



NYCDOE

Quality Review: Final Report

The New York City Department of Education



Quality Review Report

**Brooklyn Academy of Science and the
Environment**

High School 574

**883 Casson Avenue
Brooklyn
NY 11225**

Principal: Veronica Peterson

Dates of review: March 13-14, 2008

Lead Reviewer: Ken Bryan

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Part 1: The school context

Information about the school

Brooklyn Academy of Science and the Environment is a high school with an enrollment of 471 students from grade 9 through grade 12. The school population comprises 76% Black, 11% Hispanic, 2% White and 2.3% Asian and other students. The student body includes 3% English language learners and 7% special education students. Boys account 52% and girls account for 48% of the students enrolled. The average attendance rate for the school year 2006-2007 was 83.7%. The school is in receipt of Title 1 funding with 69% eligibility.

The Brooklyn Academy for Science and the Environment (BASE) is one of four schools housed within the Prospects Heights Campus. The school has a close partnership with Brooklyn Botanic Gardens and Prospect Park Alliance who play an integral part in the planning, curriculum, governance and daily life of the school.

Part 2: Overview

What the school does well

- The principal and the school community have a clear vision for the development of the school and they have the capacity to affect change.
- The principal and her faculty effectively gather and analyze school-wide data to monitor the progress of individual students.
- Goals and information relating to each student's achievement and progress are effectively shared with parents and caregivers.
- The school has developed outstanding partnerships with outside organizations which have a significant impact upon the personal and academic development of the students.
- The school's curriculum is very broad which enhances learning both within and outside the classroom.
- The students are provided with very effective and targeted youth development programs and support services.
- Data is used very effectively to set goals for individual students and for cohorts in need of greatest improvement.
- Teachers meet collaboratively to plan and analyze student outcomes to determine effective teaching strategies.
- The school uses its budget very effectively to provide resources, small class sizes and additional programs.

What the school needs to improve

- Continue to raise levels of confidence and competence amongst the staff in the use of data to inform planning and instruction.
- Inject rigor into the monitoring and evaluation of goals through the use of periodic assessments and other diagnostic measures.
- Further develop the quality of differentiated instruction to meet the needs of all students.
- Improve the supervision of the hallways during transition to ensure that the students maximize their instructional time.
- Continue to raise levels of student attendance by reducing the number of long-term absentees.

Part 3: Main Findings

Progress made since the last review

The school has made good progress in addressing the issues identified in the previous Quality Review report.

Overall Evaluation

This school is proficient.

The Brooklyn Academy of Science and the Environment very successfully uses its partnerships with Brooklyn Botanic Gardens and the Prospect Park Alliance to support the academic and personal development of its students. These affiliations are exemplary and outstanding as they underpin the whole school community. Significantly, the work with the students within hands-on, inquiry based situations has resulted in excellent achievement and progress in the Regents' science examinations. The school's curriculum is diverse as a result. Students have the opportunity to follow numerous science programs and they participate in many field research studies and field trips. Many very effective youth development programs are also closely aligned with the partnerships, as is school governance.

The principal and her administration successfully analyze individual, cohort and departmental data to set challenging goals and the whole school community has developed a clear vision for the future development of the school. The school has successfully established an inquiry team to track the performance of its target at-risk student population. It now has the capacity influence whole-school practices for monitoring student performance. The teachers meet very collaboratively to discuss data, plan and to share pedagogic best practices. Yet, not all teachers differentiate instruction based upon formal and informal classroom data. Levels of student attendance are rising and the school is being very proactive to ensure that they rise further in order to meet their very challenging goals. The schools goals and student achievement and progress data is effectively shared with parents and caregivers.

Since the last Quality Review the school has improved student performance data collection and it has developed short-term targets for special education students. Most students behave well in class and generally demonstrate positive attitudes. However, due to the lack of supervision in the hallways, a significant amount of instructional time is lost. Students here do not exhibit the necessary urgency and clarity of purpose. Apart from this exception, the school runs smoothly on a day-to-day basis, procedures are largely followed and there is a climate of safety, personal guidance and academic success in this small learning community.

How well the school meets New York City's evaluation criteria

Quality Statement 1 – Gather Data: School leaders and faculty consistently gather data and use it to understand what each student knows and is able to do and to monitor the student's progress over time.

This area of the school's work is well developed.

The school gathers and analyzes data effectively and it has a good understanding of the performance and progress of each student. The performance and progress of special education students and English language learner population is very carefully analyzed. The school is able to demonstrate that these groups make accelerated progress. The school also vigorously monitors the progress of the various sub-group populations based upon ethnicity and gender.

The principal and her administration systematically and frequently compares BASE's performance with similar and peer horizon schools, looking closely at graduation rates, attendance and the progress of special education and English language learner students. The school systematically checks the school's current performance against previous years' data to determine trends. Grade and departmental teams rigorously analyze each cohort's performance as it transfers through the school. As a result of this analysis, the school can demonstrate significantly high student achievement in science. For example year-on-year growth in living environment, chemistry and physics pass rates is particularly notable. The teachers and the administration are beginning to develop their understanding and use of data to drive instruction. The school's inquiry team has been established to specifically focus upon the achievement and progress of students who take the social studies Regents. During the Quality Review, the teachers demonstrated a very rigorous approach to the analysis of student exam papers guided by the school's external staff developers. Item and error code analyses are meticulous and effectively inform instruction.

Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student's next learning steps and to set suitably high goals for accelerating each student's learning.

This area of the school's work is well developed.

All stakeholders work collaboratively to develop targets for improvement that are measurable, realistic and include success criteria and time frames. Because the Comprehensive Education Plan is regularly and frequently reviewed by the school leadership team, modifications are made in a timely fashion. Each year the school conducts a "Performance Assessment in Schools System-wide" review to determine school-wide goals. This is a very effective school self-evaluation tool. In addition to this, individual learning goals for students' achievement and progress are meticulously created by the teachers and shared successfully with each student.

Students at risk of failing are quickly identified and remediation programs are assigned through grade and departmental meetings and through the guidance of the very effective intervention committee. An example is working of the inquiry team which is specifically focusing upon its target population within social studies (global and US history), by addressing student deficiencies in literacy and college readiness. All members of the

school community are focused upon improving the performance and progress of the students. High expectations are shared with parents and caregivers through constant informal and formal communications. Significantly, as a small learning community, the school provides parents with regular access to all staff in order to receive and communicate information.

Quality Statement 3 – Align Instructional Strategy to Goals: The school aligns its academic work, strategic decisions and resources, and effectively engages students around its plans and goals for accelerating student learning.

This area of the school’s work is proficient.

The curriculum is very broad, balanced and includes the mandated core subjects. The school’s excellent partnership with the Brooklyn Botanic Garden and the Prospect Park Alliance has resulted in a very diverse curriculum. As well as the school’s arts, athletics and college readiness programs, the students are very served by the numerous science courses. These include environmental science, science research, marine biology and meteorology. As a result, the students receive an inquiry-based, hands-on and vocational learning environment where individuals thrive and succeed. Teachers are held responsible by the administration to provide well-planned and interesting classes which motivate the students. However this is not always achieved. The school’s overall tone and climate within classrooms is safe and conducive to learning and most students demonstrate good levels of engagement. In some classrooms, when classes are less involving, challenging and collaborative, some students are disengaged and are merely compliant. In addition, students are often late for classes as the hallways are unsupervised during transition. As a consequence, instructional time is lost.

The teachers are beginning to use data to differentiate instruction. Currently, the teachers use the data to group the students according to levels of achievement. In more heterogeneous settings there is a lack of differentiation by input for many students, such as modifications to resources, the use of visuals and graphic organizers or the expanding or simplification of vocabulary. The principal has been an astute manager of the school’s budget. For example, small class sizes, targeted professional development, the provision of common planning time and the availability of extended day and Saturday programs are examples of this very good management. The school is beginning to firmly establish procedures to mitigate student absence and tardiness. For example, good attendance is celebrated through diverse incentives. Increasingly many students appear on an honor wall which celebrates full or very good attendance. The school’s expectations around this issue are high and the principal sets challenging goals for improvement.

Quality Statement 4 - Align Capacity Building to Goals: The development of leadership, teachers and other staff capacity is aligned to the school’s collaboratively established goals for accelerating the learning of each student.

This area of the school’s work is proficient.

Through the analysis of the scholarship reports and other monitoring data, the principal and her instructional team are now just beginning to use this data to inform and drive professional development decisions. Again, the schools partnership and network

providers make significant contributions as the school uses data effectively to target the performance and achievement and progress of its social studies students. Increasingly there are opportunities for teachers to visit other classrooms and there is a developing open-door approach to intervisitations. This has resulted in teachers being exposed to best practices. Increasingly, the teachers are becoming more reflective, and more proficient in the use of data and skilled in the use of technology. Some teachers new to the profession feel well supported and mentored.

The school is very proactive in providing students with very good academic and personal care guidance and support. Students are well supported by advisory staff and guidance counselors and through the use of external agencies Safe Horizon, Ifetayo Cultural Arts Center. In addition excellent partnerships exist with The Brooklyn Botanic Garden and the Prospect Park Alliance. These are outstanding and exemplary affiliations. Both organizations play an integral part of the planning, curriculum, governance, youth development and daily life of the school. As a result, they significantly and considerably enhance the personal and academic development of the students. While the school overall, runs smoothly, there are a number of instances of disruption in the hallways.

Quality Statement 5 - Monitor and Revise: The school has structures for evaluating each student's progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.

This area of the school's work is proficient.

The Comprehensive Education Plan and the principal's performance review include some goals which are supported by available data from the teacher assessments and other formal data. The school leadership team meets monthly to review progress towards meeting student, cohort and departmental goals. Grade and departmental teams meet weekly to evaluate pacing calendars and data and they are beginning to develop a clear understanding of the efficacy of interventions, programs and initiatives. The inquiry team is starting to have a school-wide impact upon data analysis and goal setting. The school is awaiting the Acuity periodic tool to develop its on-going data collection and interpretation. As a result, the analysis of current formal and informal data is now starting to result in timely modifications and revisions to the school's goals. With the support of the data manager and the assistant principal, the principal is beginning to make better-informed year-on-year comparisons with past performance and she is beginning to evaluate BASE's results in relation to similar schools.

The school benefits as a result of its small student population. Individual student learning goals are carefully monitored. The effectiveness of student-focused interventions is carefully evaluated and there is a clear understanding of the next stage of the goal setting process. The principal, her staff and the wider school community have a clear understanding of the school's overall aims and vision.

Part 4: School Quality Criteria Summary

SCHOOL NAME: Brooklyn Academy for Science and the Environment	Δ	▷	✓	+	◇
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Quality Score			X		
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Quality Statement 1 – Gather Data: School leaders and faculty consistently gather and generate data and use it to understand what each student knows and is able to do and to monitor the students progress over time.

To what extent do school leaders and faculty provide . . .	Δ	▷	✓	+	◇
1.1 an objective, constantly updated understanding of the performance and progress of each student, classroom, grade level?				X	
1.2 an objective, constantly updated understanding of the performance and progress of special education students?				X	
1.3 an objective, constantly updated understanding of the performance and progress of English language learners?				X	
1.4 an objective, constantly updated understanding of the performance and progress of ethnic groups, gender groups and all other categories of interest to the school?				X	
1.5 a measurement of performance and progress based on the school's own past performance, and among students, classrooms, grades and subject areas?				X	
1.6 a measurement of performance and progress based on comparisons with similar schools?				X	
1.7 training, management systems and structures that support teachers in the use of school data to inform planning and instruction and to track the progress of students?			X		
Overall score for Quality Statement 1				X	

Quality Statement 2 – Plan and Set Goals: School leaders and faculty consistently use data to understand each student's next learning steps and to set suitably high goals for accelerating each students learning.

To what extent do school leaders and faculty . . .	Δ	▷	✓	+	◇
2.1 engage in collaborative processes to set demanding, objectively measurable goals for improvement, and to develop plans and timeframes for reaching those goals?				X	
2.2 focus on each student, classroom, grade level, academic subject and group of students whose performance or progress has been identified by the school as a particular focus area?				X	
2.3 identify and improve the performance and progress of those students in greatest need of improvement?				X	
2.4 share whole school goals with all members of the school community to rigorously improve the performance and progress of students?				X	
2.5 convey consistently high expectations to students and their parents/caregivers?				X	
2.6 regularly provide students and their parents/caregivers with information about the goals set for each student, and about each student's progress and performance, and how they can improve?				X	
2.7 invite and enable parents/caregivers to provide useful information to teachers and the school about the learning needs and capacities of their children?				X	
Overall score for Quality Statement 2				X	

Quality Statement 3 – Align Instructional Strategy to Goals: The school aligns its academic work, strategic decisions and resources, and effectively engages students around its plans and goals for accelerating student learning.

To what extent does the school . . .	Δ	▷	✓	+	◇
3.1 select core curricular approaches that facilitate and provide meaningful interim data about progress towards goals and focus on raising the achievement of students?			X		
3.2 provide a broad and engaging curriculum, including the arts, to enhance learning both within and outside the school day?				X	
3.3 hold teachers accountable for the progress and learning of the students in their charge, for making instruction interesting and compelling, and for creating a positive safe and inclusive learning environment?			X		
3.4 ensure that teachers use school, class and student data to plan for and provide differentiated instruction that meets the specific needs of all the students in their charge?		X			
3.5 make budgeting, staffing and scheduling decisions strategically, based on data, to meet the school's academic goals for all students?				X	
3.6 ensure that there is an environment of mutual trust and respect between all staff and students to support personal and academic development?			X		
3.7 ensure that there are effective and consistently applied procedures to encourage and monitor student attendance?		X			
Overall score for Quality Statement 3			X		

Quality Statement 4 – Align Capacity Building to Goals: The development of leadership, teachers and other staff capacity is aligned to the school’s collaboratively established goals for accelerating the learning of each student.					
To what extent does the school . . .	Δ	➤	✓	+	◇
4.1 use frequent observations of classroom teaching by the principal and other available information to develop a differentiated strategy for improving the quality of each teacher’s instruction?			X		
4.2 make professional development decisions strategically, based on data, to help meet the improvement goals of students and teachers?			X		
4.3 provide frequent opportunities for teachers to observe each other’s classroom instruction and to meet together in teams to plan, share effective practices, and evaluate one another’s instruction in an open and reflective professional environment?				X	
4.4 develop effective procedures for the induction and support of teachers who are new to the profession or the school?			X		
4.5 align youth development, guidance/advising and other student support services around stated academic and personal development goals?				X	
4.6 consistently implement clear procedures that enable the school to run smoothly and encourage effective student learning?		X			
4.7 create effective partnerships with outside entities that support the academic and personal growth of the students?					X
Overall score for Quality Statement 4			X		

Quality Statement 5 – Monitor and Revise: The school has structures for evaluating each student’s progress throughout the year and for flexibly adapting plans and practices to meet its goals for accelerating learning.					
To what extent do . . .	Δ	➤	✓	+	◇
5.1 the school’s plans for improving student outcomes include interim goals that are objectively measurable and have suitable time frames for measuring success and making adjustments?			X		
5.2 the school’s plans for improving teacher outcomes include interim goals that are objectively measurable and have suitable time frames for measuring success and making adjustments?			X		
5.3 teachers and faculty use periodic assessments and other diagnostic tools to measure the effectiveness of plans and interventions for individual and groups of students in key areas?			X		
5.4 teachers and faculty use the information generated by periodic assessments and other progress measures and comparisons to revise plans immediately in order to reach stated goals?			X		
5.5 school leaders track the outcomes of periodic assessments and other diagnostic measures and use the results to makes strategic decisions to modify practices to improve student outcomes?			X		
5.6 school leaders and staff use each plan’s interim and final outcomes to drive the next stage of goal setting and improvement planning?			X		
5.7 the principal and school community have a clear vision for the future development of the school and implement procedures and systems to effect change?				X	
Overall score for Quality Statement 5			X		

◇	Outstanding
+	Well Developed
✓	Proficient
➤	Underdeveloped with Proficient Features
Δ	Underdeveloped