

# The Brooklyn Urban Garden Charter School Prospectus

## I. EXECUTIVE SUMMARY

### **Mission**

*The Brooklyn Urban Garden Charter School (BUGS)* will be a vibrant learning community dedicated to stewardship of the environment and the inter-disciplinary study of the science of sustainability. Through explorations of real-world problems and challenges, BUGS graduates will gain: a deep knowledge in the core academic subjects; the problem-solving and critical thinking skills to succeed in high school, college, and the future workforce; and the ability to collaborate with others in an increasingly global society.

### **Key Elements**

- 1. *Inquiry-Based Study of the Science of Sustainability:*** BUGS will be a middle school focused on the science of sustainability, which incorporates the natural sciences, math, economics, history, social sciences, and the humanities to examine the intersection of human and ecological systems. This interdisciplinary field has the capacity to develop new knowledge and ways of thinking needed for students to become actively aware of the larger world, ask significant and relevant questions, wrestle with big ideas, deepen understanding of core subjects, and develop necessary 21<sup>st</sup> century skills.
- 2. *Extended Time for Learning:*** Longer blocks of class time, a longer school day and a longer school year will provide additional time to: maximize learning opportunities; implement innovative, cross-disciplinary approaches to curriculum, instruction, and assessment; and provide rigorous supports for ELL, special education, and struggling students.
- 3. *A Positive and Inclusive School Climate:*** BUGS will create a safe, welcoming, and respectful school climate that supports equity and access for all learners. Through its advisory program, school-wide discipline program, positive behavior supports, and research-based interventions, BUGS will foster a college-bound, career-ready student body that respects and values the diversity of others in their community and around the world.
- 4. *A Professional Learning Community:*** A learning-focused, collaborative culture will be based on trust, shared instructional leadership, and mutual accountability. Daily common planning time and on-going professional development will enhance teachers' collective focus on student learning.
- 5. *Authentic Assessments and Individualization:*** Instruction is driven by ongoing, authentic assessment and analysis of academic and behavioral data, which support students' individual needs and is facilitated by trained and supported teachers.
- 6. *Use of Technology:*** Computer-based instruction will allow for intensive, targeted remediation in basic skills, individualized learning and assessments, and the development of 21<sup>st</sup> century skills in visual, media and technological literacy.

### **Capacity**

The BUGS Founding Team is a committed and experienced group of educators, professionals, community members and parents who bring a range of skills and knowledge needed to meet the diverse needs of a charter school planning team. Members of the group have experience in general and special education, social work, environmental programs, start-ups, law, finance, marketing, development and project management. The team has established functioning subcommittees in the areas of fundraising, facilities, education and community outreach. The team is keenly aware of the challenges that face start-up endeavors, but is confident that it has the expertise and resolve to launch, oversee and govern a high

performing middle school in District 15.

**Miriam Nunberg** (Co-Founder), a former special education teacher, is an attorney specializing in civil rights and education. Her practice deals extensively in matters related to disability and discrimination in public schooling. She has worked to ensure that English Language Learners and students with disabilities receive equal access to programs and services in school districts across New York State.

**Susan Tenner** (Co-Founder) has created, developed and managed educational and social programs in both the private and public sectors. She oversaw corporate-sponsored child care programs and customized early childhood schools for corporate clients, such as Intel and Ford Financial. She has broad-ranging experience in grants management and fundraising for non-profit organizations and public schools.

**Brooks Tanner** worked as an investment banker for over 20 years with firms such as Deutsche Banc and BNP Paribas. As Chief Financial Officer for several start-up and mid-sized companies, he was responsible for establishing and overseeing accounting and cash management systems as well as fundraising and communication with investors and lenders.

**Shannon Sharp** is a Director in Public Finance at Barclays Capital, structuring and managing bond issues to fund affordable housing throughout the country. Her background also includes lending and program development at two mayoral agencies of the City of New York.

**Robert Rodriguez** is an Assistant Vice President of the City College of New York, in charge of the Student Affairs Division. Mr. Rodriguez oversees all student services including career and disability services. He manages a multi-million dollar operating budget and oversees the University's Office of Affirmative Action and Compliance. He is a former senior investigator for the U.S. Department of Education's Office for Civil Rights.

**Teri West** has extensive experience in middle school design and improvement. As Senior Program Officer at the Academy for Educational Development, she was responsible for the development and implementation of dozens of middle-grades school improvement programs across the country. Ms. West also served as a Program Manager for the National Forum to Accelerate Middle-Grades Reform, where she was one of three evaluators of the Forum's Schools to Watch initiative.

**Mark Lauterbach** is the Director of Research and Assessment for the Cooke Center for Learning and Development—the largest private special education provider in New York City. His work at the Cooke Center involves developing and monitoring assessment and evaluation programs, conducting internal research to evaluate and inform best practices, and train staff in curriculum development and mapping.

**Leslie Billie** is the Manager of Communications and Operations for the Newark Education Trust, a non-profit local education fund dedicated to the academic achievement of all students in Newark, NJ. She was also the Project Coordinator for the National Teacher Project at Drew University, where she worked with the associate dean to create a new certification program for teachers.

**Ian MacDonald** was the Western Regional Director of Bilinguals, Inc., where he grew the California business of the company from \$500,000 to \$5,000,000 in under two years, and recruited bilingual related service providers for clinics and schools throughout the region. He also has worked as a teacher and administrator in NYC public schools and as a Learning Strategist, building online training curricula for the Fortune 500.

**Holly Kilpatrick** is a former administrator of a summer student work program for NYU Hospital. She also worked for over 15 years in medical and administrative social work and is a graduate of the NYU Wagner School of Public Service and Silver School of Social Work.

## II. STUDENT POPULATION

### A. Student Enrollment

Grades	Projected Enrollment Table				
	2012-2013	2013-2014	2014-2015	2015-2016	2017-2018
6 <sup>th</sup>	100	100	100	100	100
7 <sup>th</sup>		100	100	100	100
8 <sup>th</sup>			100	100	100
<b>Totals</b>	<b>100</b>	<b>200</b>	<b>300</b>	<b>300</b>	<b>300</b>

### B. Target Populations

#### District Overview

BUGS proposes to be sited in Community School District 15 (CSD 15). On the middle school level, CSD15 demonstrates a stark disparity between the achievement levels of its white, Asian and economically advantaged students when compared to its students of color and those with higher needs<sup>1</sup>. As the chart below demonstrates, on the 2009 New York State 8th Grade Performance examination, white and Asian students drastically outperformed their peers in all other categories across the district, with, for example, 80% of whites, compared to 56% of Latinos, scoring proficient or above on the 8th grade ELA exam, and 91% of Asians, compared to 66% of Latinos, scoring proficient or above on the Math exam. The discrepancy becomes even more pronounced when looking at the special education and English Language Learner (ELL) populations and at free and reduced lunch status. These scores suggest that while white and Asian students may be being served adequately by the district, blacks, Latinos and students with special needs are not.

CSD 15 2009 8 <sup>th</sup> GRADE PERFORMANCE EXAMINATIONS					
<i>Percentage of Students Scoring Proficient</i>					
SUBJECT AREA	ASIAN	BLACK	LATINO	WHITE	OVERALL
ELA	76%	58%	56%	80%	62%
Math	91%	69%	66%	87%	72%
Science	76%	50%	51%	84%	58%

Since CSD 15 encompasses several well-to-do neighborhoods such as Park Slope and Carroll Gardens,<sup>2</sup> this district is often considered affluent and well-resourced. However, the district also serves the Sunset Park and Red Hook neighborhoods, where the median income is substantially below the U.S. average.<sup>3</sup> 72% of all CSD 15 students are eligible for free or reduced lunch (FRPL), 16% are ELL, and 9.6% are designated special education. Additionally, the Sunset Park, Gowanus and Red Hook neighborhoods in the district are all above Brooklyn's average rate for many indicators including mental health diagnoses,

<sup>1</sup> Unless otherwise noted, data was obtained from the New York State District Report Card, Accountability and Overview Report, 2008-09.

<sup>2</sup> These neighborhoods are located in the 11215 zip code, which has a reported median income of \$73,235, according to <http://www.neighborhoodlink.com/zip/11215>.

<sup>3</sup> Located in the 11232 zip code, which has a reported median income of \$28,395, which is significantly lower than the US average of \$56,604. See, <http://www.neighborhoodlink.com/zip/11232>

emotionally disturbed special education classifications, violent crime arrests, property crime arrests, teen births, abortions, drug arrests, and drug and alcohol treatment.<sup>4</sup>

With the exception of a handful of middle schools that serve a large percentage of the district’s white and Asian populations, the majority of CSD 15 middle schools are performing woefully by many measures, as outlined above.<sup>5</sup> There are approximately 7,000 middle school students enrolled in the district’s 16 middle schools.<sup>6</sup> There are four NYC Department of Education (DOE) middle schools<sup>7</sup> where 70% or greater of the student body achieve proficiency<sup>8</sup> on the 8<sup>th</sup> grade exams. These schools, all of which have been deemed “noteworthy” by Inside Schools,<sup>9</sup> maintain subjective entry criteria and select from an enormous applicant pool,<sup>10</sup> consequently they accept a disproportionate number of white and affluent students when compared to their representation in the population.<sup>11</sup> These schools serve 38% of the overall middle school enrollment of CSD 15, but serve 73% of the white students. In addition, 30% of their total enrollment is white, which is double the overall representation of white students in the district.

<b>2009-2010 D15 Enrollment</b>	<b>ASIAN</b>	<b>BLACK</b>	<b>LATINO</b>	<b>WHITE</b>	<b>ALL</b>
% of D15 total ethnic group in 4 noteworthy schools	46%	32%	29%	73%	38%
% of total enrollment of 4 noteworthy schools	11%	26%	34%	30%	100%
% of ethnic group in all D15 middle schools	8%	29%	48%	15%	100%

MS 51, the most popular of these schools, has selective admissions criteria based on test scores of at least 660 on the 4th grade ELA and math tests, and a writing sample. In addition, only 39% and 33%, respectively, of the student populations of MS 51 and 447,<sup>12</sup> are eligible for free lunch; this is disproportionately low compared to the district-wide average of 64%. The only one of these schools that has a free lunch rate that is higher than the district average is MS 448; 82% of its students qualify for free lunch. However, it only enrolls a total of 485 students; therefore a very small percentage of economically disadvantaged students in CSD 15 are attending one of these noteworthy schools.<sup>13</sup>

### 1. At-Risk Students

As stated above, District 15 serves a substantial number of students with disabilities (SwD), English Language Learners and students eligible for free and reduced lunch. BUGS will strive to enroll these students in percentages equivalent to their representation in the CSD 15 population (72% FRPL, 16% ELL, and 9.6% SwD). These at-risk students currently are performing quite poorly in district schools, especially the SwD and ELL students. Their scores on the 2009 8<sup>th</sup> Grade Performance Examinations are outlined below:

<sup>4</sup> NYS Office of Alcoholism and Substance Abuse Services (2004). *New York City Risk Profiles for Youth and Alcohol Substance Abuse: Prevention Risk Indicators Services Monitoring System.*

<sup>5</sup> See Section III.i. below for a further discussion of the status of the middle school alternatives in this district.

<sup>6</sup> <http://insideschools.org>

<sup>7</sup> These are MS 51, 447, 443 and 448.

<sup>8</sup> I.e., score a 65 or above.

<sup>9</sup> <http://insideschools.org/>

<sup>10</sup> Reliable anecdotal reports state that MS 51 receives up to 1000 first and second choice applications for 350 seats; MS 447 receives approximately 800 for 150-180 seats; and MS 443 receives approximately 600 for 160 seats.

<sup>11</sup> Data Source: NYC DOE J-Form, 2009-2010 Official Audited October 31<sup>st</sup> Register.

<sup>12</sup> These are the two most competitive of these schools.

<sup>13</sup> There are currently four charter schools serving this district; when fully enrolled, two of these schools will be K-8, and two will serve grades 6-12. None of these schools has, as of yet, enrolled its full complement of grades. All of them maintain limited target enrollment and do not provide adequate capacity to meet district enrollment needs.

<b>CSD 15 2009 8<sup>th</sup> GRADE PERFORMANCE EXAMINATIONS</b>				
<i>Percentage of Students Scoring Proficient</i>				
<b>SUBJECT AREA</b>	<b>SwD</b>	<b>ELL</b>	<b>FRPL</b>	<b>OVERALL</b>
ELA	24%	5%	56%	62%
Math	36%	37%	68%	72%
Science	23%	14%	51%	58%

In addition to the poor academic performance of the ELL students and SwD, data indicates that students from the Sunset Park and Red Hook neighborhoods of CSD 15 have a rate of alcohol or drug-related mental health diagnosis that is nearly double the Brooklyn average, and a rate of students with emotionally disturbed classifications that is two and a half times greater than the Brooklyn average.<sup>14</sup>

***Recruitment of At-Risk Students***

BUGS will conduct targeted outreach to attract at-risk students in numbers equivalent to their representation in the district. BUGS will be open to all students eligible to enroll in New York City schools, with admissions preference given to students residing in CSD 15. Furthermore, the school will reserve seats for students designated as special education and/or ELL in proportion equal to the community school district average for students with these designations and will aggressively recruit to meet this target.

BUGS will be partnering with the Cooke Center for Learning and Development, the largest private provider of inclusive special education services in New York City. We will also work to develop partnerships with local Community Based Organizations (CBOs) that serve immigrant and non-English speaking families, such as CAMBA, the Center for Family Life in Sunset Park, The Coalition for Asian and Chinese Families in Sunset Park, and the New Americans Welcome Center at the Prospect Park YMCA. The YMCA may also be available for providing after-school and parent education classes. BUGS’ on-site bi-lingual social worker will work closely with our families, and our partner CBOs to refer students and families to social services as needed. We will also seek assistance from the CBOs in educating families of ELL students about charter schools in general and BUGS more specifically, and will conduct outreach to local Committees on Special Education (CSEs) to help recruit special education students.

BUGS will also recruit students by placing ads in local newspapers, distributing flyers to community residents and organizations, and at community board meetings, elementary schools, public housing complexes, community centers and pediatric clinics. All written materials will be translated into the primary native languages of the school’s ELL demographic, including Spanish, Chinese, Polish, Hindi and Arabic. We will also conduct presentations for the PTAs of local elementary schools that have large special needs and ELL populations.<sup>15</sup> BUGS will have a table at the Healthy Kids Fair at the YMCA in May 2011, which had 3000 participants last year, many of whom were from Sunset Park. Through the YMCA we will distribute literature to parents at the schools they serve with afterschool homework and fitness programs.

Since the bulk of the ELL population in CSD 15 is Spanish-speaking, BUGS has already developed outreach materials in Spanish, and have a Spanish-speaking volunteer identified to conduct outreach to

---

<sup>14</sup> NYS Office of Alcoholism and Substance Abuse Services (2004). *New York City Risk Profiles for Youth and Alcohol Substance Abuse: Prevention Risk Indicators Services Monitoring System.*

<sup>15</sup> Such as the Children’s School, PS 1, PS 169, PS 94, PS 131, and PS 230.

local Spanish-speaking families. In all outreach for ELL students, we will translate our information into the major home languages of the families of the district. We will also attempt to obtain a volunteer and then staff member fluent in at least one of the other prevalent languages.

***Communication with parents of at-risk students***

Teachers will communicate with parents of all students, and especially at-risk students via a variety of methods, including regular telephone calls, newsletters, progress reports and report cards. Telephone calls will be made in the parents' home language if possible, or will be in the format of a conference call with an interpreter. All written materials will be translated into the parents' home language.

***Retention of at-risk students***

BUGS will ensure retention by meeting the needs of its at-risk students and working closely with their families. Our educational program is designed to meet the needs of all students. Our advisory program will ensure that students are well known to at least one adult, who will be able to identify red flags and connect students to the appropriate resources in the event of difficulty or failure to make adequate progress. The Board will track parent satisfaction and retention of all students, disaggregated by ELL and SwD status, and will take appropriate proactive measures if issues are identified.

**2. Students with Disabilities**

Approximately 10% of all current CSD 15 students are classified as SwD. Data shows that on the 2009 8<sup>th</sup> Grade ELA, Math and Science exams, district students receiving special education services scored significantly lower than their peers: on the ELA exam, SwD averaged 24% proficient as compared to 62% of the overall group; on the math exam, SwD averaged 36% proficient as compared to 72% of the overall; and on the science exam 23% of SwD averaged proficient as compared to 58% of the overall. There is a demonstrated need to bring these students up to a level of performance at least comparable to that of the other students in the District.

In serving students with disabilities, BUGS will ensure that all students receive a free and appropriate education in the least restrictive environment possible. We will comply with all regulatory special education requirements in the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1974, Title II of the Americans with Disabilities Act of 1990, all civil rights enforced by the U.S. Department of Education Office of Civil Rights (OCR) and any additional regulations required by the state of New York.

***Attracting Students with Disabilities***

The Cooke Center for Learning and Development has been working on inclusive special education since 1987 and has experience in both running its own schools and working with charter and parochial schools to develop model special education programs. The Cooke Center will assist BUGS in developing and implementing an effective inclusionary model for students with disabilities, and in conducting outreach to Committees on Special Education (CSEs) and parents of such students to attract them to our program. BUGS will also utilize the other recruitment methods described above to attract SwD to the program.

***Identifying Students with Disabilities***

After students are enrolled, BUGS will ascertain whether they have an Individualized Education Plan (IEP). If they do, the school will obtain a copy of it to determine which programs and services are mandated. BUGS will also develop and implement policies for the assessment of students to ensure the proper and timely identification of SwD who do not have IEPs yet. Our advisory model and the interdisciplinary nature of the curriculum will offer ample opportunity for teachers to discuss students' successes and difficulties, and to allow for early identification of and interventions for students who are struggling. The Principal, social worker and special education teacher will make up the Student Support

Team (SST), which will meet weekly and will make instructional and behavioral decisions to best support struggling students. If the SST determines that a student is struggling in such a way that might indicate the presence of a disability, we will work with the Cooke Center and the local CSEs to evaluate the student following an appropriate period of pre-referral interventions implemented and monitored in consultation with Cooke Center staff.

***Program for Students with Disabilities***

BUGS is committed to integrating our special education students to truly create a school for everyone. We will utilize an integrated planning model to ensure that students receive all necessary modifications and accommodations mandated by their IEPs, which will enable them to meet and exceed State standards in the least restrictive environment. The BUGS' Director of Curriculum and Instruction (DCI) and the Special Education Coordinator will implement instructional planning with special and general education teachers and clinical support staff, so that barriers to student learning are removed from the curriculum and students' clinical needs are addressed through regular classroom instruction to the benefit of all students. While the school social worker and Special Education Coordinator will have special expertise, all teachers at BUGS will be provided with training in the diverse social and academic needs of special education students. The social worker will work with the Cooke Center to coordinate and deliver professional development sessions that focus on students with disabilities and the best ways to serve them.

BUGS will meet the IEP requirements of all admitted students by requesting the services of the NYCDOE or by contracting with an independent provider for those services it cannot provide in-house. As per Article 56, the NYCDOE is the Local Educational Agency (LEA) for the purposes of special education provision, and as such, we will expect the LEA to provide services for BUGS students to the same extent that services are provided to other public school students. BUGS will also directly provide and privately contract related services through independent service providers, as needed. Provision of these services will be dependent upon the individual goals and requirements of the IEP, availability of services through the CSE, and the particular qualifications and specialties of the special education teachers on staff at BUGS. Contracted service providers will be incorporated into the fabric of the school (including staff meetings, professional development, and parent/family meetings) to the greatest extent possible.

The Principal of BUGS will coordinate the provision of special education with the assistance of the special education teacher and social worker to ensure quality, consistency and academic excellence. The Principal will communicate regularly with the regional CSE to ensure that all special education services and programs are provided in accordance with IEPs. This includes quarterly meetings at the CSE, letters and emails regarding newly admitted students (requesting IEPs or initial referrals in process), and phone calls (to follow up on all items in progress, coordinate logistics for CSE meetings, etc.). The student's general education and special education teacher, as well as the Principal or social worker will attend the CSE meeting. During the annual review of the IEP, the CSE will be made aware of the student's participation and progress toward meeting his/her IEP goals. Additionally, CSE members will be invited to participate in any SST or other school based meetings in which the student's academic progress is to be discussed. General education and special education teachers are required to attend the CSE meetings for their students. Teachers are expected to contribute to and prepare for the CSE meeting, and the Principal and/or social worker will be present at all such meetings.

***Assessment of Students with Disabilities and monitoring of the Special Education program***

Students will also participate in all assessments administered as a regular part of the school's educational program and test scores will be disaggregated so that the progress of SwD can be closely monitored. Additional progress monitoring assessments will be employed as necessary. Teachers will analyze the

results of all of these assessments regularly and will modify instruction accordingly. The Special Education Coordinator will report to the Board regularly on the effectiveness of the program.

