

# Quality Review Report 2013-2014

**Science and Medicine Middle School**

**K366**

**965 East 107<sup>th</sup> Street  
Brooklyn  
NY 11236**

**Principal: Ingrid Thomas-Clark**

**Dates of review: November 13 - 14, 2013**

**Lead Reviewer: Beverly A. Wilkins**

## **Part 1: The school context**

### **Information about the school**

Science and Medicine Middle School is a middle school with 390 students from grade 6 through grade 8. The school population comprises 88% Black, 8% Hispanic, 2% White, and 1% Asian students. The student body includes 4% English language learners and 18% special education students. Boys account for 49% of the students enrolled and girls account for 50%. The average attendance rate for the school year 2012 - 2013 was 96.3%.

### **Overall Evaluation**

**This school is proficient.**

## Part 2: Overview

### What the school does well

- The school has taken effective steps to integrate Common Core Learning Standards (CCLS) into the curricula, resulting in coherent instruction within disciplines and across grades. (1.1)
  - Thoroughly addressing the implications of student outcomes on the 2012-2013 State exams, the school has intentionally designed a curriculum road map that incorporates the CCLS and Next Generation Science Standards (NGSS), embedding rigorous instructional shifts that elevate teaching and learning experiences across content areas. Theme-based engagements across grade levels equip students for pursuit of college and career opportunities. For example, in seventh grade English language art classes, students engage in Socratic Seminars to explore themes relevant to human migration and in eighth grade classrooms, students delve into topics and concepts associated with individual and community conflicts using textual evidence to support short written claims. Thus, an experiential approach to learning leads to students investing in lessons carefully planned with attention to close reading strategies, supporting claims using text-based evidence, and conscientious use of academic vocabulary in discussions. For example, students in seventh grade humanities classes cite evidence of how the author develops and contrasts the point of view of different narrators in a text and analyze a particular element of a story or drama to discuss an emerging plot. Similarly, students in an eighth grade write and explain equations that represent linear and exponential functions by graphing the growth pattern of plants. Accordingly, purposeful curriculum development decisions result in the integration of coherent instruction, in-depth math explorations, and performance-based tasks in all subject areas.
  - The heart of the school's academic program is its emphasis on science, math and careers in medicine, which foster higher order thinking skills and promote cognitively challenging tasks in preparation for 21st century endeavors. This educational platform produces authentic learning experiences supported by partnerships with renowned medical and science institutions. Projects involving real world connections such as New York University's Department of Science and Mathematics provide research activities in math, science, and technology. In addition, a longstanding partnership with Weill Cornell Medical College results in students engaging in tours and being exposed to lectures that demystify careers in medicine. Internal and external collaborations with curriculum consultants and coaches afford all students exposure to an enriching curriculum. Advanced placement courses such as Living Environment and Integrated Algebra I and intervention programs such as Achieve 3000, the Wilson Reading System and MathXL, an online learning tool, give rise to equitable access to rigorous curriculum and academic tasks. All students study a foreign language (Spanish, Mandarin Chinese, or Latin) for a full year, and standards-based lessons infused with varied modifications ensure English language learners and students with disabilities are supported in meeting the demands of a cognitively challenging curriculum. As such, the impact of all students developing rigorous habits of mind and higher order thinking skills is evidenced in the

school's lowest third population achieving a 13% gain in English language arts and a 42% gain in math as indicated in the progress category on the 2012-2013 Progress Report.

- The analysis of information from common assessments leads to instructional adjustments, resulting in targeted academic support for improved student achievement. (2.2)
  - The school relies on results from State exams, Degrees of Reading Power assessments, departmental pre- and post-tests, periodic English language learner assessments, New York State Alternate Assessment for eligible students with disabilities, and benchmark content-area performance assessments. In conjunction with chapter, unit, and teacher-made tests, useful information on students' mastery levels helps teachers to determine and target next steps toward improved learning. Thus, the analysis of data from multiple summative and formative assessments, generated during departmental and Middle School Quality Initiative teacher team meetings, allow teachers to match specific strategies to the learning needs of students. Agreed upon adjustments to curriculum such as additional learning activities, the pacing and sequencing of instruction, and different types of teaching strategies, namely RAFT (restating, analyzing, finding evidence, and tying together) result in improved work products. This was evidenced in an instructional task, whereby students demonstrated increased levels of proficiency subsequent to the re-teaching of identifying author's main idea, and in students' rewriting of open-ended questions as a result of revisiting an activity that required them to generate text-based questions. Therefore, adjustments to lessons based on the use of common assessments increase student progress toward learning goals.
  - Teachers frequently confer with students to help them hone in on the concepts and/or essential skills for academic improvement such as developing positive work ethics, expressing more details and ideas in their writing, understanding how to multiply fractions, or citing the main ideas after reading an article on illegal immigration. As teachers confer with students, they push students' thinking as evidenced in observed lessons and students' final products. Students indicate that they also use rubrics to "plan what they are supposed to do, organize their work, and basically understand what skills are important to use." Consequently, teachers' use of conference notes, students' use of exit slips and lab books, student summaries of teaching points, and pair and share checks for understanding prompt adjustments to lessons to meet the individual and instructional needs of students, including students with disabilities, English language learners, and higher-achieving students. The school-wide practice of conferring with all students ensures that diverse learning needs are met. One student commented that the work is getting harder, but teachers check in to make sure they understand.
- The school's collaborative goal setting processes results in a focused set of school-wide expectations supported by the school community. (3.1)
  - Administrators, faculty, staff, parents and students support collaborative processes that result in overarching goals, which serve as the impetus for accelerated student progress and positive social-emotional growth.

During interviews with member of the school community, stakeholders confidently shared school-level goals. Action plans corroborate articulated ongoing efforts to improve performance of students in the bottom third percentile; ensure student with disabilities meet annual yearly progress targets; align instruction with Citywide Instructional Expectations (CIE); and provide professional development for teachers in order to deepen their understanding of the Danielson Framework. Interim benchmarks make apparent progress toward realizing this short list of focused goals. As a result, meaningful school-wide planning such as frequent review of class-level recordkeeping and reprogramming to accommodate increased teacher and student time on task elicit strong buy-in from stakeholders.

- The principal leverages opportunities to communicate the direction of the school via faculty conferences, Chancellor's Conference Day, monthly professional planning meetings, and Parent-Teacher Association and School Leadership Team meetings. In addition, the School Survey provides adults with insight into the perceptions and concerns of students, resulting in students' opinions influencing school-level decision-making regarding school events, monthly medical and health topics, or choice in selecting class-level projects. As reported to the reviewer, teachers and paraprofessionals collaborate to adjust modes of instruction for diverse groups of learners. Parents utilize the Title I Parental Involvement allocation to assist the school with the continuation of programs like Robotics and with the hiring of an additional social worker for addressing the social-emotional needs of students with disabilities and students at-risk. Students describe the school's culture as empowering because they have choice in selecting projects and extra-curricular programs, control over how they present their work, and in many cases in what order they will assume mandatory learning experiences. As such, school improvement plans and school-based decision making processes galvanize collective efforts that result in the inclusive participation of all constituents toward achieving school-wide goals.
- Organizational decisions and use of resources effectively aligned to school-wide goals engender improvement in the delivery of instruction and student work products. (1.3)
  - Recent organizational decisions demonstrate substantial investment in comprehensive school-wide goals aimed at deepening learning for teachers and students. As evidenced in the hiring of an additional social worker, the rehiring of a math consultant, and the hiring of a coach using Teacher Incentive Funds (TIF), the principal is strategic in the effective use of resources in order to bolster student performance and support professional development. In addition, the principal's purchase of a license to implement Innovation Zone iLearnNYC online blended learning program reinforces value placed on personalizing learning experiences. The skilled use of technology by teachers and students also strengthens active learning and creates efficient access to resources beyond the classroom. As observed throughout the building, the committed use of SmartBoards, laptops, a science/computer lab and a media library have raised the bar on how staff use technology to teach and improved the quality of student work products that abound in corridors.

- Teachers volunteer to serve on the school's hiring committee. Hence, screened applicants' resumes, an implemented rubric-based interview protocol, and consensus about the probability of a 'good fit' enable better student outcomes because combined efforts to enhance the quality of the professional community broadens professional expertise. As such, school-based hiring practices maximize the quality of instruction to which students have access. The result of this work is that school leaders are better able to match students to content specialists and solidly pair teachers for Integrated Collaborative Teaching assignments. Well thought-out hiring practices and the wise use of teacher expertise result in structured support for all students. Pull-out support for English language learners, placement changes from self-contained to integrated collaborative team classrooms, and humanities instruction being increased from six to nine periods per week promote the school's mission of preparing students for college and careers in the medical profession.

