U.S. Department of Education
2012 National Blue Ribbon Schools Program
A Public School - 12OH13

School Type (Public Schools):   ☑   ☐   ☐   ☐
(Check all that apply, if any)   Charter   Title 1   Magnet   Choice

Name of Principal: Mr. Onder Sechen

Official School Name: Horizon Science Academy Columbus High School

School Mailing Address: 1070 Morse Road

                             Columbus, OH 43229-6290

County: Franklin   State School Code Number*: 133660

Telephone: (614) 846-7616 E-mail: sechen@HorizonColumbus.org

Fax: (614) 846-7696   Web site/URL: www.HorizonColumbus.org

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge all information is accurate.

_____ Date _____
(Principal's Signature)

Name of Superintendent*: Mr. Hizir D. Disli   Superintendent e-mail: disli@conceptschools.org

District Name: Horizon Science Academy Columbus High School   District Phone: (614) 846-7616

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge it is accurate.

_____ Date _____
(Superintendent's Signature)

Name of School Board President/Chairperson: Mr. Melvin Richardson

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge it is accurate.

_____ Date _____
(School Board President's/Chairperson's Signature)

Non-Public Schools: If the information requested is not applicable, write N/A in the space.

The original signed cover sheet only should be converted to a PDF file and emailed to Aba Kumi, Blue Ribbon Schools Project Manager (aba.kumi@ed.gov) or mailed by expedited mail or a courier mail service (such as Express Mail, FedEx or UPS) to Aba Kumi, Director, Blue Ribbon Schools Program, Office of Communications and Outreach, U.S. Department of Education, 400 Maryland Ave., SW, Room 5E103, Washington, DC 20202-8173.

PART I - ELIGIBILITY CERTIFICATION

The signatures on the first page of this application certify that each of the statements below concerning the school's eligibility and compliance with U.S. Department of Education, Office for Civil Rights (OCR) requirements is true and correct.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even K-12 schools, must apply as an entire school.)

2. The school has made adequate yearly progress each year for the past two years and has not been identified by the state as "persistently dangerous" within the last two years.

3. To meet final eligibility, the school must meet the state's Adequate Yearly Progress (AYP) requirement in the 2011-2012 school year. AYP must be certified by the state and all appeals resolved at least two weeks before the awards ceremony for the school to receive the award.

4. If the school includes grades 7 or higher, the school must have foreign language as a part of its curriculum and a significant number of students in grades 7 and higher must take foreign language courses.

5. The school has been in existence for five full years, that is, from at least September 2006.

6. The nominated school has not received the Blue Ribbon Schools award in the past five years: 2007, 2008, 2009, 2010 or 2011.

7. The nominated school or district is not refusing OCR access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.

8. OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.

9. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.

10. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.

PART II - DEMOGRAPHIC DATA

All data are the most recent year available.

DISTRICT

1. Number of schools in the district   0 Elementary schools (includes K-8)
   (per district designation):   0 Middle/Junior high schools
       1 High schools
       0 K-12 schools
       1 Total schools in district

2. District per-pupil expenditure: 6288

SCHOOL (To be completed by all schools)

3. Category that best describes the area where the school is located: Urban or large central city

4. Number of years the principal has been in her/his position at this school: 1

5. Number of students as of October 1, 2011 enrolled at each grade level or its equivalent in applying school:

Grade	# of Males	# of Females	Grade Total			# of Males	# of Females	Grade Total
PreK	0	0	0		6	0	0	0
K	0	0	0		7	0	0	0
1	0	0	0		8	0	0	0
2	0	0	0		9	77	66	143
3	0	0	0		10	44	52	96
4	0	0	0		11	33	48	81
5	0	0	0		12	37	29	66
					Total in Applying School:			386

6. Racial/ethnic composition of the school:

1 %	American Indian or Alaska Native
1 %	Asian
80 %	Black or African American
3 %	Hispanic or Latino
0 %	Native Hawaiian or Other Pacific Islander
11 %	White
4 %	Two or more races
100 %	Total

Only the seven standard categories should be used in reporting the racial/ethnic composition of your school. The final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic data to the U.S. Department of Education published in the October 19, 2007 *Federal Register* provides definitions for each of the seven categories.

7. Student turnover, or mobility rate, during the 2010-2011 school year: 12%

This rate is calculated using the grid below. The answer to (6) is the mobility rate.

