

Quality Review Report 2012-2013

**The Queens College School for Math, Science and
Technology**

Elementary – Middle School Q499

**148-20 Reeves Avenue
Queens, NY 11367**

Principal: Helene Jacob

Dates of review: November 29-30, 2012

Lead Reviewer: Danielle DiMango

Part 1: The school context

Information about the school

The Queens College School for Math, Science and Technology is a K-8 school with 479 students from pre-kindergarten through grade 8. The school population comprises 31% Black, 15% Hispanic, 9% White, and 43% Asian students. The student body includes 4% English language learners and 3% special education students. Boys account for 51% of the students enrolled and girls account for 49%. The average attendance rate for the school year 2011 - 2012 was 97.6%.

Overall Evaluation

This school is proficient.

Part 2: Overview

What the school does well

- The school curriculum scaffolds within and across grade levels and aligns effectively to key standards and instructional shifts within the Common Core Learning Standards in order to address student learning needs. (1.1)
 - Teachers, in partnership with Teachers College and network instructional support staff, have crafted curriculum maps and units of study that provide a consistent balance of focus between math and literacy standards and also address expectations within core content standards. Key skills, such as modeling to demonstrate reasoning and understanding and using text based evidence in writing and reading discussions, are evident in all classrooms and tasks aligned to units of study. Additionally, the school has embedded specific instructional approaches to integrate this work with built-in scaffolds, such as thinking maps, tiered tasks and stop and jot strategies. For example, math problems of the week include a modeling component where students must explain their thinking and science “notebooking” requires students to use specific skills such as compare and contrast and making inferences and predictions within the context of the curriculum. In English language arts and social studies, teachers have increased units that embed nonfiction skills in both reading and writing and select texts and writing tasks based on student reading levels with a focus on increasing text complexity over time. As a result of this school wide focus on aligning curriculum to the rigor of the Common Core Learning Standards (CCLS), teachers expose students to units that address higher order skills and target individual student learning needs to increase student outcomes.
 - Curriculum planning team meetings include teachers within a variety of content areas and those that represent student subgroups within the school. Staff create curriculum maps and tasks that include the use of citywide exemplars and sample student end products, and then they align to student work within the school using the same model tasks. Teachers make modifications to the curriculum based on information culled through discussions around student work, teacher assessment data and the expectations of the CCLS. These strategic collaborations and structured teamwork protocols help teachers focus on making specific skill based adjustments to the curriculum and to decide where entry points can effectively meet the needs of student subgroups and struggling learners. This focus on curricular design has resulted in students gaining a deeper understanding of the work they are producing, particularly in the expectations of reading and research skills around informational text and in their ability to explain their thought processes in math aligned along the continuum of the expectations of the CCLS.
- Well-organized program models and efficient use of resources allow for multiple layers of opportunities for students and staff to meet school wide instructional goals. (1.3)
 - The school has multiple partnerships with Lincoln Center Institute, PENCIL and Queens College, as well as additional resources provided through a Teaching American History grant that provide students with access to authentic learning experiences. Technology is an integral part of the

instructional vision of the school and the principal channels resources for a technology teacher to infuse the effective use of technological tools within social studies and science curricula in order to allow students to meet the challenges of the CCLS in these areas. Additionally, the school supports a music program and carves out time for intervention and extended supports to address other unique needs of students. This focus on providing multiple learning experiences to students guides school improvements in the development of tasks related to real life experiences, thus improving students' research skills and their ability to activate prior knowledge to appropriately cite evidence within their writing in all content areas, as seen in a review of student work.

- The principal organizes teacher teams to meet weekly by content area in the middle school and has established vertical teams on the elementary level who also meet weekly to allow teachers to engage in building a comprehensive understanding of the scaffolded expectations of the CCLS as well as common shifts within core content areas. This structure allows teams multiple opportunities to engage in teacher-run professional development around curricular, task and rubric design using student work to leverage decisions. Shared instructional strategies such as debate of the week, boxes and bullets, effective modeling and developing content aligned vocabulary strategies are some examples of school wide modifications that have been made to instruction due to this strategic allotment of time. Additionally, student math and writing tasks displayed throughout the school demonstrate that as a result of this teaming, students show significant progress in their ability to construct and prove viable arguments both in their nonfiction writing and mathematical reasoning skills.
- The school community fosters a respectful and supportive learning environment where students play an active role in their academic and social-emotional development. (1.4)
 - The school's core ideal to culture building centers around the community belief that students need to play an active role in creating and supporting an environment where everyone feels included, safe and engaged. Students consistently reference the variety of activities they facilitate each year, such as school spirit days, student cabinet, as well as a "no bullying" rally and pep rally for "Character Counts." Additionally, each year students refine the school-wide behavior rubric that is the expected code of conduct for students to follow and is displayed throughout the school. When asking students what it means to misbehave, students of all ages stated that misbehaving is not following the school-wide model of the three "Rs": being a good Role model, acting responsibly and behaving respectfully towards one another and staff. As a result of this positive learning culture, the students highlight their high student attendance (almost 98%) and low student suspension rates (0% this school year), and state that they feel their opinions around contributing to their community are valued by teachers and the administration.
 - Students throughout the school can identify a variety of teachers and school leaders that support them in their academic and social-emotional growth. Enrichment programs such as SWEET time allow students to pick from a variety of classes such as dance, scrapbooking, Readers Theater, board games, glee club, yearbook, Lego robotics, puzzles and creative writing classes. These classes are selected by teacher interest as well and

students enjoy spending this time working outside of the core subject areas with the staff. Additionally, students stress that they are recognized for their hard work by both teachers and administrators throughout the school and also feel their teachers provide them with additional support, such as homework assistance during lunch and summer projects to motivate them to begin the following school year. Students state, "Our school has high expectations for us and help us to succeed. We feel their goal is to prepare us for high school." This positive tone encourages them to work to their potential and to support their peers in maintaining a positive school environment, resulting in increases, particularly in the middle school grades, in students passing their core courses each year.

- Thoughtful observation, feedback and professional development systems support professional growth and have elevated instructional practice throughout the school. (4.1)
 - The administration has clear systems that are aligned to specific areas of focus: designing coherent instruction, using effective assessment strategies to analyze student learning and effective questioning and discussion techniques. Feedback to teachers targets areas of strength and identifies developmental need aligned to expectations within the Charlotte Danielson framework and includes rubric-aligned evidence, next steps and teacher comments on all feedback documents. Within weekly feedback cycles, the principal meets with teachers to discuss model practice and teacher leadership opportunities, and also works collaboratively to plan individual professional development plans. Embedded within this structure are teacher goal-setting practices that include two long-term goals, over a two-year time frame, as well as two yearly goals. The principal monitors teacher development of all staff members three times throughout the year, providing next steps and additional support if necessary. Finally, on a monthly basis, the principal collects student work samples and measures student outcomes against teacher practices culled from feedback and goal setting documents. As a result of this collaborative process, teachers feel the feedback and professional development they are receiving has improved the way they plan and modify teaching practices, which has impacted student work products across the school.

What the school needs to improve

- Continue to develop teacher pedagogy to ensure questioning strategies and classroom learning activities are aligned to instructional outcomes and provide appropriate challenge to maximize higher order thinking and student engagement. (1.2)
 - The school has engaged in purposeful planning of units of study, end of unit tasks and pre- and post-assessments within and across grades aligned to compatible resources in order to support the CCLS expectations as well as the needs of students. In many classrooms, teacher emphasis on higher order questioning skills and student work time is purposefully designed with activities aligned to the unique needs of students that promote high levels of student engagement and interest. For example, in one math class, students were working in five groups carefully planned using a pre-assessment on multiplying integers. The teacher had strategically designed three different problems and provided scaffolds, supports and extensions to meet the needs of all learners in the class. The end product required that all students

develop a function table and demonstrate an understanding of linear and non-linear graphing. However, in other rooms, pedagogy and planning of tasks do not yet fully implement the rigor and expectations of the school-wide curriculum. For example, in another classroom, math tasks lacked multiple entry points that left some students copying the answers from their peers. As a result, student work products and classroom participation within the school varies, leading to uneven levels of student comprehension of school-wide goals and expectations of the content being taught.

- Strengthen the work of aligning assessment tools to curricular expectations to include actionable and meaningful feedback so all students are aware of their next learning steps. (2.2)
 - The school has done exceptional work around the development of assessment tools, such as on-demand prompts in every content area that effectively measure student achievement levels and learning outcomes. Teachers measure student work products against standards-aligned rubrics, which scaffold across grade and content areas, and in-class assessment results to determine student growth as well as gaps in instruction to make decisions about teaching practices and the learning needs of their students. However, some teacher teams are still working to solidify how these tools effectively measure instructional decisions made to increase the learning outcomes of student subgroups, particularly students with disabilities. Since this work is not fully implemented, current assessments do not provide a cogent picture of multiple pathways of student mastery within grade level curricular standards for students within these subgroups, resulting in missed opportunities for all students to improve their academic achievement.
 - In many classrooms students are provided with multiple opportunities, such as unit-aligned checklists and rubrics, to engage in self-assessment practices and to provide feedback to peers. Teachers use information culled from these tools during both conferencing with individuals and for student grouping. However, although these practices are in place and used in all grade levels, not all students are able to use them effectively to articulate their particular areas of weaknesses within the units of study they are engaged in, limiting their ability to fully grasp the next learning steps necessary to move them to a higher level of proficiency.

Part 3: School Quality Criteria 2012-2013

School name: The Queens College School for Math, Science, and Technology	UD	D	P	WD			
Overall QR Score			X				
Instructional Core							
<i>To what extent does the school regularly...</i>	UD	D	P	WD			
1.1 Design engaging, rigorous, and coherent curricula, including the arts, physical and health education, 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 that is informed by a research-based, common teaching framework and is aligned to 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				
School Culture							
<i>To what extent does the school ...</i>	UD	D	P	WD			
1.4 Maintain a culture of mutual trust and positive attitudes that support 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 them?			X				
Systems for Improvement							
<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 students' 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 Use the observation of classroom teaching with a research-based, common teaching framework 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				
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				
Quality Review Scoring Key							
UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed