

**District 13 and 15 Consortium**

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

**Introduction:** Community School Districts 13 and 15 in New York City have formed a consortium to apply for the Magnet Schools Assistance Program (MSAP). **Both Community School Districts 13 and 15 have not received funds under this program in the last fiscal year of the previous funding cycle. Moreover, both school districts have not received MSAP funding since 2004.** The Districts 13/15 Consortium is applying for MSAP funding to establish *new* magnet programs at four schools – PS 15, PS 46, PS 54, and PS 307. **These schools have never received MSAP funding.** By creating attractive magnet schools, the **Interdistrict Consortium provides an opportunity for students to expand their choice options by enabling students to cross district lines** to enroll in magnet schools with special curricula that would not otherwise be available to them.

**Districts 13 and 15 at the Crossroads – Expanding Choice:** The Superintendents of Districts 13 and 15 have recognized that pressures on schools in both districts can be alleviated by the districts working together. The two districts adjoin each other. In District 15 many schools are oversubscribed, creating tensions within the community from vocal, mainly nonminority parents who “can’t get in” their zoned schools. Conversely, many schools in District 13, frequently located within blocks of the District 15 oversubscribed schools, are underutilized. Although the District 13 communities are changing, they include many more minority residents than District 15, resulting in more schools, including the proposed schools, which are minority group isolated. It is because of these experiences that Districts 13 and 15 decided to form an Interdistrict Consortium to address one of the most stubborn problems facing both districts – en-

trenched minority group isolation in many of their schools. Both school districts have had magnet programs in the past and have had some success; however one of the biggest barriers was school district lines. **Both school districts are characterized by distinct and, for the most part, racially identifiable neighborhoods in which the attendance zone schools are located. In many cases, students are “trapped” within their school district boundaries when within blocks of their homes there are schools in another district that they could attend. The Community School Districts 13 and 15 Superintendents found this untenable.** They developed the plan for this proposed magnet program that will open the district boundaries so that the four highly minority group isolated magnet schools, three of which are in District 13, can have a chance to attract a larger pool of nonminority children from schools in its neighboring District 15. In most cases, these District 15 schools are geographically closer than the predominantly nonminority schools in the proposed magnet schools’ own district, District 13.

**Districts 13/15 Cooperative Model – PS 133:** The proposed MSAP project will build on a model project at PS 133. The school, although geographically located in District 13, is only one block from neighboring District 15. The school’s current student enrollment is 39% Hispanic, 34% Black 23% white, and 4% more than one race. In September 2013 the school will be moving to a new location, also on “the border” between the two districts. In an unprecedented collaboration between District 13 and District 15, the school will be jointly administered by the two Superintendents. The purpose of this joint venture is to provide opportunities for students in both districts to attend a school that has a diverse student enrollment, is characterized by rigorous academic instruction, and is based on equity of access and fair allocation of resources of both districts. The school has been planned by the stakeholders in each district (e.g., the district superintendents, the school’s principal and teachers, and each district’s Community Education Coun-

cil), with the support of the NYC Department of Education and the New York Chapter of Appleseed, a nonprofit network of public interest justice centers. Appleseed has conducted research and gathered resources to support parents, school administrators, teachers and community members who aim to open PS 133 as a racially and economically diverse school. After much discussion in the Districts 13 and 15 communities, the school's educational reform initiative will center on new dual-language immersion programs in Spanish and French, the first school in Brooklyn to have these programs in both languages. Thus, **the foundation of the model program at PS 133 is a strong educational program coupled with equity of access. This is also the foundation of the proposed MSAP project.**

**Community School Districts 13 and 15 Background:** District 13 consists of 19 elementary schools, 9 middle schools and 2 high schools. The 2012-2013 school enrollment for the district is 11,200. Approximately 10 percent (9.8%) are white students and 90.2% are minority students (65.0% black; 3.4% Asian; 0.5% American Indian/Alaskan Native; 1.2% Two/More Races; 1.2% Native Hawaiian/Pacific Islander, and 18.9% Hispanic). The 2010 census data for the Community Planning Boards (2 and 3) that represent District 13, indicate that 24.8% of the residents in the communities in which District 13 is located are white. However, even though this is a larger percentage than the school population, the communities are still overwhelmingly minority (75.2%).

According to 2010 census data, there are substantial contrasts in the demographic composition of the Community Planning Boards that represent District 13 (2 and 3) and the Community Planning Boards that represent District 15 (6 and 7). Approximately 59 percent (58.8%) of the residents in the communities in which District 15 is located are minority, contrasted with the District 13 communities (75.2% minority). In addition, District 15 has large numbers of students

who are attending non-public schools (7,897), 60.5% of whom are white (4,775). Further complicating the demographics are the pockets of minority group isolated District 13 communities in which the schools are located.

**PS 46 in District 13:** Proposed magnet school PS 46 is located in the Fort Greene neighborhood in Brooklyn. Known for its tree-lined streets and elegant low-rise buildings, Fort Greene is a dynamic and well-rounded Brooklyn neighborhood. Although still predominantly Black, it now includes a wide variety of races, ethnicities and socioeconomic classes, including a large Black middle and upper-middle class, as it has become more gentrified. Fort Greene has become an affordable alternative for many families to the more affluent, bordering communities of Boerum Hill and Park Slope in School District 15.

PS 46 is located within census tract 185.01 which is comprised of 94.7% minority residents, with 59.1% of those residents identifying themselves as Black, 27.9% Hispanic, 5.2% Asian, 0.6% Other and 1.9% Two or More Races on the 2010 census. According to 2012 data, the student enrollment at PS 46 mirrors the demographics of its immediate surroundings in census tract 185.01, with only 1.2% white students.

**PS 54 in District 13** is located in the Bedford-Stuyvesant neighborhood of Brooklyn in Community Board 3. Toward the end of the 19<sup>th</sup> century, Bedford Stuyvesant was a working and middle class community for those working in downtown Brooklyn and Manhattan. In the 1930's, African Americans began to leave overcrowded Harlem for more housing availability in Bedford-Stuyvesant and, over time, the neighborhood became a cultural center for Brooklyn's Black population. Beginning in the 2000s, the neighborhood began to experience gentrification, as the tree-lined streets and decreasing crime rates appealed to outsiders. As a result, Bedford-Stuyvesant is becoming increasingly economically and ethnically diverse, with an increase of

foreign-born residents. Today, a diverse mix of students, artists, creative professionals, architects and attorneys continue to move to the neighborhood. Further, a major business improvement effort in the area has been under way with redesigned streetscapes to include additional trees, street furniture, pavers, signage and improved cleanliness in an effort to attract more business investment. According to 2010 census data, Brooklyn's Community Board 3 has an estimated total population of 152,985, an increase of 6.3% since the 2000 census. Of the total population, 89.1% of residents are minority, down from 98.6% in the 2000 census, but still primarily minority. School enrollment data for PS 54 mirror the community in which it is located. Over ninety eight percent (98.6%) of students in the school are minority.

**PS 307 in District 13:** PS 307 is located in the Vinegar Hill neighborhood of Community Board 2 in Brooklyn. Vinegar Hill is on the Brooklyn waterfront, sandwiched between the gentrified, affluent Dumbo (Down Under the Manhattan Brooklyn Overpass) community and the old Brooklyn Naval Yard. The neighborhood is a mix of industrial use spaces and residential plots, including pre-war row houses and townhouses that are becoming attractive to families that are getting “priced out” of Dumbo and other neighboring more affluent communities. According to 2010 census data, the estimated total population of Community Board 2 is 99,617, of whom 53.7% are minority. In census tract 21, where PS 307 is located, the area is comprised of 3,604 residents, of whom 72.2% are white and 27.8% are minority. This is an indication of the demographic shifts in the community resulting from fast-paced gentrification. However, according to PS 307 enrollment data, 96.1% of the school population is minority, more than three times the percentage of minority residents in the school's immediate surroundings.

**PS 15 in District 15 :** Proposed magnet school PS 15 is located in the Red Hook neighborhood of Brooklyn in Community Board 6. Like many of Brooklyn's waterfront neighbor-

hoods, Red Hook is tucked along an old industrial area that continues to change in order to fit the needs of the population. Today, the neighborhood is a mixture of light industry and small businesses, many of which are owned by local residents. According to 2010 census data, the estimated total population of Community Board 6 is 104,709, of whom 37.3% are minority. Similarly, in census tract 53, where PS 15 is located, the area is comprised of 1,888 residents, of whom 46.8% are minority. However, according to student enrollment data, 86.2% of the school population is minority, nearly double the percentage of minority residents in the school's immediate surroundings. Thus, for this school, the student enrollment does not mirror the demographics of the community. The school population is much less diverse than the community.

**Feeder Schools:** There are eight feeder schools for the four proposed District 13/15 magnet schools (PS 10, PS 29, PS 39, PS 58, PS 107, PS 154, PS 321 and PS 8). These are schools that have larger proportions of white students and are much more diverse than the proposed magnet schools. The goal is to attract students who would ordinarily attend these schools to voluntarily enroll in the project magnet schools. **All but one of the feeder schools (PS 8) are located in District 15.** The majority of the feeder schools (six of the eight) for the District 13/15 project are located in Community Board 6, a community that is 62.7% white. Each of the feeder schools has a large population of white students in relation to their respective communities, with six of the eight feeder schools having a white student enrollment of 65% or greater. **Simply put, in order to reduce minority group isolation in the four target magnet schools (three of which are in District 13), students from District 15 need to be attracted to attend these schools.** But there are barriers.

**Disparate Student Achievement – Magnet Schools vs Feeder Schools:** There are great disparities between the achievement of students in the proposed magnet schools and potential

feeder schools. The following is **the percent of students who scored at or above proficiency on the NYS ELA exam:**

**Magnet Schools** – PS 15: 53.2%, PS 46: 35.9%; PS 54: 31.4%; PS 307: 27.3%

**Feeder Schools** - PS 8: 80.1%, PS 10: 72.8%; PS 29: 80.5%, PS 39: 82.1%, PS 58: 80.7%, PS 107: 86.5%; PS 154: 81.6%, PS 321: 88.6%,

The disparities in student achievement highlight the work that needs to be done. The leadership of Districts 13 and 15 believe that with the right programs, with demonstrated successes in improving student academic achievement, a more diverse student population within District 15 can be attracted to enroll in the proposed highly minority group isolated magnet schools in District 13, as well as a minority group isolated school within its own district lines (PS 15). The schools in District 13 are located in neighborhoods that are changing. Thus, parents are willing to seriously consider the District 13 schools. However, the schools are struggling and will not be able to attract a more diverse student population and reduce minority group isolation until other barriers, primarily poor academic achievement, are tackled now. The foundation of the interdistrict project is the Districts 13/15 Cooperative Model at PS 133. The MSAP consortium will build on this model to provide more opportunities for students in both districts. But this cannot be accomplished without MSAP funding.

***In summary, there is an unprecedented window of opportunity for students in Districts 13 and 15. The districts are poised to mount a twin assault on desegregating their schools and improving student academic achievement. The two are inextricably linked. The leadership teams in both districts are headed by innovative, forward-thinking Superintendents that have begun an exciting collaboration that they want to expand; the districts have experienced and highly effective staff to implement new instructional strategies to***

**meet the needs of diverse student enrollments; and the districts have community partners to meet the desegregation and school improvement challenge. Now is the most propitious and advantageous time for a full-scale, successful Magnet Schools Assistance Program for Districts 13 and 15.**

**Costs of Implementing the Magnet Schools Program as Proposed:** Districts 13 and 15 propose to implement a magnet schools program at four schools: PS 15, PS 46, PS 54, and PS 307. The cost of implementing the magnet schools project as proposed far exceeds the district's resources. New York City school districts are operating under severe economic conditions. **The costs of implementing the proposed magnet schools project are far beyond that which can be provided by the districts. The difficulty of financing educational programs is exacerbated by the tremendous inequities that Districts 13 and 15 face in respect to state aid.** It has long been evident that, compared to other districts in 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 Equity 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).

**Request from the Magnet Schools Assistance Program:** The Districts 13/15 Consortium is requesting \$3,150,000 per year from the Magnet Schools Assistance Program (MSAP) which includes the following costs in order to implement the magnet schools project for which funding is sought: a magnet director; a magnet STEM/curriculum planner; a magnet recruiter; magnet resource specialists to implement the unique curriculum for each of the four proposed project sites; a half-time secretary to provide clerical support; equipment and supplies directly related to the successful implementation of each school's magnet theme; contractual services for an evaluation firm to conduct an independent evaluation; contractual services for institutions of higher education and/or consultants/school reform models to conduct staff training for classroom teachers to implement the specialized curriculum and systemic reform initiatives at each magnet school site; and for a consultant to assist in the lottery process.