(1)	Number of students who transferred *to* the school after October 1, 2010 until the end of the school year.	22
(2)	Number of students who transferred *from* the school after October 1, 2010 until the end of the school year.	25
(3)	Total of all transferred students [sum of rows (1) and (2)].	47
(4)	Total number of students in the school as of October 1, 2010	386
(5)	Total transferred students in row (3) divided by total students in row (4).	0.12
(6)	Amount in row (5) multiplied by 100.	12

8. Percent of English Language Learners in the school: 15%

Total number of ELL students in the school: 56

Number of non-English languages represented: 7

Specify non-English languages:

Spanish, Somali, Swahili, Arabic, Creole, Tagalog, Amharic

4

9. Percent of students eligible for free/reduced-priced meals: 83%

   Total number of students who qualify: 320

If this method does not produce an accurate estimate of the percentage of students from low-income families, or the school does not participate in the free and reduced-priced school meals program, supply an accurate estimate and explain how the school calculated this estimate.

10. Percent of students receiving special education services: 7%

   Total number of students served: 26

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional categories.

2	Autism	0	Orthopedic Impairment
2	Deafness	1	Other Health Impaired
0	Deaf-Blindness	15	Specific Learning Disability
1	Emotional Disturbance	0	Speech or Language Impairment
0	Hearing Impairment	0	Traumatic Brain Injury
5	Mental Retardation	0	Visual Impairment Including Blindness
0	Multiple Disabilities	0	Developmentally Delayed

11. Indicate number of full-time and part-time staff members in each of the categories below:

	Number of Staff	
	Full-Time	**Part-Time**
Administrator(s)	4	0
Classroom teachers	28	2
Resource teachers/specialists (e.g., reading specialist, media specialist, art/music, PE teachers, etc.)	4	0
Paraprofessionals	0	0
Support staff (e.g., school secretaries, custodians, cafeteria aides, etc.)	4	0
Total number	40	2

12. Average school student-classroom teacher ratio, that is, the number of students in the school divided by the Full Time Equivalent of classroom teachers, e.g., 22:1:   14:1

13. Show daily student attendance rates. Only high schools need to supply yearly graduation rates.

	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007
Daily student attendance	95%	95%	96%	96%	93%
High school graduation rate	87%	97%	88%	94%	100%

14. **For schools ending in grade 12 (high schools):**
    Show what the students who graduated in Spring 2011 are doing as of Fall 2011.

Graduating class size:	74

Enrolled in a 4-year college or university	72%
Enrolled in a community college	24%
Enrolled in vocational training	0%
Found employment	0%
Military service	4%
Other	0%
Total	**100**%

15. Indicate whether your school has previously received a National Blue Ribbon Schools award:

    ◉ No

    ☐ Yes

    If yes, what was the year of the award?

PART III - SUMMARY

Horizon Science Academy Columbus High School (HSA) is a 9th through 12th grade tuition-free, public charter school. We offer a college prep curriculum with an emphasis on math, science and technology. In its first decade, Horizon Science Academy has assembled a long list of accomplishments. In 2007, HSA received an Effective Rating from Ohio Department of Education (ODE) and 2008, we moved up to an Excellent rating. Since then we have been rated Excellent. HSA was recognized as a 2009-2010 School of Promise by ODE.

Recognizing that educational success will be realized only when the triad of student, teacher, and parent/guardian is in harmony, the mission of the Horizon Science Academy Columbus is to create a partnership among this triad that will provide our youth with the support necessary to reach their highest potential, intellectually, socially, emotionally and physically. Our vision is to stay as an Excellent school through 2014 and beyond once the new assessments are introduced using common core standards.

Horizon Science Academy is an inner-city school located in Columbus, Ohio. Eighty-three percent of our students come from economically disadvantaged homes. Despite the high level of poverty, nearly all students graduate and go onto colleges and universities, including MIT, and Ohio's finest schools of higher education. Our students receive over 2.4 million dollars per year in college scholarships.

Our students consistently score above the state average – and well above the Columbus City schools as well as most suburban schools in all the five OGT subject areas that are tested.

Horizon Science Academy offers a rigorous curriculum aligned with Ohio Department of Education standards. Some Advanced Placement classes have a 3 to 1 teaching ratio. Advanced Placement classes are available in some subject areas. Electives offered by the school include: Anatomy, Web Page Development, Computer Science, Flash, Public Speaking, Performing Dance, Journalism, Theater, Statistics, Turkish, German, Wellness and Life Skills. We offer small class sizes to improve learning outcomes.

HSA encourages students to develop an interest in international programs. Students have an opportunity to participate in student exchange programs and international trips. Participation in international competitions is emphasized through International Environmental Projects Olympiad, Euro-Asia competition and Turkish Olympiad. Students who qualify for these competitions are not required to pay any participation fee.

Horizon Science Academy makes every effort to provide interventions for students at-risk of academic failure. We provide tutoring to all of our students, four days a week either before or after their lunch. Not only are teachers available for tutoring, we also have designated student helpers to assist their peers during tutoring time. In addition to interventions offered during the school week, we provide Saturday academic programs. Around 40 sophomores attend each Saturday from October to March.

