Community School District 28

Table of Contents

Program Narrative Addressing Need for Assistance; Promoting Science, Technology, Engineering, and Mathematics (STEM) Education; and the MSAP Selection Criteria

Priority 1–Need for Assistance: (a) The costs of fully implementing the magnet schools project as proposed

Introduction: Community School District 28 (District 28) has not received funds under this program in the last fiscal year of the previous funding cycle. District 28 is located in the borough of Queens in New York City in highly divergent communities that require shifts in school design to increase the diversity of the school enrollments and increase academic achievement for all students in the schools. **The district seeks MSAP funding to reduce minority group isolation of Black/African American students in three highly minority group isolated schools.** Two of these schools will be new magnet schools – PS 160 and PS 354. One school, PS 80, received funding in 1993 and will be significantly revised, with a new theme and focus. It must be noted that **all proposed magnet schools have sufficient space to accommodate students who would voluntarily enroll in the schools.**

Community Background: For decades the areas comprising District 28 could be viewed as two separate communities, with clear "borders" – the northern section, Rego Park and Forest Hills, consisting of predominantly white, middle class residents, clamoring for high quality public schools and dedicating their own resources, where necessary; and the southern section, Springfield Gardens and South Jamaica, consisting of predominantly minority (Black and Hispanic), financially struggling residents, also seeking high quality public schools, but lacking the resources to have the necessary impact on a large, bureaucratic school system to make this happen. The legacy has been a two-tiered public school system with the "better", high achieving and more racially mixed schools primarily in the north and the "less desirable", low achieving schools, racially isolated schools primarily in the south. Nothing highlights the legacy more than

the numbers themselves, summarized in the tables below, for the proposed magnet schools and feeder schools (schools where the goal is to attract students who would ordinarily attend these schools to voluntarily enroll in the magnet schools).

Magnet Schools/ Enrollments	**Location**	**% Min.**	**% Poverty**	**% Proficient NYS ELA/Math Assessments**
PS 80	Springfield Gardens	98.8%	69.6%	49.1%/57.2%
PS 160	South Jamaica	97.9%	89.0%	36.1%/53.7%
PS 354	Springfield Gardens	98.9%	60.0%	N/A*

*PS 354 is currently a PreK-3 school. There are no NYS assessments in these grades.

Feeder Schools/ Enrollments	**Location**	**% Min.**	**% Poverty**	**% Proficient NYS ELA/Math Assessments**
PS 101	Forest Hills	53.5%	19.1%	78.1%/84.8%
PS 139	Rego Park	65.3%	50.9%	66.3%/81.3%
PS 144	Forest Hills	61.7%	23.1%	73.9%/80.5%
PS 174	Rego Park	65.5%	34.6%	72.4%/85.4%
PS 175	Rego Park	32.1%	51.3%	67.3%/85.5%
PS 196	Forest Hills	61.4%	18.4%	86.8%/91.6%
PS 303	Forest Hills	49.3%	10.0%	93.8%/96.9%

Now is the Time for a Successful Magnet Program. There is another disparity between northern and southern schools. The schools in the north, the potential feeder schools, are all overutilized while the southern schools are underutilized. The northern schools range from 105% to 127% overutilized. By contrast, PS 80, PS 160 and PS 354 are all underutilized - all

schools are at maximum 85% utilized. Parents of students in these northern communities are frequently "closed out" of their zoned, neighborhood schools. In the past, they would have gone to private schools. Indeed, many still do. However, because of the city's financial downturn, when more families than ever are struggling financially, many parents are taking a second look at alternative public schools.

Many parents are turning their attention to the schools in the south. What are they finding? In the north, schools have all the required resources that all NYC schools have; however, parents have formed non-profit parent organizations that have raised hundreds of thousands of dollars for the schools. Much of the money raised has been used to purchase state of the art technology. The NYC DOE also provides technology resources, but not at the level found in these schools. It is apparent just by walking into the schools that there are resource inequities. **Parents of most of the students in the Springfield Gardens and South Jamaica schools are poor and do not have the where-with-all to raise large amounts of money.** Coalitions of concerned parents are beginning to form at these schools. Both the nascent group of nonminority parents who have enrolled or are considering enrolling their children in the schools and the vast majority of parents of students who are already in the schools are rallying to improve the schools – to build a culture of achievement so that all students "win." This is beginning to show results. Although there are many students in the proposed magnet schools who are struggling academically, this year PS 80 received a B rating on its report card and PS 160 received a C. (The current grades in PS 354 are pre-k through three. State tests are not administered in these grades. Therefore, there is no report card rating). The ratings for PS 80 and PS 160 are not much different from many schools in the north. Of the nine potential feeder schools in the north, the "better

schools" - four received B ratings, two received C ratings, and only two received A ratings. Parents are taking note of PS 80's and PS 160's progress.

In summary, now is the time that the Magnet Schools Assistance Program can have its greatest impact in District 28. Two new magnet schools will be established: PS 160 and PS 354. In addition, one magnet school will be significantly revised – PS 80. These schools are in great need of support. District 28's vision for the magnet schools is both ambitious and feasible. NYC and district structures to fully transform the schools are in place. However, the schools do not have <u>the resources</u> to provide the level of professional development, curriculum development, technology, and the like to fully meet the needs of all students and to attract a diverse student population. MSAP funding will provide the "missing piece." The schools will build on services that are in place to support students. All proposed schools are Title I schools and provide Academic Intervention Services and other services to assist students. District 28 believes that the combination of Title I and other support services, a solid, rigorous instructional program that is fully aligned with the Common Core and state standards, <u>AND</u> the magnet program is a powerful model for improving academic achievement for all students at the schools and attracting a diverse student population.

<u>The costs of fully implementing the magnet schools project as proposed.</u> The district is requesting approximately $2,800,000 a year in funding from the Magnet Schools Assistance Program; however it will also devote its own resources to the project. Funding from the MSAP will cover the following costs: a full-time magnet director; a full-time magnet project planner; a full-time magnet project recruiter; 3 full-time magnet resource specialists/teachers to assist classroom teachers in implementing the specialized STEM integrated curriculum programs at the magnet schools; contractual services for an evaluation firm to conduct an independent evalua-

tion; support from consultants to conduct staff training for classroom teachers to implement the specialized curriculum, including STEM, and systemic reform initiatives at each magnet school site; and equipment and supplies to support theme implementation in each school.

These are reasonable funding requests that are essential to the proper implementation of the magnet schools. However, these costs are only a portion of the overall yearly costs of the project. As tangible evidence of District 28's commitment to promoting desegregation, District 28 is providing substantial **in-kind** services to the project each year, as described below. **Personnel:** District 28 will provide all necessary school-level teacher and principal support at each magnet school to fully implement the program. This includes a total of 108 staff members, at no cost to the project**. The total in-kind costs for these positions will be $9,038,731. Facilities:** All school facilities, including classroom materials and supplies (e.g. textbooks, reference books, library materials, computer software), and instructional supplies. **The total annual in-kind facilities costs will be $350,821. *Transportation*:** Many of the magnet schools are located long distances from the proposed feeder schools, requiring substantial transportation costs. In addition all the magnet schools have field trips as critical components of their curriculum. Transportation to these sites will also be needed frequently. District 28 will absorb these transportation costs at no cost to the project. **The total annual transportation costs will be $54,690. Office Personnel and Supplies:** Office personnel in the district office and supply costs associated with the implementation of the magnet schools program will be absorbed by the district. **The total annual costs of office personnel and supplies will be $11,027. Total Annual In-kind Contributions: $9,455,269.** The true costs of the proposed MSAP program include these in-kind costs and the **$2,837,688** (year one) requested from the US Department of Education, for a total of **$12,292,957.**

Priority 1—Need for Assistance: (b) The resources available to the applicant to carry out the project if funds under the program were not provided.

District 28 faces the challenge of providing even more rigorous, standards-based instruction to a growing number of students, many with complex needs, without an adequate budget. The costs of implementing the proposed magnet schools project enumerated above are tremendous, far beyond that which can be provided by the district. The difficulty of financing educational programs is exacerbated by the tremendous inequities that this district, along with other NYC districts, faces in respect to state aid. It has long been evident that, compared to every other district of New York State, New York City receives a disproportionately small share of the state's education budget, despite the critical needs of the city. The Campaign for Fiscal Equity's (CFE) lawsuit challenging these inequities and the constitutionality of NYS's education funding system began more than twenty years ago. The Equity Reform Project partners - Educational Priorities Panel, Foundation for Citizen Education of the League of Women Voters of NY, Urban League of NYC and Schuyler Center for Analysis and Advocacy - lent their support to CFE's suit, creating a citizen's mandate for school finance reform. Although the CFE lawsuit was first filed in NYS Supreme Court in 1993, a final ruling was not made until 2006, when the court called for increased funding for NYC schools, a total of $1.93 billion to be phased in over a 4 year period. Further, in 2007, Gov. Eliot Spitzer pledged to phase in $7 billion in additional funding over five years, with $5.4 billion to New York City alone. However, the 2009-10 state budget froze these funding increases. And in 2011, the State Legislature's overall $1.3 billion cut in education aid brought financing levels roughly back to pre-lawsuit levels (Otterman, June 8, 2011). In reaction to the ongoing budget cuts, in November 2012, the Campaign for Fiscal Equi-

ty alerted Governor Cuomo that New York State is $5 billion behind on the 2007 financing agreement and according to CFE, "the state's underfunding of our public schools is so severe that it amounts to a violation of its constitutional obligation to provide New York's children with adequate education resources" (Hakim, November 28, 2012).

New York City's annual per pupil expenditures continue to be lower than its surrounding suburban school districts. The massive cuts in state education aid have escalated the spending gap between poor and wealthy districts. According to analysis conducted by the Citizens Budget Commission of New York, New York City spent $20,276 in total instructional and support costs per pupil in the 2009-2010 school year (the most recent available data), while suburban school districts in the adjoining counties, Nassau and Westchester, spent considerably more. As examples, Lawrence (in Nassau, which is less than 10 miles from NYC), spent $31,098 per pupil and Greenburgh (in Westchester, which is less than 15 miles from NYC), spent $30,831 per pupil, a difference of greater than $10,000 per pupil in these suburban school districts. This is typical of the disparities in per pupil expenditures between NYC and its surrounding suburban school districts. The "real" discrepancy is even greater since the costs of NYC providing educational and other services for the large number of students with special needs are higher.

The Costs of Serving Increasing Numbers of Students with Special Needs**.** The costs of serving students in need of additional services have taken an increasing toll with each year. A significant portion of District 28 school budgets must be allocated to provide educational support to students with special needs, i.e., English Language Learners and special education students, as well as students growing up in poverty. A review of costs for general education and special education students reveals that the per capita cost is $10,000-$20,000 higher to provide appropriate

services for students with special needs. In fact, approximately one-third of the district's students are identified as "Special Populations," defined as students receiving special education services and ELL services. Many District 28 Students Are Growing Up in Poverty All three proposed magnet schools are Title I schools with high concentrations of poverty (ranging from 60.0% at 354 to 89.0% at PS 160). District 28's English Language Learners Population The District 28 schools have large populations of English Language Learners, approximately 4,156 students or 15.8% of the district's student enrollment. While the district welcomes the rich diversity the students and their families contribute to the school culture, these students require more intensive, more expensive services. Special Education Students in District 28. District 28 has 7,789 special education students, representing 20.7% of the district's student enrollment.

Priority 1—Need for Assistance: (c) The extent to which the costs of the project exceed the applicant's resources

As is demonstrated above, District 28 is financially strapped. While neighboring districts in Westchester and Long Island, New York spend over $30,000 per student, New York City districts can afford to spend a little over $20,000 per student. And the budget must be stretched further than it might be in more affluent suburbs. Many District 28 students have special needs, including the need for ESL programs and special education classes and services. It is clear, that **while District 28 is firmly committed to the magnet school project and will make available as many resources as possible, the costs of fully implementing the project far exceed its current resources.**

Priority 1—Need for Assistance: (d) The difficulty of effectively carrying out the approved plan and the project for which assistance is sought, including consideration of how the design of the magnet schools project–e.g., the type of program proposed, the location of the magnet school within the LEA–impacts on the applicant's ability to successfully carry out the approved plan successfully.

The Magnet Schools Assistance Program approved plan and project that District 28 is proposing would be extremely difficult to carry out without MSAP support. As part of the design of the project, the vast majority of the proposed magnet schools have large numbers of minority students, many of whom are living in poverty and have special needs. Because of the lack of resources, students are barely receiving adequate basic educational services. It will take all the resources that have been requested to provide the enrichment services that all students deserve and to create high achieving school climates and environments that will attract students from diverse backgrounds to voluntarily enroll in the schools necessary as part of the approved plan. It will take a substantial investment in professional development, curriculum development and alignment, coaching, mentoring, upgraded equipment, new supplies, and the like for these schools to become competitive, attractive alternatives to the district's higher achieving schools. Parents have to be confident that the schools have been transformed, that the quality of teaching is at the highest level, and the schools have programs that will enrich the education of their children. Further, the locations of the schools make it difficult to carry out the desegregation plan. District 28 comprises a very large geographical area. Its student enrollment is 25,280 and the combined geographical area of the district includes a large part of Queens. The configuration of the Desegregation Plan is such that students who are attracted to voluntarily enroll in one of the

magnet schools may have to travel great distances requiring additional transportation costs. **The combination of the costs of transforming the magnet schools and the location of these schools will make it extremely difficult to carry out the proposed magnet project without MSAP funding.**

Priority 4 – Promoting Science, Technology, Engineering, and Mathematics (STEM) Education (a) Providing students with increased access to rigorous and engaging coursework in STEM

In District 28, all three magnet schools, regardless of their thematic focus, will have science, technology, engineering and mathematics (STEM) at the heart of the schools' curriculums. The project schools' themes are: PS 80 – the Magnet School of Multimedia and Communication; PS 160 – the Magnet School of the Arts; and PS 354 – The STEM Institute of Queens. Thus, there is one school, PS 354, where the school's thematic focus is STEM. The two other schools will have strong STEM connections to their content focus. **By structuring instructional time through thematic units, all three magnet schools will integrate STEM throughout the curriculum – whether the school's thematic focus is math and science (PS 354) or the arts (PS 80) or communications (PS 160). In this sense all three magnet schools are STEM schools.**

STEM instruction will be informed by the second draft of the Next Generation Science Standards (NGSS) released recently. The report upon which it is based, *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (NRC, 2011) offers a vision for science that puts scientific and engineering practices squarely in the center alongside traditional science content. The report also offers what it calls "crosscutting concepts" – the big ideas that cross strict disciplinary lines. The practices and crosscutting concepts reflect the ways

in which STEM professions use mathematics, design concepts, analytical techniques, and technologies

Students will learn to think like STEM professionals in the way they approach problems and plan solutions for those problems. Students will learn science and math concepts through **project based learning (PBL)** strategies that make connections to real-world content, incorporating technologies used by professionals, and using the engineering design strategies. The STEM practices students will use include: asking questions (science) and defining problems (engineering); developing and using models; planning and carrying out investigations; analyzing and interpreting data; using mathematics and computational thinking; constructing explanations (science) and designing solutions (engineering); engaging in argument from evidence; and obtaining, evaluating, and communicating information.

In addition to using science, math and engineering skills to solve problems, students investigations will by necessity include the reading of informational and non-fiction texts, use of multiple media, writing in a variety of genres, and using technologies in authentic ways. This is in keeping with one of the hallmarks of the Common Core state standards and the Next Generation Science Standards (NGSS), which put an emphasis on making arguments based on claims backed up by evidence, and being able to explain one's thinking. CCSS-E look beyond traditional English language arts classes to promote reading and writing throughout the disciplines. CCSS-M emphasize conceptual *and* procedural skills, in order to give children the foundation they need in order to succeed in higher-level mathematics. The project's instructional approach will have students defining problems and investigating and optimizing potential solutions (NGSS-ETS1), and reading and writing about the influence of engineering, technology and science on society and the natural world (NGSS-ETS2).

District 28 is committed to ensuring that all students will have access to the project's rigorous and engaging coursework in STEM. All schools will integrate science, technology, mathematics, and engineering through the curriculum in ways that are culturally relevant to students. Morrisson (2006) described effective STEM schools as having culturally-relevant STEM literacy that is as a priority for all students. Authentic investigations provide a bridge between what students do in their lives outside of school into their STEM schoolwork. **Culturally-relevant pedagogy** (Ladson-Billings, 2009) provides a framework to infuse the culture of students into STEM-focused project-based learning units, acknowledging the skills, practices, and knowledge students bring from their lives into the classroom. Magnet classroom teachers and resource teachers will be supported in developing cultural competency in developing and implementing STEM PBL units. In addition, project and school staff will marshal the district's, schools' and community's STEM talent to serve as mentors and role models for students to demonstrate the relevance of STEM in their lives.

STEM instruction in each magnet school will be supported by **Engineering is Elementary (EiE)** which fosters engineering and technological literacy among children. This research-based, standards-driven, and classroom-tested curriculum integrates engineering and technology concepts and skills with elementary science topics. Lessons not only promote K-5 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies. EiE will NOT be an independent curriculum, but will become an integral part of the schools' interdisciplinary thematic programs and will be an important guide as teachers develop their own STEM infused magnet theme, cross-disciplinary, PBL based units. The schools' STEM activities will also be supported by **Lego WeDo Robotics.** Lego WeDo Robotics is a cross-curricular series of theme-based activities. Students solve problems by building curricular

integrated objects using Lego bricks and adding movement with drag-and-drop software. The following are examples of STEM instruction in each magnet school. See the Quality of the Project Design section (c)(2)(ii) for a complete description of the magnet theme activities for each school.

PS 80: The Magnet School of Multimedia and Communication – Grades K – 5. *Driving question: What earth materials are good for building in New York?* The driving question for this PBL unit provides a link between the work K-3 students do with the New York Historical Society (exploring New York communities) and Engineering is Elementary's unit on earth materials, *A Sticky Situation: Designing Walls.* With NY Historical Society primary source documents, students will learn about the materials different New Yorkers—Dutch and Native American Indians—used to build their homes in colonial times and why. This EIE unit introduces students to materials engineering. Students learn about the properties of earth materials mixtures that include clay, sand and soil (science) and engage in an engineering design challenge focused on planning, creating, testing and improving a mortar mix for a wall. During the PBL experience, they will explore the materials that colonial-era Dutch settlers and American Indians native to the New York area used to design their homes. They will calculate the perimeter and area of different dwellings (mathematics). Students will discuss the merits of the different materials and designs that use natural materials, and make recommendations for the best natural materials to use in New York through multimedia presentations (technology).

PS 160: Magnet School of the Arts - Grades Pre K – 6. A second grade PBL unit has the driving question: *What are the transportation options of the future?* Their projects will focus on designing transportation alternatives for their neighborhoods. They will investigate the current transportation options (subway, bus, car, walking, and biking), and learn about the energy re-

sources used and pollution each emits (science). They will discuss the speed at which the different options travel (math), and imagine what transportation in New York City might look like in the future (engineering). With teaching artists, groups of students will choreograph and perform dances that represent different forms of transportation, and they will depict the different forms using a variety of visual arts techniques (arts).

PS 354: The STEM Institute of Queens – PreK – 5. *How do machines make our lives easier?* In this PBL unit, students will learn the concepts of force and motion (science) while they analyze, design, and build simple machines (engineering). Their design challenge will be to build a simple machine that will perform a task more efficiently than humans do. For the project, they will need to collect data (mathematics) to verify that the machine is more efficient at the task than a human. They will also need to analyze the usefulness of the machine, and present their findings in a written or multimedia document (technology). Before and during their project planning, designing, prototyping, building, and testing phases students will participate in a variety of activities. They will experience the Engineering is Elementary unit *Marvelous Machines: Making Work Easier*. They will experiment with simple machines based on the principles of levers, inclined planes, wheels and axles, pulleys, screws, and wedges and undertake a scavenger hunt to find simple machines in the school environment (e.g., clothespins, pulleys to move classroom shades, staple removers, scissors, wheelchair ramp, playground equipment). They will read age-appropriate non-fiction texts about tools and machines. They will also create machines with Lego WeDo kits and related activities.

Priority 4 – Promoting Science, Technology, Engineering, and Mathematics (STEM) Education (b) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects

Strengthening teachers' STEM-related content knowledge and pedagogical knowledge is critical for the success of these magnet schools. Through a combination of **strategic partnerships** with STEM institutions and specialized STEM education programs and **job-embedded professional development,** teachers in the magnet schools will receive the support they need in order to implement high-quality STEM education throughout the curriculum. Although each school has an array of high quality PD providers, the common providers of STEM professional development across all three magnet schools will be the **New York Institute of Technology (NYIT)** and **Engineering is Elementary (EiE).** With programs in science, technology, engineering, mathematics, and education, **NYIT** offers professional development, guidance, and support for teachers in the areas of STEM, instructional technology, and 21st century skills. Teachers engage in professional learning through summer institutes, workshops throughout the year, and distance learning programs. NYIT also places undergraduate students majoring in STEM fields in schools, to support teachers and mentor students. Professional development provided by the **EiE** project helps educators enhance their understanding of engineering concepts and the engineering design process and inquiry-based learning through professional development workshops. Teachers also become familiar with the EiE curriculum and approach and increase their confidence in and ability to implement open-ended engineering design challenges with their students. Each EiE PD workshop is tailored to meet the needs of its particular audience and includes hands-on active learning, modeling effective pedagogical strategies, groupwork, and reflection.

In order to ensure that PD translates into improved practice at the classroom level, each magnet school will have magnet funded resource teachers who will **guide job-embedded, school-level professional development,** including STEM training, necessary to implement the magnet theme in each school. The project district-level STEM planner will work with the schools' magnet resource teachers (MRTs) and other school staff to facilitate high level professional development in STEM content and pedagogy. Together, the STEM planner, the MRTs and other school stakeholders will work with the NYIT and EiE and other STEM PD providers to develop a PD plan for each school to ensure that all STEM PD is tailored to meet the needs of teachers in each school and the PD is well coordinated. The MRTs, supported by the STEM planner and PD providers, will work with classroom teachers on developing STEM tasks, lesson plans, rubrics, etc. and guide them with the "big ideas" behind STEM and appropriate essential questions as teachers develop their own curricula units. The MRTs will support school level STEM implementation through demonstration lessons, coaching and mentoring.

To further guide and support classroom teachers in STEM implementation in the classroom, each school will establish a Professional Learning Community (PLC) that will encourage teachers to think and learn about STEM curriculum practices that have direct applicability to their classrooms. Guided by the schools' MRTs, classroom teachers will learn about: (1) the new literacy, math, and science standards; (2) how to interpret STEM data for traditionally underrepresented groups of students (e.g, girls, minority students, ELLs, and disabled students); (3) how to differentiate STEM instruction to create learning opportunities of all students to ensure equal access to new STEM academic content; and (4) how to develop curriculum units aligned to the new standards.

Plan of Operation:(a)(2)(i) The Secretary determines the extent to which the applicant demonstrates – The effectiveness of its management plan to ensure proper and efficient administration of the project.

District 28's Magnet Schools Assistance Program management plan is nested within the management structure of the New York City Department of Education (NYC DOE) and District 28. The NYC DOE management structure focuses decision-making at the school level, with the principal, and holds the principal accountable for student learning. In this model, all NYC and district offices and departments are supports to the principal and school staff. Similarly, the project director and her staff will also be supports to the school.

The NYC DOE structure's line of management goes from each principal to the Community School District Superintendent to the Chancellor of the NYC DOE, who oversees all of the city's 32 community school districts. This structure is designed to empower those closest to the students to make key decisions and be held accountable for results.

The NYC DOE sets and enforces academic standards and hold schools to a common and demanding set of accountabilities. The NYC DOE also provide basic systems (financial, human resources, data, and communications) to serve schools so they don't have to reinvent their own infrastructure or lose the advantages of scale. The NYC DOE will support the magnet schools as part of an expanded accountability system that will provide a fair and comprehensive school evaluation, timely and accurate data to principals, and teachers, clear reports to parents and the public, and both rewards for success and consequences for failure. Each school receives: (1) an annual Progress Report with an overall letter grade (A-F) that compares it both to similar schools and the City's best schools and is based on performance (where a school stands in absolute

terms), progress (whether and how fast a school's students are improving) and items related to school environment (including the results of new surveys of parents, teachers, and students); (2) an on-site, accessible, and widely disseminated "Quality Reviews", which summarize skilled educator observations of teaching and interview the principal, teachers, parents, and students at each school; (3) periodic assessment tools to enable educators to measure and analyze how well students are learning and to adjust instruction accordingly; and (4) a powerful achievement data system called the Achievement Reporting and Innovation System (ARIS). These support systems are operated under the direct leadership of the District 28 Superintendent.

The District 28 Superintendent, Beverly Ffolkes-Bryant, is highly experienced and qualified. (Please see the Quality of Personnel section for a detailed description of her experience.) She is dedicated to the implementation of the MSAP in the district and will infuse the MSAP goals, objectives and plans into the District Comprehensive Educational Plan, and overall instructional programs.

In preparation for the MSAP, district and school level staff participated in planning teams and supported schools in linking MSAP activities to their School Comprehensive Educational Plans. The District 28 Superintendent will continue to work with school staff to efficiently implement the MSAP, providing professional development, integrating school themes with core subject areas, implementing the philosophy and best practices identified through scientific research, and designing and aligning curriculum units and lessons with Common Core and New York State standards.

Principals are the instructional leaders and change agents of their schools. Regularly scheduled meetings with the District Superintendent will serve as a forum to discuss and strategize for improving instruction and learning, to share best practices, and build community. The

principals of each magnet school are highly experienced educational leaders, ready to take up the challenge implementing the unique magnet curriculums proposed in this project. All three principals have extensive experience as professional developers, curriculum developers and in desegregation/equity. (Please see the Quality of Personnel section for detailed descriptions of their experience.)

School Leadership Teams (SLTs) are in all District 28 schools. Principals meet frequently with their School Leadership Team and its sub committees, with a focus on improving instruction and learning. The School Leadership Team includes school staff and parents, and community partners, selected by their constituencies. The Team annually revises and implements the school *Comprehensive Educational Plan (CEP).* The CEP details the goals for improving instruction and learning, and specifies strategies, resources and timelines for raising academic performance. SLTs were consulted in the design and mission setting for this MSAP program application, as having ownership in planning ensures MSAP Program success and sustainability. District 28 staff, parents and community partners have easy access to and on-going communications with principals.

District 28's **Director of Magnet Schools** will be Ms. Lainie Leber. She has six years experience as a magnet director in New York City, and 11 years experience in designing, administering and implementing other grant funded programs in New York City school districts. She will ensure that staff has human and material resources needed for program implementation. She will work with the district superintendent, principals, NYC Department of Education departments and offices, MSAP Resource Teachers and school staff in magnet curriculum writing and will ensure that MSAP project activities are fully implemented. She will report regularly to the District Superintendent and principals.

Magnet Resource Teachers will report to the Director of Magnet Schools and principals. These full time staff will provide support and coaching to schools on a regularly scheduled basis. Resource Teachers will provide MSAP related professional development sessions, including classroom embedded demonstrations and coaching and mentoring, workshops, meeting and conference opportunities, etc.

NYC DOE Human Resources staff will assist the districts in hiring qualified, diverse personnel for the administration and implementation of the MSAP. Human Resources will ensure fair and equitable access to opportunities, and hire staff based upon the highest qualifications. The Leadership Academy, administered by the NYC DOE, will ensure that newly hired administrators receive the necessary support for professional growth and retention.

The NYC DOE is more than adequately equipped with the appropriate personnel to accomplish project goals while maintaining fiscal controls. Grants, budget, and contract officers will provide appropriate internal controls to ensure that District 28 will adequately safeguard its assets, check the accuracy and reliability of its accounting data, promote operating efficiency, and encourage compliance with prescribed management policies and fiscal requirements. These officers will maintain fiscal control in adherence to the NYC DOE's accounting and auditing system, Chancellor's Regulations, and all regulations and laws established by the Federal Government and New York State Education Law. They will work closely with the project's Director of Magnet Schools to ensure the proper management of MSAP grant funds.

Plan of Operation: (a)(2)(ii) The effectiveness of its plan to attain specific outcomes …

Project Outcomes: This proposal's outcomes (i.e., objectives and performance measures) are aligned with the six purposes of the Magnet Schools Assistance Program (MSAP). A set of objectives and performance measures follow the Program Purpose they address.

*Program Purpose (1): The elimination, reduction, or prevention of minority group isolation in elementary and secondary schools with substantial portions of minority students….*All proposed magnet schools will reduce minority group isolation by decreasing the percentage of one or more groups of minority students (e.g., American Indian, Asian, Black, Hispanic) and increasing the percentage of white students as a result of the magnet program described in this proposal. Every student will fully participate in the program. All schools can accommodate the numbers of students needed to achieve desegregation goals. **Objective 1.** Minority group isolation will be reduced at the proposed magnet schools. (Addresses MSAP Performance Measure a.)

Performance Measure 1.1-1.4: By October 31st of each project year, approved enrollment targets for each racial group (**see Table 3: Enrollment Data-Magnet Schools**) will be attained by reducing minority group isolation of one or more groups (e.g., the percentage of American Indian, Asian, Black, Hispanic students) at each proposed magnet school (using 2012-13 as the baseline) by at least 2 percentage points by year 1, 4 percentage points by year 2 and 6 percentage points by year 3. In District 28 minority group isolation occurs at a school when the proportion of students belonging to a specific minority group is greater than the district average percentage for that group. The isolated group for each school is Black/African American. The schools are: **1.1** PS 80; **1.2** PS 160; and **1.3** PS 354.

1.4 For each project year, each magnet school will receive at least 65 applications.

Purpose 2: To develop and implement magnet school projects that will assist local education agencies achieve systemic reforms, and provide all students the opportunity to meet challenging State academic content standards and student academic achievement standards;

The implementation of systemic reforms, magnet themes and rigorous curricula for all students will be facilitated and supported by the project and NYCDOE support staff.

Objective 2: All students will receive instruction that includes their school's systemic reforms and magnet themes in units and courses aligned with State standards.

Performance Measures: **2.1** By October 15 of each project year, each magnet school's Comprehensive School Plan will be revised and include objectives and activities that support: ▸ the adoption of high standards for all students and ▸ specific systemic reforms (e.g., Innovative Technology, Common Core Standards, Inquiry, Project Based Learning); and describe how they are coordinated with MSAP activities. Success will be determined through inspection of each school's plan. Implementation success will be measured by performance measure 3.1.

Purpose 3: The development and design of innovative educational methods and practices that promote diversity and increase choices in public elementary and secondary schools …. Magnet theme development and implementation and adoption of systemic reforms will increase diversity and choice because the curricula are distinctive (not offered at other schools at the same grade levels) and innovative (combine systemic reforms and unique magnet themes).

Objective 3. All students, at each magnet school, will receive magnet theme instruction.

Performance Measures: **3.1** By the end of each project year, all students, at all magnet schools, will receive magnet theme instruction coordinated with or including systemic reforms for at least 3 (year 1), 6 (year 2) and 10 (year 3) hours per week. Success will be determined through unit

plan analysis and confirmed with surveys, interviews, and walkthroughs. Units and lessons produced as a result of this program will be peer reviewed.

Program Purpose 4: Courses of instruction within magnet schools that will substantially strengthen the knowledge of academic subjects and the attainment of tangible and marketable vocational, technological and professional skills of students attending such schools.

In New York State, each school and student subgroup receives a Performance Index for each applicable grade and state assessment. These performance indices are calculations based on the percentage of students at each of six proficiency levels for the relevant assessment. New York creates EAMOs (Effective Annual Measurable Objectives) which serve as targets for what Performance Index all students/subgroups need to reach in each subject area tested. Essentially, EAMOs reflect the percentage of students who are expected to be proficient for a given year, along with a measure of how successful a school needs to be at promoting academic growth in its lowest achieving students. These EAMOs are designed to show whether the school/subgroup is on track to reduce its percent of non-proficient students in half between the baseline year of 2010-2011 and 2016-17. If an EAMO is not attained, a subgroup or a school can still meet the annual improvement target by attaining the Safe Harbor criterion: a 10% improvement year-to-year improvement the Performance Index scored by the school / subgroup.

The student subgroups whose performance is relevant to a school's accountability status are Black/African-American, Hispanic, Asian, White, American Indian, Economically Disadvantaged, Students with Disabilities, and English Language Learners. EAMO's are set for English Language Arts, Mathematics, and Science. At the elementary grades, English Language Arts and Mathematics performance is evaluated based on New York State ELA and math assessments in

grades 3 through 8. Similarly, at the elementary grades, Science performance is evaluated based on 4th and 8th grade New York State Science Assessments.

Objective 4. Each year, for each magnet school, EAMOs (Effective Annual Measurable Objectives) or Safe Harbor will be attained for all students and for all student subgroups, as defined by New York's ESEA Flexibility Request.

Performance Measures:

4.1 By the end of each project year, each magnet school will attain its ELA EAMOs or Safe Harbor criteria for its total population and for each subgroup of students that is included in New York State school accountability status decisions.

4.2 By the end of each project year, each magnet school will attain its mathematics EAMOs or Safe Harbor criteria for its total population and each subgroup of students that is included in New York State school accountability status decisions.

The following objectives (4.3 & 4.4) address GPRA (U.S. Department of Education) Performance Measures (b and c): *The percentage of students from major racial and ethnic groups in magnet schools receiving assistance who score proficient or above on State assessments in reading/language arts and mathematics.*

4.3 By the end of each project year, the percentage of students from major racial and ethnic subgroups in magnet schools who score proficient or above for ELA will increase when compared with the previous year.

4.4 By the end of each project year, the percentage of students from major racial and ethnic subgroups in magnet schools who score proficient or above in mathematics will increase when compared to the previous year.

4.5 By the end of each project year, the percentage of students from major racial and ethnic subgroups in magnet schools who score proficient or above in science will increase when compared to the previous year.

4.6 By the end of the project period, as a result of the implementation of theme curricula, 75% of students at each magnet school will develop mastery of that curriculum, as determined by methods such as alternative performance measures including portfolios, teacher checklists, etc.

Purpose 5: Improvement of the capacity of LEAs, including through professional development, to continue operating magnet schools at a high performance levels after Federal funding…is terminated. **Objective 5.** Provide professional development for magnet school teachers related to systemic reforms and magnet theme development and implementation.

Performance Measures 5: By the end of each project year, magnet school teachers will receive at least 30 hours of professional development (e.g., workshops, courses, coaching) in each of the following areas: **5.1** the development and implementation of the systemic reforms listed in the comprehensive school plan; and **5.2** directly related to the implementation of the magnet theme.

Other performance measures related to capacity building include: (2.1, 3.1) development and implementation of systemic reforms and magnet theme units and courses.

Purpose 6: Ensuring that all students enrolled in the magnet school programs have equitable access to high quality education that will enable the students to succeed academically and continue with postsecondary education or productive employment.

An important aspect of ensuring that all students enrolled in the magnet schools have equitable access to high quality education is to monitor access. Performance measure 6.1 will be reported on each year and monitored by the each magnet school's principal, the project staff including the project director, and the evaluator. As with all performance measures, schools not

attaining the measure will take corrective action approved by project and district staff. **Objective 6a:** All students enrolled in the magnet schools will have equitable access to high quality education.

6.1 By the end each project year, for each magnet school, at least 75% (yr. 1), 85% (yr. 2) and 95% (yr. 3) of classes will reflect their grade's enrollment for each racial/ethnic group by ± 15 percentage points.

In addition, performance measures 2.1, 3.1 are related to providing all students the opportunity to meet challenging State standards including common core standards.

Parent involvement also promotes equitable access to high quality education for all students. **Objective 6b:** There will be an increase in parent participation at each magnet school.

6.2 By the end each project year, for each school, there will be an increase (compared with the previous year) in the numbers of parents who participate in school activities.

Plan of Operation: (a)(2)(iii) The effectiveness of its plan for utilizing its resources and personnel to achieve the objective of the project, including how well it utilizes key personnel to complete tasks and achieve objectives.

As indicated in section (a)(2)(ii), the project's objectives are aligned to the six purposes of the MSAP program. And as discussed in earlier sections, Districts 28 has a wealth of resources and personnel to effectively achieve the objectives of the project, many at no cost to the project. These resources include: at the school level – principals, classroom teachers, support staff, school leadership teams, and parent coordinators, at no cost to the project; at the district level – the district superintendent, and the district parent advocate, at no cost to the project; at the NYC DOE level- networks of curriculum and operation specialists, staff from various NYC

DOE offices, such as the Office of School Enrollment and the Division of Academics, Performance, and Support, data-driven accountability structures and tools, at no cost to the project. Moreover, at the state level, the district is fortunate to have as resources a myriad of New York State Education Department personnel (e.g., the Elementary, Middle, Secondary and Continuing Education Offices, the Office of Curriculum and Instructional Support), at no cost to the project. All of these resources will support the efforts of the MSAP-funded staff, i.e., the magnet director, the magnet STEM planner, the magnet project recruiter, and the magnet resource teachers at each school, and will be involved in helping to complete the tasks and objectives of the magnet school program at each school.

Plan of Operation: (a)(2)(iv) How the applicant will ensure equal access and treatment for eligible project participants who have been traditionally underrepresented in courses or activities offered as part of the magnet school, e.g. women and girls in mathematics, science, or technology courses, and disabled students.

Access to a high quality education is a compelling need for the entire student population at the proposed magnet schools. The magnet project has been designed to provide choices for all students – general education and special education, English language learners and children with disabilities – and improve the quality of teaching and learning at all of the magnet schools. It will call on parents to participate fully as partners in the program who are knowledgeable about the improvement goals for their schools as well as the educational goals for their own children.

To ensure equal access and treatment for project participants who have traditionally been underrepresented in courses or activities offered as part of the magnet school, District 28 will ensure that women and girls will have equal access to STEM courses and activities, and ELLs

and special education students, including students with disabilities, also have equal access to magnet activities through a program that incorporates: ► learning opportunities for women and girls in mathematics, science, or technology courses; ► authentic inclusion of special education students, including students with disabilities, into all magnet activities; ► authentic inclusion of English Language Learners into all magnet activities; ► activities and environments that support greater multicultural understanding and respect; and ► increased access to technology for poor and minority children.

Providing Equity for All Students. **District 28 will use technology as a tool for teaching and learning that will support student learning in all core academic subjects and access to a challenging and engaging education. District 28's focus on technology innovation is based on a commitment to the National Technology Standards for Students, Teachers and Administrators (NETS) endorsed by the International Society for Technology in Education (ISTE)**. This approach rests on a shared vision for educational technology that involves students, teachers, parents and the community. (Please see the Project Design section for a more detailed description of the innovative technology strategies that will be implemented in the magnet schools.) This model may just be the next game-changer when it comes to improving student achievement across the board by providing multiple ways to engage students.

Regardless of each school's selected magnet theme, the magnet project will transform the school's use of technology in innovative ways that, by facilitating both student engagement and differentiated learning, will foster educational equity for all students. While each school's principal and School Leadership Team will determine how best to use technology with staff and students, each will build on what the Model Technology Schools have learned so far. The 10 themes that have emerged from a diverse group of **NYC Model Technology**

Schools are as follows**:** ► Student engagement through digital content; ► Motivation and accountability through public nature of work; ► Focus on literacy; ► Internet literacy; ► Data-driven instruction; ► Student-centric classrooms; ► Multimodal learning; ► Project/problem-based learning; ► Collaboration; ► Student empowerment; and ► Students as tech support.

With the technological frameworks in place, District 28 will provide varied opportunities for **all** students to meet the Common Core and State standards. Equitable access to high quality instruction provided by teachers who meet *NCLB's* standards for highly effective staff; exemplary multicultural materials to support and celebrate the diversity in each magnet school; research-based materials to ensure standards-level performance in all content areas, including STEM; intensive, focused professional development to improve the quality of teaching and learning in every magnet classroom; and newly reinvigorated staffs challenged by the promise of the magnet program will ensure that all students learn at high levels in ideal environments.

Equal Access and Treatment for Girls and Women in Math, Science, or Technology Courses: In order to ensure equal access for girls in all magnet activities, the project will incorporate gender equity issues into professional development activities that focus on content, curriculum development and pedagogy across the curriculum, including science, technology, engineering, and math (STEM), subject areas in which girls have been traditionally underrepresented.

As part of its larger gender equity focus, each magnet school will support in multiple ways girls' access to and success in challenging STEM activities. For example, schools will pay particular attention, beginning with the recruitment process, to making their programs attractive to, welcoming of, and engaging to girls. Girls' attitudes toward STEM as class subject, as a potential area of personal or extended-day exploration, and as a future career are influenced by, among other things, the existence—or absence—of female role models who teach and enjoy

STEM, have high STEM-related expectations for female students, and/or who have made a career in one or more STEM disciplines. Subject-based magnet professional development that improves the comfort with and ability to teach STEM of the primarily female teachers will support girls in developing positive attitudes toward these subjects.

In addition, all magnet school instructional staff and administrators, as well as parents and other family members and members of the School Leadership Team, will have the opportunity to participate in gender-equity events that city, district and magnet staff will sponsor at the magnet sites. These include discussions related to research that has been conducted by: (1) Girls Incorporated (formerly Girls Clubs); and (2) organizations of women scientists and engineers, such as the Association for Women in Mathematics and the National Research Council's Committee on Women in Science, Engineering, and Medicine.

Equal Access and Treatment for Students with Disabilities: Students with physical and learning disabilities will be included in all magnet activities. Beginning in the 2012-2013 school year, the NYC DOE is implementing its Special Education Reform, a set of policy changes intended to: (1) ensure that students with Individualized Education Programs (IEPs) enroll in their zoned school or a school of their choice; (2) hold schools and students with disabilities accountable for standards-based goals that reflect the Common Core standards and long-term educational outcomes; (3) leverage the full continuum of services and curricular, instructional and scheduling flexibility needed to meet the diverse needs of students with disabilities; and (4) align school accountability measures, funding formulas and enrollment policies and practices with these principles. The magnet schools will provide students identified as having learning disabilities with mandated services, while differentiating instruction to help them achieve at the same level as peers without disabilities. Teachers will develop flexible curriculum goals, materials,

methods, and assessments that meet the needs of diverse leaners, particularly those with disabilities. All magnet schools will provide the supports and services (e.g., accommodations, assistive technology devices) that will enable them to meet the challenge "to excel within the general education curriculum based on the Common Core Standards" (McNulty & Gloeckler, 2011, p. 4).

Equal Access and Treatment for Minority Students in Mathematics, Science, and Technology: Magnet funding will help the project schools improve STEM instruction and learning in ways that support the equal access and treatment of minority students in STEM. All magnet schools will, for instance, strengthen teachers' ability to "ramp up" the rigor of math and science instruction as they align the Common Core standards with NYC's math curricula, *Everyday Mathematics* (elementary schools) and *Impact Mathematics* (middle schools).

Professional development in which equity issues are integral will support teachers in approaching STEM in the classroom and in other settings in ways that recognize and value the cultural heritage of their minority students, see the connections in their lives and those of community members to STEM, and develop greater confidence in their ability to be successful in learning about STEM. Magnet teachers will use culturally-relevant instructional strategies, as well as such other effective classroom strategies with students from non-dominant racial and ethnic social groups as multimodal experiences, activities that are community-related, and role models and mentors of the same racial or ethnic background (Next Generation Science Standards, January 2013). Among the strategies used will be hands-on learning that focuses on inquiry, involves students in doing experiments and using manipulatives, links STEM with other subject areas, and provides opportunities to engage in STEM activities in extended-day and other informal settings. As discussed below, the project will ensure the access to STEM of ELLs, who, in District 28 are almost entirely minorities.

Equal Access and Treatment for English Language Learners: English Language Learners and their families are a valuable resource to be tapped to enrich District 28's programs, especially the magnet program. All ELLs have equal access and opportunity to participate in high quality educational programs. The native language arts program parallels the English language program, holding all students to the same high literacy standards. The same is true of instruction across the curriculum. Teachers will continue to be equipped to use best practices in transitional bilingual and ESL methodology to ensure that ELLs are held to and reach rigorous standards. Teachers of ELLs, like all of their colleagues, will make the pedagogical shifts required by the Common Core standards. The magnet schools will draw on the resource materials available, for instance, from Understanding Language, the Stanford national initiative that is designed to improve ELLs' access to Common Core standards. The integration of science, for example, with "language accelerates the development of academic English, allows English learners to have equitable access to content area curriculum, and supports culturally and linguistically inclusive classrooms" (Carr, Sexton, & Lagunoff, 2007; Brown & DiRanna, 2012). Magnet staff will also draw on the effective strategies that support both language learning and science content, developed by the Next Generation Science Standards (NGSS) Diversity and Equity Group, which will be included in the final NGSS (NGSS, 2012). The magnet resource specialists will introduce staff to materials that help them become more *culturally responsive* and sensitive to the needs of ELLs. Teachers will learn to adapt their approaches to instruction and parent involvement to ensure the participation of traditionally underrepresented students and families.

Plan of Operation: (a)(2)(v) The effectiveness of its plan to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools

The recruitment plan for District 28 is designed to disseminate magnet school information to all parents from **every racial and ethnic group** and assistant parents to make appropriate choices for their children. The recruitment plan has extensive district and school-level activities. All recruitment activities will be planned, directed, and coordinated by the magnet director, the magnet recruiter and, at the school level, the magnet resource specialists and each school's parent coordinator. The recruitment effort is a critical part of the magnet schools process. The district expects that the plan will stimulate interest in the larger community that will result in the reduction of minority group isolation in the magnet schools.

The relationships that the district has forged among parents, educators, administrators and the community are key to the success of the recruitment process. The District 28 recruitment team will have overall responsibility for planning, directing, and coordinating recruitment activities at the district and school levels. The team will consist of the magnet director, the magnet recruiter and, at no cost to the project, the district's family advocate. The team will coordinate district and school level recruitment activities. Working closely with each school's stakeholders, the recruitment team will create print and online applications, brochures, and guidebooks and work with each school to develop a brand and design a logo. Recruitment team members will build a magnet website for the district to assist parents and students in selecting magnet schools. The magnet director and magnet recruiter will work with the NYC DOE's Translation and Interpretation Unit to translate all materials into the languages that are spoken by the parents in the district, at no cost to the project. Recruitment activities will be supported, at no cost to the pro-

ject, by other district and NYC DOE staff (e.g., Youth and Family Support Services staff and staff from the Division of Instructional and Information Technology).

The school-based recruitment team will consist of the principal, the school's parent coordinator, and the magnet resource teachers, guided by the school's School Leadership Team (SLT). The team will act as recruitment coordinators for their magnet schools. Each school's SLT includes the principal, teachers and other school staff, and parents. Parents from every racial and ethnic group play important roles on this team. Also critical to the recruitment process is the Parent-Teacher Association at each school, which will actively recruit parents for the magnet schools program. Further, the district and school recruitment teams will use the resources of the district's parent advocate and district parent newsletters and bulletins (electronic and print versions) to inform parents of all school activities and other recruitment events.

Each school will develop its own Facebook page, which staff will update regularly. It might contain, for instance, a list of upcoming events or the podcast of videotaped workshops on school choices, including magnet schools, which will be held at the recruitment center and at rotating libraries in different parts of the district. Twitter will be especially useful for sending out short program updates. School and magnet teachers and school-based administrators, magnet resource teachers, and classroom teachers will be encouraged to promote their magnet schools by creating a LinkedIn profile of professional information about them.

Each project year, project-wide and school-specific recruitment plans will be developed and implemented. Each plan will include clear timelines, staffing responsibilities, description of the type of activity/strategy, and target neighborhood, feeder schools, or parent sub-groups. The districts and school level recruitment teams will develop strategic plans that will consider such factors as an event's date and timing in relation to the school calendar, the available resources,

and the lead time needed to develop materials, do effective publicity/outreach, and otherwise organize an event.

Each school's recruitment plan will be coordinated with district level activities. These plans will be reviewed weekly and modified, when necessary, during the recruitment and application period to ensure their effectiveness. They will also be reviewed at the end of each year.

Ongoing opportunities for input and feedback from all stakeholders will be built into the recruitment plans. Every six months, magnet and school staff will engage in an analysis of the recruitment strategy in terms of its strengths, weaknesses, and opportunities. Magnet and school staff will develop recruitment strategies only after carefully analyzing what would be most effective with different demographic and cultural groups and soliciting input from all stakeholders—parents, students, and staff. They will post online and begin to use a logo, recruitment video, brochure, or other marketing materials and activities only after getting feedback from a heterogeneous group of parents and other stakeholders. District 28 recruitment team members will, for example, develop online and print feedback forms, translated into multiple languages, to solicit this feedback. They will also create an online parent-response form, so that, as magnet staff and school personnel learn about parent insights and concerns, they can enter this information, which magnet and school staff can then use to fine-tune recruitment strategies and make them more responsive to the families of prospective students.

In addition, parent focus groups will explore not only the magnet programs to be offered, but also parents' feelings about sending their children to schools in District 28, the comparable values of public and private schools, including the costs, and other issues. Focus groups will play a valuable role: both providing feedback throughout the project that will strengthen all re-

cruitment strategies and making clear to parents even before they enroll their child that the magnet schools welcome their ideas and involvement.

The magnet director will work with the evaluator to ensure that recruitment strategies enable the program to meet its benchmarks and performance measures. The evaluator will work with the magnet director, the magnet recruiter and each school recruitment team to examine the successes of the magnet schools in reducing minority group isolation and suggest areas for improvement, including the success of the district's and schools' recruitment plans. Schools that do not reach their recruitment goals and desegregation objectives will, with the assistance of the magnet director and magnet recruiter, either modify the plan or develop a new one.

District 28 will have one stop drop-in recruitment center that will be easily accessible to all parents by public transportation. It will house the magnet recruiter, computers, and written materials in multiple languages about each magnet school. The center will have hard copies of all online recruitment materials, including an application form, magnet school booklets, brochures describing the magnet program at each school, and a list of common questions and answers about the magnet program and how to apply. Parents will be able to take home from the center a DVD about the magnet schools. They will learn at the center how to access the project website at home, at a public library, or elsewhere, where they can share it with other family members, including children.

The magnet recruiter will be supported by the district's parent advocate. She will assist parents individually and in small groups in selecting a school and completing and returning the application in a timely fashion. The magnet recruiter will keep individual records of parent contacts and follow-up visits with letters, emails, and telephone calls. The magnet recruiter will make appointments for parents to visit magnet schools and meet with the magnet staff. Magnet

staff will give presentations both at the recruitment center and at community meetings. When necessary, translators will be available to make these presentations accessible to participants who speak languages other than English.

The magnet recruiter and project director will provide training for all school staff - administrative, pedagogical, secretarial, custodial, and others, that will them to describe the magnet program in a clear, compelling, and common way to parents, students, and other community members. Training for magnet resource specialists, each principal, and each school-based recruitment team will also enable them to train others in their school to develop a magnet school brand and a recruitment/marketing strategy. Training sessions will also prepare staff and parents to respond to the questions that parents of prospective students are likely to ask at open houses and school tours: questions, for example, about school safety, visiting the schools, the commute, contacting staff, special needs, afterschool programs, magnet themes and courses, and college and career preparation. To assist them in the recruitment process, staff and parent leaders in each magnet school will have access to the various documents and PowerPoint presentations available on the project website and described below.

The District 28 magnet website will be invaluable as a student recruitment tool. Magnet staff and district and school personnel will determine whether to make it part of or separate from the district's website. Links on the homepage will take parents to an overview of each magnet school, information on how to apply on-line, frequently asked questions, magnet brochures for each school, and announcements of open houses and other upcoming events. The website might include a virtual school tour that enables a person to watch theme-based classroom activities, or see the student work posted in the hallways. Staff, as well as parent leaders, will have their recruitment efforts supported by websites that will include, for example, information on district

and school recruitment plans, branding and logo development, open house and school tour flyers, tour agendas and evaluation forms, advertisement and other banners, magnet brochures, and enrollment data. (Magnet and school staff will, for images used on the website or for any other recruitment purpose, get parents to sign releases for their children.) The magnet website will also have top-level links from the NYC DOE's homepage.

The district will develop mailing lists for its target groups. It will update its list on a regular basis. After the magnet program begins, the magnet office will send periodic mailings to its prime target groups. Magnet staff will place on public radio stations and local TV news stations public service announcements (PSAs) that contain information about the magnet schools and upcoming open houses and other such events. The magnet recruiter will also work to place these PSAs in movie theaters. The magnet recruiter will arrange for educators and administrators from the magnet schools to be interviewed on local radio and TV talk shows and for students to be interviewed, discussing their school and its magnet themes, on those stations that specifically target school-age children, especially on public access television channels. Television will be used to create an image, develop awareness, and direct the target groups to the applications when the sign-ups start. By combining a news and public information strategy with carefully timed paid media advertising and promotional materials, the district can stretch the project budget. Magnet staff will also send event announcements and press releases to the city's major newspapers (e.g., *New York Times*, *New York Post*, *Daily News*), the borough's community newspapers (e.g., *The Courier*, and newspapers published in Spanish (e.g., *El Diario/La Prensa*), Chinese (The World Journal) and other languages represented in the district. These smaller newspapers maintain wide circulation locally and are closer to the "heartbeat" of the local community than the larger papers. Bus advertising and billboards, complete with the school logos, will help let the wider communi-

ty know about the magnet program, while building school pride as students and parents see their school name and logo displayed prominently in their neighborhood.

Magnet staff will establish and strengthen links between magnet elementary school staff, teachers, and principals with local nursery, Head Start, and day care directors and staff. An Early Educators Fair will provide those working with pre-school children with information about the magnet elementary schools. Magnet staff will also include both pre-school educators and parent coordinators in email blasts about project events and school selection and application information, as well as regularly email them each school's newsletter. The magnet recruiter will also work with the schools to develop student ambassadors who, under the supervision of the recruiter, go into the pre-schools and work with children on projects. This helps build strong relationships with the schools, while at the same time involving magnet students in community service.

Magnet school fairs are powerful tools both to create initial interest and to provide the impetus for parents and students to visit schools that interest them. These fairs will have three-dimensional brochures, displays and posters and image-rich student work that describe the programs with words and pictures and model the themes and educational objectives of the various magnet schools, as well as present videotapes of each magnet school. Teachers, administrators, parents and students will be available to serve as ambassadors for the school: providing information, sharing experiences, and engaging in dialogue with parents and prospective students. Each school's table will also have flyers listing its open house dates; a prominent sign or banner that contains both the school name and its brightly colored logo; and a PowerPoint that runs in a loop with information about the school and pictures of fun, challenging student activities. Extensive use of multimedia and video presentations at these fairs will emphasize the centrality of technology to each school.

Upon entering, parents will be asked to fill out a brief form, asking name, street and email addresses, home and cell phone numbers, and potential fields of interest, so as to facilitate follow-up email, snail mail, and phone calls. The fairs will also include specifics about the curricula and subject area content. Equally important will be the illustration in displays of potential career directions that students can take following their education in a project magnet school.

Open houses and school tours will be critical for getting parents and prospective students into the school. Both will require advance planning to increase the likelihood that those attending will get the kind of impression that will lead them to apply—and perhaps to spread the good word to friends and neighbors. Deciding on the primary message, as well as the length of the open house, will help determine which of the possible activities and events will be part of it: for instance, to provide a group tour of the building and facilities; to highlight magnet-related student work with a short performance, a presentation, or an exhibit; and to offer information about the magnet school through a brief film, a PowerPoint presentation, or a question and answer session with the principal, teachers, and students. An open house is also a good time to solicit feedback from parents on recruitment materials and their impressions of the schools. At open houses, school tours, individual school-choice counseling sessions, and other recruitment activities, magnet and school staff will request email addresses from those parents who have them and cell phone numbers from those who text. Magnet staff will follow up with personalized emails responding to questions posed by parents who agreed to such use of their email address. They will also send parents email blasts (along with U.S. mail) about upcoming events, new school selection information, and application deadlines to parents. Magnet staff will also email each school's electronic, multi-color, and clearly branded newsletter to all parents in the midst of the choice and application process and to libraries and faith-based and community-based groups.

The school-based recruitment team, in consultation with the magnet director and magnet recruiter, will decide questions related to school tours, such as the role of the tour guide, the route, the things to highlight, the students to talk with visitors, and the script, if one will be used. Because school tours can be tailored to the needs of a small group of parents, they can meet multiple needs, including those with very restricted schedules or those whose native language is shared by relatively few local residents.

A major advantage that District 28 has even before the recruitment process begins is its strong links to various and diverse organizations throughout the community and the city. As an example, the district is working to develop a partnership with Parsons the New School for Design and the New York Institute of Technology to provide, at no cost to the project, architects to design new interior and exterior designs and conduct the structural renovations at the magnet schools to support the designs, e.g, exterior art; landscaping; new entries, student areas, faculty areas, and common areas. The district will also reach out to community based organizations to "get out the word." The magnet recruiter will give presentations at outside agencies, such as *Inside Schools*, a group that has a site for parents detailing public school options in their communities, to present information on the magnet schools. The recruiter will also develop a data base of real estate agencies and sponsor special events for agents to learn about the District 28 schools. The recruiter will contact local utilities, e.g., Con Edison and Verizon, to see if marketing/recruitment materials can be included in their mailings.

All public libraries in the Districts 28 community will have hard copies of the resource materials found at the recruitment center. The magnet recruiter will train the public library staff so that they will be more familiar with the magnet school program. Library staff will refer inter-

ested parents to the recruitment center and show them how to access, using library computers, the project website, with its wide range of recruitment information.

The magnet recruiter, with the cooperation of local merchants, will set up temporary mobile information centers at supermarkets, shopping malls, grocery stores, pediatricians' offices, gas stations, public housing projects, and other places where prospective magnet school applicants can be reached. These small booths will be staffed by the magnet recruiter during peak times to disseminate written materials and applications to parents and community members and, when possible, show them videos of magnet schools.

To enhance its image and prestige in the community, the magnet effort will include outstanding community leaders, as well as respected sports and media personalities, in community events, printed materials and public service announcements.

Many of the parents in the community have strong ties to their respective religious communities. The churches, mosques and synagogues in the neighborhood are frequently a focal point for family activities and parental interaction. These religious institutions and other faith-based organizations will be used as critical meeting places where parents receive brochures and hand-outs and join together to discuss in focus groups the proposed magnet schools.

In addition, the proposed magnet schools will build on their existing relationships with community-based organizations such as: The connections with these organizations and others will ensure that the needs of students and families are met at each of the proposed magnet schools: Queens Community House, Korean Community Services, UJA Federation, New York Irish Center, Filipino American Human Services, Women for Afghan Women, Minority Business Development Center, Center for Women of NY, and Elmhurst Muslim Society.

(b)(2)(i) The Secretary determines the extent to which the project director (if one is used) is qualified to manage the project.

Project Director – 1.0 position, 100% FTE

Qualifications of the Magnet Director Although all personnel hiring must conform to NYCDOE requirements and specifications, it is expected that Lainie Leber will be selected to be the project director. Ms. Leber has over twenty years of experience in educational administration, including managing/supervising magnet schools, curriculum development, professional development, and teaching. She currently is the Magnet Director of the New York City DOE District 3 Magnet Schools Assistance Program which is just completing the third year of a three year project. Thus, Ms. Leber will be available to work full time on the project. In her current role as magnet director, she guides magnet school principals in creating action plans to implement their visions; collaborates with local and nationally recognized organizations; ensures school sustainability by developing various cohorts of teacher leaders who attended rigorous ongoing professional development to lead theme integration curriculum workshops; ensures that all grant objectives and goals are clear and being met; and coordinates a multi-media advertising campaign that has transformed the attention the schools received. Prior to her position as MSAP Director for the District 3 project, she was the director of another NYC magnet project. Before becoming magnet director, she was the Social Studies Instructional Specialist for the Department of Teaching and Learning in NYC DOE. She holds an Advanced Certificate in District Administration and Supervision, an Advanced Certificate in School Administration and Supervision, and a M.A. in Social Studies Education.

Duties and Responsibilities of the Magnet Director. **The magnet director** will: ► report regularly to the district superintendent on all issues related to the magnet program; ► collaborate with the District 28 community district superintendent to coordinate all aspects of the program; ► coordinate and monitor all aspects of the program; ► supervise the magnet staff including the magnet STEM planner, recruiter, secretary, program evaluator and resource teachers (the magnet resource teachers will be jointly supervised by the magnet director and the principals); ► supervise all project planning activities related to the five MSAP program components that support increased student achievement – systemic reform/curriculum alignment, magnet theme development, professional development, technology integration, and parent involvement activities – with support from the STEM magnet planner; ► work cooperatively with principals and assistant principals, school leadership teams, parent coordinators and parent committees to ensure effective implementation of program objectives; ► coordinate the activities of the magnet resource teachers in conjunction with the principals; ► coordinate the development and implementation of innovative educational programs at each school and disseminate successful findings in order to fuel systemic reform; ► conduct school site visits, ensuring that each of the three magnet schools is visited at least once every other week; ► serve as a liaison among the schools, district office, district parent support office, communities, parents, and community-based organizations; ► serve as a resource to all project staff with respect to meeting the special needs of students related to the reduction of minority group isolation in schools; ► work with the magnet recruiter to promote magnet schools through public and community relations activities; ► work with school staff to research and purchase appropriate bias-free instructional materials and equipment needed to fully implement the magnet program; ► monitor the project budget; ► supervise the development of web sites for the magnet program and individual

schools, enabling schools to share best practices; ► supervise all aspects of the project evaluation, in conjunction with the magnet evaluator; ► prepare budget reports and facilitate program reports for the U.S. Department of Education; and ► disseminate program information to all schools in the project, as well as to the New York City Department of Education and the New York State Education Department, highlighting initiatives to be replicated to spur systemic reform.

(b)(2)(ii) The Secretary determines the extent to which other key personnel are qualified to manage the project.

OTHER KEY MSAP-FUNDED PERSONNEL In addition to the magnet director, District 28 is requesting the full-time services of a STEM magnet planner and a magnet recruiter to be paid for with MSAP funds.

STEM Magnet Planner – 1.0 position, 100% FTE

Qualifications of the STEM Magnet Planner include: Although all personnel hiring must conform to NYCDOE requirements and specifications, it is expected that Sharon Rosen will be selected to be the STEM Magnet Planner. She has 13 years experience working in NYC schools, with special expertise in STEM. She has worked in NYC magnet programs as a curriculum specialist and magnet resource specialist and was a middle school classroom teacher. As magnet curriculum specialist and magnet resource specialist she has provided ongoing professional development in developing project-based units in schools with STEM and engineering themes; she co-wrote curriculum for the STEM Institute of Manhattan and Robotics School and the Early Childhood Discovery and Design School; she facilitated partnerships with the New York Institute of Technology and the Boston Museum that work with STEM schools. She has

also provided extensive professional development in UbD, customizing units of study, crafting theme-based essential questions and enduring understandings, curriculum mapping, and developing and implementing differentiated instruction.

Duties and Responsibilities of the STEM Magnet Planner **The magnet planner will:** ► work with the school teams to facilitate theme and systemic reform implementation at each school and facilitating the incorporation of STEM strategies and activities in all instruction and professional development; ► serve as a liaison between the magnet school teams and NYC and district staff in areas such as literacy, math, science, bilingual/ESL for ELLs, special education, technology, the arts and incorporating STEM strategies into all content areas; ► work with Curriculum Development and Professional Development Teams on the development and alignment of new magnet theme curricula, especially STEM strategies and activities, and train staff in their use; ► serve as a liaison with outside consultants providing onsite training for school staff; ► create and maintain partnerships with community-based organizations and other agencies participating in the project and offering services to families; ► schedule and participate in professional development activities in collaboration with the magnet resource teachers; ► facilitate program development activities related to the magnet themes and STEM strategies, reform models, innovative instructional strategies, standards alignment, and program implementation and adjustment; and ► serve as a resource for schools on standards-based, STEM infused education.

Magnet Recruiter – 1.0 position, 100% FTE

The magnet recruiter will report directly to the magnet director to ensure the broadest possible recruitment campaign to attract students to District 28's magnet schools. Although all personnel hiring must conform to NYCDOE requirements and specifications, it is expected that Hope Salas will be selected to be the magnet recruiter. Ms. Salas has experience working in New

York City MSAP programs, which includes responsibility for school –level recruitment, as well as experience working in educational programs in other states and in other countries. As such, Ms. Salas has vast experience working with students and parents from varied social, economic and ethnic/racial backgrounds. Her most recent experience is as a magnet specialist in a New York City MSAP magnet school, with primary responsibility for school-level recruitment, including designing and overseeing production of all advertising/promotional materials, establishing and managing a school student recruitment/parent outreach committee, creating and maintaining the school's blog, creating and managing the school's promotional video in conjunction with Reel/Works Video, and the like.

Duties and Responsibilities of the Magnet Recruiter **The magnet recruiter will**: ► work collaboratively with the magnet director; ► coordinate a comprehensive outreach program to the entire community for the target schools; ► provide information to parents, community members and community agencies on the magnet schools' programs; ► attend citywide parent meetings; ► participate in the annual School Fair and coordinate the presentations of the magnet schools; ► develop a plan for recruitment and advertisement, in conjunction with each of the magnet school recruitment committees which will include brochures, videos/CDs, television programs, newsletters and public service announcements for radio and television stations; and ► work cooperatively on a regular basis with the school parent coordinators, district parent advocate, parent groups and the schools' School Leadership Teams.

Qualifications of the Project Evaluator: American Education Solutions. American Educations Solutions (AES) will evaluate this project. For the past 18 years, AES has evaluated 51 Magnet Schools Assistance Program grants. In addition, the AES team has partnered with the Education Alliance at Brown University and the SERVE Center at the University of North Caro-

lina on 10 rigorous MSAP evaluations. For the 2010-2013 cycle AES is partnering with the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) at UCLA on 5 rigorous MSAP evaluations as well as on survey development and analysis. The AES MSAP site visit team includes Dr. Gladys Pack, Dr. Donna Elam, Ms. Joanne Smith, Dr. June Levy, Ms. Janice Sherrill, Diane Creekmore and Mr. Edward Linehan. All have been teachers and administrators and have extensive evaluation experience. One was an assistant superintendent, 4 were magnet school principals, 3 were magnet school directors and one an Equity Assistance Center director. The duties and responsibilities of the evaluators are described in this proposal's evaluation section.

DISTRICT AND SCHOOL PERSONNEL SUPPORTING THE MAGNET PROGRAM, AT NO COST TO THE PROJECT District 28 will provide, at no cost to the project, the services of key personnel who can offer essential insight, expertise and resources related to the administration, coordination and management of the project.

Community School District 28 Superintendent District 28 Superintendent Beverly Ffolkes-Bryant, is a dynamic educator who will lead the school reform, curriculum development/alignment, parent involvement and professional development components of District 28's proposed magnet program. Dr. Ffolkes-Bryant brings to this magnet project nearly twenty-five years of experience as an educator in the New York City Public Schools. Prior to her position as Superintendent, Dr. Ffolkes-Bryant was Director of School Quality for the New York City Department of Education, including the responsibility for overseeing curriculum development and professional development activities. She has also held positions key positions in District 22 as the Founding Principal of PS 315, Assistant Principal of PS 152, Assistant Principal Annex at PS 152, and Assistant Principal Intern at PS 203. Both PS 152 and PS 203 have a long history of

participating in the NYCDOE's Open Enrollment desegregation plans. Throughout her years of service, Dr. Ffolkes-Bryant has enjoyed many successes and professional accomplishments, including: improving standardized test scores, designing the curriculum for the first Performing Arts elementary school in District 22 (PS 315); supervising the implementation of Teachers' College Reading and Writing Initiative, Everyday Math Core Curriculum program and FOSS Science Core Curriculum program; coordinating and leading parent workshops to help children succeed and establishing home-school collaborations; and planning, implementing and supervising fourteen artist-in-residence programs for 850 students in 35 classes, Kindergarten through grade 5. As a dedicated leader in the field, Ms. Ffolkes-Bryant has served as a mentor for the Aspiring Principal's Leadership program. Further, she has received the following awards and accolades, honoring her service: the Association of Black Educators of NY Educator of the Year Award; NY State Assemblywoman Rhoda Jacobs Award for Contribution to Community; and the Brooklyn Borough President's Citation for Contribution to Education and the Arts. Dr. Ffolkes-Bryant was also a Regional Finalist of the White House Fellows Program in 2011. Additional testament to her leadership skills includes the following awards presented to PS 315 while under Dr. Ffolkes-Bryant's supervision: New York State Department of Education's High Performance/Gap Closing School Award; the New York State Alliance for Arts Education Creative Ticket Award; and Nominee, National School Change Award. Dr. Ffolkes-Bryant holds a Doctorate degree in Education and Supervision, as well as a Master of Arts Degree in Music Education and Bachelor of Science degree in Elementary Education. In addition, she is a New York State licensed School District Leader, and a New York City Licensed Assistant Principal and Principal.

School Principals As the educational leaders of their schools, principals will have overall responsibility for meeting the project's desegregation and student achievement objectives in their schools. The following is a description of each principal's background and experience.

Principal of PS 80: Ms. Kersandra Cox has been a New York City public school administrator for over five years. In her current role as Principal of PS 80, she supervises the infusion of standards-based ELA instruction into all of the content areas and ensures that each classroom emphasizes Math, Science and Technology in connection with real world applications and careers. Further, Ms. Cox manages the school's home-school-community partnership in order to provide her students with unique learning opportunities. Prior to current position as Principal, Ms. Cox was Assistant Principal of PS 147 where she conducted formal observations of teachers using research-based evaluation tools and provided teachers with feedback to inform their instruction. She also designed and facilitated workshops on such topics as using data to meet the instructional need of all students and developing rigorous curriculum. As the Literacy Coach/Director of Curriculum and Instruction for PS 147 from 2003 to 2008, Ms. Cox led the literacy instruction program for all staff in grades K-8. She reviewed and selected standards-based programs to improve classroom instruction and student achievement, coordinated the school improvement plan, professional development and after school programs, as well as analyzed research and student data in order to provide feedback to teachers and make program revisions. Ms. Cox holds a Bachelor of Science degree in Elementary Education, a Master of Science degree in Reading and a Master of Science degree in Administration and Supervision.

Principal of PS 160: Mr. Jermaine Garden is the Principal of PS 160. He brings many years of experience as a Principal, Assistant Principal, and teacher within the New York City Public Schools. As Principal of PS 160, he has standardized performance by creating a handbook for

his staff that is focused on best practices. He also initiated the formation of Teacher Inquiry Teams in order to assess overall data and facilitate objective student/teacher performance evaluations and customized instructional plans. Mr. Garden trained his teachers to implement a Higher Order Thinking Skills program in order to increase academic rigor in the classroom. Mr. Garden has initiated goal-driven instruction by having teachers create quarterly goals for children in their class. He designs and facilitates workshops and seminars aimed at heightening the level of professional development in the areas of using data to drive instruction, increasing rigor in the classroom, implementing higher level questioning techniques, and using instructional rounds. He also assists his teachers as they implement instructional strategies for small group instruction. Further, he has implemented Hands-on Science and Science Activities Writing programs at PS 160. His notable achievements and accomplishments over the course of his career include PS 160's recognition by the New York State Education Department as a Rapidly Improving/Gap Closing School. Further he was the recipient of the Association of Black Educators of New York Educator of the Year Award and a recipient of the Catholic Teachers Association St. Martin de Porres Award. Mr. Garden holds a Professional Diploma in School Administration and Supervision, a Master of Science in Education, and a Bachelor of Science in Education. He is an active member of the New York City Elementary School Principals Association, where he has served as the President and is the current Immediate Past President. He is a member of the Council of Supervisors and Administrators, the Association of Black Educators of New York, the New York Academy of Public Education, and the National Association of Elementary School Principals.

Principal of PS 354: For over a decade, Mr. Jermaine Green has worked as a New York City public school educator, first as a classroom teacher and Dean of Students, then as Assistant Principal at PS 121 and currently, as Founding Principal of PS 354. As Principal, Mr. Green has

overseen the use of data to drive instruction, as well as the use of a variety of instructional strategies in classrooms, resulting in increased test scores across all core subject areas. He also collaborated with Wright Group reading intervention in order to pilot the "Lead 21" comprehensive reading program at PS 354. In addition, Mr. Green has lent his experience as a mentor to administrator interns and new leaders who have been selected as principals to open new schools, helping them to develop structures and strategies that enable and sustain change. And as a teacher at PS 121, Mr. Green developed and implemented units of study featuring differentiated instruction techniques, particularly in math and science. Mr. Green holds a Bachelor of Arts degree in Communications, as well as a Master of Science Degree in Education and School Administration and Supervision. He is New York State certified in School Administration and Supervision, Common Branches (PreK-6) and Special Education.

(b)(2)(iii) The Secretary determines the extent to which teachers who will provide instruction in participating magnet schools are qualified to implement the special curriculum of the magnet schools.

As recipients of previous magnet projects, District 28 has a cadre of teachers who will bring their prior experience at one or more magnet schools to the current magnet project. It is expected that all magnet resource teachers and classroom teachers will be highly qualified and effective. **District 28 is requesting 3 magnet resource teachers for each school to support the full implementation of the magnet program. At each school, there will be one magnet resource teacher with expertise in the theme of the school, one instructional technology resource teacher, and one STEM teacher facilitator.** The magnet resource teachers will be required to have the following qualifications.

The qualifications for all of the magnet resource teacher positions include: ► NYC and NYS teaching license and certification; ► a Bachelor of Arts or Science; ► at least three years of successful experience as a school/district level staff developer; ► at least five years of successful experience in teaching students from diverse social, ethnic, racial and economic backgrounds; ► demonstrated expertise in STEM, instructional technology, or the magnet theme, depending on their position (subject area certification, specific graduate course work, etc.); ► demonstrated knowledge of and experience in standards-based instruction, the Common Core and NYS standards, and the alignment of curriculum, instruction, assessment and professional development; ► knowledge of and experience in meeting the special needs of students related to the reduction of minority group isolation; ► knowledge of and experience in implementing innovative technology-based instructional strategies and techniques; ► knowledge of and experience in using multiple approaches, techniques and support materials to meet students' varied learning needs and styles; ► demonstrated ability to work successfully with multicultural, multiethnic students and families; ► demonstrated ability to communicate orally and in writing; ► excellent interpersonal skills; ► knowledge of and experience in ways to use varied technologies as supports for learning; and ► demonstrated ability to work collaboratively with teachers, parents and administrators. Individual magnet schools will add criteria that are relevant to the specific magnet theme that they have selected for their school.

(b)(2)(iv) The Secretary determines the extent to which the applicant, as part of its nondiscriminatory employment practices will ensure that its personnel are selected for employment without regard to race, religion, color, national origin, sex, age, or disability.

New York City has long been in the forefront of large school systems in promoting non-discriminatory employment practices. **The New York City Department of Education**, **an Affirmative Action Equal Opportunity Employer**, reaffirmed a decades-long strong commitment to non-discriminatory practices in 2008, when it issued the following Notification of Non-Discrimination Policy: "It is the policy of the Department of Education of the City of New York to provide educational and employment opportunities without regard to **race, color, religion, creed, ethnicity, national origin, alienage, citizenship status, age, marital status, partnership status, disability, sexual orientation, gender (sex), military status, prior record of arrest or conviction, except as permitted by law, predisposing genetic characteristics, or status as a victim of domestic violence, sexual offenses and stalking, and to maintain an environment free of harassment on any of the above-noted grounds, including sexual harassment or retaliation.** The policy of the NYC DOE requires that all personnel be recruited in accordance with its employment procedures and agreed upon with the United Federation of Teachers. As part of its non-discriminatory education practices, the NYC DOE encourages applications for employment from persons who are members of groups that have been traditionally underrepresented, such as members of ethnic minorities, women, and disabled persons. Members of minority groups are encouraged to apply for supervisory positions. Canvassing is done by the NYC DOE's Division of Human Resources, using an extensive mailing list of minority organizations.

(b)(3) To determine personnel qualifications the Secretary considers experience and training in fields related to the objectives of the project, including the key personnel's knowledge of and experience in curriculum development and desegregation strategies

Knowledge of and Experience in Curriculum Development District 28 has had broad-based experience in developing curricula that are aligned with the NYC and NYS standards. As a result of participation in earlier MSAP programs, Title VII bilingual programs, Teaching American History programs, Enhancing Education Through Technology programs, Title IIB Math and Science Partnership programs and other federal, state and city initiatives, many staff members in District 28 have experience in curriculum writing that would be available to enrich the magnet project. Further, as demonstrated above, the Superintendent has extensive experience in curriculum development and supervising curriculum and professional development initiatives city-wide. Project principals also have many years of experience in developing and implementing innovative curriculums.

Knowledge of and Experience in Desegregation Strategies For many years, District 28 has used desegregation strategies to meet the needs of their diverse student population and their families. District 28 has been involved in federally-funded Magnet Schools Assistance Programs for many years, with 2007 as its last funding cycle and has continued the magnet programs without federal assistance. As a result, staff have developed broad knowledge of and experience in dealing with desegregation strategies and educational excellence and equity. In addition, it has a cadre of staff members who are familiar with implementing magnet themes and school reform models in the context of desegregation efforts. As examples, the Superintendent has knowledge and experience in desegregation working as a supervisor in schools that have a long history of

desegregation efforts. All of these staff members are committed to bringing their expertise to the proposed magnet project

(c)(2)(i) Quality of the project design: The Secretary determines the extent to which each magnet school for which funding is sought will promote desegregation, including how each proposed magnet school program will increase interaction among students of different social, economic, ethnic, and racial backgrounds.

District 28's magnet desegregation plan will expand choice options to students and provide a pool of students of different social, economic, ethnic and racial backgrounds to reduce minority group isolation in the three proposed minority group isolated magnet schools – PS 80, PS 160 and PS 354. The potential feeder schools located in the northern section of the district in the communities of Rego Park and Forest Hills are overcrowded. Students who are zoned to the schools are being "closed out" and parents are looking for alternatives. In the past, parents would have enrolled their children in private schools. Some still do. However, because of the economic downturn in the city, many parents cannot afford these expensive private schools. The proposed magnet schools are underutilized. There is space for additional students. However, in order to attract students from the potential feeder schools, the magnet schools need to become higher achieving schools with the resources parents expect, including innovative technology. This is what the proposed MSAP funding will enable the schools to do. The project will build upon recent academic improvements in the schools. This year PS 80 received a B on its progress report and PS 160 received a C. (Because PS 354 only has grades PreK-3 this year, it did not receive a letter grade. However, it must be noted that the school will expand to grade 4 in project year two and to grade 5 in project year 3). Although there are still many students struggling aca-

demically at these schools, there is movement in the right direction. Now is the time that an MSAP project can have its greatest impact.

However, attracting a diverse student population is not enough. The project will promote desegregation within the project schools by using proven strategies and instructional techniques to ensure that students from different social, economic, ethnic, and racial backgrounds have on-going opportunities to interact with one another in classroom activities, after school programs and other magnet program activities. The primary vehicles to be used to foster substantive relationships among students from varied backgrounds will be *heterogeneous grouping*, *cooperative learning, and culturally responsive teaching/ multicultural education*.

Heterogeneous Grouping District 28 is committed to heterogeneous grouping in its magnet schools. Every class will have students from different social, economic, ethnic and racial backgrounds, as well as all ability levels. This will eliminate any vestiges of ability tracking and inflexible grouping practices to maximize the opportunities for students to appreciate their differences and value their similarities. The classes will include general education students, English language learners, special education students (as detailed in their IEPs), and children with physical disabilities, from different ethnic backgrounds and all four performance levels on New York State standardized tests. The use of technology in magnet school classrooms will enable teachers to effectively manage and students to benefit from heterogeneous grouping. Technology that is integrated into instruction will help leverage differentiated learning. The multi-sensory approach of a Smartboard lesson, for instance, which integrates video and audioclips, along with interactive components that allow students to answer questions remotely or with a touch screen, might be effective with a wider range of students than a lesson that depends solely on auditory or visual

learning. Students can use the Internet to see the connections between a theme-based lesson and its "real-world" relevance and application.

Cooperative Learning A key method of increasing interaction among children of different racial, ethnical, social and economic backgrounds is cooperative learning, an approach that fits perfectly with District 28's emphasis on an inquiry approach to learning. In stressing a 21st-century skill like collaboration, the creators of the Common Core standards were responding to the increasing recognition that the ability to work cooperatively is essential preparation for many types of work (Barron & Darling-Hammond, 2008). The ELA standards include as key features "speaking and listening: flexible communication and collaboration," which teachers will address through structures for student-to-student conferring. The Common Core is explicit about the ways in which a standard such as "construct viable arguments and critique the reasoning of others" can be met through cooperative learning groups—in which "students in all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify of improve the arguments" (Standards for Mathematical Practice, #3). Support for such an approach comes from research findings, like a comprehensive review that found a positive correlation between cooperative learning and increased math scores (Slavin, Lake, & Groff, June 2009). Using technology "to interact and collaborate with others" is a Common Core College and Career Readiness Anchor Standard. Collaboration with peers from their school and around the city and the world will be a an ongoing part of the project's online and blended learning, including project-based learning (PBL), and both game-based and online modules.

Multicultural Education/Culturally Responsive Teaching Multicultural education in District 28 is not a separate curriculum implemented as an adjunct to instruction in the content

areas. It is, instead, a perspective embraced by staff, students and families that will enrich the magnet program curricula, units and lessons and all interactions between and among participants.

The proposed magnet schools will use the resources of the Equity Assistance Center at Brown University. With their *Leading with Diversity: Cultural Competencies for Teacher Preparation and Professional Development* as a guide, teachers and other staff members will build their cultural competence, a capacity defined by the EAC as "the ability to recognize differences based on culture, language, race ethnicity and other aspects of individual identity and to respond to those differences positively and productively." (Trumbull & Pacheco, 2005).

(c)(2)(ii) The Secretary determines the extent to which each magnet school for which funding is sought will improve student academic achievement for all students attending each magnet school program, including the manner and extent to which each magnet school program will increase student academic achievement in the instructional area or areas offered by the school.

District 28 has planned its comprehensive magnet program in the context of the NYC Department of Education's curriculum initiative to align all instruction to the new Common Core standards and NYS standards designed to ensure college and career readiness. The project's broad-based, interdisciplinary high-quality activities will ensure that <u>ALL</u> students' academic achievement will be improved across all content areas, including the instructional areas that are directly related to each magnet school's theme.

The hallmark feature of the magnet program in all magnet schools will be the infusion across the curriculum of appropriate technology that supports STEM instruction. District 28's magnet technology initiative will incorporate the Essential Conditions to Effec-

tively Leverage Technology for Learning recommended by the International Society for Technology in Education (ISTE). These conditions are: (1) shared vision: proactive leadership in developing a shared vision for educational technology among all education stakeholders including teachers and support staff, school and district administrators, teacher educators, students, parents and the community; (2) empowered leaders: (3) implementation planning: a systemic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communications technologies (ICT) and digital learning resources; (4) consistent and adequate funding: (5) equitable access; (6) skilled personnel; (7) ongoing professional learning: technology-related professional learning plans and opportunities with dedicated time to practice and share ideas; (8) technical support; (9) curriculum framework: content standards and related digital curriculum resources that are aligned with and support digital-age learning and work; (10) student-centered learning; (11) assessment and evaluation; (12) engaged communities; (13) support policies; and (14) supportive external context. **A combination of NYC DOE supports (e.g., empowered leaders, curriculum framework, support policies) and the resources and support that will be provided by the magnet program (e.g., ongoing professional learning, student-centered learning, assessment and evaluation, engaged communities) will enable the schools to fully leverage technology for learning and integrate it in the standards-based core curriculum, which will be the foundation of all magnet instruction.** A project partner that will play an essential role in incorporating technology into instruction in the magnet schools is the **New York Institute of Technology** (NYIT). NYIT offers 90 degree programs in such areas as architecture and design, arts and sciences, and engineering and computing sciences. NYIT students from the School of Engineering and Computing Sciences will provide service learning residencies. Students at the college will work with magnet

school teachers to infuse technology-rich projects and research into their instruction. NYIT science and engineering majors will demonstrate the engineering design process that is central to the magnet project, working hand-in-hand with teachers and students in their classrooms. NYIT will also provide instructional technology professional development institutes for magnet school teachers.

Common Core Instructional Shifts: New York State has adopted the Common Core State Standards. In New York, they are known as the *Common Core Learning Standards* (CCLS). New York City public school students are already being exposed to CCLS-aligned instruction. The 2012-13 Citywide Instructional Expectations (NYCDOE, 2013) gives teachers and administrators guidelines for establishing a culture of learning in individual classrooms and schools while supporting teachers in implementing the instructional shifts necessary for Math and Literacy CCLS-aligned tasks, with specific timelines for CCLS implementation. Planning for multiple points of access into the work and multiple ways of demonstrating understanding are key elements of these expectations.

STEM Across the Curriculum New York State is one of 26 Lead State Partners for the Next Generation Science Standards (NGSS). As a lead state partner, New York is involved in vetting the draft standards and considering early adoption plans. A second draft of the standards is currently under review and the final standards are likely to be released in early spring, 2013. The NGSS includes engineering practices as well the practices of scientific inquiry. In addition to the traditional disciplinary domains—the physical sciences, life sciences, earth and space sciences—there is a fourth domain in the NGSS: engineering technology and applications of science. This addition is a huge change from prior standards, as engineering is the application of science and mathematics to real-world design problems, making the STEM subjects that students

learn in school more immediately relevant to everyday life. In concert with the CCLS Literacy and Mathematics standards, which are infusing more authentic reading, writing and mathematics into science classrooms, the NGSS signals an important move toward STEM education in New York City schools.

Common Core Professional Development : As stated in the NYC DOE's *Raising the Bar for Students and Schools: Our Commitment to Action*, "By combining our focus on integrating the new Common Core standards with an increased attention to improving teacher effectiveness, we will spark a cycle of improvement based on feedback, support, and standards of excellence for teachers and students" (p. 9). The result will be a magnet project that will be exciting in part because it does something relatively new: having high and clear expectations not just from students, but from teachers as well. The NYC DOE is preparing its teachers and school leaders for the pedagogical shifts in English Language Arts (ELA)/literacy and mathematics demanded by the Common Core standards. The NYC DOE has adopted—and is using with its teachers and school leaders—Charlotte Danielson's *Framework for Teaching* (2011) to reflect New York State's Levels of Performance in ELA and mathematics. To assist teachers in revising units to align with the Common Core's cognitive demands and its requirement for a greater pedagogical focus on argument and discourse, Danielson's *Framework* addresses two competencies: (1) Designing Coherent Instruction, which focuses especially on the need for deliberate planning related to rigorous learning objectives, links with students' prior learning, and student engagement in ways that enhance learning and are in alignment with lesson goals; and (2) Questioning and Discussion Techniques, which engage students in challenging their peers and critiquing others' reasoning. To help teachers truly integrate the Common Core, Danielson outlines a third competency, "Using Assessment in Instruction" that is conceptual, dynamic, and "embedded in context,"

rather than on posing questions with only one answer; and that supports teachers in tracking student knowledge and understanding and revising their instructional strategies to respond to learners' needs. The NYC DOE is highlighting these three Danielson competencies because of their strong connections to the Common Core's instructional shifts.

The NYC DOE makes available to its staff several relevant, high-leverage activities that relate to each year's citywide instructional priorities. They cover such topics as Exploring the Instructional Shift of Rigor in Math (or in ELA) and Revising a Common Core-aligned Unit. These resources will provide the principal, magnet resource specialists, and classroom teachers with additional support for onsite professional development. Teachers can also access these resources on their own, as a means of expanding and enhancing their own instructional repertoires.

Professional Development at the School Level: Professional development for magnet school instructional staff will not only involve NYC guided training, discussed above, but specific PD related to the implementation of the magnet themes, including innovative technology in STEM infused instruction. Thus, PD will combine NYC central professional development with **site-based and job-embedded** PD. In addition the project will provide, as detailed under Priority 4(b), increased opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

It is expected that each year magnet school teachers will receive at least 30 hours of professional development (e.g., workshops, seminars, coaching, etc.) in the development and implementation of the school's systemic reforms (including innovative technology) and at least 30 hours of professional development directly related to the implementation of the school's magnet theme. Embedded professional development in all magnet schools will include demonstration lessons and coaching performed by magnet resource teachers, curriculum development/writing

facilitated by magnet resource specialists and the project STEM planner, and intervisitations among classroom teachers. Each school will also hold regular collaborative meetings of teachers, or professional learning communities, in grade teams, in Critical Friends or lesson study groups – job embedded professional development that will encourage them to think and learn about curriculum practices that have direct applicability to their classrooms (Little et al, 2003). Although the Inquiry Teams' primary goal is to use data to improve student performance, these collaborative groups also serve a valuable professional development function. Research has found a correlation between professional development and both improved instruction and student achievement when professional development focuses on the teachers' actual curriculum materials, standards, and assessment (Garet et al, 2001).

Magnet School Themes and School Reform Programs- Creating Themed Curricula. By using Understanding by Design (UbD) templates and other curriculum planning tools, teachers will create themed, inquiry-based, technology rich units of study that address different learning needs (including the needs of ELLs and students with disabilities), and meet the Common Core and state standards. The first step will be **curriculum mapping** where the curriculum design teams will develop curriculum overview maps for social studies, ELA, science and math. Each curriculum map will provide an overview of each unit's overarching goals, concepts, essential questions, content, skills, methods of assessment and lists of resources. Using this method of purposeful planning, curriculum concepts and skills will be spiraled for deeper student understanding. This curriculum design will be part of the larger NYC DOE initiative to support teachers in making the pedagogical shifts required by the Common Core standards. Curriculum teams at each magnet school will develop curriculum overview maps based primarily on the UbD 2.0 framework (Wiggins & McTighe, 2011).

By using Understanding by Design (UbD) templates and other curriculum planning tools, teachers will create themed, inquiry-based units of study for ELA, STEM subjects, and social studies that address different learning needs (including the needs of ELLs and students with disabilities), and meet the Common Core, city, and state standards. This curriculum design will be part of the larger NYC DOE initiative to support teachers in making the pedagogical shifts required by the Common Core standards. Curriculum teams at each magnet school will develop curriculum overview maps based primarily on the UbD 2.0 framework (Wiggins & McTighe, 2011).

Once the curriculum map is developed for each subject, the technology rich **units of study will be written**. School and magnet staff will edit the units which will be posted on the district's Magnet website so that all teachers in the magnet schools, as well as parents, can have easy access.

The next step is **infusing the themed units into the school's core curriculum**. A road map will be created to take each unit and determine how to weave the units into the curriculum in a meaningful way. Each school will create a design team, guided by each school's magnet resource specialists. The team members will work on the development of professional development modules, or workshop lesson plans, for each curriculum component for the entire school staff. In this way, the school's themed curriculum writing initiative will be sustained after the life of the grant. It is expected that each project year, the design teams will develop themed units of study that are peer reviewed and that will result in students receiving magnet theme instruction for <u>at least</u> 3 (year 1), 6 (year 2) and 10 (year 3) hours per week.

The following narrative will discuss how the magnet program in each school will address the needs of all students so that academic achievement in all instructional areas will increase, including the instructional areas that are related to each magnet school's theme.

Improving the Academic Achievement of All Students Through Personalized Learning. Schools will incorporate into their magnet programs the innovative approaches that characterize the NYC DOE's iZone schools and reflect a project-wide commitment to engaging, rigorous, and individualized, personalized learning that meets each student's needs, motivations, and strengths, while increasing student achievement and college and career readiness. iZone schools achieve personalization in a variety of ways based on which ideas, technology and tools work best for their school community. These include: (1) real-time information to support each student through an innovative Personalized Learning System (PLS); (2) collaborative learning and cultural exchange opportunities; (3) digital resources that supplement a teacher's instruction; and (4) more time for teachers to plan lessons alone and with fellow teachers. One aspect of this personalized approach will be the integration into each classroom of multiple instructional "modes"—live teacher-led sessions, software-based lessons, collaborative activities, virtual tutors, and individual practice. Students will have the opportunity to learn in the way(s) that work best for them—online, independently, one-on-one with a coach, in collaborative small groups, or, for older students, in non-school settings through internships, apprenticeships, field work, or early college courses. Magnet schools will move toward a personalized, student-centric school model in which flexible curriculum, assessments, technology, staff, and space respond to each student's needs and strengths.

Meeting the Needs of Struggling Learners to Increase Student Academic Achievement All of the magnet schools are Title I Schools. In addition, one school (PS 80) has been identified

as a Focus school. There are students in all the magnet schools who are struggling learners. These students will be provided with academic support in English language arts and math that includes Academic Intervention Services (AIS) Academic intervention services (AIS) teams provide support at the school level. Each team consists of educational professionals who determine academic intervention needs of the students in the school, establish targeted means of assessing students, determine methods for dealing with academic problems, and – most important – monitor on an ongoing basis whether these methods are resulting in increased learning and achievement. With the provision of inquiry teams in schools focused on supporting a particular target group of students, AIS content provides valuable intellectual capital to move the work of the inquiry team in addressing individual student needs. Support activities are customized to each school's population. Students who are at greater risk of not meeting promotional criteria receive greater intensity of services. Examples of AIS services include: Super Kids Reading Lead 21, Wilson Fundations, Leveled Literacy Intervention, Voyager Passport, Read Well, Envision Math, TouchMathServices also include interventions in the affective domains that impact academic achievement, such as well counseling, attendance outreach, mediation, conflict resolution, and health counseling.

Meeting the Needs of English Language Learners to Increase Student Academic Achievement. As part of the NYCDOE reforms, the Office of English Language Learners issued *Language Allocation Guidelines: The LAP Handbook for ELL Progra*, as well as a Language Allocation Policy Tool Kit, designed to help educators create coherent and consistent programs for ELLs throughout the school system. It is expected that other priorities—such as sustained professional development, periodic ELL assessments, thoughtful accountability metrics for schools will build capacity and provide the infrastructure required to systemically improve ELL

performance. Magnet project planners understand that they must design programs that will meet the needs of the ELLs at the magnet schools. As school staffs appropriately meet the needs of ELLs, they will also ensure that they are placed appropriately in general education, transitional bilingual, dual language or ESL classes. ELLs will work with their peers in heterogeneous groups and classes, engaged in cooperative learning projects that tap their strengths and support learning in areas of need.

Meeting the Needs of Special Education Students to Increase Student Academic Achievement There are 293 special education students among the total 1,622 students (18.1%) at the magnet schools who will participate fully in the magnet programs. Beginning in the 2012-2013 school year, the NYC DOE is implementing its Special Education Reform, a set of policy changes intended to: (1) ensure that students with Individualized Education Programs (IEPs) enroll in their zoned school or a school of their choice; (2) hold schools and students with disabilities accountable for standards-based goals that reflect the Common Core standards and long-term educational outcomes; (3) leverage the full continuum of services and curricular, instructional and scheduling flexibility needed to meet the diverse needs of students with disabilities; and (4) align school accountability measures, funding formulas and enrollment policies and practices with these principles. The magnet schools will provide students identified as having learning disabilities with mandated services, differentiating instruction to help them achieve at the same level as peers without disabilities. Teachers will develop flexible curriculum goals, materials, methods, and assessments that meet the needs of diverse leaners, particularly those with disabilities. All magnet schools will provide the supports and services (e.g., assistive technology devices) that will enable them to meet the challenge "to excel within the general education curriculum based on the Common Core Standards" (McNulty & Gloeckler, 2011, p. 4). Within a context of

inclusion and high expectations, the magnet program will use such strategies in STEM and other content areas as: real-life examples that connect student's experience to new science or math content (Steele, 2008); systematic and explicit instruction in math in which teachers guide students through a structured instructional sequence so that they learn to apply strategies and master concepts (Steedly et al, 2008); opportunities to work with visual representations of mathematical ideas (Gersten et al, 2009); and connecting new science content to peer collaboration, which can help students improve problem-solving and other skills (Ncube, 2011). Magnet program resources, as well as those provided by New York City's Office of Special Education Services and New York State's Office of Vocational and Educational Services for Individuals with Disabilities (VESID), will enable each magnet school to provide in all subjects instruction that has been shown to be effective with children of different abilities.

Descriptions of each magnet school's theme are presented below. **It must be noted that there will be after school extended learning theme-related activities for students in each magnet school**

PS 80: The Magnet School of Multimedia and Communication – Grades K – 5

Magnet Theme Description: The Magnet School of Multimedia and Communication is built upon **Paideia's** Three Columns of Instruction**:** *Didactic Instruction* – the delivery of factual information; *Intellectual Coaching* – guidance through modeling and questioning; and *Paideia Seminar* – collaborative, intellectual dialogue facilitated by open-ended questions to expand students' understanding of ideas, concepts and values. The Paideia framework will be enhanced through the blending of compatible approaches to broaden and strengthen the school's instructional program. The first is NEA's 4 C's – **C**ritical and Analytical Thinking, **C**ommunication,

Collaboration and **C**reativity; the second is the **Engineering Design Model** – Ask, Imagine, Plan, Create and Improve. Using this expanded framework, magnet-theme classroom instruction will provide students with the skills necessary to form viable arguments, clearly articulate opinions and ideas and challenge themselves to think outside the box. Project planners have selected a residency with the **New York Historical Society** for K-3. Students will explore New York communities and laws that helped to shape them, reviewing primary and secondary documents. They will engage in discussions on the critical events of the era. Students in grades four and five will take a Debate Class. Fifth graders will participate in the Junior Debate Competition. The program will hone their skills in speaking, researching, reasoning and communicating to produce productive, committed citizens of the future. In a *World Language* unit for grade four, students will read job/career advertisements and then match the career and job title to them. Students, working in teams, will investigate different careers and identify those that are in high demand in their specific area. They will develop a theory as to why they believe this is a critical job in that area and give two-minute speeches sharing their findings. Through this multifaceted approach, students at the Magnet School of Multimedia and Communication will know how to: clearly communicate their solutions using three different social media; interpret, analyze and decipher information from multiple sources; develop opinions based upon research and defend their opinions with facts; self-reflect to continually improve their process; and convince others through formal/informal debates/discussions.

STEM Connections: The magnet program revolves around a project-based curriculum with the **Engineering Design Model** infused into all units and daily lesson plans, challenging students to ask, imagine, plan, create and improve so that they can find solutions to issues and problems. This process coupled with the critical thinking, communication, collaboration and creativity

components will create students who will construct viable arguments and critique the reasoning of others and are empowered to create change as they communicate their solutions to others. Technology will be infused into the delivery of everyday classroom instruction. For example, as part of their ASKing in a unit, they will Skype or FaceTime with people from around the world or, as part of the CREATION, they will produce a webinar to inform others about relevant changes. They will use technology, including the Internet, to produce and publish writing, evaluate the advantages and disadvantages of using different media to present a topic or idea and integrate multiple sources of information presented in diverse formats and media in order to make informed decisions and solve problems. Students and staff will use magnet-funded video flip cameras to demonstrate processes, present cases for problem-solving, interview experts/guests, create documentaries based on research projects, develop visual portfolios and capture group discussions/debates. A grade four thematic science/communication unit on *Electricity and Magnetism* will ASK students the essential question "How does change move us forward to a sustainable future?" Students will be tasked with going back in time to persuade Ben Franklin to create more efficient sources of energy. To do so, they will need to use their research skills to imagine alternate natural resources for energy. Using their communication skills, the students will have to PLAN the steps they will need to take, using their 21st century skills CREATE the presentation and then in a culminating essay reflect on the process and essential question as they IMPROVE their plan. STEM learning will be further enhanced through **Engineering is Elementary**. The program's storybooks introduce students to an engineering problem facing children from a variety of cultures and backgrounds. They are challenged to work in teams to solve a problem similar to the one in the storybook. To accomplish this, they apply their knowledge of science and mathematics, use their inquiry and problem-solving skills and tap their creativity as

they design, create and improve possible solutions. Experience with cross-curricular activities in different engineering fields – mechanical, materials, environmental, acoustical, green and optical – will link STEM units to core content areas and the magnet theme. Students on all grades will take classes on **LEGO Robotics** from the **LEGO Education Academy.** These sessions will provide students with the tools they need to excel in the world of tomorrow. Their teachers will act as facilitators, encouraging them to take a more active role in their own learning.

Collaborations/Partnerships: The Magnet School of Multimedia and Communication will partner with an array of organizations to support their focus on the Paideia philosophy and instruction and the 4 C's – Critical and Analytical Thinking, Communication, Collaboration and Creativity. Staff members will work with the **National Paideia Foundation, Engineering is Elementary, Pearson Foundation, New York Historical Society, New York Hall of Science, Young Debaters, Queens District Attorney's Office and the Museum of Modern Art.**

Professional Development: Professional development at the Magnet School for Media and Communication will engage staff in deepening their understanding and implementation of the 4 C's into everyday instruction. In their professional learning communities, they will work collaboratively to improve classroom practices. Staff members will attend the **University of Delaware's** workshops on *Problem-Based Learning, Transforming Student Learning through Collaboration* and *From Ideas to Solution through Communication*. The **LEGO Education Academy** will enable teachers to engage students in hands-on technology experiments that focus on science, mathematics, social studies and language concepts. New units and lessons will involve students in creating structures to finish a task, explaining their product and, using a rubric, assessing their success in completing the required task. The **New York Hall of Science** sessions will ensure that teachers feel more confident, competent and comfortable with the process of STEM teaching and

learning. They will work with magnet staff to provide support in infusing STEM across the content areas and will supply portable labs to ensure hands-on experiences. Students' experience with Engineering is Elementary will be strengthened by the training their teachers experience as part of the program. Their understanding of engineering concepts and pedagogy will be enhanced through focused professional development. Teachers' guides will include lesson instructions, tips from teachers who are already implementing the program and suggestions for leading thought-provoking class discussions. **Teq** will provide professional development on: using data; differentiating instruction; expanding learning opportunities; learning with the iPad; visual learning for all students; and STEM implementations. At the same time, the National Paideia Center staff coaches will work with classroom teachers to strengthen their implementation of the Socratic Method. This ongoing professional development will help staff merge the new magnet approaches that are compatible with their Paideia philosophy and its columns of instruction. Experts from all of these organizations will work closely with MSAP staff and classroom teachers to strengthen instruction and raise student achievement.

PS 160: Magnet School of the Arts - Grades Pre K – 6

Magnet Theme Description: At **the Magnet School of the Arts** all students will be engaged in a diverse set of experiences in the arts. Students will create and conduct their own investigations, analyze data and draw conclusions. Culminating activities will mirror productions in theater, dance, architecture, engineering and music. Ongoing relationships with skilled artists and musicians will enable students to become artistic and independent critical thinkers. The magnet program, through collaborations with organizations such as the **American Orff-Schulwerk Association**, **Turtle Bay Music School**, **Young Audiences New York** and **Alvin Ailey's Arts in Ed-**

ucation and Community Programs, will tap the rich resources in New York City to bring in-depth experiences that are not available elsewhere. Arts instruction at the Magnet School of the Arts will be delivered through discrete classes conducted by musicians, dancers and licensed teachers who are specialists in the theme-related areas. At the same time, the arts will be integrated into thematic units across the content areas. For example, grade 4 students will participate in a **Young Audiences New York** residency: Compose Yourself – Jason Kau Hwang. Students will learn to create music through both improvisation and compositional notation. In the process, they will learn about sound production, page, timbre, rhythm, antiphony, shape and space. A *Kindergarten Social Studies Unit on Community* will engage children in identifying a school/community problem, reading about problems children face, researching how to get assistance, role-playing the process and evaluating their understandings through a podcast. In a second grade interdisciplinary unit on *NYC Overtime, Forces and Motion and ELA Nonfiction*, students will investigate how to develop a more environmentally friendly transportation system for the 21st century. They will read about how transportation evolved to its current state, study relevant forces to imagine a better system and work as civil engineers to develop and present their new plan. Using a game show format, **Arithmetickles** will challenge students to explore and resolve math problems creatively. Presentations will combine comedy, mime and theatrical skills to stress the relevance of math in everyday life. They integrate the magnet theme into mathematics instruction geared for grades K-3 and 4-5, clearly aligning it with grade appropriate concepts and activities.

STEM connection: STEM instruction will be infused across the theme-related and core content areas using a hands-on, inquiry-based approach. Students will be well equipped to observe and ask questions, plan, create and conduct their own investigations, analyze data to draw conclu-

sions and communicate their findings to others. In order to motivate and sustain students' interest in active learning in their classrooms and their state-of-the-art dance and music rooms, the constructivist **5 E's Learning Cycle Model** and its phases (**E**ngagement, **E**xploration, **E**xplanation, **E**laboration and **E**valuation) will be combined with the compatible **Engineering Design Model** (ask, imagine, plan, create and Improve) to form the holistic framework for their inquiry approach. The school will work with the ***Engineering is Elementary*® Project** (EiE), which fosters engineering and technological literacy among children. This research-based, standards-driven, and classroom-tested curriculum integrates engineering and technology concepts and skills with elementary science topics and is in consonance with the magnet school's approach to instruction through the arts. Lessons will not only promote K-5 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies. EiE will NOT be an independent curriculum, but will become an integral part of their interdisciplinary program. Through these models, instruction will cross disciplinary boundaries, preparing students for the challenges in the knowledge-based, innovation-driven economy of today and the future. Through the school's magnet program, they will leverage their current understandings to learn the practices, concepts and ideas they will need to be productive citizens. Students will be involved in recording their activities using video flip cameras and iPad still photo and video capabilities. The flexible nature of these lightweight handheld devices will make it possible for participants in the program to: record dramatizations of scenarios in social studies or language arts; create virtual galleries of student art work; practice and assess student presentations; and preserve interviews with artists and experts in varied fields.

Collaborations/Partnerships: The broader New York City community has many organizations that can provide significant support for the Magnet School for the Arts. As part of the program

planning process, the planning team has identified the following groups to enhance their study of the arts: The **American Orff-Schulwerk Association** bases its program on things children like to do: sing, chant rhymes, clap, dance and keep a beat on anything near at hand. Their program progresses the way children acquire language - learning music first by hearing it and making music by reading it and then, later on, by writing it. The **Turtle Bay Music School** staff will focus on the early childhood grades, teaching young students to play the violin using the Suzuki method. It will offer magnet school staff opportunities to share their knowledge and musical skills in keeping with the school's community service mission. A **Midori Instrumental Program** residency will extend opportunities for students to play instruments to grades three through five. **Young Audiences New York** will offer arts residencies to meet students' interests. Planners have already selected *Tales from a Magic Lantern*, a how-to course on storytelling using folk tales. Students will predict, ask questions about the story and/or share personal connections to the story. In *City of Neighborhoods*, community members will be invited to extend the classroom into the community and apply design education to a neighborhood context. **Roundabout Theatre**'s program will connect the process of theatre production to project-based learning objectives and standards. Theatrical script analysis techniques will help students approach new subject-specific texts, develop close reading skills, identify author's purpose, make inferences, and provide evidence. These techniques will enable them to improve their writing skills, focusing on the transition from skillful reading to skillful writing, as is emphasized in the Common Core Standards.

Professional Development: Artists-in-residence/specialists from partner organizations will provide arts-related workshops and lectures on: creative music and dance movement – **Alvin Ailey's Dancewave Arts in Education and Community Programs**; playing instruments such as the

xylophone and glockenspiel – **American Orff-Schulwerk Association**; playing the violin using the Suzuki method of instruction – **Turtle Bay Residency Program**; writing stories and turning them into dramatic presentations – **Change for Kids***;* playing instruments – **Midori and Friends;** and a variety of magnet theme-related topics – **Jamaica Arts Center**. The **Inspirational Arts Retreats** will help to inspire staff members as they experience the creative process and learn new ways to integrate the arts into the work they do with students every day. Their three-day August retreat will energize and motivate staff for the upcoming year. Cross-curricular STEM professional development will strengthen the staff's ability to integrate the **Engineering Design** and the **5 E's Models** into their rigorous magnet program. In-depth sessions on the research-based, standards-driven, classroom-tested **Engineering is Elementary (EiE) Project** will enable teachers to build engineering and technological literacy in their students and themselves. EiE lessons will include STEM learning approaches infused across the content areas.

P.S. 354 The STEM Institute of Queens- PreK – 3 (Project Year 1), PreK – 4 (Project Year 2), PreK – 5 (Project Year 3)

Magnet Theme Description: With exposure to an innovative, hands-on engineering curriculum, students will work on projects that allow them to design and build, putting into practice their math, science, reading, and communication skills. The STEM program will include **Engineering is Elementary** (EiE), and **Lego WeDo Robotics**. EiE, one of the first engineering curricula in the U.S. designed for grades K-5, was developed by the Boston Museum of Science's National Center for Technological 7 Literacy® (NCTL). It incorporates engineering and science inquiry along with literacy. **Lego WeDo Robotics** is a cross-curricular series of theme-based activities. Students solve problems by building curricular integrated objects using Lego bricks and adding

movement with drag-and-drop software. Technology use and integration will be extensive at the STEM Institute and will include web-based reading enrichment programs- **Imagine Learning and Destination Reading; Learning.com** membership with **Aha!Math and Aha!Science curriculum**, individualized learning programs; subscriptions to **Rosetta Stone, Discovery and BrainPOP**; virtual online learning opportunities through **New York Hall of Science** and **Liberty Science Center; and RenzulliiLearning online. David Packard Center** will create long-term opportunities for students to study and learn advanced content in all areas of the STEM curricula. Students will work to find solutions to real-world challenges through problem-based learning using the Museum of the Moving Image, American Museum of Natural History, Queens Museum of Art, Metropolitan Museum of Art, Brooklyn Botanic Garden, Queens Zoo and WCS/Bronx Zoo as research sites – all long term partners with the school that will participate at no cost to the project.

STEM classes will be interdisciplinary and inquiry-based and will provide extensive opportunities for Project-Based Learning (PBL). Teachers will also integrate STEM with core area subjects: in Language Arts, through extensive use in grades K-2 of non-fiction, leveled texts that include science, math and engineering topics and in grades 3-5 of reading strategies to extend student learning and mastery of science and engineering, as well as non-fiction texts and reading in the content areas; Science and social studies will be taught around the answering of essential questions through research and project-based inquiry. An example of a **PBL project** is *How do machines make our lives easier?* In this PBL unit, students will learn the concepts of force and motion while they analyze, design, and build simple machines. Their design challenge will be to build a simple machine that will perform a task more efficiently than humans do. For the project, they will need to collect data to verify that the machine is more efficient at the task than a hu-

man. They will also need to analyze the usefulness of the machine, and present their findings in a written or multimedia document. Before and during their project planning, designing, prototyping, building, and testing phases students will participate in a variety of activities. They will experience the Engineering is Elementary unit *Marvelous Machines: Making Work Easier.* They will experiment with simple machines based on the principles of levers, inclined planes, wheels and axles, pulleys, screws, and wedges and undertake a scavenger hunt to find simple machines in the school environment (e.g., clothespins, pulleys to move classroom shades, staple removers, scissors, wheelchair ramp, playground equipment). They will read age-appropriate non-fiction texts about tools and machines. They will also create machines with Lego WeDo kits and related activities.

Professional Development: Teachers will learn how to use **Engineering is Elementary®** to promote K-12 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies. The **LEGO® Education Academy** will provide professional development programs for WeDo Robotics cross-curricular, theme-based activities designed to enable teachers to better facilitate, rather than direct, student learning by encouraging students to take a more active role in the learning process. **The LAMP,** a non-profit organization working to reform and improve media through hands-on education., will offer professional development workshops for teachers in how to implement media literacy components into their classroom. **AUSSIE** professionals will provide professional development in regards to instruction and the incorporation of technology.

(c)(2)(iii) The Secretary determines the extent to which each magnet school for which funding is sought will carry out a high-quality education program that will encourage greater parental decision-making and involvement.

All magnet schools will provide parents with the type of information that will support them in making decisions related to their children's education and to the larger school community and in participating fully in the life of their child's school. Based on the demographics of each school community, oral and written translations will be provided in the appropriate languages.

Each magnet school will support parent decision-making and involvement through a variety of mechanisms. A full-time parent coordinator at each school will play a critical role in facilitating this process. All schools support the activities of the PTA, including monthly PTA meetings, and provide space and time for PTA events. A School Leadership Team (SLT) at each magnet school, with membership by the PTA president and other parents, assesses school needs, develops the annual Comprehensive Educational Plan, and engages in other leadership functions. The magnet schools will solicit input from parents on the School Leadership Team into the process of school review and improvement. The parent coordinator will conduct an annual survey, compiled by parent leaders, on the effectiveness of the Parent Involvement Plan as well as the effectiveness of the school's Recruitment Plan. The survey will be translated into the languages appropriate to each school site and distributed to all parents. A written survey will also be available on the school web site. Parents will also receive phone calls in their home languages to attend a special PTA meeting to discuss and evaluate the Parent Involvement Policy and the school's Recruitment Plan. Parents who are not able to attend the meeting will be encouraged to phone or email the Parent Coordinator to express their opinions.

In addition, the magnet program, in concert with other school and district resources, will build parent/family capacity by providing information and resources in parenting skills, educational achievement in students, and the opportunity to enhance their own academic/personal development by offering adult continuing education courses, workshops facilitated by community-based organizations and local agencies, preferably in their native language whenever possible. They will also provide technical assistance about systems available that provide information on school performance, such as the School Report Card and the Parent Portal as part of the New York City Department of Education website.

At the beginning of the magnet programs' first year and in the fall of each subsequent year, each school will offer a parent orientation on the overall magnet program, its theme(s), and special instructional or other initiatives. The individual magnet schools will continue existing—and develop new—programs and strategies for enhancing parental decision-making and involvement, at no cost to the project. Schools will offer workshops facilitated by each school's parent coordinator for regular education, special education, and ELL parents on NYS assessments in all targeted subject areas, grade-level promotion and graduation requirements, attendance issues, accessing homework help and test preparation, and other topics.

The magnet program parental involvement strategies at each school will build on and expand existing programs (at no cost to the project). The following are examples. PS 80: The parent coordinator and the guidance counselor sponsor a Parent Book Club. The school hosts monthly parent-workshops on such topics as how to effectively communicate with your child and engaging your students in a family book club. The PTA hosts an annual parent symposium that focuses on curriculum and ways to support their children. Building on these successful parent activities, PS 80 plans to conduct webinars to keep parents informed about magnet activities.

The school, with the support of MSAP staff, will create teacher tube videos that display teachers' engaging magnet theme activities. At no cost to the project, school staff working with the school's parent coordinator, will conduct workshops for parents about the types of technology their children are using in school and have access to at home. Parents will also receive information about technology and websites they can access at home to improve their children's academic achievement, including websites that support Common Core standards, STEM, and project based learning. In parent/child workshops, parents will work with their children to create math games and learn strategies to incorporate math into their daily family schedule. Finally, at no cost to the project, the school will sponsor family fun days featuring LEGO and STEM, LEGO Expo, technology and the family, and science workshops (Mud pie and more Mud pies).

PS 160: At no cost to the project, PS 160 will expand its existing parent activities to include monthly museum and arts center trips to, as examples, the Roundabout Theater, Jamaica Center for the Arts; set design classes and workshops on the Suzuki method of instruction.

PS 354: PS 354 has a broad array of programs and activities for parents to become more actively engaged in the school community. The school offers six monthly workshops including town hall meetings, curriculum chats, and the "Parent Coordinator Coffee Corner." In addition, parents receive a monthly newsletter informing them of what to expect in their child's current and future units of study, as well as provide tips and advice as to how to help their child at home. Parents are also invited into the school for a monthly movie night. By becoming a magnet school, these programs will be expanded, at no cost to the project, by educating parents about the new STEM coursework and new technology that their child will be working with. The school will offer increased electronic communication between school and home by keeping an updated website and blog and providing more correspondence via email. Additional workshops will be

held in order to educate parents on these multimedia programs. Parents will be invited to the school for technology fairs and other student work showcases.

In order to involve parents who may not currently be involved or those who do not live near the school, PS 354 will work to accommodate them to meet their needs. The school will administer a survey, both a paper and online version, to identify the needs of these parents. School staff will utilize Skype, Facetime, and Google+ Hangouts. PS 354 also recognizes the importance of educating parents who may not be able to attend workshops. Therefore, videos of workshops will be available online, along with tip sheets and activities to use at home.

(d) (1) The Secretary reviews each application to determine the adequacy of the resources and the cost-effectiveness of the budget for the project, including the adequacy of the facilities that the applicant plans to use

Facilities: District 28 is fortunate to have ample and well-maintained facilities at each of the proposed magnet school sites. Moreover, **all the magnet schools are underused and they all have excess capacity to accept students from outside their attendance zones.** Specifically, PS 80 has a building capacity of 679 students. Its current enrollment is 580 students. Thus, its utilization rate is 85.4%. PS 160 has a building capacity of 801 students. Its current enrollment is 676 students. Thus, its utilization rate is 84.3%. PS 354 has a building capacity of 618. Its current enrollment is 355 students. Thus, its utilization rate is 57.4%. Note that PS 354 currently has grades PreK-3 and will be phasing in grade 4 in project year one and grade 5 in project year two. However, even with these projected expansions, at a utilization rate of less than 60%, PS 354 has enough space to accept students from outside the school's zone.

All of the proposed magnet school sites provide safe and attractive learning environments. Each school also has adequate space available to accommodate potential student enrollment increases resulting from the magnet schools program. Each school has a gym; auditorium; library; cafeteria; art room; music room; science room; computer room; and storage facilities All of the proposed magnet schools are accessible for the physically challenged.

District 28 will conduct minor remodeling of project sites in order to accommodate the requirements of each theme, i.e., the rewiring of classrooms, the combining of classrooms, where necessary, **all at no cost to the project**.

(d)(2) The Secretary reviews each application to determine the adequacy of the resources and the cost-effectiveness of the budget for the project, including the adequacy of the equipment and supplies that the applicant plans to use

The proposed magnet program will have available to it the extensive inventory of equipment and supplies at each proposed magnet school, **all at no cost to the project.** This includes schools' audio-visual equipment, televisions, textbooks, libraries, reference books, maps, globes, science labs, copy machines, general instructional supplies, etc. In addition, each school is wired to the Internet. The schools' inventory of computers will be available for magnet school use, although MSAP funds will also be requested to purchase more sophisticated technology which directly relates to a school's thematic curriculum. District 28 is requesting equipment and supplies that will be used to support the specialized magnet theme in each school. Examples include the following: PS 80 (Multimedia and Communications/STEM theme): court room materials, science lab materials, iPads, laptops; PS 160 (Arts/STEM theme): musical instruments, science lab materials, math STEM materials such as Arithmetickles, EiE kits, dance/music studio equipment,

art supplies; PS 354 (STEM theme): EiE materials, science lab materials, discovery education materials, enVision math materials, Apple iPad learning lab, Promethean ActivTable. An itemized list is included in budget narrative. **In summary,** District 28 assures that the equipment and supplies requested for each proposed magnet site are over and above those received from general school funds and are necessary to help students reach each project site's instructional goals.

(d) (3) The Secretary reviews each application to determine the adequacy of the resources and the cost-effectiveness of the budget for the project, including the adequacy and reasonableness of the budget for the project in relation to the objectives of the project.

The budget for the proposed magnet schools is adequate and reasonable in relation to the objectives of the project. An explanation of specific budget items that have been requested follows. **a. Personnel** Project Director Full Time :The magnet director will manage all aspects of the MSAP project. Magnet Resource Specialists Full Time: The magnet resource specialists will facilitate instruction at magnet schools, as described in section (b) Quality of Personnel. Hourly Teachers: Hourly teachers will teach in extended day programs. Hourly teachers are also requested in the three magnet schools to develop specialized curriculum at each magnet school during the school year and in the summer and for staff development during the school year. Substitute Teacher Services: Substitute teachers will be used to provide released time for classroom teachers for in-school staff development during the regular school year and day. Hourly Secretary to perform mailing, typing, word processing, duplicating, and other duties associated with program implementation. Project STEM Planner Full Time: The project STEM planner will assist the schools in their intensive STEM implementation as described in the Quality of Personnel section. Project Recruiter Full Time: The project recruiter will coordinate a comprehensive out-

reach program to the entire community for the target schools. **b. Fringe Benefits** Fringe benefits are a contractual obligation. **c. Travel** Funds are requested for the magnet director and key personnel to attend magnet conferences sponsored by Magnet Schools of America and the US Department of Education.**d. Equipment** Each item in the equipment requested is essential to successfully carry out the magnet program at each school. An itemized list of the requested equipment is attached to the line item budget.**e. Supplies** Each item in the requested supplies is essential to fully carry out the magnet schools program at each school. An itemized list of supplies is attached to the line budget.**f. Contractual** Funds have been requested for an evaluation contractor to conduct an independent evaluation of the project, as well as partners to provide PD and other services related to the theme. **g. Construction** No funds have been requested. **h. Other** Funds have been requested for: student admissions to educational activities to enable students to continue their studies at collaborative organization facilities; television and print advertising; telephone costs; and postage; and opening fees to keep schools open for the extended school day and school year program (before and after school).

Each year, approximately 2,128 school supervisors, teachers, students and parents will be served by the project for a cost of **$1,334** per participant per year. The budget is reasonable in relation to the number of participants who will be served, expanded capacity to provide public school choice for students, the far-reaching systemic reform initiatives that will be implemented in curriculum and instructional practices aligned with rigorous Common Core and state standards, and the desegregation activities that will be carried out. The above budget is adequate and reasonable in relation to the objectives of the project. **Moreover, District 28 will provide over $9 million in annual in-kind contributions, a substantial commitment.**

(e) The Secretary determines the *extent* to which the evaluation plan… (1) Includes methods that are appropriate to the project; (2) Will determine how successful the project is in meeting its intended outcomes …;and (3) Includes methods that are objective and that will produce data that are quantifiable

This evaluation, spanning the three years of this project, will assist school staffs and district personnel to modify and improve project performance and produce information needed by the United States Department of Education to properly evaluate project effectiveness.

Data Collection: This evaluation will draw on a wide variety of data to provide substance and context for both formative and summative reports. Quantitative, extant data (e.g. enrollment information, standardized test results) will be used in conjunction with questionnaire, interview and observation data, as well with qualitative data (e.g. comprehensive education plans, curriculum materials, professional development records) to ensure a thorough and balanced evaluation.

The contractor will develop a complete set of data collection instruments (including surveys, document requests, and walkthrough, observation and interview protocols) designed to provide sufficient information to address objectives and performance measures and supplement extant data. However, **extant data will be used whenever possible** to lessen the burden on school based and project staff. The data to be collected will include: **Student achievement, demographic, enrollment and other data:** The contractor will collect standardized test score data (e.g., school and grade level reading, mathematics, and science data) needed to address performance measures related to student academic achievement. Enrollment data disaggregated by race/ethnicity collected by the districts will indicate the extent to which each school and the project succeeds in meeting desegregation related performance measures including reducing minori-

ty group isolation. Applicant pool, student selection and student enrollment data will help explain the extent to which the reduction in minority group isolation performance measures were attained and help determine how performance in this area can be improved.

Document requests: The contractor will request documentation from magnet school teachers and MSAP staff to help determine the quality and extent of MSAP implementation. Examples include: ► **descriptions of and dosage** (amount of program delivered) **for** units and courses that present the magnet theme to students; and student recruitment, teacher professional development, parent involvement and planning activities (including an implementation plan); ► **schedules** of school based magnet staff; ► Comprehensive Education plans; **Observation and interview data** will be collected, during three annual visits to each magnet school, by trained evaluators with extensive experience as magnet school practitioners. During each visit, the visitor will conduct a walkthrough, observe lessons, and interview teachers, administrators, students and parents.

Surveys will be administered annually to all magnet school teachers, a sample of magnet school students and teachers and students at comparison schools. Drawing on its twenty year history of MSAP and regular and rigorous evaluations, American Education Solutions has developed survey items and scales with its survey consultant, Dr. David Silver, a senior researcher at U.C.L.A.'s CRESST Center, and currently, Dr. Jia Wang, a senior researcher at CRESST. *These survey items are directly related to the purposes of the MSAP and the objectives and performance measures of this proposal*. Validated survey items and scales measure constructs including school climate, instructional leadership, professional development hours (formal, collaborative and coaching) and effectiveness, student engagement and motivation, student academic commitment and expectations, student and teacher perceptions of intergroup relations and magnet theme implementation, standards based instruction and systemic reform implementation and

parent involvement as well as magnet and professional development dosage.

Formative Evaluation and Reporting: The evaluation contractor will aid in the continual improvement of the project through formative evaluation, an examination of implementation that returns information to project, school and district staff to help them improve program performance. Formative evaluation includes the study of program fidelity (the degree to which a program is implemented as designed) and reach (the proportion of the target group that participates). Components of fidelity include: ► adherence – the degree to which the program adheres to its goals, plans, activities, timeline; ► dosage – the amount of program delivered; ► quality – the quality of program activities and services; ► responsiveness of participants to program activities; ► program differentiation – unique features when compared to non-magnets.

Formative Evaluation Reporting: Data will be collected, as available, and analyzed and recommendations discussed with the project director and school staff throughout the year. **Five formative evaluation reports** will be written by evaluators each school year:

Reduction of Minority Group Isolation (MGI) Report: Demographic and enrollment data will be compared with applicant pool, student selection and other data from the previous school year and with performance measures. By November, discussions related to the attainment or partial attainment of performance measures related to the reduction of MGI will help the districts and magnet schools modify recruitment strategies and activities to attain better results. (Were MGI outcome targets attained? Was MGI reduced? By how much? Why?)

This report is updated in late spring when new applicant pool and student selection data is analyzed and compared with school enrollment data to determine the success of these activities and create plans of action to improve results, if necessary. Measures of fidelity include adherence to the implementation plan, recruitment plans and student selection criteria and procedures;

and dosage, the "amount" of recruitment. Quality and responsiveness will be determined by changes in school enrollments, especially for entry grades, and the size and diversity of applicant pools. Differentiation will examine if unique program features were implemented and adequately described to the target audience. This report not only informs the district about its successes in meeting desegregation performance measures (1.1-1.4) but also explores reasons for progress or lack of sufficient progress and possible remedies.

Site Visit Reports: Site visits, described above, are opportunities to feed back data related to the development and implementation of the magnet theme. After each of three annual site visits, a report will be written by the site visitor and submitted within ten days. It will summarize the findings of the visit and include recommendations for improvement. Site visitors will discuss recommendations with school and MSAP staff during each visit. **Documentation Reviews,** included in all three site visit reports, will summarize descriptive and quantitative data related to magnet curricula, systemic reforms, parent activities and professional development, and report on: adherence (e.g., activities implemented on schedule), dosage (e.g., the amount of time students, teachers and parents are exposed to grant activities such as magnet units and courses, professional development and parent activities), quality (e.g., peer reviews of magnet related units and courses). The combined site visit report/documentation review summarizes how much progress has been made towards attaining performance measures especially those related to magnet theme and systemic reform implementation (2.1, 3.1), professional development (5.2) and fidelity of implementation. The reports, distributed to and discussed with school staff three times each year, helps them to understand if they are on track to attain the intended outcomes of the project, including performance measures and if not, why and how the project activities can be improved.

Survey Reports will include item by item results for each school, summaries of survey construct results for each school, and, for years two and three, comparisons between current and the previous year's results. Trends (e.g., relationship between magnet implementation and student engagement and motivation, between professional development dosage and impact) are explored.

Summative Evaluation and Reporting: The evaluation contractor will determine the extent to which annual objectives and performance measures are attained. Data sources were described above. The evaluation contractor will collect and analyze the data, prepare two annual performance reports and one final report summarizing findings, and discuss the results with district and magnet school staffs. The following section summarizes the means through which evaluators will assess the attainment of performance measures (PM) which are listed the *Plan of Operations* section of this application and summarized below**:**

PM 1.1-1.3 Reduction of minority group isolation (MGI) at each magnet school meets annual targets. **PM 1.4** Each magnet school will receive at least 65 applications

Assessment: School enrollment data, disaggregated by race/ethnicity will be used to determine the degree of attainment of 1.1-1.3. Applicant pool and student selection data will be used to determine if 1.4 was attained and explore how performance can be improved for all measures.

PM 2.1: Each Comprehensive Education Plan will include activities and objectives supporting the adoption of high standards for all students and systemic reforms coordinated with MSAP activities. **Assessment:** Success will be determined through inspection of each school's plan. Implementation success will be measured by performance measure 3.1.

PM 3.1: All magnet school students will receive magnet theme instruction coordinated with systemic reforms for at least 3 (year 1), 6 (year 2) and 10 (year 3) hours per week.

Assessment: Success will be determined through unit plan analysis and confirmed with surveys,

interviews, and walkthroughs. Units and lessons will be peer reviewed to determine quality. Responsiveness will be determined by surveys which assess student engagement and motivation, academic commitment and expectations, student and teacher perceptions of school climate.

PM 4.1-4.3: At each magnet, the percent of students from major racial and ethnic subgroups who score proficient will increase each year in **4.1** reading. **4.2** mathematics. **4.3-4.5** Each magnet school will make progress in student academic achievement by attaining EAMOs for all groups in reading, math and science by year 3. **Assessment:** All students are tested in the spring of each school year. Data is analyzed by the State Education Department and will be presented in the Annual Performance Reports in tabular form, highlighting the performance targets and how each magnet school – both in aggregate and by subgroups – performed in relation to these targets.

PM 4.6: In each magnet school, 75% of students will master the magnet curriculum. **Assessment:** School and magnet staffs will develop, by the end of year one, methods to assess student mastery of magnet curricula. Project director and evaluator will approve methods.

PM 5: Magnet school teachers will receive 30 hours of professional development related to **5.1:** systemic reforms and **5.2:** 30 hours related to magnet theme development and implementation.

Assessment: **(5.1, 5.2)** Magnet staff will collect professional development data including the type of training, the number of hours provided and the number and names of teachers involved. Quality will be determined through survey analysis and interviews, walkthroughs, etc.

PM 6.1: At least 75% (yr. 1), 85% (yr. 2) and 95% (yr. 3) classes will reflect their grade's enrollment for each racial/ethnic group by ±15 percentage points. **Assessment:** Success will be determined through analysis of class enrollments disaggregated by race/ethnicity and gender. **PM 6.2:** There will be an increase in parent participation at each magnet school each year.

Assessment: Workshop materials, attendance records and parent interviews will determine parent participation and satisfaction.

Annual Evaluation Schedule: ► Initial meeting with project and district staff (Week 1); ► Refine data collection instruments and plan; refine analysis plan; (Weeks 1-3); Collect data (Throughout year): Enrollment data (Week 5); Site visits including interviews and observations (Weeks 10, 22, 34); applicant pool data (Week 28); Dosage data (ongoing); Surveys administered (Week 34); Survey results reported (Week 38); Documents collected (e.g. units integrated with magnet theme - Weeks 9, 21, 33); ► Formative evaluation including discussion of recommendations (Weeks 3-40); MGI Report (Week 10) MGI/Applicant Pool Update (Week 31); Site Visit-Document Review Reports (Weeks 12, 24, 36); ► Analyze and process summative data (Weeks 34-36); ► Prepare Annual Performance Report (Weeks 36-37); ► Submit report to school District (Week 38). Week 1 is the week the project begins each year.

(f)(1) The Secretary reviews each application to determine whether the applicant is likely to continue the magnet schools activities after assistance under the regulations is no longer available; (f)(2)(i) The Secretary determines the extent to which the applicant is committed to the magnet schools project.

Funds from the Magnet Schools Assistance Program will allow schools to create innovative instructional programs and standards-aligned curricula that attract a diverse student body, and in turn, promote desegregation. The schools will provide enriched educational experiences for students because of the unique and stimulating programs developed through the magnet schools program. District 28 expects that the momentum and support for the magnet program will grow

with each year, and stand ready to commit district funds and resources to sustain the programs even after the federal funding is no longer available.

District 28 can make this assertion with confidence for or it is an assertion that is rooted in their long-standing commitment to desegregation and further fueled by District 28's commitment to sustain special initiatives. **District 28 has a firmly established history of continuing and institutionalizing previous magnet programs**. **Below are highlights of some of the District 28 actions that underscore both its capacity and will to continue the magnet programs.**

District 28 has one of the strongest records of any district in New York City for promoting, encouraging and supporting desegregation efforts, and has participated in both city-wide and local desegregation initiatives for 40 years. Since 1960, the district has been committed to the real work of desegregating schools, and providing both minority and non minority students with the opportunity to learn from each other, and to learn together. Some examples of its work include: (1) District 28 was an enthusiastic participant in the New York City Board of Education's Open Enrollment Program. Beginning in 1960, many schools in District 28 served at one time or another as a "receiving" school for minority group children under this program; and (2) Over the years, District 28 has taken several actions that have altered the feeder zoning pattern of its minority group isolated schools.

Moreover, District 28 Has Continued to Support Magnet Schools After the Termination of Assistance Under the MSAP. The responsibility of continuing a multi-school, previously-funded magnet school program will not be new to the district. In the case of District 28, its commitment to the magnet program is evidenced by that fact that it has institutionalized magnet programs, with district funds, in MSAP-funded magnet schools whose federal funding concluded. The last MSAP funding District 28 received was the 2004-7 funding cycle. Other MSAP

funding goes back to 1998. Initial MSAP funding enabled the participating schools to develop theme-related curricula which continue to attract more diverse student bodies. The schools continue to offer magnet instructional programs and continue their efforts to reduce minority group isolation, without federal funds.

Institutionalization of other Grants. Other grants District 28 has received over the years, and has institutionalized after the funding ended, include Enhancing Education through Technology (EETT), state funded grants; Teaching American History, US DOE funded grants; Title IIB Math and Science Partnership, state funded grants; and 21st Century Community Learning Center Program, state funded grants.

Capacity Building through Professional Development As discussed in previous sections, District 28 will build its capacity to carry out and/or continue magnet programs through the extensive professional development provided by the MSAP, supported by training provided by the NYC DOE, District 28, Network specialists, institutions of higher education and other partners.

(f)(2)(ii) The Secretary determines the extent to which the applicant has identified other resources to continue support for the magnet school activities when assistance under this program is no longer available.

At the end of magnet funding, District 28 will continue to commit the kind of substantial resources to the magnet initiative that they are currently committing as in-kind contributions. They will facilitate the institutionalization of magnet activities supported under MSAP through multifaceted funding strategies at the district and school levels that involve the following ele-

ments: aggressive program development and grant-seeking activities and expanded collaborations with outside partners.

Sustainability Planning: The project director will coordinate the development, starting early in the project's first year, of a detailed plan for program sustainability that will continue to support each magnet school as an innovative site that features innovative learning. Drawing in part on those in the School Leadership Teams, she will bring together and lead a strong sustainability planning team that contains individuals with decision-making authority and is representative of all internal and external stakeholders (e.g., principals, magnet staff, school staff, parents, the district superintendent, and members of community, education, business, and other groups). Sustainability planning team participation in a multi-step process will support buy-in, within a context in which members are clear from the outset of the team's role and the scope of its work.

The sustainability planning team will begin by assessing both internal factors (e.g., level of district commitment; organization challenges; staff skills) and external factors (e.g., partnerships; community needs) that affect the operation of the magnet project. The team will use a logic model to: (1) prioritize the project strategies and activities they want to sustain (e.g., outreach, marketing, instructional); (2) determine the project's fiscal and other needs; (3) identify the resources available to meet those needs and the remaining resource gaps; and (4) identify those monetary and other resources (e.g., administrative, management) that would best fill the gaps (Hayes, 2012).

The sustainability planning team will then, based on the priorities and resources identified, develop a multi-year sustainability plan. The plan will include: (1) the rationales for sustaining the project; (2) a timeline; (3) specific actions/tasks (e.g., building partnerships; identifying new funding sources; improving use of existing resources); (4) personnel and other planning

resources; (5) clearly defined individual and group responsibilities; and (6) reasonable benchmarks to assess progress. As needed, the team will bring additional partners into the process. The project director will share the plan with relevant personnel from the NYC DOE, including the *Children First* Network that provides support for the District 28 magnet schools. The principal at each school will share the written plan with the School Leadership Team and all other members of the school community, as well as with school partners.

Implementation of the sustainability plan will include regular reviews by the sustainability planning team, so that the plan can be revised to respond to emerging challenges, project successes, and other ongoing developments. The assessment of personnel skills will determine the focus and scope of training designed to enable all school staff to communicate about the magnet project with parents, community members, and other stakeholders

At the end of magnet funding, District 28 will facilitate the institutionalization of MSAP-funded activities through multifaceted strategies that involves: program development that supports sustainability, aggressive grant-seeking, and expanded collaborations with outside partners.

Aggressive Grant-Seeking: District 28 will continue to coordinate grant-seeking efforts with district and Network staff. The magnet director will work with these staff throughout the funded MSAP project to apply to funders who will both enhance magnet activities during the period of MSAP funding and assume program costs at the end of that period. The following are examples of potential funding sources that will enable the districts to continue support for the magnet project. Federal Grants: National Science Foundation; National Endowment of the Arts; National Endowment for the Humanities; National Aeronautical and Space Agency; District Race to the Top; Innovative Approaches to Literacy; Teacher Incentive Fund; Promise Neighborhoods, Investing in Innovation Funds(i3); Elementary and Secondary School Counseling Pro-

grams. New York State Grants: Title I School Improvement Grant; 21st Century Community Learning Centers Program; Bilingual Education Planning Grant; McKinney Vento Grant; Leadership Development for Principals to Create High Quality Programs for Emergent Bilingual Students; School District Management Efficiency Grant; School District Performance Improvement Grant. Business/Association/Foundation Programs: GE Foundation; New York Life Foundation; Verizon; Prudential; Braitmayer; Siemens Foundation; McGraw Hill Companies; National Grid Foundation; Heckscher Foundation for Children; Deutsche Bank Americas Foundation; AOL Time Warner Foundation; The Coca-Cola Foundation: Educational Programs; J.P. Morgan Chase & Co.; Corning Foundation; Bank of America Foundation; AT&T Foundation; I Have a Dream Foundation; Helena Rubinstein Foundation; New York Foundation

Expanded Collaborations: The district's and schools' establishment of collaborations with parents and community partners will build a strong support system for the magnet schools. The proposed magnet schools maintain active Parents Associations, which enlist the support of parents in implementing special events and school-based fundraisers. Districts 28 has forged district- and school-level collaborations with such partners as New York Historical Society, New York Hall of Science, the Museum of Modern Art, American Orff-Schulwerk Association, Young Audiences New York, Jamaica Arts Center, Alvin Ailey's Dancewave Arts in Education and Community Programs, Brooklyn Botanical Gardens, Studio in a School, American Museum of Natural History, Music Theater International, and the like. It will collaborate with these and other partners to seek additional funding for magnet activities.