### **3. English Language Learners (ELLs)**

Sixteen percent of all students in CSD 15 are ELL students. Although the DOE does not break down ELL data by language group at the CSD level, our research shows that the overwhelming majority of the District's ELL students are Spanish-speaking. BUGS will target these students specifically, but will also work to attract and serve the other ELL students in the District, many of whom speak Chinese, Polish, Hindi and Arabic. As previously mentioned, students scored dramatically lower than any other group in CSD15 on the 2009 8<sup>th</sup> Grade ELA, Math and Science exams ELL. There is a need to bring these students up to a level of performance at least comparable to that of the other students in the District.

#### ***Attracting and Identifying ELL students***

BUGS will seek to enroll and retain ELL students in numbers that equal or exceed 16% of the student population. Our primary focus will be on serving Spanish-speaking families, since they form the bulk of the ELL population.

*Questionnaire:* The parents of admitted students will be asked to complete the Home Language Questionnaire (HLQ) provided by the New York State Education Department's Office of Bilingual Education (OBE). The HLQ will be provided in Spanish and the other languages as needed. BUGS will provide a Spanish-speaking intern to assist with the completion of the HLQ if necessary. A student will be considered a potential ELL if the survey indicates that: (a) a language other than English is spoken at home; (b) the student is foreign-born and speaks or understands a language other than English; (c) the student speaks or understands a foreign language because of foreign ancestry; or (d) English is spoken in the student's home but the student speaks a language other than English because of foreign birth or ancestry.

*Interview:* If the results show that one of the preceding criteria is met, a member of the school staff will interview the student and his or her parents to determine the level of the student's proficiency in spoken English, using the sample questions provided by the OBE.

*Formal assessment:* An incoming student who speaks a language other than English at home and/or speaks little or no English will be assessed using the Language Assessment Battery Revised (LAB-R). Any student who scores below proficiency will be assigned to the ELL program. Before school starts, each ELL student will be assessed in his or her native language to establish a baseline level in reading, writing and math. An ELL student who is suspected of having a disability at any time will be also assessed academically in his or her native language to determine if the suspected disability arises from his or her lack of proficiency in English. The student's performance will be evaluated using the same standards for referral that are used for native English speakers. BUGS will utilize appropriate assessment measures to ensure that students are not referred for special education evaluations on the basis of ELL status.

#### ***Program for ELL Students***

BUGS will bring ELL students to proficiency in English using a structured immersion model tailored to the needs of each learner. ELL students will be taught the same curriculum as English-speaking students and will be expected to achieve the same high standards. They will have full access to all of the programs and services of the school, while simultaneously receiving the level of support needed to achieve fluency in English. We will utilize the Sheltered Instruction Observation Protocol (SIOP),<sup>16</sup> to provide explicit

<sup>16</sup> <http://www.alliance.brown.edu/tl/tl-strategies/mc-principles.shtml>

language support as well as standards-based content instruction. Teachers will be provided with ongoing training in this method of instruction, as well as in differentiated instruction to ensure comprehension of content. Additionally, ELL students will receive continued literacy support in their native language, as overwhelming evidence shows that cognitive and academic development in the native language is essential for cognitive and academic development in the second language.<sup>17</sup> BUGS will provide meaningful opportunities for students to share their native language.

BUGS' ESL teacher will work with the DCI to ensure that ELL students are integrated fully into the daily program, while simultaneously provided the support they need to become academically successful. We will utilize bilingual education personnel to provide specialized services for ELL students requiring a more intensive level of intervention, and the specific nature of the ELL program will vary for each student depending on his or her level of English proficiency and overall academic level. Our daily schedule will allow for both push-in and pull out services, as determined by the English as a Second Language (ESL) teacher, content area teacher and administration. In both scenarios, the ESL teacher will work individually and in small groups to accomplish specific language objectives as they relate to their content. The ESL approach will be content-based and will use a student-centered, communicative approach to language acquisition to cover the basic skills of reading, writing, grammar, speaking and listening. The ESL teacher will work closely with classroom teachers, and there will be common planning time for ELL teachers and classroom teachers to exchange feedback on student progress.

BUGS will assess ELL students frequently to target their specific language acquisition needs, and will utilize technology-based programs to support identified deficiencies and help build on strengths. We will also integrate technology to support writing instruction and motivate students to use written language to communicate. BUGS will also include parents of ELL students in their academic planning as much as possible, by providing translating services during parent meetings, written communications in the family's native language, and creating frequent opportunities for them to participate in the school. English proficiency will be reported in the student's progress reports, and the best practices of successful ELL programs such as Family Life Academy and the International Schools will inform programming at BUGS.

The strategies BUGS will utilize for all students are recommended both to engage the interest of emergent English learners, and to provide opportunities to develop spoken fluency by talking with peers about collaborative learning experiences.<sup>18</sup> Such an approach will develop understanding of the academic content, and will help students connect words with meaning by using nonverbal cues and non-linguistic representation of ideas. This approach will also give language learners opportunities to read and write in meaningful contexts, in their first and second languages.

#### ***Assessment of ELL students and monitoring of the ELL program***

All students who are identified as ELL will take the NYS English as a Second Language Achievement Test (NYSESLAT) annually to evaluate their proficiency. Students will also participate in all assessments administered as a regular part of the school's educational program. Teachers will analyze the results of all of these assessments to determine students' rate of progress and modify instruction or intensify the level of push in or pull out services accordingly. The Principal will report to the Board regularly on the effectiveness of the ELL program, and changes to it will be made as needed.

#### ***Other retention measures***

BUGS will seek to increase the commitment of parents of ELL students to the school by strongly favoring

---

<sup>17</sup> Snow, Burns, & Griffin, 1998

<sup>18</sup> <http://www.netc.org/focus/challenges/ell.php>

Spanish proficiency in the hiring process for school staff, especially main office staff, and honoring the cultural heritage of ELL students by incorporating it into classes, academic projects and all-school celebrations, using parent participation where possible.

#### **4. Students Eligible for Free or Reduced Lunch**

Seventy-two percent of students in CSD 15 are eligible for free or reduced lunch (FRPL students). Charter schools in NYC have historically enrolled FRPL students in higher numbers than their surrounding districts. BUGS will seek to enroll a student body that includes 72% or more FRPL students.

We are aware that charter schools located in communities that are undergoing “gentrification” have found that their FRPL population may fall as a result. This was the experience of Leadership Prep Charter School in Bedford-Stuyvesant. District 15 is undergoing development although much of it remains low-income, with several large housing projects located in Red Hook, and in the Gowanus section of Boerum Hill. If we find that BUGS is not meeting its target of 72% FRPL students, we will consider adding a lottery preference for these students on the basis that they are at risk of academic failure. The preference will draw on the experience of Leadership Prep, which instituted such a preference in its second year, and will include such factors as participation in the food stamps program and residence in public housing. In addition, our school design, described in detail in Section III, is specifically designed to meet the needs of FRL students, to increase academic achievement and to decrease the achievement gap.

### **III. SCHOOL DESIGN**

#### **Introduction and Model**

BUGS' proposed school model is designed to provide all students with a developmentally appropriate and academically rigorous middle school education using the inter-disciplinary study of the science of sustainability as a focal point for learning. We will implement the Environment as an Integrating Context (EIC) Model™ for improving student learning developed by the State Education and Environment Roundtable (SEER).<sup>19</sup> The EIC Model™ approach includes an interdisciplinary study of the environment, hands-on and project-based activities, and individualization for students. It has been shown to have a positive impact on student achievement, prompting students to become more engaged in learning and improving their performance in math, science, reading, writing, and social studies, as evidenced by *Closing the Achievement Gap*, a study by SEER.<sup>20</sup> Carefully building our learning community, we will gradually fuse traditional approaches to classroom instruction with elements of the EIC Model™, assessing their effectiveness at each step. Extended time for learning will be a central element to support both student learning and teacher planning, whether it is to increase student focus during traditional instruction, or to support more innovative instructional practices, such as projects. Lastly, experienced partners such as the Cloud Institute for Sustainability Education and Educators for Social Responsibility (ESR) will provide support to teachers as they implement this approach.

---

<sup>19</sup> [www.seer.org/pages/eic.html](http://www.seer.org/pages/eic.html)

<sup>20</sup> Lieberman, G., Hoody, L. (1998). Closing the achievement gap: using the environment as an integrating context for learning. *State Education and Environment Roundtable*.

## Six Key Elements

### 1. *Inquiry-Based Study of the Science of Sustainability*

The interdisciplinary study of the science of sustainability at BUGS will provide students with in-depth and applied knowledge of the core subjects. We will ensure readiness for high school by employing Understanding by Design (UbD) as a planning model for our inquiry-based approach so that all standard instructional classes, inter-disciplinary units, and projects will incorporate Common Core Standards in ELA and math, and New York State standards for science, social studies, health and other subjects. The local, urban environment of Brooklyn and New York City will provide a framework for studying the question of sustainability and for enhancing and applying students' understanding of the underlying scientific, mathematical, socio-economic concepts. District 15 presents many opportunities for ongoing projects and field work in natural settings such as Prospect Park, the Gowanus Canal, the Brooklyn Waterfront and Jamaica Bay. The school building will also function as a key learning context for students as it will be an interactive, living laboratory of environmentally sustainable practices where students will study, plan, build, maintain and evaluate such building elements as indoor and outdoor school gardens, solar panels, rainwater and composting systems.

In a highly supported and gradual fashion, we will use projects to support our study of the science of sustainability. Project-based learning, when implemented in a rigorous, systematic way, has been shown to improve student performance on a variety of measures when compared with traditional methods.<sup>21</sup> Project-based learning, in addition to improving student performance, is also developmentally appropriate for young adolescents. At this point in their development, young adolescents gain a deeper understanding of content, and make more connections through exploratory, integrative and relevant learning experiences.<sup>22</sup> Additionally, project-based learning has been shown to provide strong supports for ELLs, and is by definition 'differentiated' in that it provides students with multiple ways to acquire content, to process or make sense of ideas, and to develop products that demonstrate student learning.<sup>23</sup>

The Cloud Institute for Sustainability Education will be a key partner in the development and implementation of BUGS' curriculum. The Cloud Institute will provide professional development to assist us to develop curricula that meet NY State and Common Core standards. They will also work with us to develop content and performance indicators, map and align our curricula, and refine our approach to student assessment.

### 2. *Extended Time for Learning*

A longer school day and school year will provide additional time for student learning and teacher collaboration. The longer school year will address a variety of needs of our students and staff. It will provide additional learning time for ELL students and SwD, and it will counteract the academic regression that often occurs over the summer for many students. A longer school year will allow time for incoming 6th graders to participate in a "Summer Orientation" to ease transition, and will give us additional time to assess students and provide strong intervention for those functioning below grade level. It will also facilitate bonding of the peer group. The extended time will be used to get to know students through informal and formal assessment activities, and to engage their families in the school.

---

<sup>21</sup> Boaler, J. (2002). Learning from teaching: Exploring the relationship between reform curriculum and equity. *Journal for Research in Mathematics Education*, 33(4), 239–258.

Cognition and Technology Group at Vanderbilt. (1992). The Jasper Series as an example of anchored instruction: Theory, program description, and assessment data. *Educational Psychologist*, 27(3), 291–315.

<sup>22</sup> *This We Believe: Keys to Educating Young Adolescents*. NMSA, Westerville, OH

<sup>23</sup> <http://www.netc.org/focus/challenges/ell.php>

The staff will utilize the longer school year to engage in professional development to organize, implement, and assess the innovative and new practices—such as the advisory program and the science of sustainability curriculum—that will be integral components of our school.

The daily schedule will be organized into flexible blocks of time to allow for a diversity of instructional activities, including: time for teachers to work individually with ELL students and students of different abilities and learning styles; cooperative learning activities; and in-depth science labs and projects. Teachers will use the blocks of time for common planning and professional development. A flexible block schedule will also provide time for instruction in developmental and remedial reading and math so that students who are struggling have more time to catch up to grade level in these areas. Developmental classes will supplement the standard ELA and math classes that students will attend. As students' skills improve and they become more confident in their math and literacy skills, they will be moved up in reading and math classes to be continually challenged.

### ***3. A Positive and Inclusive School Climate***

BUGS will create a safe, welcoming, and respectful school climate that supports equity and access for all learners. We are developing a partnership with Educators for Social Responsibility (ESR) to receive support and services to implement a school-wide discipline and behavioral program that emphasizes a problem-solving framework for interventions. Through an advisory and youth development program, we will ensure that every student is attached to some meaningful school activity and that we will foster a college-bound, career-bound student body that respects and values the diversity of others in their community and around the world.

ESR's approach to advisories is guided by the principles of youth development and personalization. Through ESR's program, students gain key academic and social competencies that they will need for success in school and in life. ESR's process will take us through their five core phases of developing an advisory program: 1) study and investigation; 2) planning and design; 3) activity mapping; 4) training for advisors; and 5) follow-up support. The advisory program will create a structure and a set of practices for monitoring and supporting students' academic progress and college and career readiness throughout their middle and high school years. The emphasis will be on developing relationships, coaching students, and providing supports to learning, discipline, and behavior.

The Cooke Center for Learning and Development will work with us to create an integrated, developmentally appropriate academic program that will ensure that the social, emotional, and academic needs of special education students are met throughout all learning contexts and environments in the school.

### ***4. Professional Learning Community***

A learning-focused culture will emphasize shared language and practices among faculty. The adults in the school will build a collaborative culture based on trust, shared instructional leadership, and mutual accountability where all staff are unified around a common vision and a shared commitment to serve ALL learners. The longer school day will allow for daily common planning time and other structures for teams to plan instructional goals, share and reflect on their practices, develop a collective focus on student learning, and review student academic and behavioral data to inform decisions.

## 5. *Authentic assessments and individualization*

Instruction is driven by ongoing, authentic assessment and data analysis. Authentic assessment in the context of project-based learning is an ongoing process of formative data analysis culminating in a performance task. Implicit in this is that each unit has clear, learning objectives aligned to standards. The performance task then becomes the opportunity for the student to demonstrate in an authentic task that they can apply the knowledge and skills learned in the unit in real life situations—a process that requires a deep understanding of the topic. However, for the students to achieve this deep understanding, teachers need to continually analyze the data from their formative assessments so that instructional planning can address the needs of the class and of the individual student. Teachers must be trained and supported to know what data to analyze, how to analyze it and what to do with it. Additionally, computer-based instruction, carefully customized small group work, and one-on-one teacher-student meetings will allow for intensive remediation and differentiation of instruction to supplement and support the project-based learning.

## 6. *Use of Technology*

Technological literacy, as well as visual and media literacy, is necessary to prepare students for 21<sup>st</sup> century problem solving, innovation and communication. Educational software can also provide key support in an inquiry-based learning environment by:

- Providing a great wealth of information within the classroom;
- Allowing students greater freedom to pursue their own line of inquiry and develop projects that demonstrate what they have learned;
- Enabling the teacher to support individual or small groups of students in a more personalized manner;
- Offering differing kinds of skill development that caters to students' individual learning needs (such as critical thinking development, visual information mapping practice, questioning strategy development, and conceptual math strategizing);
- Providing immediate and varied assessments for students to understand where they need more practice;
- Offering individualized remediation for students with higher needs and lower performance.<sup>24</sup>

## School Design Eligibility Criteria

### *III.a. Increase student achievement and decrease student achievement gaps in reading/language arts and mathematics*

As stated above, the EIC Model<sup>TM</sup> has been shown to close the achievement gap in standardized measures of math and literacy.<sup>25</sup> Our interdisciplinary approach, based on the EIC Model<sup>TM</sup>, includes teaching reading and writing across the disciplines and employing an inquiry-based approach to math instruction.

#### *Teaching Reading and Writing 6-8 Across the Disciplines*

When students are in middle school they should be reading to learn; however, too many children enter middle school with reading skills that are far below their grade level.<sup>26</sup> Research has shown that students

<sup>24</sup> [http://www.wested.org/online\\_pubs/kn-05-01.pdf](http://www.wested.org/online_pubs/kn-05-01.pdf)

<sup>25</sup> Lieberman, G., Hoody, L. (1998). Closing the achievement gap: using the environment as an integrating context for learning. *State Education and Environment Roundtable*.

<sup>26</sup> NAEP, 2002.

who read well in early elementary grades often struggle to read and comprehend after fourth grade.<sup>27</sup> At BUGS, language arts will be explicitly taught across all disciplines using the texts that are germane to the subject. The curriculum for English language arts will be based upon the recently-adopted Common Core standards and used to prepare all students for strong achievement on the NYS language arts exams.

Given the interdisciplinary nature of the science for sustainability curriculum, the common planning time for teachers, and the learning communities focused on student learning, reading and writing across the curriculum will be a fundamental aspect of the curriculum, instruction, and assessment at BUGS. Students will be required to demonstrate their developing literacy skills in all subject areas. They will be required to read and write for a variety of purposes and audiences. As students develop their writing proficiency, and become more independent learners, they will be expected to use rubrics to assess their own and each other's writing. Student writing will be celebrated and exhibited throughout the building, and shared with external public audiences through authentic correspondence, project products and communications.

Teachers will develop and teach a shared language for the writing process and the components of writing; they will use coherent and consistent practices for teaching and assessing writing, including developing and using rubrics across all grades and disciplines. Teachers will periodically review student writing in their grade-level teams to ensure they have a common understanding for the process and achievement in writing. They will share models of good writing, and engage in professional development on using writing across the curriculum.

### ***Teaching Inquiry-Based Math***

The science of sustainability is predicated on the ability to measure, quantify, analyze and make predictive mathematical models of real life phenomena. To this end, mathematics at BUGS will be taught in an inquiry-based manner as emphasized by the National Council of Teachers of Mathematics standards with a focus on big mathematical ideas, applied mathematics, high quality student work, and structures for teaching math both within the context of big projects and focused skills instruction. As learning math involves understanding concepts, grasping procedures, and applying them to real-life contexts, BUGS teachers will invite students to find patterns and relationships, to become flexible problem solvers, to articulate their reasoning, and to become metacognitive about their strategies.

BUGS teachers will cultivate mathematical habits of mind: curiosity, risk-taking, perseverance, craftsmanship, and tolerance for ambiguity. At BUGS, math class will often be conducted as a workshop. It will begin with a complex problem, and continue with independent or group work, a mini-lesson based on what students are struggling with or have discovered, sharing/comparing problem solving strategies, and a synthesis of the day's learning. This sequence ensures that the students are doing the thinking and provide opportunities for differentiation. The complex problem may be solved over a month, with the daily skills lessons designed to help them answer the bigger problem—so that there is always a context and reason for learning. Students will be required to write about mathematics and present their mathematical findings. Technology such as computers and computer programs such as geometers sketchpad, tableau visual analysis, graphing calculators, motion detectors (CBL), and smart boards will be used to support math learning.

BUGS teachers will maintain high expectations, rigorous standards, and opportunities for practice during class time to ensure students engage in the inquiry model. The math curriculum will be based upon Common Core standards and vertically integrated, where students visit each mathematical idea in a series of contexts, at increasing degrees of complexity, over a period of time, driving toward rigor, culminating with an ability to apply and explain their use of mathematics to solve real world problems.

---

<sup>27</sup> Au, 2000; Balfanz, 2002; Greenleaf et al., 2000; Moore et al. 1999

### **III.b. Increase high school graduation rates and focus on serving at-risk high-school student populations (including re-enrolled drop-outs and those below grade level)**

Not applicable.

### **III.c. Focus on academic achievement of middle school student populations and preparation for transition to high school**

BUGS' academic program and system of social and emotional supports will be designed to meet the academic, developmental, and social-emotional needs of middle school students and to prepare them for transition to high-performing high school. BUGS will ensure that our students are ready for success in high school and beyond through the following middle school components:

#### *Curriculum and Instruction*

Our interdisciplinary curriculum will build students' critical thinking skills and support them as they gather, assess, integrate, and interpret information from a variety of sources and subject areas. A growing body of academic research supports the use of a project-oriented, interdisciplinary curriculum in schools as a way to cut absenteeism, boost cooperative learning skills, improve test scores, and motivate and engage students.<sup>28</sup> As students move through middle school, their curiosity and interest in the larger community and social issues increases dramatically. They begin to seek role models beyond their families as they develop their sense of self and an understanding of how they relate to and affect the world around them<sup>29</sup>. They begin to think abstractly, but their rate of cognitive growth is variable<sup>30</sup>. Our interdisciplinary curriculum will foster collaboration and provide strong examples and models of expected performance. It will provide a developmentally appropriate learning environment that supports the intellectual and social growth of young adolescents.

#### *Advisories*

Advisories at BUGS will be such that each student is well known by *at least* one staff member who will serve as point person for keeping track of his/her advisees' academic record, communicating with families, coordinating support for advisees, and providing support in making sound decisions about their education and futures. Advisory activities will build on the Summer New Student Orientation and develop a strong network of peer and adult support to help students navigate the complex issues of character, identity, relationships, experimentation, and autonomy that arise in young adolescence. Through ongoing goal setting, character development, and self-reflection beginning in the 6th grade, advisories at BUGS will promote intellectually and reflective students who are ready for high school and en route to a lifetime of meaningful work.