Our Ivy League Mentorship Program (IMP) is designed to prepare our selective students to Ivy League Colleges at every level. IMP is a year round program for freshman, sophomore and juniors. Each mentor is assigned a group of 6 students and works with them over their ACT preparation, athletics, character education and career building areas. Mentor meet with their students once during the week and most Saturdays.

We offer SAT/ACT camps to all juniors and seniors three times a year open. The length of the camps are between 2-5 days.

Horizon Science Academy has three guidance counselors. Utilizing a database, we keep track of every senior's application status for each school they applied to, their ACT/SAT test scores and dates, their FAFSA application status and the scholarships they received. The guidance counselors make individual schedules for all of our students and help students select a college or career path. We also organize an annual in-school college fair, arrange campus tours for our juniors and seniors, and invite around 25 college representatives to our school each year.

Horizon Science Academy's Alumni Association keeps graduates connected to school long after they leave our halls and helps students make the transition to college. Alumni coordinators track progress of graduates at their college or university, visit them in person, and provide graduates with a sense of community and support.

PART IV - INDICATORS OF ACADEMIC SUCCESS

1. Assessment Results:

Each spring, Ohio high schools administer the Ohio Graduation Tests (OGT) to all tenth grade students. Test areas include writing, reading, mathematics, science and social studies; all tests are based on the Ohio Academic Content Standards. Students are required to pass each of the five assessments to qualify for high school graduation. Each student's performance places him/her in one of five performance levels: limited, basic, proficient, accelerated and advanced.   Passing, or "meeting the standard," is defined as achieving at the proficient level (or higher). Information about Ohio's assessment system and results can be found at http://www.ode.state.oh.us.

Ohio issues report cards for each building and district. High schools must meet a 75% passage rate on each content area test of the OGT administered in the tenth grade and 85% in eleventh grade in order to meet 10 of the 12 state performance indicators for high schools. The other two indicators require high schools to achieve at least a 90% graduation rate and a 93% attendance rate. Finally, high schools must also meet Adequate Yearly Progress (AYP) goals in reading and mathematics for identified subgroups of students. The state uses a performance index measure that assigns a point value for the five scoring levels of the test for these specific student groups.

Horizon Science Academy has steadily progressed over the past five years receiving a rating of EXCELLENT, the highest rating state gives to high schools, three years in a row. Our overall school performance index score has moved from 60.8 to 102.0 over the last five years. This performance index measures the achievement of every tested student, not just those who score proficient or higher. Percentage of proficient or above students in math in 2007 was only 61%. For the next five years it improved to 70%, 86%, 87% and finally 91% in 2010-2011 school year. The same trend can be seen in the subgroups as well. Our economically disadvantaged students were 59% proficient in math in 2007 and in 2001, they were 94% proficient in math. Our ELL students increased from 33% to 86% and African American students increased from 54% to 92%.

In Reading our overall proficiency rate increased from 81% in 2007 to 89% in 2011. In the subgroups our economically disadvantaged students improved from 74% to 89%, our ELL students improved from 72% to 86% and our African American students improved from 79% to 88% from 2007 to 2011.

The school leadership was instrumental in the improvement of student achievement. The leadership zeroed in student achievement and decisions were made based on its potential affect on student achievement. The governing authority approved monetary incentives for teachers whose students did well on the OGT. The curriculum was modified so that students who needed more support were assigned to additional classes. The school started using the student information system more effectively, communicating better with the parents through the student information system and emphasize their children's academic progress during every assembly, program and activity.

The school started signing commitment contracts with the students and parents as part of the enrollment process. Through these contracts, we emphasized our expectations from our students to stay for tutoring afterschool and come on Saturdays.

The school devoted more resources to student supervision positive behavior support. This helped the hallways and classrooms to be more orderly and conducive for learning.

One of the factors of the increase in student achievement can be attributed to the establishment of culture of using interim assessment data. In 2004, we began using the OGT Interim Assessments developed by

our management company, Concept Schools. Over the years, not only the quality of those assessments improved, but also teachers learned how to analyze the data student-by-student, standard-by-standard and subgroup-by-subgroup. This process enabled our teachers to modify the instruction to cater to the needs of our students. Two years ago the interim assessments added the extended responses into the assessments and this gave an even more accurate picture of the deficiencies and the strengths of our students.

According to the 2011 OGT results, all of our subgroups are within 10 percentage points of the overall student population. However in 2010, our ELL students were 55% proficient in Reading where as overall student population was 83% proficient. To narrow this achievement gap, we offered additional English and Reading classes for ELL students. We made sure that our ELL teacher was collaborating more with the other content area teachers and support the ELL students in content area classes. We also communicated with the parents of ELL students in their native language through interpreters or translated some of the printed materials. As a result of these efforts, proficiency rate for ELL students in Reading increased to 86% in 2011.

2. Using Assessment Results:

We give our 10th graders our OGT Interim Assessments three times a year. Once the data becomes available in our student information system, teachers are given a few days to analyze the data. Horizon's Assistant Director then convenes the OGT subject teachers to discuss their data. The teachers analyze the data horizontally, student-by-student and vertically, standard-by-standard. Teachers submit an action plan based on the data. The action plan includes the standards to be reviewed in the next 9 weeks, standards to be re-taught, and new-standards to be introduced. The teachers also compile a list of students about which they have major concerns and they formulate a plan to address those concerns. These action plans are shared with all staff members. We assign students to intervention classes and Saturday tutoring based on the data from the interim assessment and course grades.

We want our students to take ownership of their learning. We ask them to set their individual goals for the next interim assessment and provide some incentives for the students who accomplish their goals by the next assessment. Teachers also set class wide goals for their classes. The goals can be in the form of improving the number of proficient students by a certain amount or improving the overall average score of the class. We recognize those students who achieve their individual goals in our newsletter and during award assemblies. The highlights of the interim assessment results are included in our newsletter. Our management company also recognizes the top 3 scores among all the schools under our management company by sending certificates to those students.

Since the test results are in our student information system, we train our parents during our parent orientations in the summer or during parent teacher conferences to review those test results from each administration, and have their children practice the questions and the standards they missed.

While our tenth graders are taking the OGT practice test, our ninth graders are given Explore test and eleventh graders are given ACT practice tests. These test results are also available in our student information system just like the OGT Interim Assessment results. Teachers discuss the test results with the students and raise awareness of the skills students are missing.

3. Sharing Lessons Learned:

Our school received a Dissemination grant from ODE in the 2010-2011 school year. As part of that grant we are sharing our OGT Interim Assessment system developed by our management company, Concept schools, with four schools in Ohio. Those schools have been using the assessments and we are providing professional development on how to analyze the assessment data and modify the instruction.

In the last two years, our school has presented "How to be an Excellent" school sessions in our joint PD day with 10 other schools. We had around 100 teachers/administrators participate in those sessions. We

talked about how we do data analysis at our school, how grade chair meetings work and how we motivate our students towards interim assessments to get reliable data and OGT. Our Dean of Student has been running the dean of students sessions for 8 other deans. He has been sharing strategies in reducing referrals, how to reduce tardiness to classes and how to support the teachers in the classroom.

About seven of our teachers presented in the PD days with other schools. Some of the sessions presented were about how to use interim assessment data in their classrooms, how to engage and relate with our student body and how to use student response systems in the classroom. One of our administrators presented at the statewide charter school conference about using Google docs as an organization. He shared how he was using Google docs to keep the communication channels open, how he was engaging the staff by using documents collaboratively. One of our teachers is presenting in the national 2012 T3 International Conference about how he is using TI calculators in the science classes to increase student engagement.

Many of our staff members continue their own education by taking college courses, on line classes, or attending workshops and conferences. In their college classes two of our staff members recently shared about school uniform policy and its effect on school climate, the database and its use by teachers, students and parents.

4. Engaging Families and Communities:

One of the most effective strategies to communicate with the parents for student success has been our student information system where parents can see their children's current grade, completed and missing assignments, attendance and OGT Interim assessment results. We can see that most of our parents actually login to the system to check the grades. We run reports periodically and try to call those parents who have not logged in for several months. Parents can even see the questions students have missed on those assessments and the corresponding standards. We also send automated phone calls to our parents as reminders for the upcoming events. We have quarterly newsletters that we mail out to each parent, and we send progress reports and report cards for a total of 4 times a year. Our two parent teacher conferences for the year are on Saturdays to increase the parent participation. In our weekly grade team meetings, teachers discuss each student as a team to review their academic and social progress at the school. As a result team can decide to refer the student to Intervention Assistance Team, recommend different course placements, or agree on certain instructional or behavioral strategies to use for that student in each class. The team decides whether to call, email or schedule a meeting with the parent.

Horizon staff visits the homes of all their students. Each teacher is asked to do at least four for the year but most teachers exceed that number. Between one-third and one-half of our students have at least one staff member knock on their door throughout the school year. Our experience tells us that those home visits turn out to be the one memory that our students and parents remember when we discuss their experience at our school. In fact, some of our parents find the visits so important that they ask when they can expect the next visit to occur.

After each OGT Interim Practice Test, we generate the new list of students who need to attend Saturday school. Teachers contact the parents to inform them of the decision and to explain why it is important to support the decision.

To attract more parents to come and be involved in their children's education, we provide our parents Adult ESL and basic computer classes. We also talk about their children's progress at our school and show the parents how to use student information system as part of the class. Since most of our students are the first in their family to attend college, their parents are not always familiar with how to apply for FAFSA. We organize parent FAFSA nights. We invite a representative from a college and have them show our parents on the computer how to fill out the forms.

PART V - CURRICULUM AND INSTRUCTION

1. Curriculum:

The academic program at Horizon Science Academy Columbus High School is designed to ensure that all students are adequately prepared to enter and succeed at a four-year university. When a student earns a diploma from Horizon Science Academy Columbus High School, they will have met the course requirements necessary to qualify for entrance into the colleges. We offer courses in the core areas of History/Social Studies, English, Mathematics, Foreign Language and Science. We also offer visual and performing arts, physical education/health/nutrition, technology courses.

Our state minimum graduation requirement is 20 credits. For graduation our school requires 23 credits for our graduating classes through 2013. Class of 2014 and above will need 26 credits to graduate.

Students are required to successfully complete four years of English. Grades 9, 10 and 11 offer students the choice of honors courses, while grades twelve offer students AP courses. Our honors level courses offer students a rigorous curriculum with challenging texts, focusing on college preparation at an enrichment level. A variety of semester electives are available. Options include literature, speaking, and writing based courses. Journalism offers students the opportunity to produce a newsletter, the yearbook, and morning announcements. Public Speaking offers students the chance to develop their ability to speak confidently and effectively in a variety of public speaking situations.

Every student at Horizon Science Academy is required to take four years of mathematics from the following sequence of courses: Algebra 1, Geometry, Algebra 2, Pre-calculus, AP Calculus AB. Additionally, Math elective courses such as Trigonometry, Statistics and Business math are offered. We are also offering Kenyon College Calculus I at our school through partnership with Kenyon College. Students don't have to leave our building and don't have to pay to receive a college transcript. Math classes stress the importance of applying mathematical concepts to real world problems and providing solutions.

Every student at our school is required to earn four Science credits to graduate. The Science Department offers Physical Science, Biology, Chemistry, Chemistry II, Physics, Marine Biology, Human Anatomy and Physiology. The freshman class takes Physical Science, sophomores take Biology, juniors take Chemistry and seniors take Physics. We are also offering KAP Biology through Kenyon College for the eligible juniors and seniors.

Every student at HSA is required to earn four Social Studies credits to graduate. The core curriculum consists of one year each of U.S. Government, World History and United States History, Economics. In addition, the Social Studies Department offers Psychology, Sociology, Contemporary Issues/World Geography and African-American History.

Fine Arts and Music offer students a creative outlet in a variety of courses. Art is offered through coursework in art appreciation, art foundation, drawing, painting, and AP Art. Music is provided through General Music, Band, Choir, and Music Theory. Other fine arts courses are Performing Dance and Theater.

All students must complete one physical education class and health class. Health class offers students the study of nutrition, stress management, risk-taking behaviors, mental health issues, OTC and prescription drugs, and topics related to sexual health. In physical education classes, students explore ways to maintain a lifetime commitment to wellness. Nutrition classes require students to plan healthy meals, and prepare them. A wellness class is offered as an elective.

Technology classes offered include Introduction to Computer Science, Web Page Development, Desktop Publishing and Flash.

All students must receive two foreign language credits for graduation. Foreign Language is offered through the study of Spanish, German and Turkish. Each language offers levels I to III. The culture and history of the countries are also studied through multi-cultural fair or international trips to those countries during Spring break and summer.

2. Reading/English:

Horizon's English curriculum is theme based and vertically aligned from English I through English IV. This enables us to provide rigor in the curriculum while also ensuring that all courses are aligned with the Ohio Academic Content Standards and now Common Core Standards.

Ninth grade English focuses on grammar, usage, library skills, types of literature, discussion, reading and composition skills, and oral presentations skills. Students read a variety of literature selections, write formal essays, and are challenged through a cross-curricular inquiry-based research project that focuses on a central question driven by real-world, unpredictable situations.

Students in tenth grade English build upon these skills through the continued study of literature and expand their work. The reading assignments designed to enhance students' understanding and appreciation of literature. Students study techniques in style. Students learn an interpretive approach applicable to all great works of literature by reading and discussing poems, plays, and novels.

Eleventh grade students complete an in-depth study of American literature and compose personal and analytical responses related to these literature selections. Students' writing skills are expanded and enhanced through the study of academic papers. Each student writes a research paper, focusing on organization, format, mechanics, vocabulary practice, and persuasive writing.