### **What the school needs to improve**

- Sharpen pedagogical practices that align with curricular and teacher effectiveness goals to ensure optimal student outcomes. (1.2)
  - During humanities, math, and science lessons, many teachers utilize flexible student groups and confer with students. Students ask questions of each other, justify their thinking citing text-based evidence, engage in research using technology, and provide peer support during small group work. However, in a few cases academic engagements do not yet sufficiently align with the school's beliefs about how students learn best. As such, not all teachers include extensions, incorporate deliberate challenges, or knowingly employ pedagogical practices that accelerate learning for all students. Similarly, the depth and breadth of teacher discussion and questioning techniques vary from classroom to classroom. Some teachers ask questions that push students' thinking and in other classrooms teacher questioning techniques hover at the literal level and do not spark deep thinking or stimulate active participation. Therefore, teacher practices are not yet consistent across classrooms and, as such, students experience uneven levels of thinking and participation, which impedes optimal student outcomes.
- Ensure improvement monitoring provides timely evaluation and adjustments to school-level decisions in order to meet CCLS expectations fully. (5.1)
  - An analysis of the 2012-2013 School Survey, Online Occurrence Reporting System data, and teacher assessment of behaviors that interrupt the flow of daily instruction has led to a partnership with Origins Developmental Designs in order to provide a uniformed approach to maintaining a culture of positive social, emotional and physical improvement. The program emphasizes the modeling of desired behaviors by adults, group activities that promote trust and respect among students, and student discussion to build empathy and acceptance for the ideas and values of others. Due to recent implementation, administrative monitoring and adjustments to ensure conformity of practice are not yet in place to advance CCLS expectations for academic and personal behaviors. For example, while there is evidence of the implementation of *Simple Solution* tenets in some

classrooms, as per conversation with teachers and students, there is a lack of fidelity to the implementation of the program across the school. This prevents accurate evaluation of its impact on desired outcomes.

- The Middle School Quality Initiative Team meets twice per week to support students' mastery of CCLS expectations. To this end, they examine academic and learning behavior assessments, prioritize the needs of students, and identify their strengths and surface areas of challenge. Collaborative efforts result in the identification of next steps that produce strategies, supports, and services to eliminate academic deficits and scaffold progress. However, in its second year, the team has not structured a system to evaluate the quality of its work as measured against student success rates, academic improvement, or the usefulness of remedial methods and resources used in the past. Therefore, adjustments to ensure the team is on the right track are not readily made. As a result, what teachers need to learn to ensure mastery of CCLS expectations is at the developing stage.

## Part 3: School Quality Criteria 2013-2014

School name: Science and Medicine Middle School	UD	D	P	WD			
Overall QR Score			X				
<b>Instructional Core</b>							
<i>To what extent does the school regularly...</i>	UD	D	P	WD			
1.1 Ensure engaging, rigorous, and coherent curricula in all subjects, accessible for a variety of learners and aligned to Common Core Learning Standards and/or content standards?			X				
1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best that is informed by the instructional shifts and Danielson Framework for Teaching, aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products?		X					
2.2 Align assessments to curricula, use on-going assessment and grading practices, and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom levels?			X				
<b>School Culture</b>							
<i>To what extent does the school ...</i>	UD	D	P	WD			
1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults?			X				
3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations?			X				
<b>Systems for Improvement</b>							
<i>To what extent does the school ...</i>	UD	D	P	WD			
1.3 Make strategic organizational decisions to support the school's instructional goals and meet student learning needs, as evidenced by meaningful student work products?			X				
3.1 Establish a coherent vision of school improvement that is reflected in a short list of focused, data-based goals that are tracked for progress and are understood and supported by the entire school community?			X				
4.1 Observe teachers using the Danielson Framework for Teaching along with the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection?			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				
5.1 Evaluate the quality of school-level decisions, making adjustments as needed to increase the coherence of policies and practices across the school, with particular attention to the CCLS?		X					
<b>Quality Review Scoring Key</b>							
UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed