parent Advisory Board President

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey." I was honored and happy to attend that forum.

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, our company enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education in any manner we can, along with other numerous state partners, to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

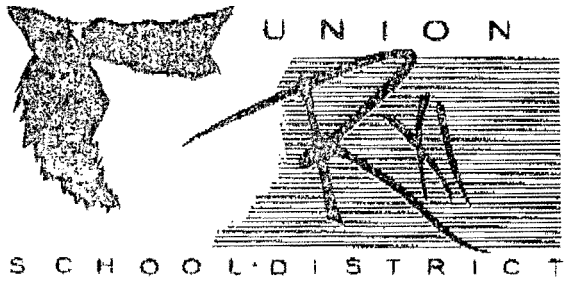
Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

(b)(6)

Rod Wright, Ph.D.
President/UNICOM•ARC

036131



P.O. Box 440 Union, Mo. 63084

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated

Megan Julius NEA Local President
Dianne Buchholz Chair of the Legislative Support Team

096112

City of University City

Office of Mayor
6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 505-8606, Fax: (314) 863-9146

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the City of University City enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our City will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely yours,

Joseph L. Adams
Mayor
University City

Urban League
of Metropolitan St. Louis, Inc.
Empowering Communities. Changing Lives

James H. Buford
President, CEO

Officers 2009-2010
Stephen C. Jones
Chairman
[illegible]
Vice Chairman
Denise Denham
Treasurer
Frederick Higgins
Secretary
Mark Levison
General Counsel

Board of Directors
Dr. [illegible]
Dr. Robert Archibald
[illegible]
Andrew Baker
Richard Banks
Rebecca Barnes
[illegible]
Lynn Hall
Robert E. Roll
Raymond Barnes
Michael Burns
Jack Creey
Christina Chadwick
Debra Dawson
Frances Eichenberger
Richard Schwab
Dave [illegible]
Rabbi Randy [illegible]
Richard [illegible]
Frances W. [illegible]
Jerry Fox
[illegible]
Dr. Harry Gwen
Dr. Dennis Gutter
Michael Rubin
Frank [illegible]
Zelenka [illegible]
Edward [illegible]
Debora Hollingsworth
Alan D. Lee, IV
[illegible]
Reverend Sanford [illegible]
Stephen C. Jones
Kendrick Jochwak
Anthony Kinslow
Barbara Kodus
Richard Kuhn
Mark Levison
John Lyday
[illegible]
Patrick McNamara
Richard H. Mills
Tony Mirco
Barbara Moore
John Mulcahy
David Nichols
Kathleen T. Osborn
Emily Pitts
Robert Porter
Reverend B.T. Rice
Dr. Constance Rucking [illegible]
William Rushack
William Schenck
Todd R. Schnuck
Bryan Scott
Ellen Sherberg
Armando Sildo Roman
John Sweet
Chris Sudora
Andrew Sudora
Dr. Dorian Sugns
Barbara Thompson
Thomas Voss
Robert E. Walpole
Keith Wilkinson
Dr. Kay Wilson
Donald C. Wood
Col. William H. Young

January 8, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, the Urban League of Metropolitan St. Louis enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Respectfully,

(b)(6)

James H. Buford
President & CEO

BBB ACCREDITED CHARITY
www.bbb.org

Affiliated with the National Urban League

United Way of Greater St. Louis

Agency Headquarters 3701 Grandel Square St. Louis, MO 63108 (314) 615-3600 www.ulstl.org

049144

Webb City Area Chamber of Commerce

At the Entrance to King Jack Park
P.O. Box 287, Webb City, MO 64870
Telephone: 417-673-1154
Fax: 417-673-2856
Lou Cutheil, President
Dixie Meredith, Executive Director
www.webbcitychamber.com

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Webb City Area Chamber of Commerce enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

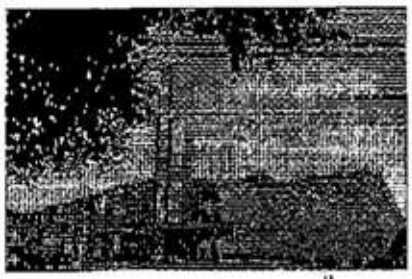
Sincerely

(b)(6); (b)(7(C)

Dixie Meredith
Executive Director

Webb City
We Love It Here!

Our mission is to expand, retain and advocate for our economic base, to support our educational programs and to promote the quality of life in our community.



Zion Grove Missionary Baptist Church

H.O.P.E. Outreach Ministry of Kansas City

2801 Swope Parkway
Kansas City, MO 64130
(816)924-1818 or (816)924-1821(fax)
www.ziongrove.org

Senior Pastor
Michael E. Brooks

Youth Pastor
Loren Reed

Trustee Chair
Linda Rollins

Deaconate Team
C.A. Collins
Ross Harris
John McIntosh
Pamela McMickle

Executive Admin. Assistant
Lisa Ross

The Place of God's Presence

The Place of God's People

The Place of God's Praise

The Place of God's Peace

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students.
As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the Rt3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Zion Grove Missionary Baptist Church enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Yours in Christ

(b)(6)

Michael E. Brooks, Senior Pastor

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a parent of children in the Missouri education system, I enthusiastically support the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Penny J. Rusk

January 7, 2010

To Whom It May Concern:

The U.S. Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for the state of Missouri to build on its strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system.

As a major Missouri stakeholder, Larry and Joyce Opinsky enthusiastically supports the development of the state of Missouri's RT3 application and subsequent implementation of a comprehensive and seamless education system.

More than just a request for federal funding, Missouri's RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

On behalf of our children, your consideration of Missouri's RT3 application is greatly appreciated.

Sincerely,

(b)(6)

Larry Opinsky
14229 Parliament Drive
Chesterfield, Missouri 63017
Phone (314)878-0868

1/6/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the PTO enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be greatly appreciated.

Sincerely,

Sabrina Cook

Sabrina Cook PTO President

A Union of Professionals
AFT Missouri
AFL-CIO

An affiliate of the
American Federation
of Teachers, AFL-CIO

423 E. High Street
Jefferson City, MO 65101
T: 573/635-0073
F: 573/634-5059

www.aftmissouri.org

Scott Ciafullo
PRESIDENT

January 8, 2010

Mrs. Chris L. Nicastro
Commissioner of Education
Department of Elementary and Secondary Education
205 Jefferson Street
P.O. Box 480
Jefferson City, MO 65102

Dear Commissioner Nicastro:

Thank you for the opportunity for AFT Missouri to provide feedback as it relates to the Race to the Top "RT3" grant application. First of all, I applaud President Obama for the opportunity for states to move forward on ground breaking, transformative ideas in education and actually funding the initiative. AFT fully supports collaboration between DESE, our locals, and their districts throughout the state of Missouri.

We share your "vision of a system of support that provides everyone from the youngest child to the busiest policy maker with the experiences, the information, the access, the training, and feedback necessary to produce exceptional educational outcomes". We further agree that "children need to be ready for school, ready to achieve at high levels, ready to go on to college and ready to enter the workforce".

Throughout the years, AFT has strongly supported high standards, accountability, and quality professional development. I would also like to express some concerns we have with the states Race to the Top application. They are as follows:

Exhibit 1. Section D #1	Great Teachers and Leaders Revise the performance-based teacher evaluation
Exhibit 1. Section D #3	Conduct annual evaluations to inform decisions around compensation, promotion, retention, remediation, removal

A Union of Professionals
AFT Missouri
AFL-CIO

An affiliate of the
American Federation
of Teachers, AFL-CIO

423 E. High Street
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F: 573/634-5059

www.aftmissouri.org

Scott Ciafullo
PRESIDENT

Exhibit 1. Section D #4	Provide support and assistance in the development of a performance salary and contribution model that takes into account student performance and teacher/leadership contributions
Exhibit 1. Section D #9	Develop incentives for other non-traditional teacher preparation programs including teacher residencies or similar.
Exhibit 1. Section E #5	Turning around the lowest – achieving schools – Expansion of charter schools We are not in favor of expanding charter schools but do welcome the thought of greater accountability.

We fully support the idea of improving public schools throughout the state of Missouri and agree with some of the aspects of the proposal but, on the other hand can't agree on or support the above mentioned concerns. In addition, we are not in favor of doing away with teacher tenure. AFT Missouri believes before any of our locals' sign an MOU on behalf of this proposal two things should be in place. First, they should have a fully copy of the plan so that they can make an intelligent decision based on the specifics of the plan. Secondly, we are encouraging all our locals to include the attachment signed by the union and districts to only make changes to their agreement through the collective bargaining process

Thanks again for the opportunity to share our thoughts and concerns. I look forward to working with you in the future on behalf of all Missouri's children.

Sincerely,

Scott Ciafullo
President

Attachment

A Union of Professionals
AFT Missouri
AFL-CIO

ADDENDUM

RACE TO THE TOP MOU

The LEA and the Union agree to bargain in good faith over matters within the scope of the MOU, assuming the grant is funded. The parties further agree that such bargaining shall only apply to matters contained in the MOU which are subject to collective bargaining and that implementation will only take place where there is mutual agreement between the LEA and the Union. Nothing in this MOU shall be construed to alter or otherwise affect the rights, remedies, and procedures afforded employees of the school district under Federal, State, or Local laws (including applicable regulations or court orders) or under the terms of collective bargaining agreements, memorandums of understanding, or other agreements between such employees and the school district.

LEA Signature _____

Union Signature _____

Missouri NEA
Something Better for Children and Public Education

Headquarters
1810 East Elm Street
Jefferson City, MO 65101
573·634·3202 / 800·392·0236
fax 573·634·5646
www.mnea.org

January 7, 2010

To Whom It May Concern:

We understand that our children's future and the future of Missouri as a thriving state are at stake, and we realize that our most important responsibility is to make sure that each Missouri student has the opportunity to attend a great public school. As a major Missouri stakeholder, Missouri NEA continues to support the development of meaningful education transformation.

More than just a request for federal funding, the RT3 proposal should present a statewide vision and a bold, innovative plan for systemic education transformation in Missouri for the next decade and beyond. That vision must include an effective voice for teachers in building and implementing the plan as efforts move forward at both the state and local levels. Our challenge is to demonstrate that reform is, as President Obama and Secretary Duncan have said, something that can be done ***with*** educators rather than ***to*** them.

MNEA members have participated enthusiastically in the Missouri Department of Elementary and Secondary Education's stakeholders' forum and survey because they understand the responsibility they have to participate meaningfully in the RT3 development process – they strive to be partners in this important work. The Missouri RT3 Plan includes many concepts with which we agree. A few examples of those concepts are accountability; rigorous standards for students, educators, schools and teacher training institutions; stronger graduation requirements; improved data systems; effective professional development; recruitment and support of teachers and school leaders; stronger mentoring programs for teachers and administrators; quality early learning programs; "teachers as leaders" opportunities; extra support for students and educators in chronically low-performing schools; and improvements to the Performance-Based Teacher Evaluation and Performance-Based Principal Evaluation process. However, such sweeping and significant programs are doomed to failure without long-term, ongoing federal funding or a dramatic change in current state tax structure to increase funding support for public education.

The current draft of the plan falls short in recognizing and supporting the critical role education professionals must play in successful transformation efforts. At this point, a final version of the plan has not been made available to us and we have only been allowed to review a draft of the "Great Teachers and Leaders" section. The most recent Missouri RT3 plan includes language that mandates concepts such as peer evaluation and review, alternative compensation, and changes to the school calendar, but fails to mention that these programs have only proved successful when bargained at the local level.

Chris Guinther, President
Ben Simmons, Executive Director
An Affiliate of the National Education Association

We do not support:

- Proposals to abolish tenure without replacing it with substantive due process
- Proposed changes to the Public School Retirement System without broad based support from stakeholders
- Proposals including pay for performance or merit pay based on student test scores
- Suspension of current class size regulations creating unreasonable workloads for selected teachers

In the past, some school districts have failed to involve teachers and other professional staff members in necessary dialogue and cooperative effort for significant school reform and change efforts. The Missouri RT3 plan should include language that encourages a more cooperative and collaborative relationship at the local level and bargained agreements to help implement change.

Our members and staff stand ready to work with DESE and our other state partners to develop a meaningful vision for the future of public education in Missouri.

Sincerely,

Chris Guinther

Chris Guinther
Missouri National Education Association President

004110

Mexico Public Schools

920 South Jefferson
Mexico, Missouri 65265
Telephone (573) 581-3773
Fax (573) 581-4410

December 30, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Mexico School District No. 59 enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Tina Woolsey

Tina Woolsey
Superintendent

005123

CASSVILLE SCHOOL DISTRICT

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Cassville R-IV School District (005-123) enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our administrative staff and faculty will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Jim Orrell
Superintendent

006101

Home of the Bulldogs

Liberal R-2 Schools

Liberal R-II School
P.O. Box 38
107 S. Payne
Liberal MO, 64762

Phone: 417-843-5115
Fax: 417-843-6698

Superintendent
Bill Harvey
bharvey@
liberal.k12.mo.us

School Board
Brian King
Board President
Kyle Kirby
Vice President
Wendy Rose
Secretary
Kristyn Bowman
Member
Brent Hanshaw
Member
Gary Smith
Member
Christie Ulrich
Member
Brian Williams
Member

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Liberal R-2 School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff members will work with the Missouri Department of Education and our other numerous partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

William O. Harvey
(Superintendent's Signature)

1/4/10
(Date)

Brian K. King
(Board Presidents' Signature)

1-4-10
(Date)

"Guiding youth toward excellence in education"

013059

POLO R-VII SCHOOL DISTRICT

300 West School Street
Polo, MO 64671
Http://polo.k12.mo.us

Central Office: 660-354-2326
Central Office Fax: 660-354-2910

High School Office: 660-354-2524
High School Fax: 660-354-2738

Elementary Office: 660-354-2200
Elementary Fax: 660-354-3162

Home of the Panthers

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the goal economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Polo R-VII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members (staff) will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely yours,

Allen Henry
School Board President

Robert Newhart
Superintendent of Schools

POLO R-VII SCHOOL
300 West School Street
Polo, MO 64671

019152

Belton School District #124

ENCOURAGING • CHALLENGING • ACHIEVING

Dr. Kenneth Southwick
Superintendent

Dr. Michael Slusher
Deputy Superintendent
Pupil Services

Dr. Tanya Shippy
Assistant Superintendent
Human Resources

Dr. Sandy Clutter
Assistant Superintendent
Special Services

Dr. Sara Jones
Assistant Superintendent
Elementary Education

Central Office

Dr. Kenneth Southwick
Superintendent

110 W. Walnut
Belton, Missouri 64012
www.beltonschools.org

Phone 816-348-1084
Fax 816-348-1083
ksouthwick@bsd124.org

December 29, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Belton School District #124, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Kenneth E. Southwick, Ed.D.

035102

KENNETT PUBLIC SCHOOLS
MEMBER OF NORTH CENTRAL ASSOCIATION SINCE 1913
510 COLLEGE
KENNETT, MISSOURI 63857

Telephone (573) 717-1100 ✦ Fax (573) 717-1018

JERRY NOBLE
Superintendent

CHRIS WILSON
Assistant Superintendent

December 22, 2009

TO WHOM IT MAY CONCERN:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Kennett School District No. 39 enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jerry Noble
Superintendent of Schools
Kennett District No. 39

0361134

SPRING BLUFF R-XV SCHOOL

REORGANIZED DISTRICT NO. 15 OF FRANKLIN COUNTY
MRS. KAY D. BYLO – SUPERINTENDENT
MRS. JEANNIE JENKINS - PRINCIPAL
9374 HIGHWAY 185 SULLIVAN MO 63080
PHONE 573-457-8302 FAX 573-457-2070

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood
through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Spring Bluff R-XV School Community Teacher's Association enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed
to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully submitted,

Vivian Whalen

Vivian Whalen
President
Spring Bluff R-XV School community Teacher's Association

046-134

BOARD OF EDUCATION

Mr. Jimmy E. Thompson, President
Mr. Terry "Bo" Pace, Vice-President
Mr. Sam Riggs, Member
Mr. Johnny Murrell, Member
Mrs. Cindy Tyree, Member
Mr. Shawn Rhoads, Member
Mr. Chuck Robson, Member
Ms. Sherrill Thompson, Secretary
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Administrative Offices
613 West First Street
West Plains, MO 65775
417-256-6150
417-256-8616 (fax)

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Dr. John Mulford, Assistant Superintendent
Mrs. Julie Thompson, Curriculum Director
Mrs. Connie Pendergrass, Director of Special Services
Mr. Jim Laughary, Senior High Principal
Mr. Marvin Hatley, Assistant, Senior High Principal
Mr. Joby Steele, Assistant, Senior High Principal
Mrs. Brenda Smith, Director, South Central Career Center
Mr. Josh Cotter, Assistant, Director SCCC
Mr. Scott Smith, Middle School Principal
Mr. Seth Bryant, Assistant Middle School Principal
Mr. Brad Owings, Elementary Principal
Ms. Karen Sholes, Assistant Elementary Principal
Mr. Seth Huddleston, South Fork Principal
Mr. Greg Simpkins, Athletic Director

Monday, December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry. Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.
As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Fred L. Czerwonka
Superintendent,
West Plains R-VII Schools

048072

Marge Williams, Ed.D.
Superintendent of Schools

Hickman Mills C-1 School District
ADMINISTRATION CENTER
9000 Old Santa Fe Road • Kansas City, MO 64138-3998
Telephone: (816) 316-7000 • FAX: (816) 316-7020

Educating for a lifetime of success

NCA Accreditation
MSIP Full Accreditation

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."
More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Regards,

Marjorie A Williams

Dr. Marjorie Williams

Grandview C-4 School District

"Where Kids Come First: Each and Everyone"

Grandview C-4 School District

♦Ralph Teran, Ed.D., Superintendent of Schools

OH 8074

♦Barbara A. Tate
Assistant Superintendent
Curriculum and Instruction

♦Debra Nelson
Assistant Superintendent
Human Resource Development

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholders Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview C-4 PTA Council enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jeff Rogers, President
Grandview C-4 PTA Council

Harry S. Truman Memorial Building - Grandview Educational Administrative Center
13015 10th Street, Grandview, Missouri 64030 816.316.5000 Fax: 816.316.5050 www.csd4.k12.mo.us

048-080

SCHOOL CENTER DISTRICT
Dr. Robert Bartman, Superintendent
8701 Holmes, Kansas City, Missouri 64131-2899
Telephone: (816) 349-3312
Fax: (816) 349-3431
E-mail: rbartman@center.k12.mo.us

A Fully Accredited, Missouri A+ School District...

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the TR3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Center School District #58 enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Bob Bartman

Robert E. Bartman
Superintendent

Merrell Bennekin, President
Board of Education

048911

BENJAMIN BANNEKER CHARTER ACADEMY OF TECHNOLOGY

Director/Superintendent Marian Brown, Ed.D.
mbrown_bbcat@yahoo.com

December 22, 2009

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Mia Houston Madison
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To Be Assigned
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Member

Forest Tyson, Jr.
Member

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, Benjamin Banneker Charter Academy of Technology enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Marian Brown

Dr. Marian Brown
Director/Superintendent

It is the policy of the Benjamin Banneker Charter School of Technology Public School System not to discriminate on the basis of race, color, sex, religion, national origin, age or disability in any employment practices, educational programs or activities.

048917

201 East Armour Blvd. Kansas City, MO 64111 816.531.7144

January 8, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Derrick Thomas Academy enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Stephan W. Wallace

Stephan W. Wallace
President,
Derrick Thomas Academy Charter School, Inc.
Board of Trustees

048919

Date: January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the ***Imagine Renaissance Academy of Environmental Science and Math – 048-919*** enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members ***Ms. Lillion Newborn, 314-241-3050 ext 21 or Lavon Bush, 314-241-3040 ext 14*** will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Lavon J. Bush, CPA
Missouri Regional CFO

048919

Date January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Imagine Academy of Environmental Science and Math, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

049148

Joplin Schools

1717 E. 15th Street • PO Box 128 • Joplin, MO 64802-0128
phone (417) 625-5200
fax (417) 625-5210

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Joplin School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. The faculty and staff of the Joplin Schools will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

For our kids,

Dr. C.J. Huff
Superintendent

050002

GRANDVIEW R-II SCHOOL DISTRICT

11470 Highway C
HILLSBORO, MISSOURI 63050

H. Michael Brown Ed. D.
Superintendent
(636) 944-3941
(636) 944-5239 FAX

Kimberly Bequette
Elementary Principal
(636) 944-3291
(636) 944-3870 FAX

James Keeling
Middle School Principal
(636) 944-3931
(636) 944-5238

Jaret Tomlinson
High School Principal
(636) 944-3390
(636) 944-3515 FAX

Jack Mann
Director of Special Ed.
(636) 944-3291

01/04/2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Grandview RII School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

H. Michael Brown, Ed. D
Superintendent

051159

Warrensburg R-VI School District
District Office
438 E. Market, P.O. Box 638
Warrensburg, MO 64093

Phone: (660) 747-7823
Fax:(660) 747-9615
Web Site: www.warrensburgr6.org

Dr. Deborah Orr, District Superintendent
Mrs. Sherry Potter, Director of Special Programs
Dr. Scott Patrick, Assistant Superintendent
Mr. Andy Kohl, Assistant Superintendent
Mr. John Finnane, Director of Curriculum and Assessment

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Warrensburg R-VI School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Deborah Orr
District Superintendent

059-117

Chillicothe R-II School District

P.O. Box 530 • 1020 Old Highway 36 West • Chillicothe, MO 64601
Phone (660) 646-4566 • FAX (660) 646-6508
www.chillicotheschools.org

Dr. Linda Gray Smith
Superintendent of Schools

Wade K. Schroeder
Assistant Superintendent

Pamela Fetter
Director of Special Services

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."
More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Chillicothe R2 School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Tom Chapman
Board President

Dr. Linda Gray Smith
Superintendent

Sheila Scott
NEA President

067061

Reorganized School District No. 1

Dr. Andrew E. Rogers
Superintendent
arogers@charleston.k12.mo.us

1014 S. Main Street, P.O. Box 39
Charleston, Missouri 63834
Telephone: (573) 683-3776 • Fax: (573)683-2909
www.charleston.k12.mo.us

Darrell A. Hoppe
Administrative Assistant
dhoppe@charleston.k12.mo.us

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Charleston R-1 School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Andrew E. Rogers

Andrew E. Rogers, Ed. D.
Superintendent

Board Members

Carol Jane Burke, President ~ Earl Farmer, Vice President ~ Sherry Austin ~ Jim Browning ~ Glenn E. Fennell, Sr. ~ Larry Smith ~ Shane Stewart

071092

Morgan County R-II School District

913 West Newton • Versailles, Missouri 65084

"An A+ School"

Jeffery B. Carter
Superintendent
Phone: 573/378-4231
Fax: 573/378-5714
e-mail: carterj@mcr2.k12.mo.us

Dr. Joyce Ryerson
Assistant Superintendent
Phone: 573-378-2656
Fax: 573-378-5714
e-mail: ryersonj@mcr2.k12.mo.us

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organization, state agency, etc.] enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system.

Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

President, Board of Education

Superintendent of Schools

Secretary of the Board of Education

075085

Phone (417 264-7261

Randy Ward, President
Bill Franz, Vice President
Carrie Tucker, Secretary
Wendy Carhart, Treasurer

THAYER schools
401 E. Walnut
Thayer, MO 65791

Fax (417) 264-4608

Doyle Fink, Member
Erman Croney, Member
Jed Underwood, Member
Anna Bohrisch, Secretary to the Board

Gaylon Justus
Elementary Principal

Rod Priest
Superintendent

Kevin Hedden
High School Principal

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade. As a major Missouri stakeholder, the Thayer R-2 School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system.

Our teachers and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Rod Priest, Superintendent
Thayer R-2 School District

007103

Dora R-III School District

Superintendent,
Dan Chappell
417-261-2346
Ext. 2001

High School
Principal
Rick Luna
417-261-2263
Ext. 2007

Elementary
Principal
Sherry L. Anstine
417-261-2263
Ext. 2008

Counselor,
Amanda Riley
417-261-2263
Ext. 2012

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Vicky Fox

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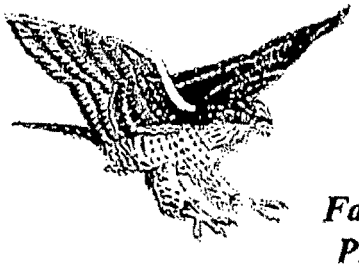

Falcon Pride

December 16, 2009

To Whom It May Concern:

The United States Department of Education's invitation fo states to participate in the Race to the Top (RT3) competition is an outstanding oppo unity for Missouri to build on strengths, extend existing reform work, and develop a com rehensive plan for improving our educational system. Such efforts will bring systemic e cational reform that will directly impact Missouri students. As a result, successful t nsition from early childhood through post-secondary education and into the workforce v ill permit equitable competition in the global economy and benefit our entire c tizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Ed cation has convened a successful "stakeholders forum" to discuss the RT3 grant p roposal, involved the state's 556 schools to define their participation, and launched an o nline "Stakeholder Survey."

More than just a request for federal funding, the RT3 prop sal will present a statewide vision and a bold, innovative plan for systemic educationa reform in Missouri over the next decade.

As a major Missouri stakeholder, the [educational organiz tion, state agency, etc.] enthusiastically supports the development of the RT3 appl cation and subsequent implementation of a comprehensive and seamless educatio n system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workf rce needed to launch Missouri, and our nation, into a prosperous future.
Your consideration on behalf of Missouri's children will b e appreciated.

Sincerely

Jeffrey Daniel Chappell
Superintendent

082108

Louisiana R-II School District
3321 W. Georgia Street
Louisiana, Missouri 63353
Mr. Daniel G. Jones
Superintendent of Schools
(573) 754-4261
(573) 754-4319 (fax)

JAN - 7 2010

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit out entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Louisiana R-II School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work the Missouri Department of Education and our numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Mr. Todd Smith
High School Principal
573-754-6181

Mr. Charles Tophinke
Middle School Principal
573-754-5340

Mr. Erik Melton
Elementary Principal
573-754-6904

Mrs. Thelma Livesay
Special Education
573-754-6904

Mr. Johnnie Wood
Athletic Directorr
573-754-3137

Mr. Scott Pursifull
Maintenance
573-754-4261

Mr. Allan Murry
Transportation
573-754-4894

Mr. Alan Bovshard
Technology Director
573-754-4261

Orchard Farm R-V School District

2165 Highway V
St. Charles, Missouri 63301
Telephone: (636) 250-5000 • Fax: (636) 250-5444
www.ofsd.k12.mo.us

090091

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Clinton Eddington
Member

Herb Farley
Member

ADMINISTRATION

Daniel G. Dozier, EdD
Superintendent

Timothy M. McInnis, PhD
Assistant Superintendent

Marianne Doll, EdS
Director of Special Services

January 4, 2010

To Whom it May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic education reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Orchard Farm R-V School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Dr. Daniel G. Dozier
Superintendent of Schools

DGD: bb

095059

STE. GENEVIEVE SCHOOL DISTRICT R-II

375 North 5th Street
Ste. Genevieve, Missouri 63670-1249

MIKEL A. STEWART
Superintendent of Schools

(573) 883-4500
FAX (573) 883-5957

January 11, 2010

To Whom It May Concern:

This letter is in support of Missouri's grant proposal for the Race To The Top funds. Administrators in the Ste. Genevieve R-II School District have participated in the preliminary survey to help shape the grant and feel that Missouri's proposal is a strong one. Missouri has been a leader in the development of state standards for many years. In addition, Missouri's state assessments are among the most rigorous in the nation. This work that has been in progress in Missouri for years would be enhanced if our state's Race To The Top grant proposal is funded. The Ste. Genevieve R-II School District is strongly in support of Missouri's Race To The Top proposal.