These costs are reasonable and essential in order for the districts to efficiently and effectively meet their desegregation goals. However, the costs of fully implementing the magnet schools project are great and are far in excess of the \$3,150,000 a year that the consortium is requesting from the Magnet Schools Assistance Program. Because of the design of the magnet project, the district will incur additional costs to implement the project fully. Therefore, at no

cost to the project, Districts 13 and 15 will provide an array of resources to fully implement the program. The following is a list of the annual in-kind contributions the districts will provide:

**Districts' Annual In-Kind Contributions, at no cost to the project.**

**\$ 15,907,577:** The NYC Department of Education and Districts 13 and 15 will provide a variety of staff who will devote part of their time to assist in project implementation, at no cost to the project. This staff includes, but is not limited to, the Community Superintendents; the Principals, Assistant Principals, Parent Coordinators, Teachers, School Psychologists, School Social Workers, special needs staff, Guidance Counselors, Family Workers, Curriculum Coaches, Paraprofessionals, and Aides. **\$15,823,054:** All school facilities, including classrooms, classroom furniture, ancillary support services (food services, school safety, computer system support), classroom materials and supplies (e.g., textbooks, reference books, library materials, computer software) and instructional supplies, at no cost to the project. **\$41,436:** The maintenance costs of all computer hardware and other equipment purchased with magnet school funds will be absorbed by Districts 13 and 15. **\$19,687:** The costs of office services, e.g., duplicating curriculum materials, fax machine services, associated with the implementation of the magnet schools programs at the schools will be absorbed by Districts 13 and 15. **\$23,400:** The costs for transportation for students to go on field trips and other off-site activities. **Districts 13 and 15's total annual in-kind contribution is \$15,907,577. This, in addition to the \$3,150,000 requested each year from the Magnet Schools Assistance Program, brings the total annual cost of the project to \$19,057,577.**

**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.**

The costs of implementing the proposed magnet schools project enumerated above are tremendous, far beyond that which can be provided by Districts 13 and 15. The difficulty of financing educational programs is exacerbated by the tremendous inequities that the districts face in respect to state aid. As referred to earlier in the discussion, the New York City Court of Appeals has declared that the state has drastically underfunded New York City school districts over the years. And the inequities persist. 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.

Further, the project schools have large percentages of students living in poverty (as measured by students receiving free or reduced cost lunch). In the four proposed magnet schools the poverty percentages are: PS 15 – 86.3%, PS 46 – 89.1%, PS 54 – 92.9%, and PS 307 – 88.8%. In addition, the schools have large numbers of students receiving special education ser-

vices. The percentages are: PS 15 – 53.2% , PS 46 – 18.9%, PS 54 – 34.1%, and PS 307 –37.3%. These students require many more additional resources than general education students to receive an appropriate education. Clearly **Districts 13 and 15 are being asked to do more with far fewer resources than other districts in the state. The districts’ monetary resources are stretched to the limit.**

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

As is demonstrated by the above discussion, the actual costs of operating the magnet schools project far outweigh the costs that the District 13/15 Consortium is requesting from the Magnet Schools Assistance Program. **The district’s monetary resources are stretched to the limit. As discussed above, Districts 13 and 15 lack the resources to provide more than the minimal required services to students—many with considerable needs. They certainly do not have enough resources to fully carry out the proposed magnet project without the provision of funds under the program.**

**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.**

**Districts 13 and 15 are proposing to provide services to address the reduction of minority group isolation in their schools through an aggressive program to improve instruc-**

**tion and learning in the magnet schools, thereby improving academic achievement. The districts recognize that unless student achievement increases, parents will not be convinced to voluntarily enroll their children in the schools.** The district will build upon structures and resources in place, including Title I services and other resources, to build a powerful model for school improvement. As will be demonstrated throughout this proposal, **improved academic achievement, coupled with a full-scale recruitment/outreach initiative, will be the foundation for the Consortium's desegregation plan and the project's design.** The special curricula/themes of the magnet schools will require extensive school-based collaboration around professional development, curriculum development, curriculum alignment and magnet theme curricula implementation. It will also require collaboration with local community organizations in order to provide the hands-on, real world learning experiences and service learning activities that are integral to the instructional program. **It is expensive to fully "drill down" to improve instruction at the classroom level and mount an extensive marketing initiative. That is what MSAP funding, combined with other funding sources, can and will leverage.**

As delineated above, Districts 13 and 15 will be providing \$15,907,577 in-kind contributions annually to implement the magnet schools program at the four magnet schools. The costs enumerated above are crucial to the successful implementation of the magnet schools project. **The \$15,907,577 annual in-kind contributions, combined with the \$3,150,000 requested annually from the Magnet Schools Assistance Program, will cover the costs of the magnet schools project, thereby allowing the district to successfully carry out the approved plan.**

**Priority 4— Promoting Science, Technology, Engineering, and Mathematics (STEM)**

**Education (a) Providing students with increased access to rigorous and engaging course-work in STEM**

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. 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 rigorous and engaging STEM education in NYC schools.

The foundation of the Districts 13 and 15 magnet project is the infusion of STEM (science, technology, engineering and math) across the curriculum; and all students will have access to the rigorous and engaging STEM instruction in the schools. All schools are whole school magnet programs and all schools, regardless of theme, will integrate science, technology, mathematics, and engineering through the curriculum in ways that draw upon the ‘funds of knowledge’ students bring with them to school (Gonzalez, Moll, & Amanti, 2005; Moll, Amanti, Neff, & Gonzalez, 1992). The project schools’ themes are: PS 15 – Brooklyn Magnet School of the Arts; PS 46 – The Magnet School of Communications and Media Arts through Applied

Learning; PS 54 –The Magnet School for Environmental Science, Technology and Community Wellness; and PS 307 – the Magnet School for STEM Studies. Thus, there is one school that has STEM as its school-wide focus (PS 307), and other schools that will incorporate STEM into their theme based curricula. Students in all magnet schools will use STEM practices including: asking questions (science) and defining problems (engineering); developing and using models (math, science, and engineering); planning and carrying out investigations; analyzing and interpreting data; using mathematics and computational thinking (technology); constructing explanations (science) and designing solutions (engineering); and obtaining, evaluating, and communicating information. Students will learn to approach problems and develop solutions like STEM professionals.

Central to the STEM instruction in all schools will be project based learning (PBL). This approach acknowledges that all children, especially children from underserved communities, have what researchers call “funds of knowledge” they bring with them to school that are often ignored by traditional instructional methods. PBL validates children’s experiences, skills, and the knowledge they bring to the learning process, by allowing students to shape their investigations. Moreover, this hands-on, experiential approach provides entry points into the curriculum for all students, including students with disabilities who form a large part of the population in the proposed magnet schools. Magnet teachers will include strategies to differentiate instruction to meet the needs of all students as the STEM-focused PBL units are developed and implemented to ensure that all students have access to and develop STEM content knowledge and skills. The following are examples of the kind of STEM PBL activities, including all four STEM areas (science, technology, engineering, and mathematics), that will take place in the project schools.

**PS 15 Brooklyn Magnet School of the Arts:** The driving question of this PBL unit, *How am I affected by the sounds around me?*, links the arts and STEM. Teams of upper elementary grade students will develop a digital product—video, podcast, blog, or webpage—with information about the sounds in the students’ environment. First, they develop a focus question for their project such as, How do the sounds in our environment affect us? What are good and bad sounds in our school/neighborhood? Why do the sounds in our everyday lives matter? They then collect and analyze data, draw conclusions, and share their findings. They also come up with solutions for the noise pollution around them (engineering). Activities to support the project will include making a list of sounds in the students’ school and home environments with words describing the sounds that address volume, pitch, duration, etc.; learning about the amplitude and frequency of sound waves, and the mechanisms our bodies use for hearing (science); using probes to measure sound (technology); collecting data on the “dangerous decibels” in their environments and representing the data visually, using decimals and fractions (mathematics). Students will measure the sound inside and outside the school, including sound made by different instruments and the human voice (chorus), school loudspeakers, the nearby highway, buses, ferry, subway, and classify those sounds on a continuum from safe to dangerous. Students may also investigate the use of earbuds and headphones for listening to music and playing videogames.

**PS 46 The Magnet School of Communications and Media Arts through Applied**

**Learning:** *Driving question: What kind of bridge should we build?* This project-based learning unit, implemented in Grade 4 and taught in tandem with Salvadori Center educators in residence, goes way beyond the concept of what makes a bridge strong. This school is located near the East River amid the Brooklyn, Manhattan, and Williamsburg Bridges. Students investigate a real-life issue: What kind of bridge would they propose to add to the existing bridges between Brooklyn

and Manhattan? This overarching project gives relevance and context to the activities students conduct related to materials strength, force and motion, tension and compression, stress testing, the importance of shapes, and the other mathematics and science concepts involved. Using the technologies professionals use, students will design, build and test different kinds of bridges made with a variety of materials (engineering). They will discuss the purposes bridges serve in communities, and take into account the needs of different stakeholders such as pedestrians, bikers, public transportation users, drivers—and residents of surrounding neighborhoods. Students will walk the bridges to better understand what they’re learning in the classroom; and they will read excerpts from Mario Salvadori’s work and historian David McCullough’s on the building of the Brooklyn Bridge. Following the CCLS-E standards for Grade 4 writing, they will write opinion pieces, informational texts, and narratives.

**PS 54 The Magnet School for Environmental Science, Technology and Community**

**Wellness:** The school’s theme of health—a study of community wellness and the connections between health, nutrition and physical activity —provides the opportunity for students to explore the driving question of the unit: *Does fitness matter?* Teams of Grade 5 students will choose a project focus based on their interests, such as designing and trying out a personal fitness plan, collecting data about its effectiveness, and reporting back about it; designing and prototyping stations for a proposed fitness trail in at a nearby park; creating a public service announcement for placement on social media sites about the importance of fitness; designing indoor recess activity stations; etc. (engineering, science, math, and technology). The driving question frames related activities: how exercise moves blood and oxygen through the body, builds bone density, and can reduce stress; the different components of physical fitness (cardiovascular, muscular strength, muscular endurance, and flexibility); and the connection between a healthy body and an

active, alert mind (science). Through these activities students will collect and analyze data and represent it visually in a variety of ways, using decimals and fractions (mathematics and technology). Students will also do educational and physical activities from NASA’s “Train Like An Astronaut” program (<http://www.nasa.gov/audience/foreducators/trainlikeanastronaut/home/>) that challenge students to investigate and discover more about physical activity and nutrition through hands-on, STEM-focused activities that relate physical Earth-based needs to the requirements of exploring space.

*PS 307 Magnet School for STEM Studies: Driving question: How does the weather affect me?* Teams of 2<sup>nd</sup> graders will choose a project focus on weather based on their interests. Some might deliver a weather report to the school; others might create weather videos; others might create and monitor a weather station at the school. All team projects will have reading, presentation, and writing components. Students will read fiction and nonfiction anchor texts, such as Ezra Jack Keats *The Snowy Day*, which is set in New York City, and *Snowy Weather Days*, a non-fiction text by Katie Marsico. To support the development of students’ projects, the class will participate in activities designed to build their knowledge of the scientific, mathematical, engineering, and technological concepts related to weather. For example, they will describe weather by measurable quantities (e.g., temperature, humidity, wind direction and speed, and precipitation); use common tools to measure weather (e.g., wind vane and anemometer, thermometer, barometer, rain gauge); determine how energy from the sun warms the land, air, and water – and how solar energy gets trapped in city buildings and streets; and identify three states of matter (solid, liquid, gas) (science). They will estimate and measure using appropriate units (temperature/Fahrenheit), and collect, organize, describe and display data (e.g., Venn diagrams) (mathematics). They will build and monitor a classroom weather station at the school that in-

cludes a wind socket, an anemometer, a barometer, a thermometer, and a precipitation gauge. They will also monitor weather data on the internet and conduct experiments on the water cycle. All the while, they will be working on their team projects.

Students will also have rich, hands-on, real world STEM experiences both in and outside the classroom by **tapping the resources of tech entrepreneurs that have been setting up their businesses in Dumbo, known as the new Silicon Alley.** Dumbo is just blocks away from PS 307 and minutes away from PS 46 in Fort Greene, PS 54 in Bedford-Stuyvesant, and PS 15 in Red Hook. As stated in a recent article in *Crain's New York Business* (April 22, 2012), “Now a hive of digital designers and disruptors is making Brooklyn - specifically Dumbo – New York’s new hotbed of tech.” According to the article, Dumbo and its neighbors in Brooklyn support some 525 tech and creative firms employing more than 9,600 people. Local businesses include EverydayHealth, with a portfolio of 25 high-profile websites; Wireless Generation, an education software and assessment company owned by NewsCorp; and the DUMBO Incubator for technology entrepreneurs. Other tech businesses in Dumbo are HUGE, Inc., Takeout, BlankSlate, Lifebooker, Mobile Commons, Pontiflex, Docracy, Loosecubes, Etsy, and HowAboutWe. Project staff will form partnerships with these companies that will provide opportunities for educators to learn about authentic applications of STEM in the workplace and about current and future trends in STEM fields; provide local expertise and resources for students’ STEM projects; and provide mentorship programs and real-life hands-on experiences for students and staff.

**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 or STEM subjects.**

Facilitated by the project STEM/curriculum planner, the magnet resource specialists will work together with the schools' STEM PD partners and NYC STEM network specialists to provide intensive and ongoing, sustained STEM professional development for bilingual, ESL, special education and general education teachers, including focused training in implementing New Generation Science Standards -aligned instruction for all students. The project STEM/curriculum planner will work with each school to develop a coordinated, high-quality, school-specific STEM PD plan that meets the needs of teachers in the school.

Each school will partner with a full array of high quality PD providers. The major STEM PD partners are the New York Hall of Science (NYSCI), OmniLearn, and the Salvadori Center. All three provide STEM PD training sessions coupled with school level mentoring and coaching to insure that training is translated into improved classroom practice. **New York Hall of Science (NYSCI)** has a long history of providing STEM PD to NYC educators. In addition to workshops and institutes, a NYCI educator visits and co-teaches with teachers once a week throughout the school year in order to model hands-on, project-based STEM activities and helps grow a culture of STEM in the school that emphasizes critical thinking. The **OmniLearn** PD program includes STEM teacher workshops; in-class STEM coaching that incorporates modeling, direct-instruction, small-group PD opportunities; and lab support where an experienced OmniLearn instructor and assistants lead teachers and students through a series of labs. OmniLearn also provides online access to interdisciplinary STEM unit and lesson plans, lab protocols, assessment

materials, video tutorials, and supporting documents. The **Salvadori Center** PD program provides a full slate of supports for teachers to develop content and pedagogical STEM knowledge: topical workshops at Salvadori or at the school and during the school year and over the summer; on-site co-teaching; and off-site mentoring through phone and email. The PD helps sharpen the classroom practices for successful integration of the Salvadori built-environment project-based methodology into day-to-day activities.

**Professional learning communities (PLCs) will be central to the STEM PD.** As teachers learn STEM content and pedagogy working with the PD partners, NYC STEM network specialists and tech business representatives, they will support each other as they develop STEM curricula and share best STEM practices. Bilingual, ESL, special education and general education teachers will serve together on school teams engaged in the alignment of instruction, curriculum, and assessment with the new science standards. Teachers will coach one another, develop curriculum materials together, collaboratively test new STEM approaches in classrooms, and assist each other in implementing the new curriculum materials so that all students receive similarly rich STEM instruction. The magnet resource specialists, supported by the STEM/curriculum 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 magnet resource specialists will support school level STEM implementation through demonstration lessons, coaching and mentoring, coordinated with the STEM PD providers and the NYC STEM network specialists.

**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.**

**The proposed Districts 13/15 management plan rests on a foundation of model New York City Department of Education (NYC DOE) initiatives that will provide the magnet schools with the ongoing support necessary to ensure proper and efficient administration of the project.** As a result of these NYC DOE initiatives and MSAP funding, each school will create rigorous magnet-themed curriculum not available in the district’s non-magnet schools that will: (1) attract to each magnet school a broader pool of students, thereby reducing minority group isolation; and (2) improve academic achievement for all magnet school students.

**The NYC DOE/District management structure focuses decision-making at the school level with the principal, and holds the principal accountable for student learning. This structure provides principals with supports that will impact their schools—and their new magnet programs.** Each principal supervises teachers and other school staff and works collaboratively with the School Leadership Team (SLT). The principals will be supported by the Districts 13 and 15 Superintendents, who will insure that the MSAP goals, objectives and plans are implemented. The schools will also be supported by Children First Networks (CFN). The networks consist of cross-functional teams directly accountable to principals that deliver personalized service to schools. Further, the schools will have the full array of NYC Department of Education staff and accountability structures and tools, e.g. annual progress reports, quality reviews, periodic assessments, the NYC achievement reporting and innovation system (ARIS), and

inquiry teams, as supports, as well as management functions. All of these supports will be marshaled to advance the goals of the project and insure efficient project administration.

The magnet program will be fully integrated into this management structure. The project director will work closely with each school's principal and report regularly to the two district superintendents. The project director will supervise all magnet district-level staff: a full time STEM/curriculum planner, a full-time magnet recruiter, and a half time secretary, and will work closely with each school's principal in the supervision of the full-time magnet resource specialists who will guide the implementation of curricula related to the magnet theme at each of the four magnet sites. (Please see section (b) Quality of Personnel section for a description of the roles, responsibilities and qualifications of the project director, STEM/curriculum planner, magnet recruiter, as well as the districts' superintendents and magnet schools' principals.).

**NYC DOE Management Supports to Ensure Proper and Efficient Administration of the Project.** 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 Districts 13 and 15 will adequately safeguard their assets, check the accuracy and reliability of their 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 director to ensure the proper management of MSAP grant funds.

**Realizing the extraordinary academic advantages that the Magnet Schools Assistance Program (MSAP) will bring to Districts 13 and 15, the districts are submitting this MSAP proposal to build upon the NYC DOE management supports and structures in place to provide the "final push" necessary for high quality educational services to improve student achievement that would not be available to students without MSAP funding.**

**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 and other non-target groups 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 1.1-1.5:** 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 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 Districts 13 and 15, 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 Hispanics. The schools are: **1.1** PS 15; **1.2** PS 46; **1.3** PS 54; and **1.4** PS 307.

**1.5** For each project year, each magnet school will receive at least 50 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, as well as outside PD providers.

**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** 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., Schoolwide Enrichment Model, 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 4<sup>th</sup> and 8<sup>th</sup> 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  $\pm$  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 objectives 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 13 and 15 have 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 superintendents, and the district parent advocates, 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/curriculum planner, the magnet project recruiter, and the magnet resource specialists 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.**

Districts 13 and 15 are proposing to reduce minority group isolation in four highly minority group isolated schools –PS 15, PS 46, PS 54, and PS 307, by attracting students who would ordinarily attend other schools with more diverse student populations to voluntarily enroll in the magnet schools. **The foundation of the district's desegregation plan is improved academic achievement at each magnet school that ensures equal access to all students to a rigorous, standards-based curriculum.** In particular, through the Magnet Schools Assistance Program, Districts 13 and 15 will provide student populations that have been traditionally underrepresented in courses or activities offered as part of a magnet school with high quality, research-based educational experiences designed to engage their interest, nurture their talents and inspire them to further study.

**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. (Please see the Quality of Project Design section (c)(2)(i) for a more detailed discussion of the PD that will incorporate gender equity issues.)

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 a 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. It is especially noteworthy that two of the proposed magnet schools, PS 54 and PS 307, have funding from *Girl Smart*, a not for profit organization, that was established as part of *Girls, Inc.* *Girl Smart* is running after school programs at the schools for girls only that focus on building strong, smart girls in the areas of literacy and mathematics. 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.

**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 learners, 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 the science curricula (NSF kit-based approach using FOSS and Delta Science modules in grades K-5).

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 Districts 13 and 15, 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 Districts 13 and 15'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 twin pillars of the Districts 13/15 Consortium recruitment initiative consists of: (1) providing strong educational programs in the magnet schools that will improve students’ academic achievement; and (2) “getting the word out” to parents about these exciting new programs as viable choices. As indicated in the introduction, the timing is perfect for these efforts – parents are ready to consider the magnet schools and the leadership teams in the districts and schools are ready to take up the challenge. The following narrative describes the full-scale recruitment initiative that will take place and the Project Design section will describe the innovative instructional programs that will be implemented. Together, these initiatives will enable the districts to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools.

**Building Recruitment Teams:** The Districts 13/15 recruitment team will have overall responsibility for planning, directing, and coordinating recruitment activities at the district and school levels. The Consortium team will consist of the magnet director, the magnet recruiter and, at no cost to the project, the districts’ parent advocates. The team will coordinate district and school level recruitment activities. Working closely with each school’s stakeholders, the recruitment team will create 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 each district to assist parents and students in selecting magnet schools. The magnet director and magnet re-

cruiter 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 project, by other district and NYC DOE staff (e.g., Division of Family and Community Engagement 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 specialists, 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 districts and school recruitment teams will use the resources of the districts' parent involvement programs, including the various parent workshops conducted at the district and school levels and district parent newsletters and bulletins (electronic and print versions) to inform parents of all school activities and other recruitment events.

**The Recruitment Plans:** 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 school 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 a logo and 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 13/15 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 Districts 13 and 15, 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 recruitment 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 districts' 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.

**Central Recruitment Center:** The District 13/15 Consortium will have one 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 districts' parent advocates. They 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.

**Recruitment Training For All School Staff:** The magnet recruiter and project director will provide training that will enable all school staff—administrative, pedagogical, secretarial, custodial, and others—and parents on the school-based recruitment team 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.

**District Magnet Websites:** The Districts 13 and 15 magnet websites 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 each district's website. Links on the homepage will take parents to an overview of each magnet school, information on how to apply, frequently asked questions, magnet brochures for each school, and announcements of open houses and other upcoming events. The websites 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 websites will also have top-level links from the NYC DOE's homepage.

**Reaching out to the Community:** Magnet staff may place on public radio stations and local TV news stations public service announcements that contain information about the magnet schools and upcoming open houses and other such events. The magnet recruiter may also 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. Media 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 districts 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. Outreach techniques such as bus advertising and billboards, complete with the school logos, may be employed, which will help let the wider community know about the magnet program, while building school pride as students and parents see their school name and logo displayed prominently.

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. Pre-schools in Districts 13 and 15 that will be contacted include: Grace Church, Plymouth Church School, Montessori, and Cobble Hill Playgroup.

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 mul-

tiple needs, including those with very restricted schedules or those whose native language is shared by relatively few local residents.

A major advantage that Districts 13 and 15 have even before the recruitment process begins is its strong links to various and diverse ethnic/social service organizations throughout the communities. All public libraries in the Districts 13 and 15 communities 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 interested 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 reach out to the public at supermarkets, shopping malls, grocery stores, pediatricians' offices, gas stations, public housing projects, or other places where prospective magnet school applicants can be reached.

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: Brooklyn Kindergarten Society, Families First, Brooklyn Community Foundation, Mano a Mano: Mexican Culture without Borders, Haitian Family

Resource Center, Caribbean American Center, Federation of Puerto Rican Organizations, Crown Heights Jewish Community Council, Muslim Community Center. The connections with these organizations and/or others will ensure that the needs of students and families are met at each of the proposed magnet schools.

**(b)(1) The Secretary reviews each application to determine the qualifications of the personnel the applicant plans to use on the project. (b)(2)(i) The Secretary determines the extent to which the project director (if one is used) is qualified to manage the project.**

All staff, both funded and not funded by the project will be highly qualified. **Project Director - 1.0, 100% FTE.** The qualifications for the magnet director have been established to ensure that the successful applicant possesses the commitment, knowledge, experience, and interpersonal skills needed to provide strong and effective leadership to the project. The position will be filled in accordance with the regulations of the New York City Department of Education. Following the notification of an MSAP award, a magnet director will be selected. Districts 13 and 15 are fortunate to have a pool of qualified applicants, including current and former magnet principals. Applicants for the position will be given consideration based upon the NYC policy of non-discrimination based on race, religion, color, national origin, sex, age, or disability. Consideration for employment will also be based on the NYC policy of affirmative action. **The candidate selected for magnet director will have the following qualifications:** (1) Advanced degree in education; (2) State certification as School Administrator; (3) At least 3 years of experience as a district level or school level supervisor or administrator; (4) At least 5 years experience in curriculum development; (5) At least 5 years experience as a staff developer/teacher trainer; (6) Experience in and knowledge of systemic reform models and innovative programs; (7) Experience

in implementing the School-wide Enrichment Model and in STEM instruction; (8) Experience and knowledge related to working with parents of different races, ethnic, social and economic backgrounds; (9) knowledge of the Common Core Standards and NYS standards; (10) Experience working with community-based organizations, cultural institutions, agencies and other groups in initiatives related to systemic reform and innovative educational methods and practices; (11) Demonstrated leadership in the development of programs and courses of instruction that substantially strengthen students' knowledge of academic subjects and marketable vocational skills; (12) Demonstrated abilities in areas associated with effective leadership; and (13) excellent interpersonal skills.