Senior English is designed to help the college bound student develop the skills needed for college English courses. The class provides a study of literature, concentrating on British authors, and requires an extensive research paper. The AP class is a high level course preparing students for the AP English Literature and Composition test; the workload is equivalent to a college course. Special attention is given to timed writings as preparation for college and the AP test.

We provide daily tutoring for all students. We also offer Saturday classes for remediation and extension. Additionally, upperclassmen that need more focused attention are required to attend a Writing and Reading Competency class.

3. Mathematics:

The math program at HSA is not only designed to encourage student success in meeting the Ohio Academic Standards, but also ACT college readiness standards are also incorporated into the curriculum.

Emphasis on building a solid foundation of Algebra skills and the adoption of a culture of high expectations and self-reflection are the main goals of the Algebra 1 course. Development of critical thinking and the ability to reason logically is the goal of the Geometry course. Students in Algebra 2 are expected to proficiently analyze and manipulate a variety of algebraic functions. Complex numbers, logarithms and series are introduced in Algebra 2 along with some basic probability and statistics principles. Pre-calculus is a course that provides a deeper analysis of some of the concepts learned previously and develops strong critical and analytical thinking. Students who take Algebra I at the middle school are able to start with Geometry and take KAP/ AP Calculus in their senior year. With the credit flexibility policy, any student who can demonstrate the mastery of a particular class can take a more

advanced class. Also our IMP students, starting from their freshman year, begin to work on the ACT College Readiness standards with their mentors over the weekends.

We provide additional remedial math classes for freshman and sophomores based on the summative assessment results. Tutoring is available 4 days a week during lunch time for all students as well as Saturday school in Math. Students with learning disabilities are mostly included in the regular classrooms getting help from the resource teacher.

Our math department meets every other week to go over the curriculum, share instructional strategies, provide feedback over their peer observations and analyze student sample work.

4. Additional Curriculum Area:

Horizon offers a very strong Science curriculum. In the ninth grade, an integration of life, physical, and earth sciences is offered as an introduction to biology, chemistry, and physics (an emphasis is placed on earth and physical science). During the tenth grade, there is a continuation of integrated sciences with an intensive OGT program that includes practice exams, item analysis, and Saturday school.

Biology is required of all tenth graders, chemistry is required of eleventh graders, and physics is required for the seniors. These classes include an intensive laboratory science program.

Our science curriculum strives to build scientific literacy, scientific principles, and scientific inquiry. Students increase their science vocabulary, learn how to handle laboratory equipment, use modern laboratory techniques, and apply those skills in real world problems. One outcome of these efforts is our local school science fair held each February. Typically one third of our student body presents their projects to be judged in our school science fair. Students start preparing for these projects around October. It is a well-established school culture. Students work with their Science, Math, and English teachers on their projects. Each student has a mentor among the teachers or among the volunteers from the community who work with our students on their projects. We also offer an elective Science Projects class for students who would like to have a high quality project about a problem that interests them. Every year we take about 30 qualified students in our school science fair to Cleveland to participate in a state wide science fair organized by our management company. Another group of qualified students also competes in the district science fair. Typically every year we have a few projects that are of such a high quality that they advance all the way to the state science fair.

We use TI calculators in the Physical Science classroom and a laptop card available for use for the science department. The classrooms are designed to be large enough to accommodate both regular classroom space as well as science lab furniture.

5. Instructional Methods:

Instructional methods can vary by teacher and class. To challenge the individual level of students, HSA offers different levels of classes. In conjunction with the credit flexibility, these different levels enable students to take a class according to their ability and knowledge level in order to challenge themselves. We also offer Post Secondary Enrollment Option Program (PSEOP) to our students. As part of PSEOP, students take classes from different colleges while they are attending high school. They receive both college credits and high school credits for those classes they take under PSEOP. Tuition for these classes is paid through the school as long as students receive a B or above. Every semester we usually have around 10 students who will be taking one or more classes from colleges.

We are a data driven school. We give frequent assessments, analyze the results and modify the instruction. Our OGT Interim assessments have been instrumental in our success. Our students see the assessments results in our student information system and they can even work on the standards they

missed from the database. This empowers and enables our students to take ownership of their own learning. Students set their own goals for the next assessment and work towards those goals.

We have long distance video conferencing equipment that we use not only for teacher professional development, but also for our students to engage with other students or take classes from other institutions. We have our textbooks online, a student information system that is updated by each teacher at least once a week, teacher websites, interactive whiteboards, LCD projectors in the classrooms, airliners, classroom clickers, document cameras in our building used to address the different learning styles in the classrooms. We use StudyIsland for OGT practice. Students can work on their pace for the learning goals set by their teachers, with the explanations of the topics on the website.

