

# Quality Review Report 2012-2013

**STEM Institute of Manhattan**

**Elementary School 241**

**240 WEST 113 STREET  
MANHATTAN  
NY, 10026**

**Principal: DIANA DIAZ**

**Dates of review: May 2-3, 2013  
Lead Reviewer: Ilene Altschul**

## Part 1: The school context

### Information about the school

STEM Institute of Manhattan is a K-5 school with 113 students from kindergarten through grade 5. The school population comprises 58% Black, 38% Hispanic, 0% White, and 4% Asian students. The student body includes 25% English language learners and 25% special education students. Boys account for 52% of the students enrolled and girls account for 48%. The average attendance rate for the school year 2011 - 2012 was 93.1%.

### Overall Evaluation

**This school is developing.**

## Part 2: Overview

### What the school does well

- The school has designed curriculum units aligned with its magnet theme and the Common Core Learning Standards (CCLS) culminating with academic tasks to cognitively engage all students. (1.1)
  - The school has developed curriculum units across grades integrating the Science, Technology, Engineering and Mathematics (STEM) magnet theme. The school has adapted the city's common core literacy and social studies units. Through summer planning, a core group of teachers collaborated on developing the units and entered them on Rubicon, a curriculum management system. The STEM units integrate all subject areas and prepare the students for 21st century learning. The units indicate the culminating task such as fifth grade students created a knee brace for a basketball player who injured his medial collateral ligament (MCL) and fourth grade is working on a STEM unit creating an alarm system with a buzzer. In addition to the integration of problem solving in STEM the teachers in grades three to five are following the Everyday Math program but revisions were made to the pacing calendar to ensure greater emphasis on developing number sense through an understanding of fractions. As a result of the curriculum planning, academic tasks are designed to cognitively engage all students with emphasis on engineering and technology.
- The school utilizes their budget to support the prioritized goals through partnerships, professional development, and technology to improve instruction and meet students' learning needs. (1.3)
  - Funding for professional development in literacy and math, instructional materials such as Junior Great Books and afterschool teaching positions aligned to school wide achievement goals. This is supplemented by monies provided by the school's magnet grant for the magnet specialist position, per session for curriculum planning, educational software, and a robotics Saturday program. In addition, this grant supports partnerships with the New York Institute of Technology, the New York Historical Society, and the Learning About Multimedia Projects (LAMP). Through the affiliation with LAMP, students created a public service announcement on topics of interest such as the importance of recycling. Through these partnerships and careful planning of the budget, teachers are learning how to integrate the technology into their lessons and develop culminating tasks to improve instruction and increase student outcomes.
  - With one class on a grade, teacher teams meet every week in grade bands of Kindergarten through grade two and grades three through five. The inquiry team, consisting of teachers with varied expertise, meets once a week and is focusing on improving writing across grades. In addition, the school has a school based option to provide time for teachers to participate in professional development or collaborations after school. These designated times are beginning to provide teachers an opportunity to collaborate in sharing best practices and thus improve instruction.
- The school provides supports and services to address students' social emotional needs and promote the development of effective academic and personal behaviors. (1.4)
  - Through small class size, an average of 16 students per class, the staff is familiar with the needs of the students and able to provide needed attention. The school created a Response to Intervention (RTI) action plan indicating

the team members and instructional strategies. Teachers complete a “Referral form for Academic Intervention Services (AIS)” and provide work samples and anecdotal information to the team. If needed the teacher may present the student at the team meetings which are held twice a month. As indicated by agendas and minutes, students’ behavioral and emotional needs are being discussed. Members of the team screen the students and complete a feedback form. Parents are informed if their child has been referred and receiving additional services. As a result, students receive AIS in reading or math, a behavioral intervention plan (BIP) and counseling services may be provided. Students are well known by many staff members and students indicate that they are comfortable going to their teacher or administration with a problem. There is a school aide monitoring student movement through hallways, and lateness to class to ensure a safe environment. The secretary carefully monitors student attendance and parents receive phone calls through the school messenger system. The school holds workshops for parents informing them of the expectations of the magnet theme and providing parents opportunity to participate in the activities. In addition, parents are invited to “STEMulating your mind” at the end of each unit to view the projects. Students are expected to wear a school uniform and help out around the school. These students receive “caught being good” cards and at the end of each month there is an assembly celebrating the students and the class that receive the most tickets. As a result of these structures and parent outreach, students are aware who they can go to for support, are well known, and are beginning to develop effective academic and personal behaviors.

