



**Department of  
Education**  
*Carmen Fariña, Chancellor*

Office of School Quality  
Division of Teaching and Learning

# Quality Review Report

## 2014-2015

**Isaac Newton Middle School for Math & Science**

**Middle School M825**

**260 Pleasant Avenue  
Manhattan  
NY 10029**

**Principal: Lisa Nelson**

**Date of review: February 6, 2015  
Lead Reviewer: Hongying Shen**

## The School Context

Isaac Newton Middle School for Math & Science is a middle school with 275 students from grade 6 through grade 8. The school population comprises 28% Black, 65% Hispanic, 2% White, 4% Asian and 1% Native Hawaiian/Other Pacific Islander students. The student body includes 12% English language learners and 24% special education students. Boys account for 53% of the students enrolled and girls account for 47%. The average attendance rate for the school year 2013-2014 was 92.2%.

## School Quality Criteria

<b>Instructional Core</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
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	<b>Focus</b>	<b>Developing</b>
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	<b>Additional Findings</b>	<b>Proficient</b>
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	<b>Additional Findings</b>	<b>Proficient</b>
<b>School Culture</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
3.4 Establish a culture for learning that communicates high expectations to staff, students, and families, and provide supports to achieve those expectations	<b>Celebration</b>	<b>Proficient</b>
<b>Systems for Improvement</b>		
<i>To what extent does the school...</i>	<b>Area of:</b>	<b>Rating:</b>
4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning	<b>Additional Findings</b>	<b>Developing</b>

## Area of Celebration

<b>Quality Indicator:</b>	<b>3.4 High Expectations</b>	<b>Rating:</b>	<b>Proficient</b>
---------------------------	------------------------------	----------------	-------------------

### Findings

School leaders consistently communicate high expectations to staff and the school community. School leaders and staff partner with families to establish a culture for learning that leads to a path to college and career readiness.

### Impact

The school's effort to communicate high expectations to the staff, students, parents and community results in a learning culture of mutual accountability and active community involvement in student learning for college and career readiness.

### Supporting Evidence

- School leaders communicate high expectations to the staff via weekly meetings and professional learning time. The school's staff handbook provides instructional guidance in lesson planning, the workshop model, assessments of the Danielson Framework for Teaching domains. It also communicates the core beliefs and operating norms for creating a productive learning environment.
- Grade and content area teams meet weekly for professional learning on topics such as clear expectations, academic rigor in a thinking curriculum, accountable talk and socializing intelligence. Each teacher has set professional goals for the year according to the Danielson Framework for Teaching with steps to reach those goals and intended outcomes.
- The school has a system of accountability where teachers and school leaders work together towards the goals each teacher has set. Teachers are supported with professional development opportunities to improve their practices. The principal and assistant principals enter classrooms to take "snapshot data" on whole class discussion activities, group or partner work, independent work and teacher-directed instruction. Each school leader has roles and responsibilities in leading and monitoring teacher growth and evaluation. The principal reviews each teacher's professional goals and monitors their progress.
- At the beginning of the year, parents and students sign a contract which outlines expectations of the school, and students are expected to lead their own academic conferences during parent teacher conferences to reflect on their progress in school and highlight the work that represents their academic growth. Parents shared that the school provides academic challenges and at the same time builds student character and supports student social emotional growth, with many supporting services and programs, such as Citizen Schools, City Year, and Union Settlement.
- The school has an existing partnership with College for Every Student to expose students to college expectations and promote their progress toward college and career readiness. Through the program, students have visited four universities and two high schools. In the program, students also participate in various community service projects, which help them develop communication skills and build self-confidence. Parents shared that their students learn in the classrooms and learn and practice again in the afternoon programs, and that teachers keep them informed of their children's progress constantly through letters, emails, phone calls and events, such as rewards ceremonies.

## Area of Focus

**Quality Indicator:**

**1.1 Curriculum**

**Rating:**

**Developing**

### Findings

School leaders and faculty work collaboratively to integrate the Common Core Learning Standards-aligned Code X curriculum into the teachers' written curriculum and provide all students access to the curriculum and academic tasks.

### Impact

Though curricula are accessible to all students, the academic tasks emphasize rigorous habits and higher-order skills inconsistently across grades and subjects.

### Supporting Evidence

- The school humanities curriculum is a hybrid of teacher written curriculum and Code X. All teachers have received professional development in the implementation of Code X, which facilitated the integration of this resource into existing Common Core-aligned curriculum.
- The school uses Connected Math Project 3 curriculum, which is aligned to Common Core, and the math teachers meet weekly with the math coach to develop adaptations to bridge the gap between students' academic achievement level and the Common Core benchmarks.
- The 6th grade second humanities unit maps out the essential questions, enduring understandings, knowledge and content, skills and assessments. This unit's formative and summative assessments include spelling, using vocabulary in sentences, and a summative task for students to design an early human community through writing and images, building on the previous learning. However, rigorous academic tasks are not consistently evident in other units and subjects.
- Lesson plans reflect planning to provide students access to the curricula and tasks, with guided reading, chunking, paraphrasing, charts, and push-in instruction models. The school's Spanish curriculum helps Spanish-speaking students enhance their first language literacy skills that support their achievement in English humanities courses.
- The school has established a small group instruction model to provide targeted instruction for students who need foundational skills in all subject areas or who need advanced learning. Grade teams identify those students and form flexible groups accordingly. To cognitively engage the diversity of learners in curricula and academic tasks, teachers provide the students with differentiated instruction, re-teaching or advanced studies one period each day.

## Additional Findings

<b>Quality Indicator:</b>	<b>4.2 Teacher teams and leadership development</b>	<b>Rating:</b>	<b>Developing</b>
---------------------------	---	----------------	-------------------

### Findings

The majority of teachers are engaged in structured professional collaborations on teams and distributed leadership structures are developing.

### Impact

Though teacher teams work collaboratively and share best practices, there is a lack in following a consistent, inquiry-based approach to the teams' work, which limits their ability to inform key decisions that could affect student learning across the school or their effectiveness in adjusting and improving instructional practice.

### Supporting Evidence

- All teachers are part of a content area team and a grade level team, which have been created to ensure collaboration across grades. Both teams meet weekly to discuss how students work and share strategies for effective teaching.
- At the 7th grade humanities team meeting observed, teachers had a general discussion of the lessons taught and reported to each other that students did well at generating questions individually, but not at the whole class discussion. Teachers shared that two classes were struggling with writing, and some next steps were suggested, however, the team didn't use the class observation or student work to co-construct an instructional focus to be implemented in a cycle of inquiry.
- The special education team meets bi-weekly. The team discusses compliance, student needs, mandates, best practices, and functional behavior assessments. Though the team engages in collaborative learning to further promote greater understanding of disabilities and their manifestations in school settings, there is a lack of inquiry focus that would strengthen the instructional capacity of teachers.
- The principal joins team meetings to work with teacher teams on knowledge of students, instructional focus, and collaborative professional learning. The principal is also building distributed leadership capacity among the teachers by establishing a model teacher to promote best practices across the classrooms.
- Though grade and content team leaders join the weekly administration meetings and discussions, and disseminate school initiatives to the staff at large, there are still missed opportunities for teachers to build leadership capacity so that they might have a voice in key decisions that affect student learning across grades and subjects.

<b>Quality Indicator:</b>	<b>1.2 Pedagogy</b>	<b>Rating:</b>	<b>Proficient</b>
---------------------------	---------------------	----------------	-------------------

### Findings

Pedagogy provides consistent instructional supports to all students, and practices are aligned to the curricula.

### Impact

Across classrooms, students have multiple entry points to access the curricula and participate in rigorous discussions, yet there are missed opportunities for planning challenging culminating tasks for students to demonstrate higher-order thinking skills.

### Supporting Evidence

- The school uses a common protocol for class discussions that fosters deep thinking. There is an instructional focus school-wide on accountable talk, questioning, and student-led discussions. Across classrooms during class discussions, students call on each other for answers and ask follow up questions.
- In a 7th grade humanities class, after the close reading of *Why We Run*, students were to have a discussion on how humans go about achieving dreams using the concept of fight or flight. The teacher modeled open-ended questions and students worked in groups to practice asking high-order thinking questions on the theme “achieving dreams”. Students wrote about their own dreams and then had a whole class discussion. They pushed each other’s thinking with questions such as “If you will fight bullying at school, what are you going to do when bullying takes place outside the school?”
- All teachers have engaged in professional development designed to unpack the Danielson rubric by sharing best practices. Teachers write professional goals based upon the rubric and self-assess their practice at least twice a year. Three teachers have visited two other schools to observe Socratic seminars and implement the instructional practice in 6<sup>th</sup> grade humanities classes.
- In a 6th grade humanities class, students were studying ancient Egypt to understand its major events and rulers, and the daily life for Egyptians across the New Kingdom’s social hierarchy. The teacher used both informational and literary text to introduce the content, integrating English language arts and social studies curricula. Students worked in groups to write a narrative of a day in the life of a person from the social class they are assigned, based on the specifics from the texts.
- Across classrooms, teachers provided scaffolds and multiple entry points for learning, including turn and talk, visual representations of major concepts, charts and pairing of students. In a 7th grade math class, students used manipulatives, used graphs or worked with a math program on computers to determine the area and perimeter of rectangles.

<b>Quality Indicator:</b>	<b>2.2 Assessment</b>	<b>Rating:</b>	<b>Proficient</b>
---------------------------	-----------------------	----------------	-------------------

### **Findings**

The school uses common assessments, grading policies and rubrics that are aligned to the curricula to determine student progress.

### **Impact**

The school-created protocol for assessment analysis enables teachers to identify student needs and adjust instruction. This leads the teachers to provide students with actionable feedback.

### **Supporting Evidence**

- Across classrooms, teachers design and administer interim assessments three times a year and analyze the resulting data for patterns in student learning. Teachers use the information to group students for small group instruction, one period a day, every day.
- Teachers use a teacher-created form to record individual student progress and set learning goals with each student. The 8th grade teacher records on individual students include the analysis of deficits and strengths in learning, current interventions provided, weekly goals for the student and the progress made.
- The school uses the Isaac Newton Middle School (INMS) Interim Assessment Analysis and Action Plan protocol for assessment analysis and adjustment for teaching. The 7th grade math teachers' assessment analysis and action plan shows a detailed analysis of the concepts and skills taught, as well as the planned adjustment to spend more instructional time on the unit on graphing to provide students with scaffolds and more time practicing quadrants and unit rates.
- Across classrooms, students reflect on their own work and do peer assessment using a self-reflection/peer assessment rubric. One 6th grade student shared her assessment of her own work where she wrote that she needed to pay more attention to evaluative and interpretive questions. Her peer then gave her warm and cool feedback.
- All humanities teachers assess student reading levels three times a year and use the independent reading level progression data to plan for independent reading and intervention.