Teachers also do cross curricular planning in their weekly grade team meetings. They collaborate on projects like science experiments, stock market games and geometric designs in an art class. For students who need help, each teacher is available for tutoring 4 times a week before or after students' lunch.

6. Professional Development:

Horizon Science Academy uses Ohio Professional Development Standards as we plan and evaluate our professional development programs. Although there is limited amount of funds, we try to send each teacher at least to a one conference during each school year. Teachers are reimbursed 75% for the college classes they take. A lot of our teachers attend workshops organized by ESC's, not-for-profit organizations and charter school associations. As a participant in Ohio'sRace to the Top funding, our professional development has been focused on adopting the new common core standards, sharpening our skills on the use of data and provide more rigor in the classrooms.

We have four in service days during the school year. Two of these in-services are organized by our management company and they include sessions on assessments, common core standards, use of data in the classroom and content specific best strategies. Also teachers meet as a department with the same content area teachers from the other schools, which provide a great avenue for sharing best practices across the schools. Since these meetings happen every year, there is continuity to the topics discussed.

We have department observations where all the teachers from one department observe another teacher at the same time. This has been a valuable process for the teachers to start getting comfortable giving and hearing feedback to and from each other, which improves classroom management and delivery of instruction and student achievement.

We have five days of summer institute for all of our staff members. As a staff we decide what to do on those days and try to use the local expertise on the items to be discussed, but sometimes invite outside experts as well. One of our principles in these professional development sessions is "Showcasing what you talk about". If a teacher is talking about a strategy about classroom management, we want to see that implemented during that session, after all a room full of adults is like room full of students.

7. School Leadership:

Horizon Science Academy has adopted a collaborative leadership model. We believe that collective wisdom will bring out the best ideas and will create buy in among all the stakeholders into the school mission and vision. Our leadership team includes the following individuals:

The **Director** is the instructional leader of the school. He manages day-to-day operations and move the school in the direction of the school's vision.

The **Assistant Director** helps the director in overseeing the implementation of school curriculum, coordinates assessment programs, leads student level data analysis, and provides instructional coaching and modeling.

The **Dean of Students** manages student behavior, supports instructional coaching and modeling to teachers and supervises special education services.

The **Activity Coordinator** coordinates and promotes the school events to the community and works as a liaison between school and families.

The **Executive Administrative Assistant** helps the Director in day-to-day operations of the school and manages government reporting and compliance.

The **Grade Chairs** manages the weekly grade chair meetings and shares the minutes with the rest of the staff through online-shared documents.

The **Department Heads** manages the department meetings twice a month and shares the minutes with the rest of the staff through online-shared documents.

In our collaborative leadership model we have several teams:

Academic Leadership Team meets every week with College Guidance Counselors, Director and Assistant Director. This team ensures that students are receiving a college prep curriculum, all of our seniors graduate and they all get acceptances from colleges.

School Leadership Team meets weekly and includes Director, Assistant Director, Dean of Student, Activity Coordinator and Executive Administrative Assistant. This team discusses all of the aspects of school and makes sure school moves toward its vision.

Grade Level Teams meet weekly with the same grade teachers, counselors and assistant director. Team reviews each student's academic and social progress at the school. They go over the interim assessment data, share strategies on instructional methods and classroom management. Grade chair shares and discusses the meeting minutes with School Leadership Team.

Department Teams meet weekly with the same department teachers. They go over the curriculum, share instructional strategies, provide feedback over their peer observations and analyze student sample work. The department head shares and discusses the meeting minutes with the Academic Leadership Team.

Building Transformation Team meets monthly as part of Race to the Top. Team includes School Leadership Team and all the department heads. Team discusses transition to the new Common Core Standards, revised teacher evaluation systems and alignment of our professional development activities with the state professional development standards.

PART VII - ASSESSMENT RESULTS

STATE CRITERION-REFERENCED TESTS

Subject: Mathematics   Grade: 10 Test: Ohio Graduation Test

Edition/Publication Year: March 2011 Publisher: Ohio Department of Education

	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007
Testing Month	Mar	Mar	Mar	Mar	Mar
SCHOOL SCORES					
Proficient and Above	91	87	86	70	61
Advanced	33	27	38	17	10
Number of students tested	79	70	74	84	122
Percent of total students tested	100	100	100	100	100
Number of students alternatively assessed					
Percent of students alternatively assessed					
SUBGROUP SCORES					
1. Free/Reduced-Price Meals/Socio-economic Disadvantaged Students					
Proficient and Above	94	82	84	70	59
Advanced	33	24	31	24	8
Number of students tested	54	49	51	37	71
2. African American Students					
Proficient and Above	92	85	87	61	54
Advanced	32	24	30	10	8
Number of students tested	60	54	49	62	90
3. Hispanic or Latino Students					
Proficient and Above					
Advanced					
Number of students tested					
4. Special Education Students					
Proficient and Above					27
Advanced					0
Number of students tested					18
5. English Language Learner Students					
Proficient and Above	86	82	85		33
Advanced	14	18	23		0
Number of students tested	60	54	49	62	90
6. White, Non-Hispanic					
Proficient and Above		92	89	94	78
Advanced		33	67	25	22
Number of students tested		12	19	16	18
NOTES:					