## What the school needs to improve

- Develop teacher practices to provide supports into the curricula and reflect high levels of student thinking so that all students are engaged in challenging tasks. (1.2)
  - Across classrooms teaching practices reflect a common belief that students learn best through the workshop model where the teacher demonstrates and then students have an opportunity to apply the learning independently, in pairs or in small groups. Principal states that the teachers are slowly moving away from whole class lessons towards small group work. Teachers are gradually internalizing the expectations of the researched-based framework for practice specifically around the level of questioning and increased opportunities for student discussion. However, these practices are inconsistent across classrooms. There is little evidence of supports through small group and/or questioning to provide the students with disabilities, English language learners and struggling students with multiple entry points into the lessons. In a first grade class, for example, all students were learning how to address an envelope for a letter that they published through a series of low level questions. In a third grade class the teacher modeled creating a line graph and then in heterogeneous groups created a line graph using given data. In a fourth grade class, the students were working collaboratively in ability groups determining the fractional estimates of an oil spill and receiving support from the teacher as needed to complete a task. As a result, there is an uneven demonstration of all students being challenged through high-level questioning and tasks and therefore limiting production of meaningful work products.
- Further develop school wide assessment practices to measure student progress, make adjustments to the curricula and provide students with feedback to lead to improved achievement. (2.2)
  - Teachers are assessing students’ reading levels and math ability through ECLAS, Fountas and Pinnell reading levels, Fry sight word list, TERC

Investigations or Everyday math end of unit assessments, and Acuity assessments. There is evidence that teachers compile this data in an excel spreadsheet and a data binder for the administration to review at common planning time. The principal states that the data is used to plan lessons to meet the students' needs but there has been little movement particularly in grade one. In addition, student work is assessed using a rubric however there are no comments and next steps for the students to improve their work. Students state that they do not know why they receive a grade on assignments but that teachers will tell them they are "doing a good job". In team meetings, teachers were assessing student work using a rubric aligned to the CCLS on finding the main idea. Due to the time lapse between completion of the work and analysis, teachers were unable to use the results to make necessary adjustments to the instruction and curriculum. As a result limited and untimely feedback results in inconsistent adjustments to instruction, thus student achievement is impeded.

- Refine the observation process to provide timely written feedback with next steps, strengths and challenges aligned with the teaching framework to support teacher development. (4.1)
  - Administration observes teachers formally and informally to provide support as needed. There is one new teacher who receives mentoring and works closely with the Literacy and Math consultants to support her development. The principal encourages teachers to talk to their colleagues in relation to an area of weakness. For example she suggested one teacher speaks to another about setting up bulletin boards and providing feedback to students on their work. Another teacher received support in morning routines and organization as a follow-up from an observation. Teachers state they have been observed throughout the school year but the feedback is not timely. Teachers receive multiple observation reports at a time for this school year delaying their ability to use feedback from individual reports. The teachers have received professional development on the research-based framework but indicate that that more training is needed on implementation. Although school leaders frequently observe teaching practices, observation reports are not fully connected to the teaching framework and the inconsistent feedback limits teacher development.

## Part 3: School Quality Criteria 2012-2013

School name: STEM Institute of Manhattan	UD	D	P	WD
<b>Overall QR Score</b>		X		
<b>Instructional Core</b>				
<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		
<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 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		
<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 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		
<b>Quality Review Scoring Key</b>				
<b>UD</b>   Underdeveloped	<b>D</b>   Developing	<b>P</b>   Proficient	<b>WD</b>   Well Developed	