# Quality Review Report

# 2012-2013

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

**Middle School 825**

**260 PLEASANT AVENUE**
**MANHATTAN**
**NY, NY 10029**

**Principal: LISA NELSON**

**Dates of review: April 29 - 30, 2013**

**Lead Reviewer: Teresa Caccavale**

# Part 1: The school context

## Information about the school

Isaac Newton Middle School for Math & Science is an Intermediate school with 358 students from grade 6 through grade 8. The school population comprises 23% Black, 73% Hispanic, 1% White, and 3% Asian students. The student body includes 12% English language learners and 17% special education students. Boys account for 54% of the students enrolled and girls account for 46%. The average attendance rate for the school year 2011 - 2012 was 93.9%.

## Overall Evaluation

**This school is developing.**

# Part 2: Overview

## What the school does well

- The school has aligned curricula across grades and subjects, integrated Common Core Learning Standards(CCLS), and are aligning tasks into instructional units to meet the academic needs of all students (1.1)

    - To address one of the school's top priorities that unit and lesson plans are aligned to the Common Core Learning Standards (CCLS) teachers are part of a Citywide working group and receive critical feedback on unit plan alignment and level of academic rigor in written lessons. As a result they have piloted Common Core aligned unit plan development, implementation, and assessment, within the humanities and math strands. Every teacher has a planning partner and planning teams on each grade level meet weekly to share lesson plans, create essential questions, and rework lessons and unit plans. The art teacher as is a member of the humanities teacher team has aligned his curriculum to CCLS and works to integrate art projects with the humanities curricula. Additionally the science team is exploring English language arts (ELA) and math CCLS to align ELA and math standards when appropriate. Outside consultants in math and technology further support teachers in aligning curricula to the CCLS. Additionally, every unit has a culminating project and or test and students do theme-based projects in humanities, science, and math. As a result, written tasks are aligned in instructional units, adjusted in content areas, consistently implemented across the school and reflect rigorous instruction for a range of students.

    - Teachers use a variety of data sources including screening, interim measures, and progress monitoring, to inform lesson planning and develop explicit teaching plans. Special education teachers plan with general education teachers for differentiation and student academic support. An experienced dual-licensed English as a second language (ESL) teacher serves as the humanities coach and supports the design of coherent curricula for a variety of learners. In addition, two humanities teachers and one math teacher have participated in monthly network support to align curriculum with CCLS. These teachers turnkey information learned during content area team meetings. As a result, curricula and academic tasks consistently emphasize rigorous habits and higher order skills across grades and subjects and for English language learners (Ells) and students with disabilities (SWDs).

- The school maintains a culture of mutual trust and positive attitudes towards learning that support academic and personal growth of students and adults. (1.4)

    - Staff care about students' well-being and are bridging the gaps between where students are and where they want them to be, and faculty believe their role is to help students see themselves as successful. To that end, students and parents know that the principal has an open-door policy and that they can come to her office anytime. As evidenced during classroom visits teachers spoke with students using a respectful tone and language and offered assistance to students in need. The school community has established homeroom as a place where there is a home for each student and each homeroom family works collaboratively to create a safe and nurturing environment for all. In addition, the

homeroom teachers are the communication links for students across subjects and at teacher team meetings. Parents and students indicated during interviews that they feel cared for and are in a safe learning environment. Every month, one student from each class is selected as student of the month, based either on academic achievement or on exemplification of important values, and he/she is honored at a student of the month breakfast. As a response to the school's chronic attendance and truancy issues the school is a member of the Mayor's Task Force on Truancy to exchange ideas and information as well as to get support with data regarding attendance improvements. Currently out of 12.6% of students who missed 20 or more days last year, 44% of them are on target to miss fewer than 20 days this year. An additional partnership with Center for Court Innovation to address the needs of chronically truant students through a program called Attendance Court. As a result the entire community embraces a culture of mutual trust and positive attitudes that support the academic and personal growth of students and adults.

  - Given that the school recognizes the high needs of its students, it has actively looked for additional supports for students' academic and personal needs. To that end it partners with Citizens Schools to provide twelve additional hours of instruction called mandatory Expanded Learning Time, and with Union Settlement to provide an after school program for eighth graders, thus enabling the school to align student learning experiences and supports to promote the adoption of effective academic and personal behaviors. The school partnership with Computers for Youth provides all students with a computer at home and via Connected Learning, students have the opportunity to use technology as a learning tool to promote academic achievement. Additionally, a partnership with Urban Advantage offers support for inquiry based science and collaboration with New York City's science museums, zoos, and botanical gardens, a collaboration with NYU provides student teachers, and America Reads' tutors work with students. College for Every Student (CFES) supports students leading to college readiness, community service, and mentorships. The school's weekly meetings with its partners help to plan for the success of students who are at-risk emotionally and/or academically.

- The principal communicates high expectations focused on student performance and is developing a system of accountability to accelerate learning for all students. (3.4)

  - School leaders use the Danielson framework Competencies of designing coherent instruction (1e), using questioning and discussion techniques (3b) and using assessment in instruction (3d) to communicate high expectations including professionalism and instruction to the entire staff. A comprehensive staff handbook includes expectations for teachers and students, professional responsibilities, curriculum and instructional resources, suggested lesson plans, school grading policy, communication with parents, and guiding principles for discipline, thus providing teachers with delineation of responsibilities. Teachers have created classroom environments that are respectful, organized for learning, celebratory of students' work, and are organized with resources and table arrangements that support students' learning. As a result all school staff are working across grades and classes to develop consistent policies and systems of accountability for school wide expectations.

- The school community's belief that communication between the teacher and the family is essential for the success of the student and students' families are critical partners in helping students achieve social and emotional well-being, as well as academic success, is communicated via a "Back to School" night. This allows for the sharing of appropriate behavioral, homework, and make-up work policies, as well as upcoming activities and events with parents. Teachers also write welcome back letters to parents to memorialize the class expectations as well as extend outreach to parents who cannot attend the "Back to School night." Teachers are responsible for keeping grade books on line using Teacher Ease and enter grades at least weekly. They also complete, distribute and collect progress reports for all their students on the minimum of a monthly basis and are responsible to notify students' families as soon as homework or class work is incomplete or missing, and students are given a separate grade for conduct to convey a message of importance around behavior. All teachers call at least 10 families each week, and maintain a log of these phone calls that is shared with administration on a bi-monthly basis, allowing for on-going connections with students' homes. All parents interviewed indicated that the school community is deeply committed to the welfare of their children and to them as an extended family and that the school has high expectations for student success. As a result of this communication and documentation with families, plans are implemented to support all students in achieving school expectations as well as to prepare them for the next level.

## What the school needs to improve

- Enhance teaching strategies, in order to enrich student participation, thereby increasing opportunities for further development of critical thinking skills. (1.2)

  - Across classrooms teachers are using the workshop model and are developing practices to address the gap between what students know and need to learn as they shift their pedagogy from direct teaching to facilitation. There is also consistency in lesson objective as all aims are stated as "Students will be able to…." and teachers also use the "Do Now" structure at the beginning of class as a way to focus student attention and manage student behavior. In some classes there is a short mini-lesson and students work independently in groups as the teachers circulate and offer individualized attention to students who are struggling. However, in other classes teachers have not yet made the shift and all students are receiving the same instruction and same activity at the same time with no modifications for individual students. Additionally in several classes observed the direct teaching part of the lesson was so long that teachers were not able to provide students with independent work time. Hence, uneven practices minimize students' use of critical thinking skills leading to ownership of the learning process and the deeper understandings as outlined in the CCLS expectations.