#### *Alignment*

BUGS will work collaboratively with its staff, partners, community members, and families to bring coherence to curriculum, instruction, assessment, intervention, data collection, analysis, and accountability for student achievement. The regular common planning time and professional development that will be built into the BUGS schedules will emphasize creating an open professional environment

28 Blumenfeld, P., Soloway, E., Marx, R., Krajcik, J., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26(3, 4), 369–398.

Boaler, J. (2002). Learning from teaching: Exploring the relationship between reform curriculum and equity. *Journal for Research in Mathematics Education*, 33(4), 239–258.

Cognition and Technology Group at Vanderbilt. (1992). The Jasper Series as an example of anchored instruction: Theory, program description, and assessment data. *Educational Psychologist*, 27(3), 291–315.

Marx, R. W., Blumenfeld, P. C., Krajcik, J. S., & Soloway, E. (1997). Enacting project-based science: Challenges for practice and policy. *Elementary School Journal*, 97(4) 341–358.

Thomas, J. W. (2000). *A review of research on project-based learning*. San Rafael, CA: Autodesk Foundation.

29 Lipsitz, Joan and Teri West. What Makes a Good School: Identifying Excellent Middle Schools, in *The Kappan* (September 2006).

30 (Reference: Beane, James A. *A Middle School Curriculum: From rhetoric to reality*. Columbus, OH: NMSA, 1990)

where the observation and discussion of the practice of teaching and learning will be the cultural norm, and where the focus of discussion is on using student data to improve learning. Grade-level and content area collaborative planning periods will focus on aligning the curriculum and instructional practices both horizontally and vertically. BUGS will offer parent education activities on topics that are of interest to families, such as applying to and being prepared for high school. These structures will create a school where open communication of ideas and information is the norm, thereby mitigating the isolated and misaligned practices that occur in middle school as students transition from teacher to teacher and subject to subject.

#### *School Structure*

BUGS will develop the organizational supports and structures that have been shown to improve the educational outcomes for the young adolescent. These include: engaging in ongoing inquiry into teaching and learning by using data and resources to examine evidence of academic progress; creating effective small learning communities of interdisciplinary teams; focusing on and aligning rigorous curriculum, instruction, and assessment; and cultivating partnerships with families, community groups, and others to enhance student learning.<sup>31</sup>

#### **III.d. Use a variety of high quality assessments to measure understanding and critical applications of concepts**

The collection and analysis of student achievement data is a critical component of BUGS' program. Research points strongly to the importance of an intentionally designed and comprehensive assessment system, one which balances multiple types of assessments—formative, diagnostic, summative—and ensures that all stakeholders have appropriate access to the results.<sup>1</sup> Furthermore, demands of the 21<sup>st</sup> century workforce require students to master higher-order thinking skills and see the relationships between seemingly diverse concepts. Skills such as recall, analysis, comparison, inference, and evaluation will be the skills of a 21<sup>st</sup> century global citizen. Thus the essence of assessing 21<sup>st</sup> century skills requires an emphasis on testing what students can do with knowledge, rather than what units of knowledge they have; thus at the center of BUGS' assessment program will be comprehensive performance assessments that require not only the retention of content knowledge but the application of it in an authentic task.

#### **Key Features of Assessment**

*Baseline Assessment and Growth Analysis:* BUGS will administer diagnostic assessments in math and reading and writing at the beginning of the school year and again at strategic times throughout the school year. This will allow for accurate baseline assessments for instructional planning and grouping as well as allow for student growth to be measured on yearly basis for program analysis.

*Comprehensive Performance Assessments:* These assessments will be built in to each unit and will be aligned with the curriculum and the common core standards and performance indicators. Requiring students to demonstrate their knowledge and skills in an authentic performance task not only is best indication of the mastery of the standards but aligns with the underlying principles of project base learning.

*Culture of Transparency:* Students will be provided with detailed explanations of the comprehensive performance assessments as well as timelines, rubrics, study guides for tests, opportunities to receive feedback, and opportunities to revise work.

---

<sup>31</sup> Lipsitz, Joan and Teri West. What Makes a Good School: Identifying Excellent Middle Schools, in *The Kappan* (September 2006).

*Access to Exemplars:* Complementary to extensive preparation, students will be exposed to models of exemplary, average and deficient work, and will analyze the strengths and weaknesses of each to reinforce rigor and create a consistent bar of high expectations.

*Technology:* The use of computerized assessments with progress monitoring software allows for teachers to evaluate student learning faster and more efficiently which affords them the time for ongoing improvement of the curriculum depending on students’ responses to instructions and assessment.

*Advanced Integrated Analysis:* Data is only as useful as the analysis and dissemination of the information. As BUGS employs a multidisciplinary approach, advanced statistical methods (such as multi-level modeling for analysis of student growth within particular groupings) will be employed to analyze the aggregate data to ensure that school-wide performance meets high expectations. At the individual level, BUGS will evaluate student performance based on the entire package of assessment information (from formal to informal) to form a complete picture of each student’s learning profile.

**Test Schedule**

<b>Assessment</b>	<b>Description</b>	<b>When</b>	<b>Purpose</b>
Fountes & Pinnell Benchmark Assessment System	Reading accuracy and comprehension assessment	Fall winter and spring	Instructional planning, student grouping, and growth analysis
Writing samples with common rubric	Writing assessment linked to common core standards and school wide goals	Beginning of School year and for ongoing progress monitoring	Instructional planning, student grouping, and growth analysis
STARMATH	Computer adaptive diagnostic Math assessment	Beginning of school year and for ongoing progress monitoring	Instructional planning, student grouping, and growth analysis
Formative Curriculum based assessments	Tests, quizzes, projects, activities, homework, etc.	Ongoing throughout the school year	To check for student understanding and refine instructional planning and individualized intervention
Comprehensive Performance Tasks	Authentic tasks that require the integration of content knowledge and content skills to demonstrate mastery of the learning standards assigned to that unit.	End of each Unit	Performance on these assessments will be an indicator of mastery on standards and will guide individualized intervention or whole group re-instruction

**Utilizing Assessment Data**

The goal of BUGS is to graduate students who are prepared for high school and the educational and economic opportunities of the 21<sup>st</sup> century. To do this, we will continuously evaluate assessment data to improve student mastery and assess the effectiveness of BUGS’ curriculum and programs, functioning as a positive feedback loop that begins at the administrative level and cycles down to the classroom level, and back up to the administrative level. The Board of Trustees will use achievement data to support and evaluate school leaders in their roles (with the Principal and Director of Operations and Finance, performing self evaluations twice a year). School leaders will also use this data to support and evaluate teachers and the school’s programs (curriculums, assessments, methods and materials). The data will be

discussed during monthly team meetings between school leaders and teachers; and school programs will be refined annually by teachers during the summer.