Sincerely,

Mikel A. Stewart
Superintendent of Schools

MAS:vl

096089

The Ferguson-Florissant School District

Ferguson-Florissant School District
Jeffrey R. Spiegel, Superintendent of Schools
1005 Waterford Drive • Florissant, Missouri 63033-3694
(314) 506-9004 • Fax (314) 506-9010
e-mail: jspiegel@fergflor.k12.mo.us

"Each Child as My Own"
Our Goal • Our Passion • Our Future

The Ferguson-Florissant School District

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Ferguson-Florissant R-2 School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Jeffrey R. Spiegel

Mr. Jeffrey R. Spiegel
Superintendent of Schools

JRS/lb

096-091

ROCKWOOD SCHOOL DISTRICT
Growing Together, Learning for Life

Administrative Center
111 East North Street
Eureka, MO 63025-1229

636.938.2205
636.938.2251 Fax
larsoncraig@rockwood.k12.mo.us

Craig H. Larson, Ed.D.
Superintendent of Schools

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Rockwood School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Craig H. Larson, Ed.D.
Superintendent

Visweswara Rao Kaza
President, Board of Education

Suzanne Dotta
RNEA President

OR6099

Bayless school district
Learning and Growing Together Since 1868

Administrative Office
8325 Hildesheim Avenue
St. Louis, Mo 63123-5798
p314.631.2244
f314.544.6315
www.baylessk12.org

Maureen E. Clancy-May, Ph.D.
Superintendent
p314-256-8601

Steven J. Brotherton
Asst. Superintendent
p314-256-8603

John C. Stewart
Chief Financial Officer
p314-256-8604

Bettie J. Downs
Technology Director
p314-256-8610

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Bayless School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. The Bayless School District staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Maureen Clancy-May

Maureen E. Clancy-May, Ph.D.
Superintendent of Schools

896103

EDUCATION . . .
Road To Success

Hancock Place School District

Administration

Dr. Greg Clark
Superintendent

Lisa Charles
Assistant Superintendent

Paul Northington
Director of Finance & Business Operations

Board of Education

Kevin Johnson
President

Tammy Tobin
Vice President

Lisa Dunn
Secretary

Deidra Woods
Treasurer

Joseph McLafferty
Director

Jean Parshall
Director

Rhonda Stratman
Director

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity which would assist Hancock Place School District to build on strengths and extend our comprehensive plans for school reform in our district. The RT3 efforts will bring systemic improvements that will directly impact Hancock Place students. As a result, our students will be provided a quality, cohesive educational program from early childhood through post-secondary education and into the workforce.

Hancock Place is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a participating LEA, the Hancock Place School District enthusiastically believes in the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our District will work alongside our community stakeholders to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Attached is our District's signed MOU for the Missouri RT3 program. Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

L. Greg Clark, Ed.D
Superintendent of Schools

9417 S. Broadway • St. Louis, MO 63125 • 314-544-1300 • FAX 314-631-3752

096114

WEBSTER GROVES SCHOOL DISTRICT
Glendale • Rock Hill • Shrewsbury • Warson Woods • Webster Groves
400 East Lockwood Avenue
Webster Groves, Missouri 63119
(314)961-1233 Fax (314) 963-6411
www.webster.k12.mo.us

January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Webster Groves School District enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Respectfully,

Janet Harnill
Board of Education
President

Sarah Booth Riss, Ed.D.
Superintendent of Schools

/j

JAN. 6.2010 5:05PM WEB GROVES SCH DIST NO.348 P.2

09713

Sweet Springs R-VII School District

Commitment To Excellence

Boyd N. Jones, Superintendent
660-335-4860

105 Main Street
Sweet Springs, MO 65351
http://sweetsprings.k12.mo.us

Equal Opportunity Employer

January 4, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Sweet Springs R-VII school enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members [staff] will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Mr. Boyd Jones
Superintendent
Sweet Springs R-VII

David Reinke
High School Principal
Ph: 660-335-6341

Donna Wright
Asst. Superintendent/Elem Educ.
Ph: 660-335-6348

Anna Fricke
Process Coord.
Ph: 660-335-6348

105-123

Green City R-I Schools

301 North East Street, Green City, MO 63545-9763

Donnie Campbell, Superintendent
E-mail: dcampbell@greencity.k12.mo.us
Phone 660-874-4128
Fax 660-874-4515

Mike Rennells, High School Principal
E-mail: mrennells@greencity.k12.mo.us
Phone 660-874-4127
Fax 660-874-5010

Ann Gray, Elementary Principal
E-mail: agray@greencity.k12.mo.us
Phone 660-874-4126
Fax 660-874-5950

January 6, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

GREEN CITY R-1

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systematic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Green City R-I School enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Donnie Campbell, Superintendent

15907

Date January 5, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Imagine Academy of Academic Success, enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our members and staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Mary Immaculate School
712 East Washington
Kirksville, Missouri 63501
(660) 665-1006

January 12, 2010

To Whom It May Concern,

In order for Missouri schools to continue to build on our strengths, extend our existing reform work and continue to develop a comprehensive plan for improving our educational system, it seems a great opportunity for us to participate in the Race for the Top competition.

As a major Missouri stakeholder, Mary Immaculate School in Kirksville, Missouri enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless educational system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Thank you for considering helping our Missouri students to continue in their educational endeavors.

Sincerely,

Sister Ruth Ann Klauser SSND

Sister Ruth Ann Klauser, SSND

Principal Mary Immaculate School

MDHE
Missouri Department of Higher Education
Building Missouri's future...by degrees

COPY

January 6, 2010

Dept. of Elementary
& Secondary Education
JAN 13 2010
Office of the
Commissioner of Education

Ms. Joanne Weiss
Director, Race to the Top
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202

Dear Ms. Weiss:

The United States Department of Education's invitation for states to participate in the Race to the Top competition is once-in-a-generation opportunity for Missouri to pursue a comprehensive and innovative reform agenda while building on its historic strengths. On behalf of the Missouri Coordinating Board for Higher Education and the Department of Higher Education (MDHE), I enthusiastically express my support for the goals of the program and for Missouri's proposal.

While Missouri has a strong history with standards-based assessments and comprehensive accountability, there is widespread acknowledgement that student achievement and educational attainment lag behind the state's needs in order to compete in a global economy. To address these shortcomings, I support proposals by the Missouri Department of Elementary and Secondary Education (DESE) to leverage Race to the Top resources to drive high-impact reforms.

These reforms will include a strengthened commitment to longitudinal data to drive decision-making from the Capitol to the classroom, renewed emphasis on postsecondary and workforce readiness, especially for STEM fields, re-designed standards-based assessments that align with the Common Core State Standards as well as Missouri's unique needs, comprehensive research-based professional development for educators, and universal access to preschool for Missouri's children.

Given the ambitious goals of Missouri's proposal, the commitment by our counterparts at DESE to an open process with continuous opportunity for stakeholder feedback, and the opportunity for our state to reinforce its commitment to assessment and school improvement, I hope the USDE will lend strong consideration to our application. The MDHE supports these efforts and will work closely with DESE and other key partners to produce the healthy and highly educated citizenry we will need to compete and prosper for decades to come.

Sincerely,

Robert B. Stein, PhD
Commissioner of Higher Education
State of Missouri

Jeremiah W. (Jay) Nixon
Governor

MISSOURI
Department of Economic Development

David Kerr
Director

January 11, 2010

To Whom It May Concern:

The Missouri Department of Economic Development is committed to increasing investment and growing Missouri's economy, resulting in the creation of solid, high-paying jobs for Missourians. To achieve our mission, it is critical that our state has a trained, highly-educated workforce that is ready to fill these quality jobs, which can only be accomplished through an exceptional educational system. To that end, our department is highly supportive of Missouri's participation in the U.S. Department of Education's Race to the Top (RT3) competition.

The RT3 competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Department of Economic Development enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

David D. Kerr
Director

301 W. High St. • P.O. Box 1157 • Jefferson City, MO 65102-1157
www.ded.mo.gov • (573) 751-4962 • Fax (573) 526-7700

Jeremiah W. (Jay) Nixon
Governor

State of Missouri
OFFICE OF ADMINISTRATION
Post Office Box 809
Jefferson City, Missouri 65102
Phone: (573) 751-1851
Fax: (573) 751-1212

Kelvin L. Simmons
Commissioner

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Office of Administration enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Kelvin L. Simmons
Commissioner
Office of Administration

DEPARTMENT *of* AGRICULTURE
STATE OF MISSOURI
JEFFERSON CITY
Serving, promoting and protecting the agricultural producers, processors and consumers of Missouri's food, fuel and fiber products.

JEREMIAH W. (JAY) NIXON
GOVERNOR

DR. JON HAGLER
DIRECTOR

December 23, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Department of Agriculture enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Best regards,

Dr. Jon Hagler
Director of Agriculture

JH/ja

GEORGE WASHINGTON CARVER STATE OFFICE BUILDING
Ph. (573) 751-4211 • 1616 Missouri Boulevard • P.O. Box 630 • Jefferson City, MO 65102-0630 • FAX (573) 751-1784 • www.mda.mo.gov

MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180

Telephone: (573) 751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TTY)

JOHN D. HOSKINS, Director

January 8, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Department of Conservation enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. We will continue to provide support for hands-on, inquiry-based education through units aligned with standards to help our children understand the natural world and their role in its conservation. We will continue to work with the Missouri Department of Education and our other numerous state partners to create an educated citizenry capable of launching Missouri, and our nation, into a prosperous future.

We're very excited about supporting the RT3 effort and the very real improvements it can bring. Missouri's children need your support. Thank you for your consideration!

Lorna Domke
OUTREACH & EDUCATION DIVISION CHIEF

COMMISSION

DON C. BEDELL, Sikeston | DON R. JOHNSON, Festus | CHIP McGEEHAN, Marshfield | BECKY L. PLATTNER, Grand Pass

Jeremiah W. (Jay) Nixon
Governor

George A. Lombardi
Director

2729 Plaza Drive
P. O. Box 236
Jefferson City, MO 65102
Telephone: 573-751-2389
Fax: 573-751-4099
TDD Available

State of Missouri
DEPARTMENT OF CORRECTIONS

Ad Excelleum Conamur – "We Strive Towards Excellence"

January 8, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Department of Corrections enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

George A. Lombardi
Director

Missouri Department of Health and Senior Services
P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Margaret T. Donnelly
Director

Jeremiah W. (Jay) Nixon
Governor

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Missouri Department of Health and Senior Services enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Margaret T. Donnelly
Director

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER: Services provided on a nondiscriminatory basis.

DoLIR

MISSOURI DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

421 EAST DUNKLIN STREET
P.O. BOX 504
JEFFERSON CITY, MO 65102-0504
PHONE: 573-751-9691 FAX: 573-751-4135
www.labor.mo.gov E-mail: diroffice@labor.mo.gov

JEREMIAH W. (JAY) NIXON
GOVERNOR

LAWRENCE G. REBMAN
DEPARTMENT DIRECTOR

PETER LYSKOWSKI
DEPUTY DEPARTMENT DIRECTOR

December 21, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

Missouri is committed to an open process designed to seek and reflect the best thinking of all constituencies. To date, the Missouri Department of Education has convened a successful "stakeholders forum" to discuss the RT3 grant proposal, involved the state's 556 schools to define their participation, and launched an online "Stakeholder Survey."

More than just a request for federal funding, the RT3 proposal will present a statewide vision and a bold, innovative plan for systemic educational reform in Missouri over the next decade.

As a major Missouri stakeholder, the Department of Labor and Industrial Relations enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

LAWRENCE G. REBMAN
Director

JEREMIAH W. (JAY) NIXON
GOVERNOR

KEITH SCHAFER, Ed.D.
DIRECTOR

MENTAL HEALTH COMMISSION

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www.dmh.mo.gov

December 22, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Department of Mental Health enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Keith Schafer, Ed.D.
Director

The Department of Mental Health does not deny employment or services because of race, sex, creed, marital status, religion, national origin, disability or age of applicants or employees.

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

December 24, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Missouri Department of Natural Resources enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Mark N. Templeton
Director

Recycled Paper

JEREMIAH W. (JAY) NIXON
GOVERNOR

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FAX: (573) 751-7150
WEB SITE: www.dor.mo.gov
E-MAIL: dormail@dor.mo.gov

January 7, 2010

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Missouri Department of Revenue enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Alana M. Barragán-Scott

AMB/jls

Missouri Department of
SOCIAL SERVICES
Your Potential. Our Support.

JEREMIAH W. (JAY) NIXON, GOVERNOR • RONALD J. LEVY, DIRECTOR

P.O. BOX 1527 • BROADWAY STATE OFFICE BUILDING • JEFFERSON CITY, MO 65102-1527
WWW.DSS.MO.GOV • 573-751-4815 • 573-751-3203 FAX

December 28, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Department of Social Services enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system.

Our staff will work with the Missouri Department of Education and our other numerous state partners to produce the healthy and highly educated workforce needed to launch Missouri, and our nation, into a prosperous future. The Department of Social Services will work diligently with other agencies to create an integrated platform of supports and services to engage families and prepare students for learning and academic achievement. We have particular expertise we can bring to the table when it comes to the unique needs of those children involved in the child welfare and juvenile justice systems.

Our department, working collaboratively with members of the Missouri Coordinating Board for Early Childhood will assist in aligning early childhood services with the framework of Missouri's educational system. Supports for parents and caregivers, children, and youth will increase protective factors and decrease risk factors related to school failure. Data will be shared to enhance understanding of conditions that impact learning and the relative success of our interventions.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Ronald J. Levy
Director

JAN-08-2010 10:57 YOUTH SERVICES CENTRAL OF 573 526 4494 P.003

Missouri
Department
of Transportation

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Pete K. Rahn, Director

December 31, 2009

To Whom It May Concern:

The United States Department of Education's invitation for states to participate in the Race to the Top (RT3) competition is an outstanding opportunity for Missouri to build on strengths, extend existing reform work, and develop a comprehensive plan for improving our educational system. Such efforts will bring systemic educational reform that will directly impact Missouri students. As a result, successful transition from early childhood through post-secondary education and into the workforce will permit equitable competition in the global economy and benefit our entire citizenry.

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As a major Missouri stakeholder, the Missouri Department of Transportation enthusiastically supports the development of the RT3 application and subsequent implementation of a comprehensive and seamless education system. Our staff will work with the Missouri Department of Education and our other state partners to produce the healthy and highly educated workforce needed to launch Missouri and our nation into a prosperous future.

Your consideration on behalf of Missouri's children will be appreciated.

Sincerely,

Pete K. Rahn
Director

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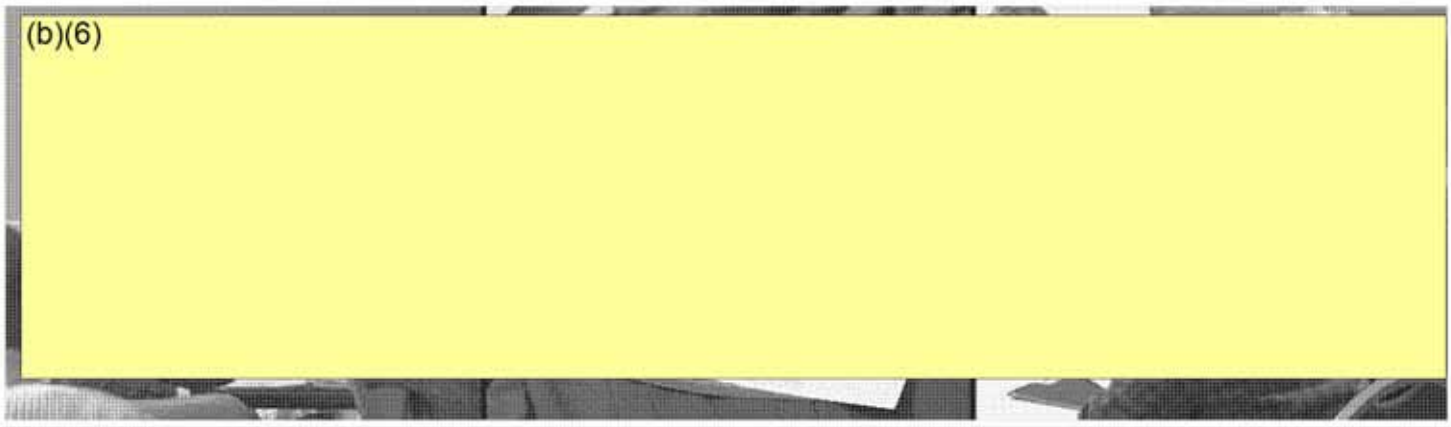

MISSOURI

CAREER PREP CERTIFICATE PROGRAM

PLANNING GUIDE

Missouri Department of Elementary and Secondary Education

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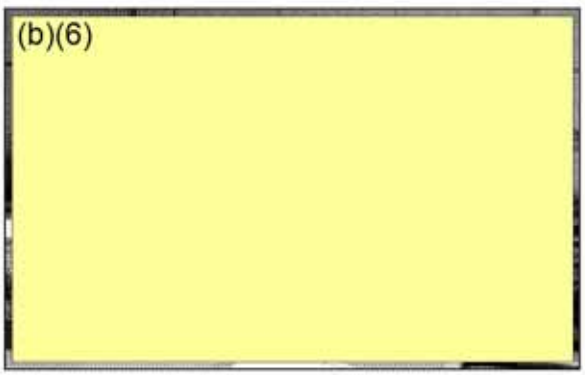
INTRODUCTION

Overview

Missouri schools strive to develop in students the knowledge, skills, and attitudes necessary for a successful and productive career. Part of a successful career is to have skills necessary to succeed in the workforce and to meet employer expectations. To assist in meeting those expectations, the Missouri General Assembly passed Senate Bill 894 during the 2006 session *(see Appendix, A1)*. This legislation charged the Department of Elementary and Secondary Education to develop a voluntary program that enables high schools to endorse a certificate for students who meet certain standards demonstrating that the students are "ready to work." The program is designed for high school seniors who choose to participate.

In developing the program, the Department established a statewide advisory committee. It was comprised of representatives from employers, chambers of commerce, local workforce service providers and postsecondary institutions, as well as school administrators, counselors, and students. The group was charged with developing the following program components:

- academic components
- work readiness components
- assessment tools and techniques for a third-party, independent, and objective assessment and endorsement of individual student achievement through an existing workforce investment service delivery system
- an easily identifiable guarantee to potential employers that the entry-level employee is ready to work.



The group met monthly to develop the program components, utilizing Web conferencing technology for five of the meetings. Additional guests also participated in meetings by presenting and lending their expertise to planning efforts. From the direction of the advisory committee, this planning guide was developed to assist with local implementation of a Career Prep Certificate Program. The guide provides a framework for communities, large or small, to design a program that meets the needs of their employers. It provides guidance for successful coordination of programs and initiatives that can be packaged into a meaningful certificate.

NATIONAL PERSPECTIVE

A report issued in 2006 explored employers' perspectives on the readiness of new entrants to the U.S. workforce by level of educational attainment. "Are They Really Ready to Work?" is a study conducted in collaboration with The Conference Board, Partnerships for 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management. The results of this study make it clear that improvements are needed in the readiness of new workforce entrants if excellence is the standard for global competitiveness.

BENEFITS OF THE PROGRAM

The following are benefits that a successful Career Prep Certificate Program could offer to individuals and communities.

Individuals

- Match individual knowledge and skills to occupational expectations, regardless of educational requirements
- Match individual interests and preparation with job opportunities
- Focus exploration and preparation by career paths
- Document an individual's mastery of knowledge and skills
- Promote postsecondary education and training based on personal plan of study
- Further postsecondary education and training supported by work-based experiences
- Emphasize the importance of academic and work readiness components
- Provide credentials that are valued and requested by employers and colleges

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Communities

- Connect knowledge, skills, and testing for education and employers
- Predict readiness of individuals for work and college
- Require fewer resources for remediation and basic skills training
- Apprise the business community of the assessments currently used to assess knowledge and skills
- Improve job satisfaction, driving increased productivity and decreased turnover
- Verify entry-level workers' knowledge and skills
- Identify real-world knowledge and skills needed by local and regional business
- Match individual knowledge and skills to occupational expectations, regardless of educational requirements
- Build stronger interdependency between education and employers
- Increase in partnership activity, communication, and support
- Foster a better educated and trained workforce
- Support economic and workforce development

ACADEMIC AND WORK READINESS COMPONENTS

In the fall of 2006, the statewide advisory committee reviewed pertinent research and recent curriculum organizers to identify academic and work readiness components. Different stakeholder groups were surveyed to determine the most important components to the world of work. Based on the survey results, the committee identified 12 academic and work readiness components, which are linked to key curriculum drivers in Missouri schools.

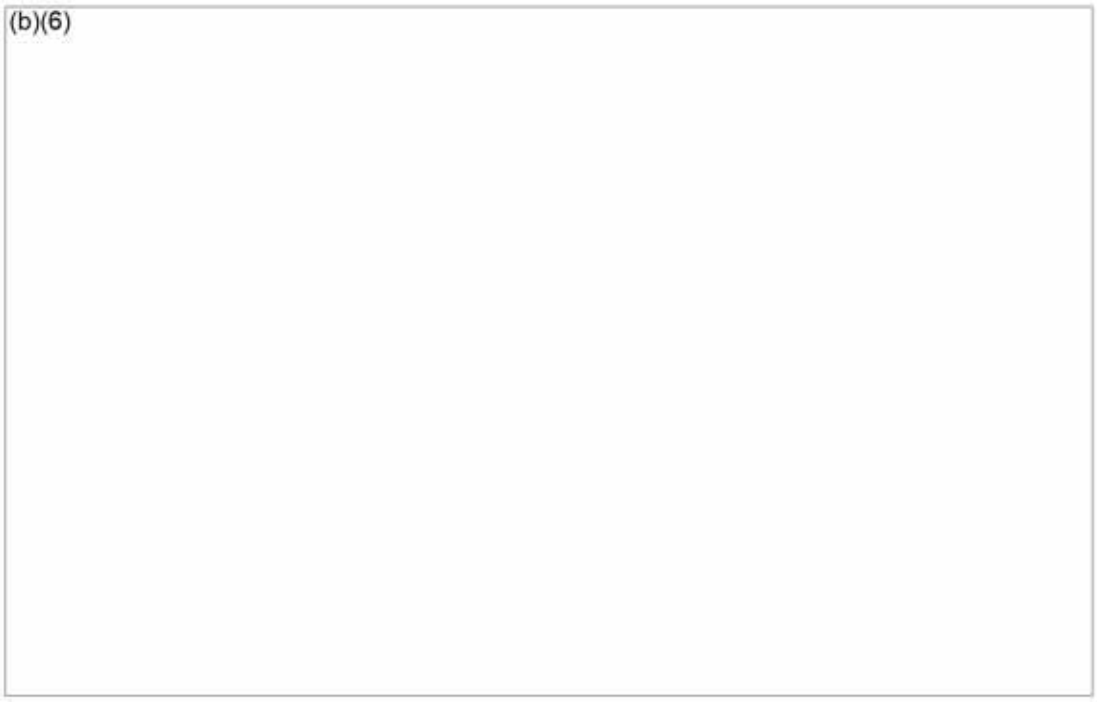
The academic components were identified and cross-referenced with Missouri's Show-Me Standards and Grade-Level Expectations. These components include:

- **Applied Math** *(Appendix, A3)*
- **Reading Comprehension** *(Appendix, A4)*
- **Communication: Verbal, Written, and Listening** *(Appendix, A5)*
- **Critical Thinking and Problem Solving** *(Appendix, A6)*
- **Information Technology** *(Appendix, A7)*
- **Gather/Evaluate Information** *(Appendix, A8).*

The work readiness components were identified and cross-referenced with Missouri's Career Development Standards and Grade-Level Expectations within the Missouri Comprehensive Guidance Program. These components include:

- **Career Development and Planning** *(Appendix, A9)*
- **Professional and Ethical Behavior** *(Appendix, A10)*
- **Personal Accountability** *(Appendix, A11)*
- **Interpersonal Skills** *(Appendix, A12)*
- **Self-Direction and Self-Management** *(Appendix, A13)*
- **Lifelong Learning** *(Appendix, Page A14).*

Refer to the Appendix for specific knowledge and performance expectations.



Numerous effective assessments are available to determine individual knowledge and skill levels. Missouri schools use criterion- and norm-referenced assessment results to document mastery of specific academic knowledge and skills. However, few assessments address work-readiness behaviors and characteristics. Employers may use assessments to determine an individual's desirable and undesirable characteristics. However, these may not be appropriate for schools to administer.

Several of the most prevalent and promising assessments in Missouri schools were analyzed and aligned to the academic and work readiness components. The assessment summary *(see Page 6)* was developed with assistance from each of the sponsoring companies and organizations. Each assessment was cross-referenced to the underlying knowledge and performance expectations for each component. A more detailed analysis of assessments is recommended in determining the most appropriate selection for a local or regional program.

Missouri Assessment Program

The Missouri Assessment Program (MAP) is one of several educational reforms mandated by state law in 1993. The law directed the State Board of Education and the Department of Elementary and Secondary Education to identify the knowledge, skills, and competencies that Missouri students should acquire by the time they complete high school, and to evaluate student progress toward those academic standards.

In February 2007, the State Board of Education approved a change in the method of MAP testing in the high school grades. Beginning with the 2008-09 school year, end-of-course tests in algebra I, English II and biology will replace the current MAP exams used in grades 10 and 11. Eventually, end-of-course tests will be offered for the following subjects:

- Geometry and Algebra II
- English I
- Chemistry and Physical Science
- American Government and American History.

ACT

The ACT test assesses high school students' general educational development and their ability to complete college-level work. The multiple-choice test covers four skill areas: English, mathematics, reading, and science. The writing test, which is optional, measures skill in planning and writing a short essay. Both tests emphasize reasoning, analysis, problem solving, and the integration of learning from various sources, as well as the application of these proficiencies to the kinds of tasks that college students are expected to perform.

PLAN

ACT's PLAN program helps 10th graders build a solid foundation for future academic and career success and provides information needed to address school districts' high-priority issues. It is a comprehensive guidance resource that helps students measure their current academic development, explore career/training options, and make plans for their remaining time in high school and the post-graduation years. Typically, it is administered in the fall of the sophomore year.

Armed Services Vocational Aptitude Battery

The Armed Services Vocational Aptitude Battery (ASVAB) is a comprehensive career exploration and planning program that includes a multiple aptitude test battery, an interest inventory, and various career-planning tools designed to help students explore the world of work. The ASVAB is intended for use with students in the 10th, 11th, and 12th grades as well as students in postsecondary schools. The program provides tools, including the test battery and interest inventory, developed by the Department of Defense to help students across the nation learn more about career exploration and planning.

WorkKeys

ACT's WorkKeys is a job skills assessment system that assesses selected work competencies. The Foundational Skills Assessments (Applied Mathematics, Applied Technology, Business Writing, Listening, Locating Information, Observation, Readiness, Reading for Information, Teamwork, and Writing) measure different applied job skills in the areas of communication, problem solving and interpersonal skills. The Personal Skills Assessments (Performance, Talent, and Fit) are designed to predict job behavior and measure the full potential of individuals.

National Occupational Competency Testing Institute

The National Occupational Competency Testing Institute (NOCTI) provides occupational competency assessment products and services to secondary and postsecondary educational institutions. NOCTI offers more than 170 standardized technical assessments in a variety of occupational fields. The assessments are built upon nationally validated, workplace-based standards.

ASSESSMENT SUMMARY

	HIGH SCHOOL ASSESSMENTS						STATE/NATIONAL CERTIFICATES		Missouri Connections
PROGRAM COMPONENTS	MAP	ACT	PLAN	ASVAB	WorkKeys	NOCTI	Mo/NCRC	NWRC	
Applied Math	●●●●●	●●●●●	●●●●	●●●●	●●●●●		●●●●●	●●●●	●
Reading Comprehension	●●●●●	●●●●●	●●●●	●●●●	●●●●	●●●	●●●●	●●●●	●
Communication (Verbal, Written, and Listening)	●●●●	●●●	●●	●●	●●●●	●●	●	●●●●●	
Critical Thinking and Problem Solving	●●	●●●●	●●●	●●●	●●●●	●●●		●●●●	●●●●
Information Technology						●●●●			●●●●
Gather/Evaluate Information	●●●●	●●●	●●	●	●●●	●●●	●●●	●●●	●●●●
Career Development and Planning		●	●	●●●	●●	●●		●●	●●●●●
Professional and Ethical Behavior					●●●●	●●●		●●●	
Personal Accountability					●●●●	●●●		●●●	●
Interpersonal Skills					●●●●	●●		●●●	
Self-Direction and Self-Management					●●●●	●		●●	●●
Lifelong Learning					●●			●●●	●●●●

KEY	
Indication of Knowledge and Skills Assessed	
All	●●●●●
Most	●●●●
Many	●●●
Some	●●
Few	●

MAP – Missouri Assessment Program

ACT – American College Testing Assessment

PLAN – The pre-ACT test; a powerful predictor of success on the ACT

ASVAB – The Armed Services Vocational Aptitude Battery comprehensive career exploration and planning program

WorkKeys – ACT Assessments for Foundational Skills (Applied Mathematics, Applied Technology, Business Writing, Listening, Locating Information, Observation, Readiness, Reading for Information, Teamwork, and Writing) and Personal Skills (Performance, Talent, and Fit)

NOCTI – National Occupational Competency Testing Institute standardized technical assessments for a variety of occupational fields

Mo/NCRC – Missouri Career Readiness Certificate, which is aligned with the National Career Readiness Certificate, uses three WorkKeys Assessments: Applied Mathematics, Locating Information, and Reading for Information

NWRC – National Work Readiness Credential, sponsored by the U.S. Chamber of Commerce; based on assessments in Read with Understanding, Math for Decision Making, Oral Language Test, and Situational Judgment

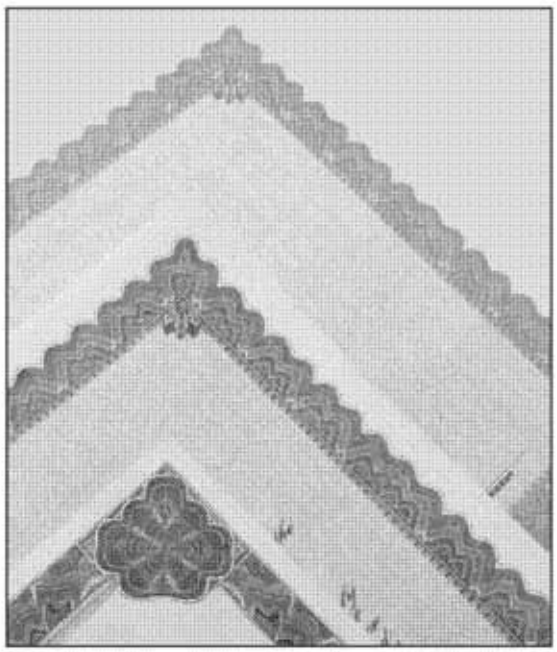
Missouri Connections – online education and career planning system that helps individuals of all ages explore, plan, and find college and career success

STATE/NATIONAL CERTIFICATES

Missouri/National Career Readiness Certificate
A product of ACT Inc., WorkKeys is a job skills assessment system that offers Career Readiness Certificates (CRCs) to individuals who achieve adequate scores on tests of core work competencies. The Missouri Department of Economic Development (DED) has started statewide implementation of the Missouri CRC for the adult workforce. The DED is planning to locate testing centers throughout the 14 regions of the state.

The Missouri and National CRCs are based on the levels Gold (5), Silver (4), and Bronze (3), attained on the three WorkKeys assessments: Reading for Information, Applied Mathematics, and Locating Information. While employers and organizations most commonly use the three CRC tests, they may also opt to use the other six WorkKeys assessments: Applied Technology, Writing, Business Writing, Teamwork, Observation, and Listening.

National Work Readiness Credential
The National Work Readiness Credential (NWRC), endorsed by the U.S. Chamber of Commerce, is based on a strong foundation of critical employability skills. The credential is awarded to test takers who pass an assessment consisting of four modules: Read with Understanding, Math for Decision Making, Oral Language Test, and Situational Judgment. The National Work Readiness Council has contracted with CASTLE Worldwide to deliver and manage the assessment. The National Work Readiness Credential has recently been launched in sites around the country and Junior Achievement Worldwide.



MISSOURI CONNECTIONS

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issouri
onnections is an
nline resource
esigned to guide
udents through
e career planning
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rocess. The system
and career
exploration, and direct preparation for transition into postsecondary education and the world of work.

The assessments, which are integral components of the system, define personal interests, skills, and work values. This information can then be utilized to focus on career possibilities. Students develop a flexible personal plan of study of coursework, including school and community experiences, which help them gain the knowledge and skills that relate to their career interests. In addition, Missouri Connections provides for a lifelong online e-portfolio in which a record of career exploration, planning, assessment, work experience, and academic achievement can be stored and updated.

OTHER DOCUMENTATION AND PARTICIPATION

While schools have experience in assessing academic components, there are challenges in assessing career prep components. Employers could use assessments to determine an individual's desirable and undesirable characteristics, however these might not be appropriate for schools to administer.

Given these challenges, there are ways to determine and document past experience as it relates to individual work readiness behaviors and characteristics. Ideally, desirable behaviors and characteristics displayed in the school setting should carry over to the workplace. Below are a few examples in which individual behavior and performance can be documented.

Attendance and punctuality are reflections of the student's perception and experience of school. Schools have well-documented attendance records typically coded with absences (authorized or unauthorized). If asked, school administrators, counselors, and teachers will have a greater record and understanding of the students who maintain good records of attendance and completion of assignments.

Awards and recognition provide a reflection of an individual's abilities, talents, and leadership. Even lesser-known citizenship or community based accomplishments provide insight into an individual's potential.

Volunteer and community service refer to service that a person performs for the benefit of his or her local community. Individuals are often involved in volunteer activities and community service for unselfish reasons.

Job shadowing and internship experiences provide an opportunity for a person to gain insights into specific occupations in the workplace. This helps the individual learn more about specific careers and prepare for the required education/training. Job shadowing and internships are a great business and education partnership opportunity.

Mentoring/tutoring is the process of matching younger students with older students. The mentoring process can be a developmental relationship providing motivation, guidance, and support to everyday challenges. Tutoring can be similar in nature although more focus is directed toward improving academic knowledge and understanding.

Pre-employment skills such as mock interviews, résumés and letters of application are a great way to practice individual skills and get feedback from a career development professional on ways to improve. With appropriate training and preparation, individuals will be able to identify and search for jobs, apply for positions appropriately, be more comfortable with the interview process, and have the skills to help maintain employment.

(b)(6)

LOCAL PLANNING AND IMPLEMENTATION

There are many helpful tips and techniques to develop a successful Career Prep Certificate Program. Many of the issues that will be faced during implementation may have already been experienced and are addressed in this guide. The following planning and implementation steps are provided to assist with the process.

Establish an Advisory Committee

Since this program must be demand-driven by employers, it is critical that everyone be brought around the table. The role and empowerment of the advisory committee will be helpful in developing the program locally and monitoring its successes. Carefully consider representation from all stakeholder groups: employers, chambers of commerce, postsecondary education, workforce service providers, school administrators, counselors, parents, and students. It might be beneficial to select an impartial or third-party chairperson to facilitate consensus. It is recommended that the local chamber of commerce and regional Workforce Investment Board be contacted to identify resources and coordinate services *(see inside back cover)*. Please contact the Department of Elementary and Secondary Education, Career Education Division at (573) 751-2660 for assistance with this process.

Develop a Planning Process and Timeline

Establish a procedure to develop all components of the program. Utilize a strategic planning approach with committee involvement throughout a clearly defined process. Carefully consider the appropriateness of participation for representatives from each stakeholder group (for example, community leaders might have limited availability to participate). Establish a timeline with sufficient time to accomplish all objectives and make efficient use of committee participation.

Identify Academic and Work Readiness Components

The academic and work readiness components *(Appendix, Pages A2-A14)* were identified by the state advisory committee. All are cross referenced to Missouri's Show-Me Standards, Academic Grade-Level Expectations and Comprehensive Guidance Grade-Level Expectations. It is important to carefully review the knowledge and performance expectations underlying each component. From that review, select and prioritize the components that best meet local or regional needs. Conduct a local or regional survey with different stakeholder groups to identify and/or verify the components and expectations.

Identify Assessments

Use the assessment summary *(Page 6)* to identify existing or potential assessments to address the components. A number of assessments and surveys are available commercially or through government agencies. Assessments can be packaged to demonstrate mastery of most components. If an additional assessment is warranted, a thorough analysis of available resources should be conducted.

Alignment with state or national certification will also require additional assessment costs. Employers, groups, or organizations might be willing to defray these costs as an incentive to attract qualified entry-level employees. If the program is truly demand-driven, with employers requiring the certificate for application, the individual test taker may be willing to pay for additional assessments. Similarly, colleges have created a system that drives students and parents to pay for assessments and retakes.

Develop the Certificate and Other Documentation and Participation

It is important that the program make available an easy-to-understand certificate that provides employers with information and documentation of individual accomplishments. The front of the certificate can be formal with general information, seals and signature *(see Appendix, A14-A15)*. The back of the certificate makes it "portable" to employers who might not be aware of the program. This is accomplished by providing any of the following information:

- assessment results
- grade point average and courses taken
- attendance rate
- academic skills and competency
- work readiness skills and competency
- hours of community service, mentoring and tutoring
- participation in extracurricular organizations and activities
- other training and experiences.

Align with Existing Programs and Initiatives *(As appropriate)*

There are numerous state/local programs and initiatives that have been implemented in Missouri schools. Some have similar goals or structures and could be packaged with components of this program. When developing a program, incorporate resources from existing programs and initiatives whenever possible. By capitalizing on existing resources, the amount of new components (requiring additional resources) can be limited.

A+ Schools Program

While schools have limited experience in assessing work readiness components, the A+ Schools program has established requirements for students to demonstrate appropriate behaviors. The positive characteristics demonstrated in the school may transfer over to the workplace.

Students who graduate from a designated A+ high school may qualify for a state-paid financial incentive to attend any public community college or career/technical school in Missouri if the students successfully meet the following requirements:

- enter into a written agreement with the high school prior to graduation
- attend a designated school for three consecutive years immediately prior to graduation
- graduate with an overall GPA of 2.5 points or higher on a 4-point scale
- have an overall attendance rate of at least 95 percent for grades 9-12
- perform 50 hours of district-supervised, unpaid tutoring or mentoring
- maintain a record of good citizenship and avoid the use of drugs and alcohol.

The financial incentive is available only after the student has made a good faith effort to first secure all available federal financial aid that does not require repayment through the Free Application for Federal Student Aid. *(For more information, see What Works!, Page 13.)*

Character Education

Character education encourages schools to create environments that foster ethical, responsible, and caring young people. This proactive effort by schools instills important core, ethical values in students. As a result, students become more aware of their own personal values and how these values relate to the world outside of school.

Missouri's program, CHARACTERplus, provides a framework and an opportunity for home, school, and community members to positively influence students' character development. Because the community selects and defines the traits, business leaders have a voice in determining what traits they would like to see developed in their future employees.

Results from high-implementing schools indicate that students have an increase in personal responsibility, accountability, self-management, and ethical behavior. These schools also experience a decrease in disciplinary issues, an increase in attendance, an increase in academic skills, and a decrease in the drop-out rate.

With this process, schools are more likely to provide students and adults with increased opportunities to carry out moral actions. There is an emphasis on adult role modeling, student leadership, service-learning, recognition of good character, peer mentoring, and positive behavior. Because traits are integrated throughout the school day, throughout the community, and at home, students have multiple reinforcements of the traits. Thus, the standard of behavioral expectation increases. *(For more information, see What Works!, Pages 12 and 14.)*

Align with State/National Certificates *(As appropriate)*

A number of national credentials (academic, occupational licenses, professional-skill certificates) are already in use in Missouri. However, there is limited use of a credential that contains both academic and work readiness components. There are several benefits (i.e., standardization, portability) in aligning a local program with a national certificate. There are two national

SURVEY OF SELECTED WORK READINESS CERTIFICATES

In January 2007, Jobs For The Future (JFF) released a survey of work readiness certificates that have emerged throughout the United States in recent years. The majority of the focus of work readiness certificates has been directed toward the unemployed and underemployed workforce. However, the JFF survey identified a number of certificates that are positioned to have great impact in certifying that individuals possess the basic skills sought by employers in entry-level jobs.

certificates receiving a lot of attention: the National Career Readiness Certificate and the National Work Readiness Credential. *(For more information, see Page 7.)*

Determine Parameters of a Guarantee

Incorporating a guarantee into the program can be a useful tool that assures stakeholders of a specific outcome. Schools can strengthen an existing partnership with employers by defining and identifying components of a guarantee, which at a minimum is limited to the documented assessment of knowledge and skills. *(For more information, see What Works!, Page 15.)*

Schools may use standardized assessment results to document mastery of specific academic and work readiness skills. Both criterion- and norm-referenced assessments provide valuable information related to individual knowledge and skill levels. However, the retention of knowledge and the application of skills may or may not be transferable to the workplace. It is important for employers and schools to pay careful attention to the duration of any guarantee of performance beyond the time that skills are assessed.

Promote the Program and Build a Demand-Driven System

In developing a demand-driven system, it is critical to determine strategies to increase awareness and encourage interest in the program. Focused efforts to target audiences are recommended. *(For more information, see What Works!, Pages 16.)* Program promotion starts with increasing awareness throughout the community. Consider the following when promoting the program.

- Determine for each audience, "what's in it for me?" *(see Benefits, Page 4).*
- Focus on clearly defined goals and activities that address each audience's needs.
- Develop a list of stakeholders through personal contacts and organizations.
- Develop a succinct tagline (i.e., Ready to Work, Guarantee) that will assist in branding the program.
- Target materials and messages to different audiences.
- Follow up in person or by phone.

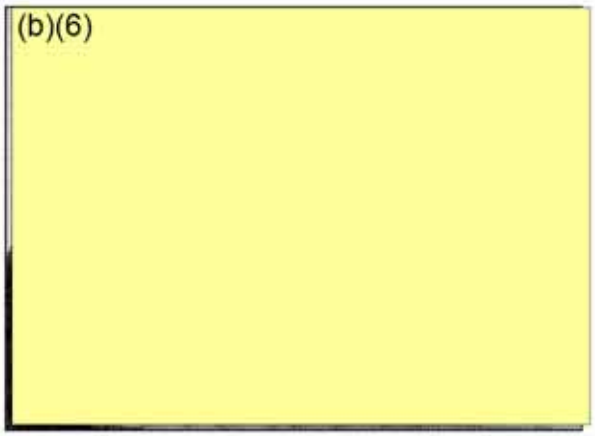
The process will be more successful by involving stakeholders throughout the planning and development of the program. Establishing an effective partnership takes patience, commitment, open communication, and an investment of time. An existing partnership can be strengthened by building an environment where businesses and schools collaborate and share resources.

Monitor for Continuous Improvement

Demands for the certificate from employers and postsecondary institutions will drive the success and longevity of the program. There are ways to monitor the success of the initiative and determine the impact on meeting local and regional needs. The following data and information provide results to assist in making adjustments and improvements to the program:

- employer satisfaction survey data
- certification required for entry-level positions
- employment and education follow-up data (180-day, one year, and two years after graduation)
- return on investment data (unemployment, vacancies, turn-over, training, etc.)
- postsecondary remedial education
- participation data (number of certificates, number of employers).

The key to success is listening to all stakeholders on an ongoing basis. It is essential to learn from feedback and use it to improve the process, performance, and results.



First PLACE – Partners Linking Arms for Character Education

(b)(6)

The Keeter Center for Character Education is leading a countywide character education initiative in partnership with all public schools in Taney County, Mo. The initiative is called "First PLACE! – Partners Linking Arms for Character Education." The 17 school buildings in Taney County each sent a team through CHARACTERplus training at The Keeter Center. Each team was comprised of a school building administrator, a counselor, a teacher, a community member, and another teacher or board member. This character education is a process instead of a program; it is ongoing and incorporates 10 essentials in drawing together a comprehensive plan that focuses on school, home, and community.

The First PLACE initiative has three goals:

- improve school climate to positively impact achievement, attendance, discipline, and dropout rate
- cultivate visible community support
- increase parent participation and awareness in character development.

In April 2005, an official kickoff was held with community members and school representatives gathered together for a town hall meeting. Nine traits were selected to represent Taney County: respect, responsibility, citizenship, compassion/kindness, commitment, honesty, cooperation, perseverance, and self-discipline. After the first year, three summer traits were selected to round out the yearly schedule.

Not only are schools implementing numerous ways to incorporate the trait of the month into the classroom, but 355 businesses and civic organizations, as well as churches and community leaders, have become intentional about teaching and demonstrating good character. Anyone can sign up to be a partner as long as he or she is committed to do one thing each month to reinforce the trait of the month. That might be putting the trait on a marquee, in a newsletter, or on a Web site. Some are also including the trait in staff training, on a bulletin board, or in a sermon.

Initial data reflects a decrease in disciplinary referrals, an increase in MAP scores, and an increase in attendance at the schools that are actively engaged in the process of character education. "In order to change the culture, it is going to take everyone linking arms and moving towards a common goal. We don't have time to wait for someone else to come in and help our kids. We are responsible, and it's up to us to work together and change the culture in our county," said Sue Head, executive director of The Keeter Center for Character Education at College of the Ozarks. "College of the Ozarks has been helping develop character in young people for nearly 100 years. We are glad to have a leadership role in this worthy initiative."

For more information, contact The Keeter Center at (417) 334-6411, Ext. 4242.

> ***"We don't have time to wait for someone else to come in and help our kids. We are responsible, and it's up to us to work together and change the culture in our county."***
>
> *— Sue Head, Executive Director*
> *The Keeter Center for Character Education*

A+ Schools Program

(b)(6)

The A+ Schools Program was created in 1993 by state law as an incentive for improving Missouri's high schools. The primary goal of the program is to ensure that all students who graduate from Missouri high schools are well-prepared to pursue advanced education and/or employment. *(See Page 10 for Program Requirements).*

"The A+ Schools Program will mobilize an intensive partnership among high schools, community colleges, students, teachers, parents, labor, businesses, and communities to give these students the motivation, skills, and knowledge to graduate from high school. It will create an innovative and well-designed path from high school to high skill, high wage jobs." (Excerpt from a speech on World Class Schools for Missouri given by Gov. Mel Carnahan, May 1992.)

The impact of this program has proven to be phenomenal. There are now 231 designated A+ high schools across the state that have graduated more than 65,000 eligible students since the program began in 1997. At least one semester of the A+ Schools financial incentive has been utilized by more than 28,000 eligible students. More than $16 million was paid by the A+ financial incentive for tuition to community colleges and career/technical schools during the 2005-2006 school year, and more than $18 million was appropriated for the 2006-2007 school year. There has been a reduction in the dropout rate and an increase in the graduation rate at designated A+ schools as compared to the state as a whole. A+ high schools are providing more rigorous coursework as a result of the program, and students are rising to the challenge. The A+ Schools Program has produced thousands of successful students.

One student used his A+ eligibility to attend St. Louis Community College, where he enrolled in the Ford ASSET program. He graduated and is now a Ford Transmission Specialist and Diesel Certified Technician. He used A+ to obtain a degree that led him back home, where he is gainfully employed at a local business.

Another student used her A+ eligibility to attend Moberly Area Community College and earn an associate's degree in nursing. She then went on to enroll, at her own expense, at the University of Missouri, where she graduated with a bachelor's degree in nursing in December 2006. She is now a registered nurse in the Cardiac Intensive Care Unit at University Hospital in Columbia.

For more information, contact the Missouri Department of Elementary and Secondary Education at (573) 751-9094.

"The A+ Schools Program ... will create an innovative and well-designed path from high school to high skill, high wage jobs."

— Mel Carnahan
Governor of Missouri: 1993-2000

(b)(6)

(b)(6)

Northwest Regional Culture of Character – Partners Achieving Character Excellence

(b)(6)

The Northwest Regional Culture of Character –Partners Achieving Character Excellence (COC/PACE) was initiated by the Northwest Missouri Regional Professional Development Center (NWRPDC) as a three-county (Worth, Atchison and Nodaway) initiative in August 2006.

The entir ogram was initiated without specific funding and used only resources that participants brought forward. The initial group of 10 school districts and a handful of businesses, industries, and government partners has grown into a regional initiative with more than 200 partners and 20 school districts. In the spring of 2007, the Regional Workforce Investment Board, the Youth Council, and Leadership Northwest Missouri stepped forward to partner with the NWRPDC, growing the model to include the 22 counties of northwest Missouri.

During the spring, summer, and fall of 2006, the NWRPDC provided training for all participating school districts and partners by CHARACTERplus personnel and other nationally recognized professional trainers. Schools, communities, and industry/business representatives met to formulate a list of character traits that were then formally reviewed and processed by a representative regional team. This process resulted in 12 character traits, one for each month of the year. Starting in the month of August, they are: responsibility, respect, self-control, citizenship, compassion, tolerance, honesty, cooperation, perseverance, patience, confidence, and integrity. "Character education is more than imparting knowledge; it is the development of human beings. Therefore, character education is vital to our business, community, and region in our ability to remain on the cutting edge, and be a vibrant entity going forward," said Charla Wiederholt, plant manager at Deluxe.

> ***"Character education is vital to our business, community and region in our ability to remain on the cutting edge, and be a vibrant entity going forward."***
>
> *— Charla Wiederholt*
> *Plant Manager, Deluxe*

NWRPDC envisions its efforts as a movement with the following goals:

- to create a culture at school, in the workplace, in the community, and in the home where character building is the norm and not the exception
- purposely create a diversified learning-space for conversations to take place between student, teacher, child, parent, employer, and employee.

The communication process is driven by an online Web site that records and celebrates what schools and partners are doing each week to implement the trait of the month and to identify shared resources. Northwest Missouri State University FM-Radio regional programming broadcasts segments authored by students, parents, teachers, employees, and mangers to tell their personal success stories relating to the character trait of the month. These will be compiled into a CD and/or DVD to be made available to the all COC/PACE members for use in the classroom, workplace, Sunday schools, and on other radio stations in the region.

For more information, contact the Northwest RPDC at (800) 663-3348.

responsibility respect self-control **citizenship** compassion
tolerance **honesty** **cooperation** perseverance **patience**
confidence **integrity**

St. Joseph Guarantees Its Graduates

(b)(6)

In 1987, a partnership was formed in St. Joseph between community organizations, business entities, and the school district. The partnership identified several critical issues: the educational level of residents, limited student success within the workforce, and the high dropout rate. The group recognized that, with a majority of students remaining in the area, improvements would have a great impact to the skilled workforce. With the ultimate goal of improving the overall quality of the workforce in the community, the Profit in Education (PIE) Initiative consisted of four basic requests from area employers:

- ask prospective employees to promote completion of the GED with their employees
- request a high school transcript from prospective employees
- encourage employees to support education in the community
- appoint a company coordinator for the PIE program.

The school district took the responsibility of providing skilled graduates with several improvements. The curriculum was improved to better meet businesses' needs. When a student graduated, they were given a written guarantee of their skills. With this guarantee, the community would benefit from a stronger work force and a higher rate of student success because students needed to stay in school to get a job. If within three years of graduation a student was found to be lacking in basic skills, the district would provide tuition-free access to adult education classes, tutoring, and worksite instruction for the deficiencies.

The school district worked with employers to handle students who returned in a dignified and positive manner. Areas of remediation were identified, and adult classes were offered to improve knowledge and skills. As an example, a class called Business Communications or Technical Writing might be offered to improve writing skills. With larger companies, the school district created professional learning opportunities with instruction delivered at the worksite.

The School District of St. Joseph, Missouri
Guarantees its Graduates
for a period of three years following graduation.

If an employer finds a graduate in his employ to be lacking in basic skills, we will enroll the graduate, free of tuition charges, in any relevant adult education program offered by the District.

While the initial written guarantee has faded away, many of the partnership activities and supports still exist. The next step in the movement toward creating a community of lifelong learners is a new initiative called Another Smart Move. This initiative is being launched to help employers and employees benefit from a better-trained and better-educated workforce. "Our purpose is to help employers improve their business by developing a better trained and more productive workforce," said Dr. James Scanlon, president of Missouri Western State University. The ultimate goal of Another Smart Move is for the phrase to become synonymous with the importance and value of education, training, and character development in St. Joseph and the northwest Missouri region.

For more information, contact the St. Joseph Chamber of Commerce at (800) 748-7856.

Cape Girardeau Area Ready to Work

(b)(6)

n 2000, the Cape Girardeau Career nd Technology enter, in partnership ith the Workforce nvestment Board of outheast Missouri, onducted a solutions apping conference address workforce evelopment strategies r the Southeast gion. A wide range of ndividuals representing business, industry, K-12 education, higher education, economic development, and workforce development came together. The developments from the solutions mapping brought forth the decision of capitalizing on the WorkKeys system presently in place among numerous businesses and industries in the region, as well as the creation of the Workplace Readiness Credential project.

The WorkKeys system has been utilized in the Cape Girardeau region for over a decade and has proven to be a very valuable asset to business and industry. Presently, more than 20 companies in the region utilize the WorkKeys system. Birdie Legrand from Nordenia USA said, "WorkKeys testing is something our company is committed to utilizing. It has proven to help our retention rate over time."

The Workplace Readiness Credential program was originally designed to target individuals who lost a job through downsizing, lost government benefits, or merely needed a refresher on securing employment and retention skills. The Workplace Readiness Credential program simulates an employee's probationary period in a two-week, intense time frame. Soft skills such as working as a team player and problem-solving play an integral role in the program.

An Evolving System

Presently, the components of the programs are being utilized by secondary schools as a ready to work tool. The Workplace Readiness Credential curriculum has been integrated into the career education curriculum taken during the high school experience to enhance the soft skills of the students. Secondary schools are proctoring the WorkKeys tests (Reading for Information, Locating Information, and Applied Mathematics) so that students will leave with a meaningful certificate in hand. Rich Payne, director of the Cape Girardeau Career and Technology Center said, "I feel that we can now say to the employers of this region the individuals that complete these soft skills and WorkKeys components are ready to work."

For more information, contact the Cape Girardeau Career and Technology Center at (573) 334-0826.

> ***"WorkKeys testing is something our company is committed to utilizing. It has proven to help our retention rate over time."***
>
> *— Birdie Legrand*
> *Nordenia USA*

READING FOR INFORMATION (b)(6)

LOCATING (b)(6) INFORMATION

APPLIED (b)(6) MATHEMATICS

APPENDIX

CAREER PREP CERTIFICATE PROGRAM PLANNING GUIDE

Missouri Revised Statutes

Chapter 160
Schools--General Provisions
Section 160.575

August 28, 2006

Ready to work endorsement program required--elements--development of standards.

160.575. 1. The department of elementary and secondary education shall develop a "ready to work" endorsement program that enables high schools to endorse a certificate for students who meet certain standards that demonstrate that such students are deemed ready to work. The program shall be available no later than June 30, 2007.

2. The program shall include, but not be limited to, the following:

(1) Voluntary participation by high school seniors who choose to participate;

(2) Academic components;

(3) Work readiness components;

(4) Assessment tools and techniques for a third-party, independent, and objective assessment and endorsement of individual student achievement through an existing workforce investment service delivery system; and

(5) An easily identifiable guarantee to potential employers that the entry-level employee is ready to work.

3. In developing such standards, the department shall involve representatives of the division of workforce development, employers, students, career center providers, local workforce investment boards, and school district personnel.

(L. 2006 S.B. 894 § 1)

LINKS TO ADDITIONAL RESOURCES

A+ Schools
Department of Elementary and Secondary Education
School Improvement and Accreditation
205 Jefferson St., P.O. Box 480
Jefferson City, MO 65102-0480
(573) 751-9094
www.dese.mo.gov/divimprove/aplus/proginfo/factsheet(clr).pdf

ACT
500 ACT Drive, P.O. Box 168
Iowa City, IA 52243-0168
(319) 337-1000
www.act.org

CHARACTERplus
8225 Florissant Road
St. Louis, MO 63121
(800) 835-8282
www.characterplus.org

First PLACE (The Keeter Center)
1 Opportunity Drive
Point Lookout, MO 65726
(417) 239-1900
www.keetercenter.edu/firstplace.asp?page=6

Jobs for the Future – A Survey of Selected Work Readiness Certificates
88 Broad St.
Boston, MA 02110
(617) 728-4446
www.jff.org/Documents/WorkReadiness.pdf

Missouri Assessment Program (MAP)
Department of Elementary and Secondary Education
Division of School Improvement
205 Jefferson St., P.O. Box 480
Jefferson City, MO 65102-0480
(573) 751-3545
www.dese.mo.gov/divimprove/assess/

Missouri Career Readiness Certificate
Department of Economic Development
301 W. High St., P.O. Box 1157
Jefferson City, MO 65102
(573) 751-4962
www.ded.mo.gov/WFD/Job%20Seeker%20Services/Career%20Readiness%20Certificate.aspx

Missouri Center for Career Education
University of Central Missouri
T.R. Gaines 302
Warrensburg, MO 64093
(660) 543-8768
www.missouricareereducation.org

Missouri Connections
Department of Elementary and Secondary Education
Guidance and Placement Services
205 Jefferson St., P.O. Box 480
Jefferson City, MO 65102-0480
(573) 751-7966
www.missouriconnections.org

National Work Readiness Credential
U.S. Chamber of Commerce
1615 H St., N.W.
Washington, DC 20062-2000
(800) 638-6582
www.uschamber.com/icw/strategies/workreadinesscredential.htm

Northwest Missouri Regional Culture of Character
Northwest Regional Professional Development Center
800 University Drive
Maryville, MO 64468
(800) 663-3348
www.nwpace.org

The Conference Board – Are They Really Ready to Work?
845 Third Ave.
New York, NY 10022-6679
(212) 759-0900
www.conference-board.org/pdf_free/BED-06-Workforce.pdf

APPLIED MATH

KNOWLEDGE

CORE

1. Compute fluently and make reasonable estimates *(Mathematics GLE)*
2. Apply appropriate techniques, tools, and formulas to determine measurements *(Mathematics GLE)*
3. Understand measurable attributes of objects and the units, systems, and processes of measurement *(Mathematics GLE)*
4. Understand meanings of operations and how they relate to one another *(Mathematics GLE)*
5. Understand numbers, ways of representing numbers, relationships among numbers, and number systems *(Mathematics GLE)*
6. Develop and evaluate inferences and predictions that are based on a broad range of data *(Mathematics GLE)*
7. Understand how to make appropriate personal economic choices *(Committee)*
8. Formulate questions that can be addressed with data; collect, organize, and display relevant data to answer them *(Mathematics GLE)*
9. Develop and evaluate inferences and predictions that are based on data *(Mathematics GLE)*
10. Understand patterns, relations, and functions *(Mathematics GLE)*
11. Use mathematical models to represent and understand quantitative relationships *(Mathematics GLE)*
12. Analyze change in various contexts *(Mathematics GLE)*
13. Analyze characteristics and properties of two- and three-dimensional geometric shapes, and develop mathematical arguments about geometric relationships *(Mathematics GLE)*
14. Understand meanings of operations and how they relate to one another *(Mathematics GLE)*
15. Represent and analyze mathematical situations and structures using algebraic symbols *(Mathematics GLE)*
16. Specify locations and describe spatial relationships using coordinate geometry and other representational systems *(Mathematics GLE)*
17. Apply transformations and use symmetry to analyze mathematical situations *(Mathematics GLE)*
18. Use visualization, spatial reasoning, and geometric modeling to solve problems *(Mathematics GLE)*
19. Select and use appropriate statistical methods to analyze data *(Mathematics GLE)*
20. Understand and apply basic concepts of probability *(Mathematics GLE)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

CORE

1. Use technological tools and other resources to locate, select, and organize information *(Show-Me: 1.4)*
2. Evaluate the accuracy of information and the reliability of its sources *(Show-Me: 1.7)*
3. Effectively use technology to organize information and ideas into useful forms (including charts, graphs, outlines, etc.) for analysis or presentation for a variety of purposes and audiences *(Show-Me: 1.8 and 2.1)*
4. Reason inductively from a set of specific facts and deductively from general premises *(Show-Me: 3.5)*
5. Assess costs, benefits, and other consequences of proposed solutions *(Show-Me: 3.8)*
6. Make appropriate personal economic choices *(Committee)*
7. Develop questions and ideas to initiate and refine research *(Show-Me: 1.1)*
8. Discover and evaluate patterns and relationships in information, ideas, and structures *(Show-Me: 1.6)*
9. Identify problems and define their scope and elements *(Show-Me: 3.1)*
10. Examine problems and proposed solutions from multiple perspectives *(Show-Me: 3.6)*
11. Evaluate the extent to which a strategy addresses the problem *(Show-Me: 3.7)*

READING COMPREHENSION

KNOWLEDGE

CORE

1. Develop and apply skills and strategies to comprehend, analyze, and evaluate nonfiction from a variety of cultures and times *(Communication Arts GLE)*
2. Develop and apply effective research processing skills to gather, analyze, and evaluate information *(Communication Arts GLE)*
3. Learn the vocabulary *(Committee)*
4. Know the use of tools of social science inquiry (surveys, maps) *(Social Studies GLE)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

CORE

1. Comprehend and evaluate written, visual, and oral presentations and works *(Show-Me: 1.5)*
2. Reason inductively from a set of specific facts and deductively from general premises *(Show-Me: 3.5)*
3. Use vocabulary effectively *(Committee)*
4. Evaluate the processes used in recognizing and solving problems *(Show-Me: 3.4)*
5. Examine problems and proposed solutions from multiple perspectives *(Show-Me: 3.6)*
6. Evaluate the extent to which a strategy addresses the problem *(Show-Me: 3.7)*
7. Apply acquired information, ideas, and skills to different contexts as students, workers, citizens, and consumers *(Show-Me: 1.10)*
8. Assess costs, benefits, and other consequences of proposed solutions *(Show-Me: 3.8)*

COMMUNICATION: WRITTEN, VERBAL AND LISTENING

KNOWLEDGE

CORE

1. Write effectively in various forms and types of writing *(Communication Arts GLE)*
2. Develop and apply effective speaking skills and strategies for various audiences and purposes *(Communication Arts GLE)*
3. Develop and apply effective listening skills and strategies *(Communication Arts GLE)*
4. Compose well-developed text using standard English conventions *(Communication Arts GLE)*
5. Understand the essence of sender empathy, two-way communication, and nonverbal communication *(Committee)*
6. Develop, implement, and communicate new ideas to others; stay open and responsive to new and diverse perspectives *(Committee)*
7. Develop and apply effective research processing skills to gather, analyze, and evaluate information and media *(Communication Arts GLE)*
8. Apply a writing process in composing text *(Communication Arts GLE)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

CORE

1. Review and revise communications to improve accuracy and clarity *(Show-Me: 2.2)*
2. Exchange information, questions, and ideas while recognizing the perspectives of others *(Show-Me: 2.3)*
3. Apply communication techniques to the job search and to the workplace *(Show-Me: 2.6)*
4. Use technological tools to exchange information and ideas *(Show-Me: 2.7)*
5. Develop and practice active listening skills *(Committee)*
6. Plan and make written, oral, and visual presentations for a variety of purposes and audiences *(Show-Me: 2.1)*
7. Explain reasoning and identify information used to support decisions *(Show-Me: 4.1)*
8. Present perceptions and ideas regarding works of the arts, humanities, and sciences *(Show-Me: 2.7)*
9. Perform or produce works in the fine and practical arts *(Show-Me: 2.5)*

CRITICAL THINKING/PROBLEM-SOLVING

KNOWLEDGE

1. Understand meanings of operations and how they relate to one another *(Mathematics GLE)* **CORE**
2. Develop and evaluate inferences and predictions that are based on a broad range of data *(Mathematics GLE)*
3. Exercise sound reasoning in understanding and making complex choices; understand the interconnections among systems *(Committee)*
4. Understand the elements of interpersonal conflict strategies *(Committee)*
5. Develop science understanding through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking *(Science GLE)*
6. Formulate questions that can be addressed with data; collect, organize, and display relevant data to answer them *(Mathematics GLE)*
7. Know the use of tools of social science inquiry (surveys, maps) *(Social Studies GLE)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Apply acquired information, ideas, and skills to different contexts as students, workers, citizens, and consumers *(Show-Me: 1.10)* **CORE**
2. Identify problems and define their scope and elements *(Show-Me: 3.1)*
3. Develop and apply strategies based on one's own experience in preventing or solving problems *(Show-Me: 3.3)*
4. Evaluate the processes used in recognizing and solving problems *(Show-Me: 3.4)*
5. Reason inductively from a set of specific facts and deductively from general premises *(Show-Me: 3.5)*
6. Examine problems and proposed solutions from multiple perspectives *(Show-Me: 3.6)*
7. Assess costs, benefits, and other consequences of proposed solutions *(Show-Me: 3.8)*
8. Develop and practice negotiation skills (e.g., distributive negotiation and integrative bargaining) *(Committee)*
9. Develop and apply strategies based on ways others have prevented or solved problems *(Show-Me: 3.2)*
10. Evaluate the extent to which a strategy addresses the problem *(Show-Me: 3.7)*
11. Explain reasoning and identify information used to support decisions *(Show-Me: 4.1)*
12. Develop, monitor, and revise plans of action to meet deadlines and accomplish goals *(Show-Me: 4.5)*
13. Identify tasks that require a coordinated effort and work with others to complete those tasks *(Show-Me: 4.6)*
14. Identify and apply practices that preserve and enhance the safety and health of self and others *(Show-Me: 4.7)*

INFORMATION TECHNOLOGY

KNOWLEDGE

1. Develop and apply effective research processing skills to gather, analyze, and evaluate information *(Communication Arts GLE)* **CORE**
2. Understand and be able to use basic computer systems (PCs or Macs) commonly found in the workplace *(Committee)*
3. Understand and be able to apply basic computer functions *(Committee)*
4. Understand the role of electronic communications and media in society and their impact on security, safety, and privacy *(Committee)*
5. Understand, manage, and create multimedia communication in a variety of forms and contexts *(Committee)*
6. Understand the basic relationships between computers and the Internet *(Committee)*
7. Understand basic computer security issues *(Committee)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Use technological tools and other resources to locate, select, and organize information *(Show-Me: 1.4)* **CORE**
2. Effectively use technology to organize information and ideas into useful forms (including charts, graphs, outlines, etc.) for analysis or presentation for a variety of purposes and audiences *(Show-Me: 1.8 and 2.1)*
3. Use technological tools to exchange information and ideas *(Show-Me: 2.7)*
4. Use appropriate "techno etiquette" in all forms of electronic communications *(Committee)*
5. Use technology to meet organizational needs *(Committee)*
6. Use common business software applications (i.e., word processing, spreadsheet, database, and presentation) *(Committee)*
7. Use intra- and inter-network electronic mail systems to send and receive messages and attachments *(Committee)*
8. Use popular and subscription Internet search engines to perform appropriate research *(Committee)*
9. Perform or produce works in the fine and practical arts *(Show-Me: 2.5)*
10. Apply communication techniques to the job search and to the workplace *(Show-Me: 2.6)*

GATHER/EVALUATE INFORMATION

KNOWLEDGE

1. Develop and apply effective speaking skills and strategies for various audiences and purposes *(Communication Arts GLE)* **CORE**
2. Develop and evaluate inferences and predictions that are based on data *(Mathematics GLE)*
3. Understand measurable attributes of objects and the units, systems, and processes of measurement *(Mathematics GLE)*
4. Apply appropriate techniques, tools, and formulas to determine measurements *(Mathematics GLE)*
5. Know the use of tools of social science inquiry (surveys, maps) *(Social Studies GLE)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Conduct research to answer questions and evaluate information and ideas *(Show-Me: 1.2)* **CORE**
2. Use technological tools and other resources to locate, select, and organize information *(Show-Me: 1.4)*
3. Evaluate the accuracy of information and the reliability of its sources *(Show-Me: 1.7)*
4. Develop and exchange information, questions, and ideas to initiate and refine research *(Show-Me: 2.3)*
5. Comprehend and evaluate written, visual, and oral presentations and works *(Show-Me: 1.5)*
6. Discover and evaluate patterns and relationships in information, ideas, and structures *(Show-Me: 1.6)*
7. Organize data, information, and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation *(Show-Me: 1.8)*
8. Identify, analyze, and compare the institutions, traditions, and art forms of past and present societies *(Show-Me: 1.9)*

CAREER DEVELOPMENT AND PLANNING

KNOWLEDGE

1. Understand the basic personnel requirements and issues that pertain to employers *(Committee Member)* **CORE**
2. Understand the relationships between personal life and actions and their influence on career opportunities and development *(Committee Member)*
3. Understand the basic difference between getting a job and planning a career *(Committee Member)*
4. Develop and apply effective research processing skills to gather, analyze, and evaluate information *(Communication Arts GLE)*
5. Know and understand the levels of training and education required for life career goals *(Guidance GLE 8.2)*

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Recognize and practice honesty and integrity in academic work and in the workplace *(Show-Me: 4.4)* **CORE**
2. Respect all work as important, valuable, and necessary in maintaining a global society *(Guidance GLE 7.3)*
3. Apply personal, ethical, and work-habit skills that contribute to job and/or career success *(Committee)*
4. Utilize appropriate job-seeking skills to obtain employment *(Guidance GLE 9.2)*
5. Analyze the duties and responsibilities of individuals in society *(Show-Me: 4.3)*
6. Explore, prepare for, and seek educational and job opportunities *(Show-Me: 4.8)*
7. Apply career exploration and planning skills in the achievement of life career development goals and plans *(Committee)*
8. Utilize knowledge of career exploration and planning to adapt new career and educational opportunities as the world of work changes *(Guidance GLE 7.2)*
9. Apply employment-readiness skills and skills for on-the-job-success *(Committee)*
10. Acquire information about the world of work, personal interests, and strengths and limitations to develop short- and long-term postsecondary plans *(Committee)*
11. Apply communication techniques to the job search and to the workplace *(Show-Me: 2.6)*
12. Utilize career and educational information in career decision-making *(Guidance GLE 8.1)*

PROFESSIONAL AND ETHICAL BEHAVIOR

CHARACTERISTICS AND SKILLS

Attitude
Social responsibility
Punctuality and attendance
Dress and hygiene
Honesty
Safety

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Utilize the skills necessary to exhibit and maintain a positive self-concept throughout life *(Guidance GLE 1.1)*
2. Respect all work as important, valuable, and necessary *(Guidance GLE 7.3)*
3. Apply personal, ethical, and work-habit skills necessary to achieve job success *(Guidance GLE 9.1)*
4. Comply with appropriate standards of dress, appearance, language, and public behavior *(Committee)*
5. Exhibit an obligation toward the good of a larger social unit as opposed to the self alone *(Committee)*
6. Exhibit promptness by being present and ready to work at a designated time *(Committee)*
7. Be honest and truthful in all interactions and communication with others *(Committee)*
8. Respect proprietary rights and abide by rules, restrictions, and requirements to maintain a safe and secure environment *(Committee)*

PERSONAL ACCOUNTABILITY

CHARACTERISTICS AND SKILLS

Social responsibility
Clean public records and drug free
Loyalty
Dependability
Integrity
Community values and service

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Balance personal, family, school, community, and work roles *(Guidance GLE 1.2)*
2. Utilize decision-making skills to make safe and healthy life choices *(Guidance GLE 3.1)*
3. Advocate for the personal safety of self and others *(Guidance GLE 3.2)*
4. Exhibit coping skills to manage life-changing events *(Guidance GLE 3.3)*
5. Respect all laws and understand the rights and responsibilities to society *(Committee)*
6. Engage in meaningful service, and commit to active involvement in the community *(Committee)*
7. Think through the potential consequences of decisions, and be accountable for one's own actions *(Committee)*
8. Be dependable in carrying out obligations and duties while showing reliability and consistency in words and conduct *(Committee)*
9. Act honorably and have the inner strength to be truthful, trustworthy, and honest in all things *(Committee)*
10. Assume personal responsibility including abstinence from drugs and other harmful substances *(Committee)*

INTERPERSONAL SKILLS

CHARACTERISTICS AND SKILLS

Conflict resolution/negotiation
Customer service
Teamwork
Leadership skills
Adaptability/flexibility
Diversity awareness and acceptance

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Exhibit the personal characteristics of a contributing member of a diverse community *(Guidance GLE 1.3)*
2. Use interpersonal and communication skills needed to maintain quality relationships *(Guidance GLE 2.1)*
3. Advocate respect for individuals and groups *(Guidance GLE 2.2)*
4. Identify personal responsibility in conflict situations while continuing to apply problem-solving and conflict-resolution skills *(Guidance GLE 2.3)*
5. Utilize appropriate interpersonal and relationship skills to obtain employment *(Guidance GLE 9.2)*
6. Encourage the peaceful resolution of conflicts and work toward mutually agreeable solutions *(Committee)*
7. Actively participate in individual and group activities to enhance independence, interdependence, and positive peer relationships *(Committee)*
8. Tactfully offer constructive comments, accept constructive criticism, and seek methods to improve *(Committee)*
9. Show respect and develop social interaction skills with individuals of different ages, ethnic backgrounds, religions, and sexual orientations *(Committee)*
10. Exhibit the ability to influence, motivate, and enable others to contribute toward success *(Committee)*
11. Adapt or change based upon circumstances *(Committee)*
12. Show respect for authority, other people, other ideas, property, and self while understanding that all people have value as human beings *(Committee)*

SELF-DIRECTION AND SELF-MANAGEMENT

CHARACTERISTICS AND SKILLS

Initiative
Personal productivity
Time management
Independent thinking
Continuous improvement
Decision-making
Follow-through
Goal setting
Creativity/innovation

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Build upon activities and experiences that help the individual student become a contributing member of a global community *(Guidance GLE 1.3)*
2. Exhibit coping skills to manage life-changing events *(Guidance GLE 3.3)*
3. Show a commitment to purpose and the pursuit of worthy objectives in spite of difficulty, opposition, discouragement, or failure *(Committee)*
4. Plan and schedule personal and work time to increase efficiency *(Committee)*
5. Monitor and manage effort toward a task without reminders or deadlines from others *(Committee)*
6. Develop ideas and brainstorm without the assistance or influence of others *(Committee)*
7. Exhibit motivation and creativity through the exploration and sharing of ideas *(Committee)*
8. Apply skills in time management, project management, and goal-setting to identified opportunities *(Committee)*

LIFELONG LEARNING

CHARACTERISTICS AND SKILLS

Take responsibility for learning
Application/transferability
Goal-setting
Functional literacy

PERFORMANCE

Students will demonstrate within and integrate across all content areas the ability to:

1. Consistently utilize the educational skills necessary to progress toward individual, lifelong learning goals *(Guidance GLE 4.1)*
2. Exhibit the self-management skills necessary for postsecondary options *(Guidance GLE 4.2)*
3. Utilize the achievement and performance skills necessary to transition to postsecondary options *(Guidance GLE 5.1)*
4. Apply information to revise and implement a personal plan of study necessary for lifelong learning *(Guidance GLE 6.1)*
5. Utilize knowledge of career exploration and planning to adapt to new career and educational opportunities as the world of work changes *(Guidance GLE 7.2)*
6. Show a commitment to continuous improvement of literacy to be functional in the global workplace *(Committee)*

SUCCESS HIGH SCHOOL

Career Prep Certificate

This is to certify that
on May 31, 2007

Jennifer Doe

met or exceeded the requirements for the
Missouri Career Prep Program.

School Superintendent

Chamber of Commerce Executive Director

MISSOURI CAREER PREP CERTIFICATE

The Missouri Career Prep Program is a voluntary program that helps high school students develop skills necessary to succeed in the workforce and to meet employer expectations. The certificate holder has demonstrated the knowledge and skills required for the Success High School Career Prep Program. Following is a list of their accomplishments.

Program Components

Applied Math _____
Reading Comprehension _____
Communication (Verbal, Written, Listening) _____
Critical Thinking and Problem Solving _____
Information Technology _____
Gather/Evaluate Information _____
Career Development and Planning _____
Professional and Ethical Behavior _____
Personal Accountability _____
Interpersonal Skills _____
Self-Direction and Self-Management _____
Lifelong Learning _____

Assessments

MAP _____
_____
_____

ACT _____
_____
_____

Grade Point Average _____
Attendance Rate _____ %

Activities

Community Service *(No. of hours)* _____ Tutoring and Mentoring *(No. of hours)* _____

Occupational Training Courses and Certification

_____
_____
_____

Extracurricular Activities

Organizations

_____
_____
_____

Positions Held and Participation

_____
_____
_____

Sports/Activities

_____
_____
_____

_____
_____
_____

Awards and Honors

_____
_____
_____
_____

WORKFORCE INVESTMENT BOARDS

Northwest
NW Workforce Investment Board
North Central Missouri College
912 Main St.
Trenton, MO 64683
(660) 359-3622, Ext. 17

Northeast
NEMO Workforce Investment Board Inc.
111 E. Monroe
Paris, MO 65275
(660) 327-5125

Kansas City
Full Employment Council Inc.
1740 Paseo, Suite D
Kansas City, MO 64108
(816) 471-2330, Ext. 257

West Central
Workforce Development Board
2905 W. Broadway
Sedalia, MO 65301
(660) 827-3722

City of St. Louis
St. Louis Agency on Training and Employment
1017 Olive St.
St. Louis, MO 63101
(314) 589-8101

Southwest
Workforce Investment Board
730 S. Wall Ave.
Joplin, MO 64801
(417) 629-3000, Ext 260

Ozark
Department of Workforce Development
City of Springfield
1514 S. Glenstone
Springfield, MO 65804
(417) 887-4343

Central
Workforce Investment Board
1202 Forum Drive
Rolla, MO 65401
(573) 364-7030, Ext. 133

South Central
Workforce Investment Board
1105 Independence Drive
P.O. Box 88
West Plains, MO 65775
(417) 257-2630

Southeast
Workforce Investment Board of
Marquette Tower
338 Broadway, Suite 500
Cape Girardeau, MO 63701
(573) 334-0990, Ext. 259

Eastern Jackson County
Full Employment Council
1740 Paseo, Suite D
Kansas City, MO 64108
(816) 471-2330

St. Louis County
Office of Workforce Development
26 North Oaks Plaza
St. Louis, MO 63121
(314) 679-3300

St. Charles County
Department of Workforce Development
St. Charles County
212 Turner Blvd.
St. Peters, MO 63376-1079
(636) 278-1360

Jefferson-Franklin Consortium
Office of Job Training
Jefferson-Franklin Counties Inc.
P.O. Box 350
Hillsboro, MO 63050
(636) 287-8909

Missouri Department of Elementary and Secondary Education
P.O. Box 480, 205 Jefferson St.
Jefferson City, MO 65102-0480

Missouri Career Education
ESSENTIAL SKILLS FOR **ALL** STUDENTS

For more information about the Missouri Career Prep Program, call (573) 751-7563.

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DESE 3480-9 7/07

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