12OH13

STATE CRITERION-REFERENCED TESTS

Subject: Reading   Grade: 10 Test: Ohio Graduation Test

Edition/Publication Year: March 2011 Publisher: Ohio Department of Education

	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007
Testing Month	Mar	Mar	Mar	Mar	Mar
SCHOOL SCORES					
Proficient and Above	89	83	86	80	81
Advanced	15	4	18	8	4
Number of students tested	79	70	74	84	120
Percent of total students tested	100	100	100	100	100
Number of students alternatively assessed					
Percent of students alternatively assessed					
SUBGROUP SCORES					
1. Free/Reduced-Price Meals/Socio-economic Disadvantaged Students					
Proficient and Above	89	80	84	78	74
Advanced	15	6	18	11	4
Number of students tested	54	49	51	37	70
2. African American Students					
Proficient and Above	88	83	84	73	79
Advanced	14	6	20	5	3
Number of students tested	60	54	49	62	89
3. Hispanic or Latino Students					
Proficient and Above					
Advanced					
Number of students tested					
4. Special Education Students					
Proficient and Above					45
Advanced					0
Number of students tested					11
5. English Language Learner Students					
Proficient and Above	86	55	54		72
Advanced	0	9	0		0
Number of students tested	14	11	13		18
6. White, Non-Hispanic					
Proficient and Above		83	95	100	88
Advanced		0	16	13	6
Number of students tested		12	19	16	17
NOTES:					

12OH13

STATE CRITERION-REFERENCED TESTS

Subject: Mathematics   Grade: Weighted Average

	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007
Testing Month					
SCHOOL SCORES					
Proficient and Above	91	87	86	70	61
Advanced	33	27	38	17	10
Number of students tested	79	70	74	84	122
Percent of total students tested	100	100	100	100	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Free/Reduced-Price Meals/Socio-economic Disadvantaged Students					
Proficient and Above	94	82	84	70	59
Advanced	33	24	31	24	8
Number of students tested	54	49	51	37	71
2. African American Students					
Proficient and Above	92	85	87	61	54
Advanced	32	24	30	10	8
Number of students tested	60	54	49	62	90
3. Hispanic or Latino Students					
Proficient and Above	0	0	0	0	0
Advanced	0	0	0	0	0
Number of students tested	0	0	0	0	0
4. Special Education Students					
Proficient and Above	0	0	0	0	27
Advanced	0	0	0	0	0
Number of students tested	0	0	0	0	18
5. English Language Learner Students					
Proficient and Above	86	82	85	0	33
Advanced	14	18	23	0	0
Number of students tested	60	54	49	62	90
6.					
Proficient and Above	0	92	89	94	78
Advanced	0	33	67	25	22
Number of students tested	0	12	19	16	18
NOTES:					

12OH13

STATE CRITERION-REFERENCED TESTS

Subject: Reading   Grade: Weighted Average

	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007
Testing Month					
SCHOOL SCORES					
Proficient and Above	89	83	86	80	81
Advanced	15	4	18	8	4
Number of students tested	79	70	74	84	120
Percent of total students tested	100	100	100	100	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Free/Reduced-Price Meals/Socio-economic Disadvantaged Students					
Proficient and Above	89	80	84	78	74
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Proficient and Above	88	83	84	73	79
Advanced	14	6	20	5	3
Number of students tested	60	54	49	62	89
3. Hispanic or Latino Students					
Proficient and Above	0	0	0	0	0
Advanced	0	0	0	0	0
Number of students tested	0	0	0	0	0
4. Special Education Students					
Proficient and Above	0	0	0	0	45
Advanced	0	0	0	0	0
Number of students tested	0	0	0	0	11
5. English Language Learner Students					
Proficient and Above	86	55	54	0	72
Advanced	0	9	0	0	0
Number of students tested	14	11	13	0	18
6.					
Proficient and Above	0	83	95	100	88
Advanced	0	0	16	13	6
Number of students tested	0	12	19	16	17
NOTES:					

12OH13