For instructional planning, integrated planning teams will utilize achievement data in order to refine their curriculum plans and instructional methods. Teachers will also be required to discuss this data with the Principal and teacher colleagues in an effort to improve student mastery and receive observation and feedback to continuously refine their own teaching practices. BUGS' assessment program is aligned with its mission of preparing students for success in college and the 21<sup>st</sup> century workforce. By having uniform high standards that are assessed regularly and reliably students will be well prepared and supported and teachers will have the data to improve instruction and student learning. Teachers will be well supported by the Principal and the DCI, through ongoing professional development and planning meetings, and in developing and analyzing assessment strategies. Most importantly, students will take a parallel role to their teachers and work together in assessing their learning and improving instruction. The BUGS instruction team will work with the goals of increasing student application of knowledge, and reinforcing students' mastery over their learning.

### **III.e. Increase implementation of local instructional improvement systems to assess and inform instructional practice, decision-making and effectiveness**

BUGS is committed to ongoing and continuous data collection to address gaps in student learning and increase instructional (and broader program and institutional) effectiveness. This data will be utilized to support and evaluate all of our instructional staff, and assist our administration and Board to assess our school's effectiveness in fulfilling our mission and students' mastery of standards. Collection and analysis of data around both student academics and behavior, as well teachers,' administrators' and parents' feedback will inform our school's questions, decisions and improvements.

The Director of Curriculum and Instruction (DCI) will facilitate the on-going professional development necessary to collect, interpret and make data actionable, with the support of an outside data specialist consultant. The DCI will work with assistance from the Cloud Institute to embed the Sustainability curriculum, ESR around advisories and school culture, our designated literacy specialist and Special Education Specialist. Professional development will be carefully designed in a step by step fashion: In the first year, we will identify and implement strategies, to ensure alignment between the curriculum and state standards, focus on instructional features, and identify where we need to expand teachers' knowledge and skills for classroom instruction. In years two and three, professional development is likely to focus on how to evaluate and expand the instructional features to deeply embed a more project-oriented curriculum into instruction and assessment. The focus of all of our professional development and data collection will be on improving teacher practice, developing a shared understanding of what learning looks like, and making decisions together to identify and implement best practices. Teachers will be formally observed and evaluated regularly throughout the year, and will have opportunities for peer class observation. Administrators, board members and all staff will collect, analyze and act on data to inform their decisions.

### **III.f. Partner with low-performing, local public school to share instructional practices**

We wish to establish partnerships so that teachers can communicate and visit one another to share what works best for students in our district. We have identified some of the low-performing schools in our district<sup>32</sup> and aim to learn from their challenges, share our own lessons and best practices, and open up professional development opportunities to their teachers.

---

<sup>32</sup> Such as MS 27, MS 136 and MS 442, where the majority of students scored a "2" on the 2009 ELA exam.

We will attempt to formalize processes through which teachers can interact and share instructional practices: site visits, video-conferencing, consistent communication between leadership teams, and invitations to other schools to share and help assess presentations of learning.

**III.g. Demonstrate the ability to overcome start-up challenges to open a successful school through management and leadership techniques**

BUGS will overcome start-up challenges by using its strong foundation of community supports, a skilled and committed planning team, carefully selected staff, partnerships with experienced organizations, and expertise from others who have previously worked through charter school start-up. BUGS will address management and leadership issues at three levels:

*Planning Team and Board:* BUGS has a diversity of experience within its planning team and functioning sub-committees, including experience associated with start-up organizations, and ranging from the fields of education, business, finance, law, real estate and operations. Many of these individuals may serve on the BUGS Board of Trustees. The Board is being carefully recruited to provide maximum support to the school, and will then receive preparation in its governance role.

*School Staff:* BUGS will ensure that its organizational structure will provide for clear management responsibilities and accountability, and will carefully recruit senior staff that, when possible, will have start-up experience in addition to relevant professional expertise. The planning team is seeking a principal with, among other qualifications, demonstrated qualities of persistence, creativity and flexibility, strong alignment with the mission of the school, and a strong background in the realities of school start-up, teacher support, and parent and community engagement. The proposed initial organizational structure calls for substantial investment in senior staff including the Principal, DCI, a Coordinator of Projects, various educational specialists, a Director of Operations and Finance, a Business Manager and a part-time Director of Development & Communications.

*Partnerships/Service Providers:* BUGS will secure additional support from other organizations with capabilities well suited to addressing the myriad challenges a start-up charter school will face:

- BUGS has contacted the Office of Charter Schools within the Division of Portfolio Planning at the NYC DOE regarding public space options. In addition to other facilities options, we are exploring using underutilized space at a local catholic school via a contact at the Brooklyn Archdiocese, and leveraging the real estate and architectural experience of some of subcommittee members.
- BUGS may contract for support services from The New York Charter Schools Incubator (NYCSI), which has successfully guided several schools through startup, and provides consulting in operations and finance, governance, instructional quality and leadership development, facilities and compliance.
- BUGS will initially outsource certain financial functions, such as accounting, purchasing and payables management.
- BUGS will apply for available pre-opening and start-up grants and will leverage its planning team members' expertise in finance and development to secure private and public funds.
- The Cooke Center for Learning and Development will provide crucial consultation regarding Special Education, and support with the recruitment and training of our Special Education Coordinator.
- As mentioned above, BUGS will leverage both the Cloud Institute's and ESR's previous experience with school start-up.

**III.h. Demonstrate the support of the school district and the intent to establish an ongoing relationship with such district.**

We have reached out to the DOE and are soliciting their active support. We are interested in being based in the local community of CSD 15, particularly near the Sunset Park neighborhood, but are open to moving to CSD 13 or other neighboring districts if needed.

BUGS is committed to, and has begun, partnering with the school district, residents and organizations in CSD 15. Representatives of the CEC and local Councilpersons have expressed interest in our school. We have presented to PTA presidents district-wide, CSD 15 Parent groups, as well as individual PTAs. We have visited schools, met with Principals and other representatives at PS295, PS10, PS146, MS443, MS88, MS448 among other district schools. We will continue to reach out to the community board and the CEC for support and guidance throughout the application, start-up phases and into operation to best meet the needs of the community and coordinate with other schools and events in the district.

As previously mentioned, BUGS has initiated relationships with various community-based organizations including the Center for Family Life in Sunset Park, CAMBA and UPROSE, who are interested in the possibility of a partnership with BUGS. The Center for Family Life and CAMBA not only provide after-school academic supports and enrichment activities, but also social services for families, including legal and health services. These services help to meet the needs of families that we will serve and establish the school as a center for the community. Support from families for our school has been clear during the last two years in which we have attended community events, conferences and meetings, collected signatures and talked with residents throughout Brooklyn.

**III.i. Provide access to viable education alternatives to students in regions where there are a lack of alternatives.**

BUGS will provide a high quality and unique educational alternative to students in CSD 15. As has been discussed, this area has many underperforming middle schools; these schools serve 60% of the district's middle school population, but on average, less than one percent of students at these schools attained a score of a 4 on the 2009 8<sup>th</sup> grade ELA exam. As the four higher performing schools are extremely difficult to get into, parents have expressed the desire for additional quality options for their children. While some of the middle schools offer some interesting programming options, the fact that so few students who attend these schools manage to attain high scores on the ELA exam indicates that they are not performing adequately to prepare these students for success in high school and college. Specifically, BUGS will provide an inclusive, engaging and inquiry-based approach to mastering NYS standards that is largely absent in the majority of the existing schools.