



**Department of
Education**

Joel I. Klein, Chancellor

**Quality Review Report
Division of Performance and Accountability
2010-2011**

Quality Review Report 2010-2011

The School of Science and Technology

Elementary 152

**725 East 23rd Street
Brooklyn, New York
NY 11210**

Principal: Dr. Rhonda Farkas

Dates of review: January 26 - 27, 2011

Lead Reviewer: Linda Waite

Part 1: The school context

Information about the school

The School of Science and Technology is an elementary school with 859 students from pre-Kindergarten through grade 5. The school population comprises 68% Black, 18% Hispanic, 4% White, and 8% Asian students. The student body includes 14% English language learners and 6% special education students. Boys account for 50% of the students enrolled and girls account for 50%. The average attendance rate for the school year 2009 - 2010 was 94.7%.

Overall Evaluation

This school is well developed.

Part 2: Overview

What the school does well

- A wide variety of challenging experiences and choices, including the arts and technology, offered during and after school, facilitate student ownership of learning.
 - Well-designed, content-specific curriculum maps across all grade levels, including the arts and technology, are carefully aligned to State standards and emphasize essential questions, key concepts, skills, resources, assessments, modifications, and interventions. Students have the choice of participating in African drum ensemble, ballroom dancing, chorus and Instrumental programs, as well as clubs. A Book of the Month supports character and values education through discussion and writing assignments. As a result, all students are actively engaged in their learning and highly challenged to reach their academic and personal potential, including special needs students and English language learners.
 - Faculty members engage in focused groups around the Principles of Learning, Bloom's Taxonomy, and the Habits of Mind, challenging them to become critical thinkers, problem solvers, and make connections across content areas. In turn, they utilize these skills to create rigorous curriculum and academic tasks aligned to the Common Core Standards. Consequently, student work reflects higher order thinking and college readiness skills.
- Faculty creates highly effective lesson plans well aligned to students' academic and personal needs that result in students taking responsibility for their learning.
 - All teachers are very precise when using various data sources and learning style inventories to form small flexible learning groups. Tiered questions, application activities, and work products of varying complexity, are planned with appropriate teaching modalities to differentiate instruction. Student groups are given various roles and responsibilities, and in sharing out must defend their responses demonstrating both accountable talk and an understanding of content, skills, and concepts. Consequently, students are motivated, actively engaged, and take responsibility for their learning, resulting in improved student outcomes.
- School leaders make well informed and effective budgetary and organizational decisions across all aspects of the school that support improved learning.
 - The principal, in collaboration with staff, allocated funds for a new math program for grade K to 5, a new reading program to supplement Teachers College Reading Writing Project, and professional development to ensure their proper implementation. Monies for new science textbooks support an inquiry approach to learning. Additionally, resources for a math and literacy coach, collaborative team teaching, and intervention programs, supports students' learning. Technology, including classroom computers, computer labs, Smartboards, and grade-level software, effectively enables interactive learning. As a result, budgetary alignment improves learning outcomes as evidenced by the school's Progress Report and State report card, and addresses the school's instructional goals to leverage gains in student achievement.
 - Data is carefully reviewed and used to ensure that instructional time and teachers' assignments meet students' needs. An extended math period provides 75 minutes of instruction in grades K to 2 and a 90 minute-block in grades 3, 4, and

5. Assessment results indicate student gains in computational and problem solving skills. The reconfiguration of the math staff developer's program allows her to work in cycles pushing into every grade-level class throughout the year. Furthermore, teachers develop content area expertise through regularly scheduled time for collaboration, and the decrease of staffing to student ratio provides for greater individualized and small group instruction. This results in a positive impact on student achievement.

- Collaborative teacher teams are highly successful in sharing best practices, developing tools to successfully analyze data, and plan instruction and curriculum.
 - Teacher teams create common grade level assessments that align to key standards and curriculum. Math teachers collectively analyze responses on grade level tests and identify strengths and areas of need. In turn, teachers design lessons, activities, homework, and units of study that leverage student gains as measured by class and Acuity periodic assessments.
 - Content and grade level teams meet on a regular basis to review various assessment results and look at student work. In turn, they identify next steps for re-teaching and differentiating practice so that the instructional needs of individual and groups of students are addressed, thus increasing understanding.
- The school's belief that parents are key partners in their child's education serves as the foundation for a highly effective communication system that keeps parents well informed and involved in supporting their children's needs.
 - Handbooks, letters, and workshops, communicate high expectations to parents for attendance, academics, safety, and discipline. Students' efforts to excel are celebrated through exemplary work displays, attendance recognition, Student of the Month, and the Principal's Weekly Math Sweepstakes. Regular written communication to parents outline vocabulary, comprehension, and spelling strategies, mastering math, homework tips, test and study guidelines, websites to support reading and math, and questions to ask at parent-teacher conferences. The school also offers workshops on ARIS, the English language arts and math exams, and supporting English language learners. As a result, parents feel well-informed and collaborate with the school to support learning at home.
 - School leaders, faculty, and the parent coordinator, offer vast opportunities for parents to attend important school functions. Saturday breakfast workshops culminate with one-on-one conferences to review student performance and progress data. Parents feel connected to the school and become leaders in the parents association, school leadership team, and volunteer as chaperones and Learning Leaders, which have a positive impact on students' personal growth.
- The principal and assistant principals have a highly efficient system for monitoring teacher practice with a focus on improving instruction and student performance.
 - Hiring practices include interviews, review of observations, rating sheets, and candidates conducting a lesson for evaluation purposes. Informal and formal observations, walkthroughs, low inference protocols, and student learning outcomes determine tenure and retention decisions. Pre- and post- conferences and a common observation template including a lesson synopsis, commendable features, and next steps for improvement, serve to improve instructional practices and student learning. Teachers receive professional literature to extend their

growth. Surveys and observations identify needed coaching, teaming, and intervisitations. Differentiated professional opportunities through Teachers College, the network, and the school, are available to teachers who self-select based on need or interest. This results in successful self-reflection, teachers taking responsibility for their learning, and the academic growth of their students.

- The principal and her cabinet use a wide range of data to regularly evaluate professional development activities, professional collaborations and capacity building.
 - Evaluation surveys determine the effectiveness of professional development activities and desired next steps. Teachers attending off-site professional opportunities summarize the presentation, methods for implementation, and procedures for sharing with faculty. The principal, school leaders, and teachers, utilize a walkthrough protocol to identify implementation of targeted instructional practices and strategies. The electronic recording of minutes in a private community in ARIS, at the conclusion of each team meeting, allows the principal and team members to review and make recommendations for improving the coherence of their work.
 - The principal regularly evaluates capacity building through teacher development of three goals to be accomplished and by requesting, teachers to write a letter to a friend explaining what they achieved at the end of the year. The principal's periodic meeting with teachers to review goals, data, and their work, allows for effective assessment of instructional and leadership capabilities.

What the school needs to improve

- Evaluate progress towards defined goals and make associated changes through regular interim checks against measurable targets.
 - Although all students write long- and interim-level goals for all subject areas, they are not updated on a regular basis. As a result, progress is hampered for some students.
- Create systems and structures to regularly evaluate assessments and make adjustments so that student learning needs are met.
 - Currently, a protocol to review common assessments is utilized by teams to ensure alignment to State exams, determine areas of need, and adjust instruction. However, the system does not yet include review of new classroom assessments for rigor and learning needs. For example, word problems for grade 2 were more complex than for grade 4. Additionally, assessments do not always include, for at-risk students, modifications such as font size and number of questions on the page, missing opportunities to maximize all students' performance.
- Explore ways to expand the music program so that additional students reap the academic and cultural benefits associated with playing an instrument.
 - The school offers a wide variety of opportunities for students to engage in music, instrumental music, and art, during the day and after school. However, the very popular Harmony Instrumental Program, offered through a grant with Brooklyn College, only includes 35 students. As a result, many interested students are turned away.

Part 3: School Quality Criteria 2010-2011

School name: School of Science & Technology	UD	D	P	WD
Overall QR Score				X
Quality Statement 1 – Instructional and Organizational Coherence: The school has a coherent strategy to support student learning that aligns curriculum, instruction and organizational decisions.				
<i>To what extent does the school regularly...</i>	UD	D	P	WD
1.1 Design engaging, rigorous and coherent curricula, including the Arts, for a variety of learners and aligned to key State standards?				X
1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best, and ensure that it is: aligned to the curriculum, engaging, and differentiated to enable all students to produce meaningful work products?				X
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs?				X
1.4 Maintain a culture of mutual trust and positive attitudes toward learning that support the academic and personal growth of students and adults?				X
Quality Statement 2 – Gather and Analyze Data: School leaders and faculty consistently gather, analyze and share information on student learning outcomes to understand school and student progress over time.				
<i>To what extent does the school ...</i>	UD	D	P	WD
2.1 Gather and analyze information on student learning outcomes to identify trends, strengths, and areas of need at the school level?				X
2.2 Align assessments to curriculum and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom level?				X
2.3 Use or develop tools to enable school leaders and teachers to organize, aggregate, and analyze student performance trends?				X
2.4 Engage in an open exchange of information with students and families regarding students' learning needs and outcomes?				X

Quality Statement 3 – Plan and Set Goals: School leaders and faculty consistently engage the school community and use data to set and track suitably high goals for accelerating student learning.

<i>To what extent does the school ...</i>	UD	D	P	WD
3.1 Establish a coherent vision of future development that is reflected in a short list of focused, data-based goals that are understood and supported by the entire school community?				X
3.2 Use collaborative and data informed processes to set measurable and differentiated learning goals for student subgroups, and students in need of additional support?				X
3.3 Ensure the achievement of learning goals by tracking progress at the school, teacher team and classroom level?				X
3.4 Communicate high expectations to students and families, engage them in decision-making, and promote active involvement in the school community?				X

Quality Statement 4 – Align Capacity Building: The school aligns its leadership development and structured professional collaboration around meeting the school’s goals and student learning and emotional needs.

<i>To what extent does the school...</i>	UD	D	P	WD
4.1 Use the observation of classroom teaching and the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection, with a special focus on new teachers?				X
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning?				X
4.3 Provide professional development that promotes independent and shared reflection, opportunities for leadership growth, and enables teachers to continuously evaluate and revise their classroom practices to improve learning outcomes?				X
4.4 Integrate child/youth development, support services and partnerships with families and outside organizations with the school-wide goals to accelerate the academic and personal growth of students?				X

Quality Statement 5 – Monitor and Revise: The school has structures for monitoring and evaluating progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.

<i>To what extent does the school...</i>	UD	D	P	WD
5.1 Evaluate the quality of curricular, instructional and organizational decisions, making adjustments as needed to increase the coherence of policies and practices across the school?			X	
5.2 Evaluate systems for assessing students, organizing data, and sharing information with student and families, making adjustments as needed to increase the coherence of policies and practices across the school?				X
5.3 Establish and sustain a transparent, collaborative system for measuring progress towards interim and long term goals and making adjustments during the year and over time?			X	
5.4 Use data to regularly evaluate the effectiveness of structured professional collaboration, capacity building and leadership development strategies?				X

Quality Review Scoring Key

UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed
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