



**Department of
Education**
Carmen Fariña, Chancellor

**Quality Review
Office of School Quality
Division of Academics, Performance, and Support
2013-2014**

Quality Review Report 2013-2014

High School for Environmental Studies

High School 02M400

**444 WEST 56 STREET
MANHATTAN
NY,10019**

Principal: Shirley H. Matthews

**Dates of review: Oct 22 - 23, 2013
Lead Reviewer: Marisol Bradbury**

Part 1: The school context

Information about the school

High School for Environmental Studies is a high school with 1339 students from 9 through grade 12. The school population comprises 14.5% Black, 59.8% Hispanic, 8.6% White, and 16.3% Asian students. The student body includes 9.8% English language learners and 15.0% special education students. Boys account for 50.0% of the students enrolled and girls account for 50.0%. The average attendance rate for the school year 2012 - 2013 was 89.8%.

Overall Evaluation

This school is proficient.

Part 2: Overview

What the school does well

- School leadership and teachers align curricula to Common Core Learning standards (CCLS) with a focus on key standards in order to provide rigorous instruction across grades and subjects. (1.1)
 - Across subjects, teachers develop units of study aligned to specific CCLS skills, concepts, and vocabulary. For example, the Geometry unit of study included the math standard HSG-CO.D.12 to make formal geometric constructions with a variety of tools and methods and HSG-CO, D.12 to construct an equilateral triangle, a square, and a rectangular hexagon inscribed in a circle. The unit also included the skills and concepts such as the use of a compass and the demonstration of the perpendicular bisectors, angle bisectors, medians, and altitudes of a triangle. The vocabulary words were divided into tiers according to the difficulty level, for example tier one consisted of words such as sketch, construct, and point; tier two included words such as angle, line, segment, and congruent; tier three included words such as segment bisector, equidistant, and circumcenter amongst others. The inclusion of such concepts, skills, and vocabulary were also present in lesson plans. The Science Research course included the standards aligned to the Next Generation Science Standards (NGS) as well as the CCLS, for example unit 1: Literature Search and Review included the NGS “Asking Better Questions and Defining Problems”, “Developing and Using Models”, “Using Mathematics and Computational Thinking”, and “Constructing and Designing Solutions”. While these standards called reference the scientific approach, teachers also included CCLS 11.TIT.1. 11.RIT.4, 11.RIT6. 11.W.6, 11.W.8, 11.L.1-3. These standards and concepts were defined and included in lesson plans, students’ assignment, and posted on the board. As a result, teachers planning at this level are developing activities that address specific skills, academic language and concepts resulting in exposing students to lessons that consistently promote CCLS.
 - Planned academic tasks emphasize higher order skills. For example, in the unit plan of the Science Research course students had to organize their research, cite information, complete a summary of relevant information from the articles, write a background paper synthesizing the research, and demonstrate a strong understanding of the purpose of conducting literature review. Two students in this class chose to research the most efficient protocol for tissue sampling and DNA isolation in order to identify the best method to extract DNA from trees so that they can later identify the impact of invasive trees in the midtown area of Manhattan. In an Advanced Placement United States History course, students wrote and debated on our early republic as related to The Jay Treaty, The Alien and Sedition Acts, The National Bank, United Relations with Great Britain and France, and Funding the Public Debt from the perspective of Federalists and Democratic-Republicans. Students researched literature, cited evidence, synthesized data, and demonstrated a strong understanding of the historical content during the debate. As a result of planning multiple complex tasks, students are engaged in rigorous, challenging learning that will prepare them to be successful in college and careers.

- The Principal's strategic use of resources, hiring practice, and organizational decisions support the school's instructional goals and meet students' academic, social, and emotional needs. (1.3)
 - The principal aligns the budget to the needs of the school community and the instructional goals. One of the school's goals is to increase student performance by providing literacy and supplemental academic support, while broadening college and career readiness programs with an emphasis on environmental sciences. For example, The Environmental Science Internship lead by an assistant principal and two advisors consist of placing students in 50 plus sites. Additionally, the principal purchased online programs such as NAVIANCE, I-Zone, Datacation, a computer based research program, smart boards, and laptops carts to offer students the resources necessary to apply for college, conduct research and acquire the skills necessary to be successful in college. In order to support male students who are over age and under credited, the principal hired a consultant who partners with two male assistant principals to provide social, emotional support through group counseling. She also allocated per session funding for after school tutoring, the Response to Intervention program, and various other academic programs. As a result, the school achieved an 83.4% in the four-year graduation rate category and earned a letter grade "A" in the category of College and Career Readiness of the Progress Report of year 2012-13.
 - The hiring practices at the school are focused on providing specific support for students. For example, the school has four guidance counselors and a full time college advisor who provide student academic and social support services. The college advisor organizes college level programs, and activities to promote college readiness for students and parents. Special Education teachers hold a dual license and or extensions within the license. As a result, in Integrated Co-Teaching (ICT) classes, there are two teachers who possess the knowledge and expertise in content as well as one teacher being the expert on Special Education processes. For example, in one pilot science class, all three teachers (Science, Special Education, and English as Second Language teachers) taught a lesson on the movement of molecules between cell and its environment. In one ICT English language arts (ELA) class, both teachers had active roles when helping students analyze texts using critical approaches to various forms of literature. Such strategic hiring and scheduling practices ensure that students receive high quality support throughout the entire lesson and that teachers hold themselves accountable for their students' progress.
- The school has focused its efforts on maintaining a supportive, collaborative, and respectful environment that strengthens student's academic, social, and emotional growth. (1.4)
 - The school has structures in place to ensure that students are known well and that all guidance services are focused on strengthening the already established positive culture. The attendance team, lead by the assistant principal, consists of the parent coordinator, school aides, guidance counselors, and attendance teacher. They work with students who are chronically absent. The guidance counselors maintain a list of students in the lowest third and target those whose attendance is poor. They make themselves available to meet and counsel them before, during, and after school hours. The Male Initiative is an intervention program that targets male students with academic and attendance concerns. The program is gaining momentum as the 15 students gather

every Wednesday to discuss topics of relevance to them. The focused attendance effort of the school is yielding positive results evidenced in the 90% attendance rate. Administrators trained teachers and staff on pro-active discipline measures and response to intervention protocols during the first two days of the year. In an effort to promote student responsibility and leadership, students were encouraged to participate in the Borough Safety Council, Student Government and a credit bearing Leadership Course, which focuses on developing leadership skills while promoting a civic and environmental responsibility. The principal meets with these students to discuss relevant topics such as the dress code, internships, events, and college programs. These students, known as Senators, engage in conversations with their peers and turnkey their findings during the third period class. One of the proposals in the making is the Freshman Mentoring Program, in which a senior student would sponsor and mentor an incoming ninth grader as a way of supporting the transition into the school and communicate the norms of the school. An internship program is part of the sophomore curriculum, which offers students an opportunity to explore critical environment issues while providing a work related experience. Students stated that their responsibility is to leave a legacy of environmental awareness at each of their internship sites. As a result of these attendance, guidance, and student leadership structures, students are developing the resiliency and persistence skills necessary to remain in college as evidenced by the 83.3% post-secondary enrollment rate after 18 months.

- The Principal consistently communicates high expectations, including instructional expectations aligned to the Danielson framework and academic expectations aligned to college and career readiness. (3.4)
 - The Principal and Assistant Principals constantly communicate and reinforce high expectations through the use of the Danielson Framework. For example, upon their return from summer vacation, teachers engaged in a two-day professional development that included a conversation about the use of the Danielson Framework as an evaluative tool, the development of SMART goals aligned to the Danielson framework as a supportive tool, the observation process, and the components of an effective lesson aligned to the Danielson framework. Teachers developed goals that included elements of effective practice, steps they need to take to improve their practice, a timeline to accomplish such goals, possible evidence to demonstrate the process and accomplishment of goals, and a list of support and resources needed to accomplish the goals. Lesson plans contain a checklist that includes the elements of effective teaching and learning practice, such as, a higher order thinking AIM, Do Now, agenda, print rich environment, current student work, student goals, school wide goals, and classroom libraries. Additionally, as the principal and assistant principals engage in their rounds of informal observations, it is evident that teachers receive feedback aligned to the Danielson framework and school wide expectations evidenced in the ADVANCE forms from the first round of observations. This consistent approach to communicating high expectations ensures the development of a culture of high expectations, professionalism, and mutual accountability.
 - The administration and teachers constantly communicate academic and behavioral expectations and make connections to being successful in college. Teachers use their bulletin boards to display rigorous academic work accompanied by rubrics that reflect high expectations. The student

friendly hallways display bulletin boards filled with positive disciplinary guidelines, college and career opportunities, student activities, and school and community events. The school communicates the same expectations connected to college and high expectations to parents and families through school meetings, parent teacher conferences, and an online grading system. Parents stated that the school places an emphasis on preparing their children for college and maintains open lines of communications. They value the College level preparation and support from the guidance department and the administration. They are proud of their school and grateful of the invaluable support such as, SAT preparation, Advanced Placement, College now courses, and the internship program. Additionally, parents stated that they have received training and workshops, on the online grading system Pupil Path. As a result of this focused effort to communicate expectations, parents feel that the school prepares students for college and that their children's academic progress is accessible to them.

What the school needs to improve

- Continue developing teaching strategies that emphasize multiple entry points into rigorous tasks so that student work and discussion reflect high levels of thinking and participation across the vast majority of classrooms. (1.2)
 - Across classrooms, strategies and routines are consistently posted referencing the school academic expectations. For example, The School-Wide Instructional Literacy Goal, present in classrooms remind students that they are responsible for completing and presenting interdisciplinary extended research projects, consisting of the use of evidence, synthesis of skills, research work, collaborative work, and presentation. Also posted across classrooms, is the tool for analyzing nonfiction texts or "SOAPStone" a graphic organizer, which helps students with the use of elements of argument, claim, and support, providing students a useful structure to construct persuasive writing. These routines are consistent and yield positive results among students. The school is currently piloting a model in the Science, English as a second language (ESL), Global, and co-teaching classes consisting of a special education teacher, a science teacher, and an ESL teacher in which special education students, English language learners (ELLs), and students in the lowest third receive extensions into the curricula so that students who need to develop additional skills have equal access and are prepared to write essays. Teachers in this pilot are also exploring various forms of groupings to provide high quality support. However, the pilot's successful routines, practices and strategies that provide multiple entry points into rigorous tasks have yet to reach the vast majority of classrooms resulting in inconsistent support for all students in accessing challenging tasks.
 - The school believes that students work best when they are required to think persuasively, collect textual evidence from informational texts, and write research projects. In an English class, students had to analyze different texts and critical approaches to literature from the book "The death of a Salesman" the song "The Cats in the Cradle" and the poem "This Be the Verse". In an AP US History class, students were asked to debate between the Federalists and the democratic-Republican major political, social, and economical issues during the 18th century. While these teaching strategies provide challenging tasks and demonstrate higher-order thinking skills in students work products, they were not evident across the vast majority of classrooms. As a result, all students,

including students with disabilities, ELL, and students in the lowest third were not engaged in appropriately challenging tasks.

- Strengthen the use of assessment practices, ongoing checks for understanding and student self-reflection in order to consistently make effective instructional adjustments and track student progress to increase student mastery. (2.2)
 - Teacher teams and individual teachers use and analyze common assessments such as the eighth grade Math and ELA examinations, NYSESLAT, Regents examinations and department based assessments in order to determine student's skill level, entry level, and placement into AP courses. Through the use of formative and summative assessment, teachers determine student progress across grades and subjects and refine curricular decisions, such as the infusion of research projects, persuasive essay writing, and the use of textual evidence from informational texts to support writing. The Science team analyzes the effectiveness of previous lesson by looking at samples of student work, resulting in adding more visual aides to support ELL's, regroup students for some of the activities, and provide a different selection of tasks so that all students in the class demonstrate mastery. Through this assessment practice, these teachers were able to adjust curricular and instructional decisions; however, these practices of analyzing common assessment to refine curricular decisions have yet to effectively support SWD and students in the lowest third in demonstrating mastery.
 - Across classrooms, teachers use ongoing checks for understandings, such as exit slips, oral and written quizzes, activity/worksheet, questioning, observation, and exams. In ELA and Social Studies classes teachers included various assessments throughout the lesson for students to share their learning and perspective with other students. These teachers used various forms of groupings in order to provide comfortable settings and opportunities for small and collective thinking and assessment. In one Social Studies class and one ELA class, both teachers were able to clarify the activities and make effective adjustments to the lessons by listening to the conversations. While there was an obvious focus on using checks for understanding on the part of these teachers, it has yet to expand across the vast majority of classrooms. The same is true for embedding constant student self-assessment in order to capture the specific needs of students so that teachers make effective adjustments to the lessons and meet the needs of all students, specifically, students in the lowest third.

Part 3: School Quality Criteria 2013-2014

School name: High School for Environmental Studies	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 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				
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 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				
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 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				
Quality Review Scoring Key							
UD	Underdeveloped	D	Developing	P	Proficient	WD	Well Developed