  - Teaching strategies, questioning, scaffolds and routines, inconsistently offer multiple entry points for all students, including high level learners and SWDs. Additionally there was no evidence of action plans for adjusting student grouping and offering students targeted interventions. Teachers frequently asked lower-order thinking questions and although students were often compliant, they were not engaged in high-level activities. For example across content areas and grade levels high level

students were waiting for slower students to catch up and not moving on with the academic work and or waiting for disruptive students to act appropriately. In one math class observed, although students had choice that involved solving a real world problem aligned to the grade 8 geometry standard necessitating them to determine the volume and surface area of an object as a challenging project, only some students chose to challenge themselves with a higher level thinking task.. Furthermore based on classroom observations there are inconsistencies across interdisciplinary work and opportunities for students to use technology and tools. Students interviewed stated that they only get to work in groups or on projects one day a week and they only engage in a science experiments one day a week, wishing they had more of these types of activities. Students interviewed also indicated that they would like to have work that is more individual during class time. As a result there is an uneven demonstration of higher order thinking and participation and not all students benefit from lessons that cognitively engage them and reflect high levels of student thinking and participation.

- Deepen the use of formative assessment data to support instructional planning in order to make adjustments to meet the learning needs of all students. (2.2)

  - The school has a school-wide grading policy and rubrics are used across all curriculum areas. The leadership also ensures that assessments are used across the school in core subjects to monitor student progress, and teachers use this data to create new groups based on how well students perform on specific skills in ELA and math. Teachers have had professional development on using summative and formative assessments, and are developing strategies to use data to inform instruction. Grade teams use end-of-unit tests to identify next steps for students, and across grades first-year math teachers are doing common assessments and reviewing student work bi-weekly that is generated from unit plans and used to assess student gaps and design intervention strategies to close those gaps to help them plan next steps for teaching. Additionally teachers use exit tickets, interim benchmark exams, and progress reports, to track students' progress and give feedback to parents. However, classroom visits did not show consistent use of "in-the-moment" data or lesson adaptations to scaffold work for students in need or to challenge high-level learners. Hence, the analysis of student progress and the identification of trends are not fully realized by every teacher precluding them from making effective, targeted adjustments to curriculum and instruction.

  - Teachers commonly ask questions, albeit lower level at times, during the lesson and circulate the classroom pausing at various tables to address the needs of students in small groups. For example in a grade 8 science class, student worked in groups while the teacher circulated and supported them in completing a distance and time graph. However, not all teachers use various forms of immediate checks for understanding including self-assessments. For instance in several math classes teachers were observed moving forward with the lesson while some students still struggled with the assigned task. Hence, inconsistent effective adjustments to instruction precludes all students from receiving the support needed to help complete tasks and become cognizant of next learning steps.

- Develop formal processes to evaluate the quality of school level decisions making adjustments as needed to increase the coherence of policies and practices across the school to meet the expectations of the CCLS. (5.1)

    - The assistant principals meet regularly with the principal as an academic cabinet, attend teacher team meetings, and meet with teachers one-on-one to review lesson observations. However, they do not analyze trends and patterns formally thereby missing opportunities to focus on building alignment and coherence between want is taught and how it is taught across the school. Although teacher teams review student assessment data, this has not yet yielded an effective school wide monitoring process thus there are many missed opportunities to adjust instruction to meet student learning needs. In addition the school did not provide evidence of a system of check-ins to monitor and evaluate next steps in instructional practices using student data. As a result of the lack of a formal monitoring system administration has not adjusted school level decisions to support teachers in further alignment and implementation of the CCLS.

    - Although resources are allocated to support teaching and learning, there are no formal systems in place to evaluate the impact of professional development. Therefore, school leaders are unable to ascertain its effectiveness in strengthening teacher practice and accelerating student performance. Similarly, there are no formal systems in place to review the extent of impact of the support that the partnerships with outside agencies provide relative to strengthening student academic outcomes. This lack of evaluation hampers school leaders' ability to make needed adjustments to increase the coherence of policies and practices within the daily workings of the school as well as to extended day activities, thus hindering meeting the expectations of the CCLS and suitably addressing student learning needs.

# Part 3: School Quality Criteria 2012-2013

| School name: Isaac Newton Middle School for Math & Science | UD | D | P | WD |
|---|---|---|---|---|
| Overall QR Score | | X | | |

| Instructional Core | | | | |
|---|---|---|---|---|
| *To what extent does the school regularly…* | 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 | | | | |
|---|---|---|---|---|
| *To what extent does the school …* | 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 | | | | |
|---|---|---|---|---|
| *To what extent does the school …* | 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 |