**Duties and Responsibilities of the Magnet Director – 100% FTE.** The magnet director is responsible for coordinating all aspects of the Magnet Schools Assistance Program. The magnet director will: (1) work closely with the district superintendents and the magnet principals to coordinate all aspects of the MSAP project; (3) manage all aspects of the MSAP project; (4) supervise the magnet STEM/curriculum planner and the magnet recruiter; (5) coordinate the activities of magnet resource specialists; (6) ensure that the activities of the magnet program are continually focused on promoting desegregation in accordance with the project's desegregation plan; (7) assist each magnet school's principal and School Leadership Team in implementing their magnet school program, including: desegregation strategies, systemic reforms, innovative curriculum and practices, incorporating STEM instructional strategies into each school's curriculum, new organizational designs, professional development, and adaptation of instruction to special student needs, all aligned to meet Common Core Standards and New York Standards; (8) work closely with District 13's and 15's parent advocates and the schools' parent coordinators on student recruitment and information outreach to ensure informed parental decision making in all

aspects of the Magnet Schools Assistance Program; (9) work closely with *Children's First Network* content and operations staff to support all curriculum initiatives and manage fiscal and budget aspects of the project; (10) coordinate the implementation of the project's evaluation plan with the project evaluation contractor and monitor the collection of all necessary data; (11) keep all project records; (12) monitor and evaluate the effectiveness of the project's desegregation plan and make any necessary revisions/changes; and (13) coordinate with other NYC DOE and district staff to supplement project funds and to continue funding of the project after federal funding is no longer available.

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

### **MSAP-Funded Key Personnel**

**Project STEM/Curriculum Planner - 1.0, 100% FTE Qualifications.** Although all personnel hiring must conform to NYCDOE requirements and specifications, it is expected that Trish Peterson will be selected to be the project STEM/Curriculum Planner. She is eminently qualified for the position. Ms. Peterson has twenty years education experience in NYC with special expertise in STEM. She has served as a CFN Network Senior Instructional Specialist, Gifted and Talented/Enrichment Coordinator, Assistant Principal, Mathematics Coach, and classroom teacher. Among her many accomplishments during the course of her career, she has worked with building administrators, coaches and teachers to develop action plans for school improvement and accelerated student learning; supported MSAP school administrators, magnet coordinators, and teacher teams in theme implementation through professional development; collaborated with educational administrators to develop and implement year-long professional learning plans for teachers

and coaches using the School-wide Enrichment Model; worked with coaches and teachers to write curriculum across content areas with emphasis on Science, Technology, Engineering, Mathematics (STEM) to ensure that all students have entry points and are actively engaged in their learning; and lead a network-wide monthly Math Instructional Lead Study group. Her NYC licenses include Principal, Assistant Principal, Curriculum Development, Senior Curriculum Development, Senior Staff Development, Senior Subject Area Instructional Program Management Specialist, and Early Childhood and Elementary Teacher. Her NYS licenses include: School District Administrator, School Administrator and Supervisor, and Common Branch Teacher.

**Duties and Responsibilities** The magnet STEM/Curriculum planner will report directly to the magnet director and will be responsible for working with the magnet schools and their magnet resource specialists, principals, School Leadership Teams and Professional Learning Communities (PLCs) and outside PD providers to integrate the magnet theme, especially STEM activities, into each school's instructional programs. The magnet STEM/curriculum planner will: (1) serve as liaison for the School Leadership Teams and PLCs at each magnet school, as well as other district and community resources, related to thematic instruction and incorporating STEM into thematic instruction; (2) work with the magnet resource specialists, magnet principals and PLCs to develop and align magnet schools curricula, professional development programs and magnet theme-related instructional programs to meet Common Core Standards and New York State standards; (3) work with the PLCs to research existing exemplary programs that further standards-based instruction, especially STEM instruction; (4) work with the PLCs to establish consultant/reform model/reform network schedules for each magnet school; (5) establish linkages and develop service contracts and schedules for other collaborative agencies to provide services to the proposed magnet schools that are directly related to the magnet special curriculum and

STEM at each school; (6) participate in all staff development and curriculum development workshops/activities; and (7) participate in all educational program development activities related to theme development, infusing STEM into all instructional areas, new pedagogical approaches to program development and systemic reform program development, new instructional strategies, etc., that further standards-based instruction.

**Magnet Recruiter - 1.0, 100% FTE Qualifications:** (1) a Bachelor's degree; (2) experience in media and public relations; (3) strong organizational skills; (4) experience working with parents and parent groups from different racial, ethnic, cultural, and economic backgrounds; (5) willingness to work on a flexible schedule that will include evening and Saturday meetings/activities; (6) strong oral and written communication skills, including, if possible, the ability to speak and write in Spanish, Chinese, Haitian/Creole, French, or another language(s) spoken by parents in the districts' communities; (7) Knowledge of computers including maintaining databases and using spreadsheets, word processing and desktop publishing applications; and (8) familiarity with the operations of the districts and schools in New York City.

**Duties and Responsibilities** The magnet recruiter will: (1) work collaboratively with the magnet director, each district's parent advocates and each school's parent coordinator; (2) coordinate a comprehensive recruitment/outreach program to the entire community for the target schools (3) provide information to parents, community members, and community agencies on the programs of the magnet schools; (4) attend citywide parent meetings; (4) participate in annual School Fairs and other recruitment activities and coordinate the presentations of the magnet schools; (5) develop a plan for recruitment and advertisement, in conjunction with each of the magnet school recruitment teams; (6) work cooperatively on a regular basis with parent groups and the schools' School Leadership Teams.

**Qualifications of the Project Evaluator: American Education Solutions** American Education 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 Carolina 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.

#### **Other Project Consultants: Qualifications, Duties, and Responsibilities**

Districts 13 and 15 will contract with a wide array of consultants in order to provide support for improved instruction and learning. Further, **the districts will contract with a consultant to assist the district in conducting its lottery.**

#### **Qualifications of Key Personnel at No Cost to the Project**

**District 15 Superintendent Anita Skop:** District 15 Superintendent Anita Skop brings twenty-five years of experience as a Superintendent, Instructional Supervisor, Lead Senior Achievement Facilitator, Instructional Specialist, Director of Curriculum, Staff Developer, and Teacher in New York City Public Schools. As Director of Literacy for District 19 and District Staff Developer for District 21 (both districts with large numbers of minority students), and the

Local Instructional Supervisor for a magnet school and the Senior Achievement Facilitator for two magnet schools, she has experience in professional development and curriculum support in magnet schools and schools with high minority populations.

She currently serves as the Superintendent of District 15 where she supervises District 15 principals and evaluates the performance of district principals. Prior to becoming Superintendent, she was the Lead Senior Achievement Facilitator of the NYC DOE where she provided oversight and support, through the Office of Accountability, for the 97 schools and three Senior Achievement Facilitators. She provided guidance in the implementation and development of the Inquiry Team process and the use of data driven instruction; training in the Department of Education reform initiatives through the Office of Accountability; and created materials and workshops and participated in citywide planning sessions to further support the use of data driven analysis and instruction in alignment with the reform initiative. Ms. Skop also served as Regional Instructional Specialist for Region 5 in NYC, Director of Literacy and Social Studies in District 19, and a Staff Developer in District 21. As a teacher for eleven years in District 21, she developed and implemented K-6 curriculum in core subject areas as well as special education, culminating in her award as New York State Teacher of the Year in 1994. In addition she was on the Customization Committee of the New York City ELA Standards, the NYC Elementary School Standards Committee, and a member of the Institute for Professional Development Design. She holds a Masters degree in Education and a Professional Diploma in Curriculum and Supervision. She has also taught graduate courses and served as an Educational Advisor for graduate students of education.

**District 13 Superintendent Barbara Freeman:** District 13 Superintendent Barbara Freeman brings to this magnet project over twenty-five years of experience as an educator in the

New York City Public Schools. Prior to her position as Superintendent, Ms. Freeman was Principal of the Pedro Albizu Campos School in Manhattan. During her twelve years there, she successfully facilitated the implementation of a strong instructional core, providing additional Regents courses in math and science. She also oversaw substantial increases in student achievement during her tenure. Ms. Freeman also enjoyed success as an Assistant Principal of the Benjamin Franklin School where she aligned curriculum and materials for successful instruction, implemented the universal pre-Kindergarten program, increased parent involvement at the school and facilitated the development of appropriate instructional strategies. Prior to transitioning to the Assistant Principal role, Ms. Freeman was a teacher and then the Director of Early Childhood classes at the Melrose School. As a dedicated leader in the field, Ms. Freeman has served as a mentor for multiple programs, including the Advanced Leadership Program for Asst. Principals, School Turnaround and the University of Virginia, the NYC School Leadership Academy, and the Council of Supervisors and Administrators. Valued for her extensive experience, Ms. Freeman has served as an advisor for the Internship Program at Teacher's College, Columbia University, as well as Presenter at educational summits and institutes hosted by Columbia University and the Lorraine Monroe Leadership Institute. Other accolades Ms. Freeman has received during the course of her career include: Outstanding Educator of the Year; Principal of the Year; the NAACP's Measure of a Man Award; the National Change Award; and the Scholastic/Intel National School of Distinction Award. Ms. Freeman holds an Ed. D. in Educational Organization and Leadership, as well as an Ed. M. in Organizational Leadership from Teachers College, Columbia University. Further, she holds a M.S. in Elementary Education and a B.A. in English from Hunter College, City University of New York. Additional certifications held by Ms. Freeman include: New York State Permanent Certifications, District/School Administrator, Teacher

PreK-6; New York City School Administrator Licenses, Principal, Asst. Principal, Curriculum and Instruction Education Administrator, Staff Development and Training Instructional Specialist; and New York City Public School Teaching Licensure for Early Childhood and grades 6-12 English.

**Qualifications of Magnet School Principals -- PS 15:** Peggy Wynn-Madison has over 25 years of experience in NYC Schools. Her duties and accomplishments as Principal at PS 15 include oversight of the alignment of standards, curricula, instructional strategies, and assessment tools; introduction of the Renzuilli Enrichment Cluster Model to increase student achievement and promote positive classroom experiences; and an increase in the number of parent workshops and parent involvement programs. As the Assistant Principal of PS 15 she evaluated and coached teachers' delivery of standards based instruction in all content areas, and supervised daily program operations including staff development, conducted analysis regarding academic progress and needs assessments. She was the Technology Staff Developer in Community School District 15. She holds licenses as a NYS Administrator and Supervisor and as a NYS Permanent Teacher. She has a MS degree in Educational Technology and a B.A. in Elementary Education.

**Principal of PS 46:** Ms. Karyn Nicholson brings twenty-five years of NYC DOE experience as a Principal, Literacy Instructional Specialist, Literacy Coach, Title I Reading Teacher, and classroom teacher. In her current role as Principal of PS 46, she has established systems that promote learning, collaboration, and communication throughout the school. Prior to working as a principal, Ms. Nicholson was a Senior Literacy Instructional Specialist for the NYC where she worked with a network team leader in order to support literacy instruction at twenty NYC public schools. She analyzed student achievement data and progress reports in order to tailor specific professional development workshops to meet each school's needs. As Regional Literacy Instruc-

tional Specialist, Ms. Nicholson supported the work of the Teachers College Reading and Writing Project. She strategized with principals, assistant principals, and literacy coaches to effectively implement the Balanced Literacy program. Ms. Nicholson holds a Master of Science in Administration and Technology, a Master of Science in Reading, and a Bachelor of Arts in Elementary Education.

**Principal of PS 54: Lorna Khan.** Lorna Khan has worked for the New York City Department of Education for over 20 years. During her eight year tenure as Principal of PS 54, Ms. Kahn has implemented programs that have improved students' academic achievement, including the application of city-wide instructional expectations for teacher pedagogy through the use of the Danielson Framework for Highly Effective Teaching. She provides staff members with extensive professional development, improving teachers' use of data and inquiry in order to inform instruction. In addition, she has established working partnerships with local cultural and scientific community organizations such as the Brooklyn Botanical Gardens, Brooklyn Children's Museum and the Watershed Forestry Institute. Further, Ms. Kahn has promoted parent engagement by providing an onsite GED program, as well as several other parent education programs. Prior to her current position as principal of PS 54, Ms. Khan was an Assistant Principal at JHS 88 where she implemented a school-wide professional development program to improve teacher effectiveness, aligned curriculum to meet the diverse needs of students in the school, worked collaboratively with the administrative team to improve student achievement and was successful at removing the school from the city's Schools Under Registration Review (SURR) list. She holds an Advanced Certificate in Educational Administration, an M.A. in Public Health Education and a B.A. in Biology. She is also an active member of the New York State Elementary School Principal's Association and the Association of Supervision and Curriculum Development.

**Principal of PS 307:** Ms. Roberta Davenport has many years of experience working for the New York City Department of Education. Over the course of her career, she has held roles as a teacher, Staff Developer, Reading Recovery Teacher Leader, Assistant Principal, and Principal. Under her leadership, PS 307 was recognized as a 2012 Success Maker School of Distinction by Pearson Digital Learning, was featured in the Morningside Center for Teaching Social Responsibility's Spring 2011 Newsletter, and was selected to open an Autism Spectrum Disorder Program. Ms. Davenport has been personally awarded the following accolades: Assembly State of New York Proclamation for Upstanding Citizen and Exemplary Role Model; the 2010 Great Books Lifetime Achievement Award; and the Noel Pointer Foundation Virtuoso Award. Ms. Davenport holds a Bachelor of Arts degree in Studio Art/Elementary Education, a Master of Science degree from Columbia University Teachers College in Curriculum and Teaching/Instructional Technology and Media Systems, and a Master of Education degree in Administration and Supervision. In addition, Ms. Davenport has also completed post-graduate work at New York University's Graduate School of Education, where she has also served as an adjunct instructor. She also participated in the Harvard Graduate School of Education's Principals Summer Academy in 2011.

**(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.**

New York State has taken strong measures to ensure that its teachers have the qualifications for meeting the highest teacher quality standards. All magnet classroom teachers and magnet resource specialists/teachers will be required to be highly qualified and effective.

**Districts 13 and 15 have large pools of teachers and administrators with many years of experience in curriculum development and desegregation strategies who have been actively involved in endeavors related to the restructuring of elementary, middle, and high schools and other initiatives. The project will recruit magnet resource specialists from among this pool of highly qualified, effective teachers.** In order to hire magnet resource specialists who have the best qualifications to teach the specialized curriculum at each magnet school, Districts 13 and 15 will recruit from outside of their districts as well, if necessary.

The magnet program will be facilitated in each school by highly qualified and effective teacher specialists, to be known as magnet resource specialists, who will lead the school in standards-based education aligning curriculum, instruction and professional development to Common Core and New York standards; support the implementation of the magnet theme; provide leadership in infusing the magnet theme and STEM instructional strategies into all content areas; and work with the school's instructional staff to integrate the magnet theme, including STEM, using innovative educational practices and strategies. **All magnet resource specialists will be required to have the following qualifications:** (1) New York City and New York State teaching license and certification; (2) minimum degree of Bachelor of Arts or Science; (3) demonstrated expertise in the theme of the magnet school or STEM, e.g., subject area certification, professional organization certification, etc.; (4) demonstrated experience in standards-based instruction and the alignment of curriculum, instruction, professional development and assessment with Common Core and New York State standards; (5) experience and/or graduate work related to the theme of the magnet school and STEM; (6) successful experience as a staff developer at the school or district level; (7) successful experience in teaching students from varied social, economic, racial and ethnic backgrounds; (8) knowledge of the special needs of students

incident to the reduction of minority group isolation; (9) experience in using the *Schoolwide Enrichment Model* as an organizing principle for systemic reform and the use of and innovative educational methods and practices; (10) experience in using varied approaches, strategies and materials to promote successful learning; (11) demonstrated ability to work effectively with multicultural and multiethnic students and parents; (12) knowledge and experience in using technology as a tool for learning; and (13) demonstrated ability to work as a member of a committee or team with parents, teachers and administrators. In addition, each magnet school has established specific criteria for its magnet resource specialists related to its magnet theme. The consortium is requesting 9.5 magnet resource specialists – 2.0 to 2.5 at each of the magnet schools.

**(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 envi-**

**ronment 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:** As demonstrated by the descriptions of their experience presented earlier, the District 13 and District 15 Superintendents and magnet principals have extensive expertise in curriculum development. A theme-based approach to instruction to improve academic achievement and promote diversity will be used in the Districts 13 and 15 magnet schools. A particular focus in both districts has been the development of interdisciplinary and integrated curriculum materials and activities that cut across content areas and enhance and enrich student learning.

**Knowledge of and Experience in Desegregation Strategies:** The Superintendents of Districts 13 and 15 and school principals, have extensive knowledge and experience in desegregation strategies. The Superintendents and principals have been teachers and supervisors in magnet

schools and other highly minority group isolated schools and have worked with school staff to implement desegregation strategies.

Districts 13 and 15 have been actively involved in desegregation strategies in order to meet the needs of a student population that is characterized by great diversity. Specifically, they have participated in New York City's Open Enrollment Plans since the 1960s and have rezoned school attendance zones over the years to include neighborhoods that have more diverse ethnic and racial populations. As a result of these initiatives, school and district staff has gained experience in a full array of desegregation and equity issues and strategies.

Further, Districts 13 and 15 have been fortunate to receive Magnet Schools Assistance Program funding in former funding cycles. As a result of the MSAP grants and other desegregation efforts, such as the Emergency School Aid Act (ESAA) desegregation grant, key district and project personnel, as well as project school staff, have gained valuable knowledge and experience in all aspects of desegregation strategies and in developing theme related curricula to promote equity and excellence in the schools.

**(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.**

Districts 13 and 15 have formed an Interdistrict Consortium to reduce minority group isolation in four of their highly minority group isolated schools (PS 15, PS 46, PS 54, and PS 307). The two districts adjoin each other; however, they are in very different communities. Schools in District 13 are, for the most part, highly minority group isolated and underutilized, including 3 of

the proposed magnet schools – PS 46, PS 54 and PS 307. Conversely, the schools in District 15 that are geographically closest to PS 46, PS 54 and PS 307 in District 13 have enrollments that are predominantly nonminority and are overcrowded. Both districts are characterized by distinct and, for the most part, racially identifiable neighborhoods in which the attendance zone schools are located. In many cases, students are “trapped” within their school district boundaries when within blocks of their homes there are schools in the adjoining district that they could attend. The District Superintendents of 13 and 15 found this untenable. They developed an Interdistrict desegregation plan that will open the district boundaries so that the highly minority group isolated magnet schools can have a chance to attract a larger pool of nonminority children from schools in District 15.

Desegregation, however, must mean more than simply recruiting a diverse total student population. Meaningful desegregation must be a schoolwide commitment to seeking out the greatest strengths of all learners in the school’s population – learners from different social, economic, racial and ethnic groups, but also learners of different background skills and languages, different ways of manifesting intelligence. The District 13 and 15 schools strive for both equity and excellence through integrated classrooms using strategies that have been proven to foster the interaction of students throughout the school day. These strategies include heterogeneous grouping, cooperative learning, and multicultural education/cultural competence.

**Heterogeneous Grouping:** Heterogeneous grouping is an established practice in District 13 and 15 schools and will be a primary strategy for fostering interaction among students of different social, economic, ethnic, and racial backgrounds in the Magnet Schools Assistance Program. Within the classroom, children will be grouped heterogeneously, and, to the extent possible, children with special needs will be served within these classrooms, and exposed to the same

challenging and fulfilling educational challenges as their peers. The magnet program will provide all participating children with rich educational experiences designed to engage and to inspire.

**Cooperative Learning:** Cooperative learning is a key strategy within heterogeneous grouping to enable students of various achievement levels to maximize their potential as learners. Cooperative learning represents a range of approaches to grouping students of varying ability for instructional purposes. It has become an accepted strategy for promoting achievement across the curriculum, frequently documented to promote socialization and positive student interactions (Gillies & Ashman, 2000; Jordan & Le Matais, 1997)

The importance of cooperative learning, as a 21<sup>st</sup> century skill, is stressed by the creators of the Common Core standards. They 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" 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 or improve the arguments" (Standards for Mathematical Practice, #3).

**Multicultural Education/Cultural Competence:** As discussed by Banks, a noted expert in the field of multicultural education, schools must find ways to respect the diversity of their students as well as help to create a unified nation to which all of the nation's citizens have allegiance (Banks, Cookson, Gay, Hawley, Irving, Nieto, & Stephan, 2000). A multicultural focus will be incorporated into each magnet school's curriculum and at every level of the system,

providing opportunities for students and educators to learn from others' experiences and apply that learning in new ways. Indeed, experience in multicultural education and with diverse students is among the criteria for selecting magnet school staff, including the magnet director, magnet STEM/curriculum planner, magnet recruiter, and magnet resource specialists. This is reinforced by the NYC DOE's annual Diversity and Inclusion Plan. The *2010-2011 Diversity and Inclusion Annual Report* highlights various initiatives to increase cultural competence among staff including Cornell University's Completion of Diversity Management Certificate and Delivering Diversity Training. A strong emphasis upon multicultural instruction and cultural competence will not be new priorities for Districts 13 and 15, where they have long been hallmarks of instruction and staff training.

**(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.**

The design of the Districts 13 and 15 Consortium magnet project is based on a model that has been carefully crafted by the two districts to promote desegregation and improve students' academic achievement. As described throughout this proposal, the two are inextricably linked. The model components include: (1) extensive planning including the development of a pilot collaborative project at PS 133, administered by both districts, that will be expanded; (2) developing new theme based and STEM infused curricula, integrated into core subject areas; (3) strengthened core curricula, including completely revised English language arts, mathematics and sci-

ence curricula (aligned with new Common Core standards); and (4) the establishment of comprehensive academic intervention supports for struggling students. Each of these project components will be supported by at least 30 hours of professional development for teachers related to strengthening core subject area curriculum and instruction and 30 hours related to the development and implementation of the magnet theme, including STEM. Program fidelity (degree and quality of implementation) will be monitored by the project director and monitored and reported on by an outside evaluator. Because this project has the full support of district and school staff in Districts 13 and 15 and will be guided by an experienced team, it is likely that the project outcomes, especially those related to achievement, will be attained

**Improving the Academic Achievement of All Students:** Districts 13 and 15 are committed to improving student academic achievement in all instructional areas, including the instructional areas related to each school’s magnet theme, for all students attending each magnet school program. **Through the project design and intensive professional development for teachers, administrators and other school staff (and alignment of practices at all levels of the system), the districts will ensure that every student in every magnet school classroom, will be involved in rich, learning experiences aimed at helping them to achieve to the highest standards.** In particular, through the systematic application of the *Schoolwide Enrichment Model* linked to the Common Core and New York State standards and the implementation of “best practice” in all academic content areas, bilingual education and English as a second language instruction, as well as other specialized areas, the districts will guarantee that the needs of the students in the magnet schools will be addressed and their talents realized.

**Through professional development, each magnet school will become a high achieving professional learning community within the nested learning community of the Magnet**

**Schools Assistance Program.** With this infrastructure in common, the magnet schools will each offer an educational program built around a unique theme that engages students in authentic learning by providing a focus for instruction and breaking down barriers between subject areas. The magnet program will build upon the intensive work being done to revamp the core English Language Arts, mathematics and science curricula.

### **Collaborative Planning to Improve Student Academic Achievement for All Students**

– **Professional Learning Communities:** The magnet program will bring together entire school communities in professional learning communities to plan, develop and implement mutually agreed upon reforms in their schools that will provide all children in each magnet school with a rich educational environment supported by a culture of professional development and linked by unifying STEM infused themes. These unifying themes will be implemented across the curriculum, and in every class, and provide focus for teaching and learning for English Language Learners (as an example) equally with those whose home language is English. Under this model of shared professional development, mathematics, ESL, bilingual, or special education teachers will receive focused training in their disciplinary or instructional areas, but these specialized approaches will be shared with their colleagues. Thus, there will be a common base for professional development and a common language of instruction and assessment across all areas, ensuring that every child, regardless of special needs status, is able to contribute to and profit from the enriched magnet school educational environment.

**Magnet staff, working together with NYC Department of Education, CFN Network instructional specialists, and each school’s PD partner providers (described in each school’s theme description) will provide intensive and ongoing professional development opportunities for bilingual, ESL, special education and general education teachers, including focused**

**training in implementing Common Core standards-aligned instruction for all students.**

They will be trained together by magnet resource specialists, NYC Department of Education and CFN Network instructional specialists and outside PD partners. In addition, as part of the professional learning communities, bilingual, ESL, special education and general education teachers will serve together on school teams engaged in the alignment of instruction, curriculum, and assessment with Common Core and state standards. Teachers will coach one another, develop curriculum materials together, collaboratively test new approaches in classrooms, and assist each other in implementing the new curriculum materials so that all students receive similarly rich and focused instruction.

**NYC Supports for Increasing Students Academic Achievement: Common Core Standards Aligned Instruction:** 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.

**New Generation Science Standards (NGSS):** Since 2011, New York State has been a Lead State Partner for the NGSS, working closely with the standards writing team as the GGSS were being developed. As with the new Math and Literacy standards, the new science standards, with its emphasis on engineering technology and applications of science in addition to tradition-

al science disciplines (physical science, life sciences, earth and science sciences), will require major shifts in instruction. NYC is preparing its teachers for these shifts through extensive professional development.

**Professional Development – Preparation for Common Core Standards (Including NGSS) Instructional Shifts.** 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. Teachers will be expected to develop curriculum that is rigorous, engaging, and thought-provoking. The NYC DOE is preparing its teachers and school leaders for the pedagogical shifts in English Language Arts (ELA)/literacy, mathematics and science demanded by the Common Core standards and NGSS. 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, mathematics and science. 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. **These NYC DOE supports for professional development, coupled with magnet supported school-based PD through professional learning communities and magnet funded PD providers, create a powerful PD model to assist teachers to implement rigorous, standards-based instruction in magnet classrooms for all students.**

**Schoolwide Enrichment Model (SEM): Overarching Instructional Approach for Magnet Instruction - Improving Student Academic Achievement for ALL Students:** The Schoolwide Enrichment Model (SEM) will be central to the magnet program. The SEM (Renzulli, 1977; Renzulli & Reis, 1985, 1997) is widely implemented as a schoolwide enrichment approach for all students. SEM provides enriched learning experiences and higher standards for all children through three goals: developing talents in all children, providing a broad range of advanced level enrichment experiences for all students, and providing follow-up advanced learning for children based on interests. A fourth goal is that a majority of experiences guided by SEM

should be based on a theory of learning that places a premium on inductive or investigative activity rather than accelerated information transfer and accumulation (Renzulli & Reis, 2008). The major goal of SEM is the application of gifted education pedagogy to total school improvement for all students.

A component of SEM is the Independent Investigation Model (IIM) which is based on the premise that children are never too young to be researchers. There are seven steps to the model: (1) develop topic; (2) set a goal; (3) conduct research; (4) organize (e.g., chose categories for information, sort and categorize information, chose between supplemental and essential information), (5) evaluate goal (see whether or not you have answered all your questions) ; (6) chose a product; and (7) present what you have learned to different audiences. This approach is completely compatible with the inquiry, problem based learning STEM approach discussed in priority 4.

In another component of the model, non-graded groups of students who share common interests come together during specially designated time blocks during school. Students usually participate in 8-10 week enrichment clusters. Enrichment clusters are organized around various characteristics of differentiated programming, including the use of major disciplines, interdisciplinary themes, or cross-disciplinary topics (e.g. for a performing arts program, a theatrical/television production group that includes actors, writers, technical specialists, costume designers). Instruction for all students, including English Language Learners, special education students, and academically struggling students, will use SEM strategies and classroom teachers in the magnet schools will be trained in SEM strategies.

**Improving the Academic Achievement of English Language Learners:** To improve the academic achievement of English Language Learners in all NYC public schools, ELL pro-

grams are aligned with the NYCDOE’s comprehensive curriculum. ELL instructional specialists support teachers in ELL classrooms, an ELL Teacher Academy provides rigorous professional development and supports classroom usage of best practices, and a system-wide language allocation policy impacts all ELL programs. The high expectations outlined in the Common Core standards apply to English Language Learners, as well as other students. The Common Core’s integration of literacy learning into all content areas and the magnet schools’ integrated theme-based curriculum will require a focus not just on students learning English, but on the academic achievement (Gandara & Contreras, 2009). Beginning in the early grades, teachers will help bolster the academic achievement of ELLs by, for instance, using science as a motivator that provides opportunities for ELLs to learn both content knowledge and skills and academic language in subjects that require specialized vocabulary, sentence syntax, and academic discourse (Brown & DiRanna, 2012). The Common Core’s flexibility—based on how most students progress—and its focus on depth can result in a slower pace that “is especially helpful for English learners ‘who need ample time to learn a great deal of academic language and build background knowledge and experience that support reading comprehension’” (WestEd, 2012). To support strong academic achievement by ELLs, magnet staff will, for example, use teaching resources that Understanding Language, a Stanford University project, is currently developing that focus on ways to provide high-quality instruction for ELLs that correspond to Common Core standards in ELA, mathematics, and science. These include publications on the meaning of “text complexity” for English Language Learners (Wong Fillmore & Fillmore, 2012) and mathematics instruction for ELLs that are aligned with the Common Core (Moschkovich, 2012).

**Improving the Academic Achievement of Special Education Students:** As discussed in a prior section, beginning in the 2012-2013 school year, the NYC DOE is implementing its

Special Education Reform. 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 learners, 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 (Steadly 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).

**Improving the Achievement of Academically Struggling Poor and Minority Students:** The magnet program will improve the academic achievement of poor and minority students who are struggling academically in the four magnet schools in Districts 13 and 15, two of which are Focus schools (PS 54 and PS 307). All of the magnet schools serve a very high percentage of low-income students: PS 15 – 86.3%, PS 46 – 89.1%, PS 54 – 92.9%, and PS 307- 88.8%– 62.8%. Each of the magnet school’s student body is more than 86% minority. Because of these demographics, the magnet schools’ academically struggling students are overwhelmingly poor and/or minority. In recognition that “one size does not fit all,” the DOE has implemented a system of targeted and data-driven intervention services to help struggling students in NYC

public schools. Through the use of a range of research-based strategies built on top of strong base literacy, mathematics and science programs, intervention is tailored to move achievement in learners with varied needs.

One of the key services for struggling students is **Academic Intervention Services (AIS)**. AIS will be provided to assist students in all magnet schools who are at risk of not gaining the knowledge and skills needed to meet or exceed designated performance levels on State assessments. Examples of AIS services at the magnet schools include the Wilson Reading System, Benchmark's Writers' Workshop, Great Leaps, Making Connections, Harcourt Science and Social Studies Programs, and the Go Math! Program.

***Curriculum Mapping and Development of Interdisciplinary Themed Curricula:***

Each school's professional learning community (PLC), guided by the magnet resource specialist and facilitated by the project STEM/curriculum planner, will develop overview curriculum maps for social studies, ELA, science, and math. Each curriculum map will include the overarching goals, concepts, essential questions, content, skills, assessments, resources and their alignment to one another and Common Core and state standards. By using curriculum unit templates, such as Understanding by Design (UbD), Atlas Rubicon or IFL from the University of Pittsburgh, and other curriculum planning tools, the PLC teams will create magnet themed, inquiry-based units across curriculum areas that address different learning needs (including the needs of ELLs and students with disabilities), and meet the Common Core 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.

Teachers will spiral curriculum concepts and skills for deeper student understanding, integrate Common Core literacy standards into each curriculum map, and develop rubrics and clear indicators that are likely to result in higher quality performances, and products.

In addition, the professional learning community (PLC) members, guided by the resource specialists and the project STEM/curriculum planner, will develop professional development modules, or workshop lesson plans, for each curriculum component for the entire staff. It is expected that each project year, the PLCs will develop themed units of study, aligned to Common Core and state standards and magnet standards, which are peer reviewed.

***Technology to Support Incorporation of STEM into Themed Curricula:*** STEM will be an important component of each magnet school. (Please see priority 4.) Integral to STEM activities in the schools will be significant investments in technology to support these activities. Interactive whiteboards (IWBs), or SmartBoards, will be one such investment. The interactive whiteboards will support high-quality digital learning objects (interactives, simulations, animations, and video) that allow teachers to show models or exemplars for STEM projects and investigations. They also facilitate the use of high-quality digital learning objects that depict STEM-related phenomena as part of their mini-lesson portion of the class. Interactive whiteboards will also afford teachers the opportunity to get instant feedback about student learning. In math class, for example, students can work through problems and use “clicker” technology to submit their answers. Teachers can use these data to adjust instruction accordingly, either by re-teaching certain types of skills or for grouping purposes, working with small groups of students on skills they haven’t yet mastered. Finally, interactive whiteboards will allow the district to efficiently utilize the work of the STEM/curriculum planner and magnet resource specialists. They will be able to share tasks, lesson plans, rubrics, etc. with teachers to guide them with the “big ideas” behind

STEM, appropriate essential questions for the curricular units. The STEM/curriculum planner and resource specialists will help teachers as they work on learning about both the inquiry cycle and also the proficiencies in Danielson's *Framework for Teaching* related to planning and preparation, by providing them with high-quality STEM curricular units they can easily adapt for their students.

**Magnet Standards:** Building on the themed curriculum developed by the schools' PLCs, magnet school staff will develop specific magnet standards that indicate what students will know and accomplish as a result of the school's magnet theme. As a result, when parents and/or students select a magnet school they will have a strong sense of what will be expected and what they will accomplish in the magnet program. The development of specific magnet standards will be tied directly to the design and implementation of magnet curriculum and will help parents and students to know what is unique about each magnet school. Magnet standards will also be aligned with and integrated into the Common Core standards and state standards.

To create magnet standards, teachers will begin by developing performance standards for the exiting grades that reflect the knowledge and skills that are important for students to attain and that are unique to the magnet program, while also supporting the Common Core and state standards. The magnet standards will reflect the knowledge/content to be learned, the skills the student will need to know and use to create products, the performance or product and how good is good (the rubric that will be used to judge whether the student has attained the standard). The magnet standards will become part of the magnet themes, units and lessons throughout the year. The schools supported by this grant will develop exit criteria based on their magnet standards. Students will complete projects, display their portfolios or have exhibitions.

The following is a discussion of each magnet school's theme. It must be noted that there will be extended learning theme-related activities (after school and/or summer) for students in each magnet school.

*PS 15 Brooklyn Magnet School of the Arts*

**Magnet Theme Description:** Through the adaptation of Disciplined Based Art Education (DBAE), all children will receive a rigorous study of the arts integrated into all aspects of the curriculum using the NYC Blueprint for Teaching and Learning in the Arts. Because the teaching of reading, writing, listening, and speaking (ELA) is the most important aspect of the core curriculum at PS 15, as those are the skills needed across the curriculum in all content areas, students will identify universal themes and commonalities between literacy and the arts. Art will not merely be illustrative or decorative, but will represent an essential part of the process of inquiry: problem solving and communication where students will analyze, synthesize, explain, and justify, as well as make critical judgments. The school will provide discrete classes in visual arts, dance, drama, chorus, and a full range of instrumental music classes including strings, brass, woodwind, and percussion instruments. Arts education instruction will be delivered through partnerships with cultural organizations and the classroom teachers. Using a co-teaching model, classroom teachers will work jointly with the teaching artist to become skilled in developing and implementing arts infused interdisciplinary units.

**STEM connections:** Recognizing the importance of integrating the arts into science, technology, engineering, and math fields (STEM), the model embraces the theory of STEAM education, adding art and design to the framework of teaching across the disciplines thus increasing critical and flexible thinking, risk-taking, and student engagement. This model enhances STEM education because in addition to the design cycle process used by engineers- ask, imagine, plan, create, im-

prove-, STEAM education encourages students to understand, critique and appreciate the relationship between form and function in products they have designed in addition to questioning, observing, seeing patterns and constructing meaning.

**Collaborations:** All students will be immersed in an arts-integrated academic curriculum that incorporates partnerships with established arts education organizations whose working artists share their expertise. These partnerships include: Studio In A School, Young Audiences New York, Creative Arts Team, Marquis Studios, Kentler International Drawing Space Gallery (at no cost to the project), The Brooklyn Arts Council (at no cost to the project) and The Brooklyn Youth Chorus. Students enrolled in after school classes through Good Shepherd Services Beacon Program (at no cost to the project) will benefit from some of these collaborations like LEGO League Robotics, further extending the arts experience and science and math connections.

**Professional Development:** Each arts-based organization, listed above, offers professional development in their area of expertise and will coordinate professional development programs to examine the existing curricula and locate entry points to introduce and sustain arts-based education. Through professional learning communities, the staff will examine the Blueprint for Teaching and Learning in the Art which aligns to the objectives of discipline-based art education (DBAE): to make arts education more parallel to other academic disciplines and to create a standardized framework for evaluation. The STEM resource specialist will provide a framework for incorporating the Common Core Standards in math and science and infusing engineering and technology into all instruction. (Please see priority 4 for a detailed discussion.) PS 15 will contract with Creative School Services who will customize a yearlong comprehensive school-based professional development program focusing on curriculum development, mapping and aligning thematic units study to the Common Core Standards and differentiation of instruction.

***PS 46: The Magnet School of Communications and Media  
Arts through Applied Learning***

**Magnet Theme Description:** Students at PS 46 will study communications and its impact on the history of man. Staff will provide students with a specialized curriculum focused on communication through the spoken and written word, through the arts, and through media using applied learning standards. School staff will introduce the applied learning standards through interdisciplinary, project-based learning. The five performance standards are: Problem Solving; Communication Tools and Techniques; Information Tools and Techniques; Learning and Self-management Tools and Techniques; and Tools and Techniques for Working with Others. Interdisciplinary grade-specific units will involve all students across the grade working with specialists who support the magnet themes. Through the study of communications all students will read fiction, non-fiction diaries, biographies, newspaper articles and TV scripts. Behind the Book will work with teachers to build students' literacy skills and create lifelong readers. Onsite visits and discussions will motivate children to become engaged readers by connecting them with contemporary writers and illustrators. The arts will be integral to thematic instruction. Through partnerships with Town Hall, the New York Philharmonic, and Puppetry in Practice students will receive instruction in drama, dance and music performance and puppetry and theater. An example of projects that will infuse the communication and media arts theme into the curriculum is a third grade unit on Africa. A small group of students will work with the art teacher making masks, while their peers are learning drumming from the music teacher, creating multimedia presentations with the technology teacher or producing a written project with their classroom teacher.

**STEM Connections:** The program at PS 46 will incorporate STEAM principles into thematic instruction. It represents a framework for teaching across the disciplines where Science and

Technology interpreted through Engineering and the Media Arts are all based in Mathematical elements. It formalizes teaching of the inter-relationships of how subjects relate in real-life. This approach is in consonance with the learning styles approach at PS 46 and the implementation across the grades of developmentally appropriate practices. Magnet-funded SMART Boards, iPads, desktop and laptop computers and Safari Montage will link staff and students to the city, nation and world, supporting the communications and media art theme. Real-time conversations with experts and peers through Skype and FaceTime will provide access far beyond the school. Laptops and iPads will offer flexibility as teachers implement units designed to enable students to meet and exceed the Applied Learning standards. Students will be using the tools that they will be using in secondary school and college, the workplace and in their personal lives in the 21<sup>st</sup> century. Students will develop competence and comfort with technology, a requirement for the vast majority of jobs in the future. Students will use Skype and distance learning to extend their research beyond their school walls. They will develop digital portfolios, consisting of photos of artwork and projects, videos of performances and written work describing their experiences. These portfolios will clearly demonstrate their accomplishments across all content areas. Students will incorporate emerging technologies such as web design, video production, blogs, research and presentation skills and podcasting. Safari Montage will further extend access to primary and secondary sources, as well as high quality STEM programming. Outstanding choices that support the Common Core Learning Standards include: Math for Children, Magic School Bus, SciGirls, Bill Nye the Science Guy and Sid the Science Kid. The system encourages teachers to work collaboratively to develop original units and lessons enhanced by videos and photographs and to share their curricular units. Another component offers staff already prepared curricula, ongoing formative assessments and online professional development. The mobile science

lab will serve a dual purpose in PS 46's project-based learning program. It will be a setting for science professional development for classroom teachers, ensuring that they will be able to use the hands-on lab to infuse their new knowledge and techniques into ongoing lab-based instruction for students. Magnet-themed science units will be based on Common Core Learning Standards and the Next Generation Science Standards.

**Collaborations/Partnerships:** The Magnet School of Communications and Media Arts through Applied Learning will tap some of the rich New York City resources. These include Town Hall, the New York Philharmonic, Puppetry in Practice, mentioned earlier. Other collaborations include the Salvadori Center – 23-week residency in architecture, engineering and art for grade 4; Wildlife Conservation Society – class trips and workshops for grades 3 and 5 and distance learning for all grades; and Brooklyn Children's Museum – early childhood museum visits and workshops.

**Professional Development:** To improve standards-based ELA instruction and achievement, Behind the Book will work with teachers to build literacy skills and create lifelong readers by designing individualized programs that fit the needs of each classroom. Onsite visits and discussions motivate children to become engaged readers by connecting them with contemporary writers and illustrators. At the same time, broad-based professional development available through Safari Montage will be supplemented by Teq's training on digital curriculum development to support the magnet theme. The Center for Applied Linguistics will conduct professional development on how staff can apply common core standards, ensuring that all students have access to rigorous courses of study custom-tailored to their needs and designed to assist them in meeting the standards.

*PS 54: The Magnet School for Environmental Science,  
Technology and Community Wellness*

**Magnet Theme Description:** When students graduate from the Magnet School for Environmental Science, Technology and Community Wellness they will be on a path towards college and career readiness, prepared to interact within their Bedford-Stuyvesant neighborhood and the larger global community. The magnet program will build students' understandings about the importance of conservation and preservation of the environment. Through in-depth units of study on ecosystems and conservation on every grade, students will explore their roles through: a Reuse, Reduce, Recycle program; a school garden; and developing of a water infrastructure to support the garden including planting trees. As their program evolves, students will conduct surveys to assess and address environmental wellness. With these periodic assessments, they will learn to structure surveys that ask key questions and, once they have responses, to interpret the results and construct action plans based on the data gathered. The magnet theme will be integrated into the core subjects across classrooms and grades. The magnet team, with representatives from all school and community constituencies, will be involved in creating and implementing thematic units aligned with the Common Core Standards. During the three-year magnet cycle, the school-wide focus will be: Year 1 – Science and Engineering – a study of the trees in Bedford Stuyvesant and the effect they have on their community ecosystem; Year 2 – Health – a study of community wellness and the connections between their health, nutrition and physical activity; and Year 3 – Math and Technology – projects in math, science and health and using multimedia to disseminate their information. Lower grades will use photography; upper grades will create public service announcements.

**STEM connection:** The STEM program at PS 54 will be strengthened by various components of the magnet theme. The environmental science and technology focus will create a strong framework for the program. Experiences in all four STEM areas will be infused across the theme-related and core content areas through onsite and offsite activities. PS 54 will work with community-based organizations' specialists in science, technology, engineering and mathematics. The magnet team has identified the Brooklyn Botanic Gardens, GLOBE, New York Restoration Project, Rocking the Boat, Museum of Mathematics, Hudson River Sloop Clearwater, Watershed Forestry Institute and Alley Pond Environmental Center for offsite experiences, broadening students' view of the larger community and their responsibilities. Teachers and students will use the Safari Montage to: deliver curriculum, formative assessment and professional development; create and share original content and lessons; access resources quickly; and connect and collaborate with colleagues and students. All of the content in the system supports the Common Core Standards. Titles in the program that will expand students' experiences in STEM subjects include: Bill Nye the Science Guy; SciGirls; Sid the Science Kid; Magic School Bus; How the Earth Was Made; Wonders of the Universe; NOVA ScienceNOW; Math for Children and Cyber-Science Interactive Models. Students will be able to take virtual field trips with NASA and videoconference with their peers around the nation and the world. In addition to infusing STEM into ongoing classroom instruction, electives based on student and staff interests will be added during and after the school day. The team has identified a number of possible topics, including: LEGO Robotics, Gardening Programs, Upcycling Designs (reusing old clothes and accessories to create new designs and products), Yoga, Mad Science and Engineering.

**Collaborations/Partnerships:** PS 54 has established partnerships with community-based organizations to provide residencies that will integrate their magnet theme into the arts. The partners

for grade-specific residencies are: Kindergarten and grade 1 – Children’s Museum of the Arts; Grade 2 – Brooklyn College Puppetry; Grades 3 and 4 – Guggenheim Museum’s Learning through Art; and Grade 5 – Museum of Mathematics. Magnet-funded partnerships that will support the theme and integrate the STEM component, include: Brooklyn Botanic Gardens, Brooklyn Children’s Museum, New York Hall of Science, Transit Museum, Liberty Science Center, Hudson River Sloop Clearwater, Ashokan Center Watershed Forestry Institute/Clear Pool Education Center, Clearwater Tideland Program, and Alley Pond Environmental Center. In addition, staff and students will work an array of educational and community-based organizations – Teachers College Reading and Writing Project, AUSSIE (Australian United States Services in Education), Mighty Milers, Healthier Generation, Food Bank of NY, GLOBE, New York Restoration Project, Weeksville Heritage Center, and Rocking the Boat – at no cost to the project.

**Professional Development:** The magnet program professional development is a critical element in the implementation of the magnet theme. In-depth training on environmental science, environmental stewardship and community wellness will enable teachers to design and implement cross-curricular units in these areas. They will partner with experts from the American Museum of Natural History and New York Hall of Science and strengthen their relationship with the Brooklyn Botanic Gardens to increase each teacher’s knowledge base.

<i><b>PS 307 Magnet School for STEM Studies</b></i>
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**Magnet Theme Description:** *PS 307 the Magnet School for STEM Studies* is located in Vinegar Hill, just blocks away from the Dumbo neighborhood, which, as described in priority 4, has recently been called the new Silicon Alley. PS 307 has a strong connection with the Downtown Brooklyn Improvement District (BID), which will be expanded to include partnerships with the many emerging tech start ups and digital advertising companies that have flocked to Dumbo

throughout the past decade. (Please see Priority 4 for a detailed description of how PS 307 and all the magnet schools will partner with the new tech startups.) Students will graduate from PS 307 with a solid STEM foundation. PS 307 will partner with OMNiLearn. Teachers and students will be trained to think, question and act like scientists and to design and build like engineers. The school will house a new STEM lab with mounted interactive whiteboard, computers and laser color printer. STEM lab materials will include a grow lab, digital microscopes and aquarium set-ups. Classrooms will use Mind Storm NXT's and other online subscriptions, iPads and iPad cart and accessories. K-3 classrooms will be equipped with SMART tables. Younger students will develop problem-solving skills by interacting with activities and collaborating with each other to achieve learning goals. Small groups will be able to work together, face to face, to complete problem-solving and consensus-building activities on one interactive surface. To differentiate instruction, the school will incorporate SUCCESS MAKER, which, coupled with the additional computers the magnet funds will provide, will enable all students to learn at their own rate. Teachers describe this online learning resource as the “second teacher in the classroom”. It provides real time data that teachers use to plan for and adjust instruction so that every student can master goals and achieve academic success. A problem solving approach that supports mathematical thinking and is aligned with the Common Core Standards, ExemplarsMath, will encourage students to use math language to communicate their observations and solutions of real world mathematic problems. The school will use Jr. Great Books, high quality authentic children’s literature, to engage students in critical thinking and reasoning through student centered discussion and inquiry based units of study in non-fiction with a focus on science. Teachers will add culminating projects, aligned to the STEM theme to all units of study. Students will produce or perform as they share their learning with the community at large. They will create blogs and pod-

casts and engage the global community in discussion and develop models and diagrams applying the engineering design cycle- ask, imagine, plan, create and improve.

**Collaborations:** OMNiLEARN bridges the gap between the laboratory and the classroom by bringing state-of-the-art materials for hands on experiential learning. From common science experiences all disciplines including math, English language arts, history and art are integrated in a developmentally appropriate way. Emphasis is on critical and creative thinking skills and implementing the next generation science standards. Through the partnership with OMNiLEARN, PS 307 will create an additional science laboratory in the building so that teachers can deliver dynamic interdisciplinary instruction through hands-on science labs. Social and emotional development is a critical component in educating the whole child. PS 307 students participate in *Horizon at Brooklyn Friends Summer Scholars Program (HBFSSP)*. It provides academic instruction in the morning and enrichment activities in the afternoon at no cost to the MSAP grant. HBFSSP recently received a grant to implement STEM as part of the 2013 summer program.

**Professional Development:** OMNiLEARN: Through professional development workshops teachers will learn how to utilize the new science lab, change their instructional practices and allow all students to regularly learn through hands-on science and engineering labs. Students will participate in hands-on labs led by OMNiLEARN science experts while teachers observe the OMNiLEARN experts leading the work with their students. Through this modeling and coaching, teachers will be learning STEM content as well as changing their pedagogy. National Urban Alliance for Effective Education (NUA) having high expectations and supporting high intellectual performance of all students, uncovering strengths of students and teachers and building on these strengths, will provide professional development to hone teaching practices, increase student engagement and improve the delivery of instruction so that all students experience academic

success. Consultants from Junior Great Books will work with teachers to provide the professional development needed to engage students in inquiry-based discussions.

**(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.**

Recognizing the essential role parents play in directing and supporting the educational achievement of their children, the NYC Department of Education has taken dramatic steps to increase parental decision making and involvement. Each school has a **Parent Coordinator**, whose job it is to create a welcoming environment in the school for all parents. The parent coordinators are supported by each district's **Parent Advocate**. The Parent Advocates provide direct services to address the needs of families and parent leaders. They work with superintendents, principals, school-based Parent Coordinators, their local District Presidents Councils and others to help families understand and navigate school enrollment processes and develop a "District Family Involvement Program." They also facilitate joint workshops for Parent Coordinators and parent leadership; and work with citywide and borough parent leadership organization.

**School Leadership Teams** (SLT) are another structure supporting parents of students in New York City. The School Leadership Team is the primary vehicle for parents to work with teachers and the principal to establish school priorities, decide how the budget is spent, and evaluate a school's progress. Parental decision making and involvement is also supported through the efforts of each school's **Parent Association (PA)**.

The magnet program, in concert with other school and district resources, will **build parent/family capacity** by providing information and resources in parenting skills and improving educational achievement in students. The schools 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 NYC DOE website.

**Training for Parents:** 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, in their native language whenever possible. Schools will offer workshops facilitated by each school's parent coordinator for regular education, special education, and ELL parents designed to help them understand various issues related to academic achievement: for example, what the Common Core means for their child's education, NYS assessments in all targeted subject areas, grade-level promotion and graduation requirements, getting the most out of parent-teacher conferences, attendance issues, and accessing homework help and test preparation. Parents will be able to participate, at no cost to the project, in a series of free NYC Parent Community Workshops in Brooklyn. These will include such topics as understanding Common Core learning standards, standardized tests, and response to intervention; and helping your child get ready for college and careers. Magnet schools will offer Family Engineering Nights, Family Math Nights, Family Science Nights, and Family Technology Nights, which will provide information about each subject and describe STEM activities that parents can do with their child (including on-line resources), tips for helping with homework, and websites that support exploration in engineering.

Parental involvement strategies will build on existing programs (at no cost to the project) in addition to those described above. The following are examples from each of the project schools.

**PS 15:** An expanded parent involvement program will include incorporating the magnet arts

theme into the school's parent involvement program. As an example, arts instruction that is delivered to students will be offered to parents through workshops and participation in cultural events. The school will provide, at no cost to the project, family memberships to art museums to strengthen the home-school arts connection. The magnet resource specialists will provide outreach to inform, include, and encourage parents to participate in the school's arts program. For parents living outside the school's immediate neighborhood, school staff will reach out to parents through newsletters, pod/webcasts of meetings and special events, and offer flexible scheduling of evening and weekend celebrations. PS 46: At no cost to the project, the school's current parent involvement program will be expanded to include parent/child art classes, family trips to museums, curriculum celebrations, expanding the Learning Leaders initiative where parents are trained to take parent leadership positions in the school, expanding the Rosetta stone home license for both families of ELLs and monolingual students, and offering ESL and Spanish as a Second Language classes for parents. PS 54: At no cost to the project, the school's parent coordinator will conduct parent workshops in nutrition and healthy lifestyles, as well as an after-school Cookshop program for parents. PS 307: At no cost to the project, the school will offer parent workshops on the new STEM curriculum.

**Professional Development for Teachers:** Professional development for all administrative, pedagogical, counseling, and other school-based employees related to communicating with and collaborating with parents (as educational partners; as members of School Leadership Teams or other teams) and to engaging families of diverse backgrounds will be incorporated into each magnet school's professional development activities as part of the school's professional development plan. In addition, at no cost to the project, magnet school resource specialists, instructional staff, counselors, and administrators will participate in the NYC DOE's NYC Parent

Academy School Partnership, which provides training opportunities on how to optimize family-school partnerships. Workshops, facilitated by Long Island University, will address such critical issues as encouraging parent involvement, partnering for student success, collaborating effectively, and fostering communication so that teachers and parents engage in an open exchange of information regarding student goals and progress, school-wide goals, and support activities.

**(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**

Each school's facilities are adequate for and well suited to the conduct of all magnet activities. **The capacity at each building is sufficient for the school to expand by accepting substantial numbers of students, enabling it to meet its proposed desegregation goals. It is also adequate to accommodate, in addition to its current student body, students who live outside the schools' attendance zones.** Each magnet school has the following building utilization percentage: (1) PS 15—66% utilization; (2) PS 46—83% utilization; (3) PS 54 – 58% utilization; and (4) PS 307— 53% utilization. The schools have science and other specialized labs, computer and art rooms, libraries, auditoriums, and gymnasiums. Further, there is space in the schools to establish additional labs to support the schools' themes, such as the STEM lab at PS 307. All the buildings are accessible to disabled students.

**(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**

Districts 13 and 15 are committed to allocating the necessary equipment and supplies to the magnet schools to meet their goals. **The equipment and supplies requested from the MSAP for the proposed magnet schools are over and above those received from the tax levy budget and are necessary to successfully implement the magnet schools program.** As indicated earlier, the project will make an investment in technology to support the incorporation of STEM into themed curricula that includes Interactive whiteboards, or SmartBoards. As other examples, PS 15 (with an arts theme) is requesting art supplies, such as clay, paint, brushes, specialized art books, drying racks and art display cabinets; and PS 54 (with an environmental sciences theme) is requesting thermometers, digital microscopes, pedometers, supplies for water system for garden/trees, and document cameras. An itemized list of requested equipment and supplies categories is attached to the line item budget.

**(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 fol-

lows. **(a) Personnel** Magnet Director Full Time: The magnet director will manage all aspects of the MSAP project and perform all duties described in section Quality of Personnel.

Magnet Resource Specialists: 9.5 Full Time Equivalents (FTE). The magnet resource specialists will facilitate instruction at magnet schools, as described in section Quality of Personnel. Hourly

Teachers: Hourly teachers will teach in extended day programs and summer programs. Hourly teachers are also requested in the four magnet schools to develop specialized curriculum at each magnet school during the school year and in the summer. And hourly teachers in the four magnet schools are also requested for staff development during the school year and in the summer.

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. Magnet

STEM/Curriculum Planner Full Time: The magnet STEM/Curriculum planner will assist the schools in their intensive curriculum planning, with special emphasis on STEM; work with project staff, school staff, collaborating institutions, and the like to develop the educational program at each school, as detailed section (b) Quality of Personnel. Magnet Recruiter Full Time: The

magnet recruiter will coordinate a comprehensive recruitment/outreach program to the entire community for the target schools; provide information to parents, community members, and community agencies on the programs in the magnet schools; attend citywide parent meetings; participate in the annual School Fair and coordinate the presentations of the magnet schools; develop a district level plan for recruitment and advertisement, coordinated with each school's recruitment plan; and provide other services described in (b) Quality of Personnel. Magnet Secretary .5 FTE to provide clerical support for the project.

**b. Fringe Benefits** Fringe benefits are a contractual obligation. **c. Travel** Funds are requested for the magnet director and key personnel to attend magnet schools conferences sponsored by Magnet Schools of America and U.S. De-

partment of Education conferences. **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 categories list is essential to fully carry out the magnet program at each school. An itemized list of supply categories is attached to the line item budget. **f. Contractual** Funds have been requested for an evaluation contractor to conduct an independent evaluation of the project. Funds have been requested for outside consultants and university staff to work with each magnet school to implement its theme and STEM component. Funds have also been requested for a statistician to assist the district with the lottery process. **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; print advertising; printing; postage; phones/communication; and professional memberships.

Each year, approximately 3,770 students, school supervisors, teachers and parents will be served by the project for a **cost of \$836 per participant per year**. The budget is reasonable in relation to the number of participants who will be served and the districts' expanded capacity to provide public school choice and improve student achievement – the major objectives of the project.

**(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 dis-

strict 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 minority 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 (1.1-1.5) 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 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 perfor-

mance 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 1.1-1.4** Reduction of minority group isolation (MGI) at each magnet school meets annual targets. **PM 1.5** Each magnet school will receive at least 50 applications

**Assessment:** School enrollment data, disaggregated by race/ethnicity will be used to determine the degree of attainment of 1.1-1.4. Applicant pool and student selection data will be used to determine if 1.5 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  $\pm 15$  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 recom-

mendations (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**

Because Districts 13 and 15 have an outstanding record of continuing programs after grant assistance is no longer available through their use of many diverse funding sources, they fully expect to continue the proposed Magnet Schools Assistance Program after federal assistance is no longer available. **Districts 13 and 15 have budgeted resources, using a combination of tax levy, state, other local funding, and federal funding streams to continue the four magnet schools without Magnet Schools Assistance Program funding. In Districts 13 and 15, which had Magnet Schools Assistance Program funding during the prior cycles, magnet schools have been continued without federal MSAP funding.**

The following are examples of the varied federal, state, city and foundation grants that Districts 13 and 15 received within the past fifteen years to develop and implement programs that continued after grant funding was no longer available. The scope of this list demonstrates Districts 13 and 15's ongoing commitment and capacity to continue grants when the grant period ends. In addition to institutionalizing the Magnet Schools Assistance Programs referred to above, Districts 13 and 15 have continued the following projects after the funding cycles were complet-

ed: U.S. Department of Education Teaching American History Program, New York State Title IID Enhancing Education Through Technology Program, New York State Even Start Family Literacy Program, New York State Learn and Serve America, New York State Department of Health Program, U.S. Department of Education and New York State 21<sup>st</sup> Century Community Learning Centers Programs, U.S. Department of Education Title I Correct, U.S. Department of Education Fund for Improvement in Education, U.S. Department of Education Comprehensive School Reform Demonstration Program, New York State Magnet Program, New York State Comprehensive Bilingual Education Program, New York State Development and Implementation of a Workforce Preparation System, School-To-Work Opportunities System, New York State Community School Project, NYC DOE Middle School Initiative, a Fund for Public Schools grant for Collaborative Communities of Practice, an Aaron Diamond Foundation Grant, Fund for New York City Public Education (now New Visions for Public Schools), Columbia Professional Development, and Institute for Student Achievement. .

**Capacity Building:** Carefully designed capacity-building activities conducted by the project will enable the districts to continue the project when federal funds are no longer available. Capacity building will take place through curriculum development, professional development, the development and use of authentic assessment to measure student outcomes in a more meaningful fashion, and enhanced parent involvement and decision-making. By the conclusion of the three-year project specialized theme-related curricula will have been developed at each project site by teachers, magnet staff and instructional specialists and curriculum consultants; and all the specialized equipment and supplies necessary to continue the magnet school curriculum at each school will be in place.

Moreover, a **robust professional development program supported by MSAP funds, other federal funds, and state and local funds during the project period will enable Districts 13 and 15 to continue operating the magnet schools at a high performance level after federal funding for the magnet schools is terminated.**

**(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.**

As discussed above, Districts 13 and 15 are fully committed to sustain the magnet project when federal MSAP funding is no longer available. To ensure sustainability, the districts will develop and implement a sustainability plan, beginning the first year of MSAP funding and continuing throughout the project period.

**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 STEM learning. Drawing in part on those in the School Leadership Teams, he 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 superintendents, and members of community, education, business, and other groups). Sustainability planning team participation in a multi-step process will support buy-in, because members are clear from the outset of the team's role and the scope of its work.

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 sus-

taining 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 Districts 13 and 15 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, Districts 13 and 15 will facilitate the institutionalization of MSAP-funded activities through strategies that involves: program development that supports sustainability, aggressive grant-seeking, and expanded collaborations with outside partners.

**Aggressive Grant-Seeking:** Districts 13 and 15 will continue to coordinate grant-seeking efforts with district and *CFN Network* staff. The magnet director will work 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 Programs. New York State Grants: Title I School Improvement Grant; 21<sup>st</sup> 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 districts' 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 13 and 15 have forged district- and school-level collaborations with such partners as Marquis Studio, Studio in a School, Creative Arts Team, the Brooklyn Children's Museum, the Wildlife Conservation Society, the New York Philharmonic, the Liberty Science Center, the American Museum of Natural History, etc. It will collaborate with these and other partners to seek additional funding for magnet activities.