

U.S. Department of Education
2010 - Blue Ribbon Schools Program

Type of School: (Check all that apply) Charter Title I Magnet Choice

Name of Principal: Mr. Steven Sullivan

Official School Name: O'Bryant High School of Science & Technology

School Mailing Address:
55 Malcolm X Boulevard
Roxbury, MA 02120-3106

County: Suffolk State School Code Number*: 220195

Telephone: (617) 635-9932 Fax: (617) 635-7769

Web site/URL: http://www.bostonpublicschools.org E-mail: ssullivan@boston.k12.ma.us

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge all information is accurate.

_____ Date _____
(Principal's Signature)

Name of Superintendent*: Dr. Carol Johnson

District Name: Boston Public Schools Tel: (617) 635-9000

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge it is accurate.

_____ Date _____
(Superintendent's Signature)

Name of School Board President/Chairperson: Reverend Gregory Groover

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I - Eligibility Certification), and certify that to the best of my knowledge it is accurate.

_____ Date _____
(School Board President's/Chairperson's Signature)

**Private Schools: If the information requested is not applicable, write N/A in the space.*

The original signed cover sheet only should be converted to a PDF file and emailed to Aba Kumi, Blue Ribbon Schools Project Manager (aba.kumi@ed.gov) or mailed by expedited mail or a courier mail service (such as Express Mail, FedEx or UPS) to Aba Kumi, Director, Blue Ribbon Schools Program, Office of Communications and Outreach, U.S. Department of Education, 400 Maryland Ave., SW, Room 5E103, Washington, DC 20202-8173

PART I - ELIGIBILITY CERTIFICATION

The signatures on the first page of this application certify that each of the statements below concerning the school's eligibility and compliance with U.S. Department of Education, Office for Civil Rights (OCR) requirements is true and correct.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even K-12 schools, must apply as an entire school.)
2. The school has made adequate yearly progress each year for the past two years and has not been identified by the state as "persistently dangerous" within the last two years.
3. To meet final eligibility, the school must meet the state's Adequate Yearly Progress (AYP) requirement in the 2009-2010 school year. AYP must be certified by the state and all appeals resolved at least two weeks before the awards ceremony for the school to receive the award.
4. If the school includes grades 7 or higher, the school must have foreign language as a part of its curriculum and a significant number of students in grades 7 and higher must take the course.
5. The school has been in existence for five full years, that is, from at least September 2004.
6. The nominated school has not received the Blue Ribbon Schools award in the past five years, 2005, 2006, 2007, 2008 or 2009.
7. The nominated school or district is not refusing OCR access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.
8. OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.
9. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
10. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.

PART II - DEMOGRAPHIC DATA

All data are the most recent year available.

DISTRICT (Questions 1-2 not applicable to private schools)

1. Number of schools in the district: (per district designation)	82	Elementary schools (includes K-8)
	<u>11</u>	Middle/Junior high schools
	<u>35</u>	High schools
	<u>7</u>	K-12 schools
	<u>135</u>	TOTAL

2. District Per Pupil Expenditure: 13849

SCHOOL (To be completed by all schools)

3. Category that best describes the area where the school is located:

- Urban or large central city
- Suburban school with characteristics typical of an urban area
- Suburban
- Small city or town in a rural area
- Rural

4. 1 Number of years the principal has been in her/his position at this school.

5. Number of students as of October 1 enrolled at each grade level or its equivalent in applying school only:

Grade	# of Males	# of Females	Grade Total	Grade	# of Males	# of Females	Grade Total
PreK			0	6			0
K			0	7	43	43	86
1			0	8	53	65	118
2			0	9	144	185	329
3			0	10	95	140	235
4			0	11	89	123	212
5			0	12	114	121	235
TOTAL STUDENTS IN THE APPLYING SCHOOL							1215

6. Racial/ethnic composition of the school: 1 % American Indian or Alaska Native
22 % Asian
39 % Black or African American
24 % Hispanic or Latino
0 % Native Hawaiian or Other Pacific Islander
13 % White
1 % Two or more races
100 % Total

Only the seven standard categories should be used in reporting the racial/ethnic composition of your school. The final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic data to the U.S. Department of Education published in the October 19, 2007 *Federal Register* provides definitions for each of the seven categories.

7. Student turnover, or mobility rate, during the past year: 2 %

This rate is calculated using the grid below. The answer to (6) is the mobility rate.

(1)	Number of students who transferred <i>to</i> the school after October 1 until the end of the year.	3
(2)	Number of students who transferred <i>from</i> the school after October 1 until the end of the year.	21
(3)	Total of all transferred students [sum of rows (1) and (2)].	24
(4)	Total number of students in the school as of October 1.	1215
(5)	Total transferred students in row (3) divided by total students in row (4).	0.020
(6)	Amount in row (5) multiplied by 100.	1.975

8. Limited English proficient students in the school: 3 %

Total number limited English proficient 34

Number of languages represented: 10

Specify languages:

Cantonese (11), Spanish (6), Mandarin (4), Taishaese (4), Haitian (3), Vietnamese (2), Taglog (1), Bangla (1), Somale (1), Portugese (1)

9. Students eligible for free/reduced-priced meals: 100 %

Total number students who qualify: 1215

If this method does not produce an accurate estimate of the percentage of students from low-income families, or the school does not participate in the free and reduced-price school meals program, specify a more accurate estimate, tell why the school chose it, and explain how it arrived at this estimate.

All students qualify for free and reduced because the percentage of low income families is so high in the O'Bryant/ MAdison complex that all students are given free lunch. This has been the case for the past two years. Only students new to the Boston Public Schools have been required an application.

10. Students receiving special education services: 2 %

Total Number of Students Served: 30

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional categories.

<u>1</u> Autism	<u>1</u> Orthopedic Impairment
<u>0</u> Deafness	<u>0</u> Other Health Impaired
<u>0</u> Deaf-Blindness	<u>24</u> Specific Learning Disability
<u>0</u> Emotional Disturbance	<u>2</u> Speech or Language Impairment
<u>0</u> Hearing Impairment	<u>0</u> Traumatic Brain Injury
<u>0</u> Mental Retardation	<u>0</u> Visual Impairment Including Blindness
<u>2</u> Multiple Disabilities	<u>0</u> Developmentally Delayed

11. Indicate number of full-time and part-time staff members in each of the categories below:

	Number of Staff	
	<u>Full-Time</u>	<u>Part-Time</u>
Administrator(s)	<u>7</u>	<u>0</u>
Classroom teachers	<u>66</u>	<u>0</u>
Special resource teachers/specialists	<u>1</u>	<u>0</u>
Paraprofessionals	<u>1</u>	<u>0</u>
Support staff	<u>11</u>	<u>0</u>
Total number	<u>86</u>	<u>0</u>

12. Average school student-classroom teacher ratio, that is, the number of students in the school divided by the Full Time Equivalent of classroom teachers, e.g., 22:1 19 :1

13. Show the attendance patterns of teachers and students as a percentage. Only middle and high schools need to supply dropout rates. Briefly explain in the Notes section any attendance rates under 95%, teacher turnover rates over 12%, or student dropout rates over 5%.

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Daily student attendance	95%	94%	95%	95%	95%
Daily teacher attendance	96%	96%	95%	95%	96%
Teacher turnover rate	21%	7%	11%	14%	13%
Student dropout rate	1%	1%	1%	1%	1%

Please provide all explanations below.

Student attendance - 2007-2008 Swine Flu epidemic

Teacher turnover rate 2008-2009 Budget cuts and retirements, 2005-2006 Budget cuts and retirements, 2004-2005 budget cuts and retirements

14. For schools ending in grade 12 (high schools).

Show what the students who graduated in Spring 2009 are doing as of the Fall 2009.

Graduating class size	233	
Enrolled in a 4-year college or university	74	%
Enrolled in a community college	14	%
Enrolled in vocational training	1	%
Found employment	10	%
Military service	1	%
Other (travel, staying home, etc.)	0	%
Unknown	0	%
Total	100	%

PART III - SUMMARY

The John D. O'Bryant School of Mathematics and Science is a grade 7-12, "exam" school within the Boston Public School system. The school currently resides in the Roxbury section of Boston and has moved and changed names a few times during the school's history. The school previously existed as both the Mechanic Arts High School (1893-1944) and Boston Technical High School 1944-1992. The school was renamed the John D. O'Bryant School of Mathematics of Science in 1992. The school was named after an urban education leader and child advocate in Boston who at one time was a teacher and guidance counselor at the school.

Students come to the John D. O'Bryant School from all of the neighborhoods of Boston. The school is comprised of a very diverse student and faculty population and many different cultural/ethnic groups are represented. Ninety percent of the students are from a "minority" group, a large percentage of our students are bi-lingual/multi-lingual, and sixty-five percent of our students are of low-income status. Also, a large number of our students (approximately 82%) are from groups traditionally underrepresented in STEM related fields – i.e., Black, Hispanic, and female populations. As a supportive community we are trying to address some of the imbalances/gaps that exist in these areas and provide access to these career fields for all of our students.

The John D. O'Bryant School is striving to be a learning community that provides a world-class education for its' students and prepares them well for active participation in the world of the 21st century. Our school's current mission statement is as follows:

The John D. O'Bryant School of Mathematics and Science is a diverse, supportive community of learners that engages in a rigorous and comprehensive Science, Technology, Engineering, and Mathematics program integrated with Humanities. Our college-preparatory exam school enables our students to reach their full potential and become leaders who will shape the direction of society.

The O'Bryant is one of the highest performing urban schools in Massachusetts and was recently recognized as being one of the best high schools in America by US News and World Report. We offer a strong academic program for all of our students and a large proportion of our students take Advanced Placement courses during their Junior and Senior years. We currently offer AP classes in the following areas: Language and Composition, English Literature and Composition, US History, Modern European History, American Government, Economics, Statistics, Calculus AB, Calculus BC, Biology, Chemistry, Physics, and Environmental Science.

In order to graduate from the O'Bryant all students must complete the following core courses:

- 4 years of Mathematics (at least through Pre-Calculus)
- 4 years of Science (which must include Biology, Chemistry and Physics)
- 4 years of English Language Arts
- 3 years of History
- 3 years of a Foreign Language

The O'Bryant is the only school in Boston that requires students to complete both 4 years of Math and 4 years of Science in order to graduate. Students must also complete coursework in Health, Physical Education, Art/Music, and Computers.

In addition to our strong academic program, the O’Bryant School also provides opportunities for students to participate in a variety of extra-curricular clubs/activities, inter-scholastic athletic teams, student-government organizations, and academic support/tutoring programs.

We have a very caring and capable faculty and supportive staff. The majority of our faculty have graduate degrees and are considered “highly –qualified” in their given subject areas. We have a strong Parent Council, an active School-Site Council, and an Instructional Leadership Team that work diligently to help move the school forward. We also provide a Family and Community Outreach coordinator to help engage and support parents so they can actively participate in the education of their child.

PART IV - INDICATORS OF ACADEMIC SUCCESS

1. Assessment Results:

The John D. O'Bryant School of Mathematics and Science ("O'Bryant") participates in the Massachusetts Comprehensive Assessment System ("MCAS"). Student performance levels are reported as follows: grade 7 and grade 8: Advanced, Proficient, Needs Improvement, Warning; grade 10: Advanced, Proficient, Needs Improvement, Failing.

Students who perform at an Advanced level demonstrate an in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems. Students who perform at a Proficient level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems. Students who perform at a Needs Improvement level demonstrate a partial understanding of subject matter and solve some simple problems. Students who perform at a Warning (grade 7& grade 8)/Failing (grade 10) level demonstrate a minimal understanding of subject matter and do not solve simple problems. These definitions, which apply across grade levels and subject areas, are used as a basis for determining the minimum score for each of the performance levels on each of the MCAS tests. There are also content-specific definitions for these performance levels.

Overall, O'Bryant students perform exceptionally well on the Math and ELA MCAS. Our most recent results (Spring 2009), three year trends, and subgroup disparities are summarized below:

Math MCAS: 55% of our 7th graders scored Advanced or Proficient (district: 28%; state: 49%). 37% of our 7th grade students received a Needs Improvement (district: 32%; state: 30%) 8% of our 7th grade students received a Warning (district: 40%; state: 21%). 77% of our 8th graders scored Advanced or Proficient (district: 28%; state: 48%). One (1) of our 8th grade students received a Warning. 99% of our 10th graders scored Advanced or Proficient (district: 62%; state: 75%). Zero (0) of our 10th grade students received a Warning.

After an increase in the number of students scoring Advanced or Proficient on the grade 7 Math MCAS between 2007 (54%) and 2008 (76%), we went down in 2009 (55%). In part, this can be explained by a change in instructional resources (i.e., teachers) devoted to 7th grade math due to budget constraints. Our three year trend shows an increasing number of students scoring Advanced or Proficient on the grade 8 Math MCAS (2007: 63%; 2008: 68%; 2009: 76%). Over the past three years, our performance on the grade 10 ELA MCAS has remained fairly constant (2007: 98%; 2008: 99%; 2009: 99%) Advanced or Proficient. The significant improvement seen in the performance of our students between the 7th grade and the 10th grade is a testament to the hard work and dedication of our teachers and our students.

Although there are some disparities in the performance levels of different subgroups (gender; race/ethnicity; language) on the 7th grade math MCAS, they (the disparities) are, generally speaking, not found in the performance levels on the 10th grade math MCAS.

ELA MCAS: 92% of our 7th graders scored Advanced or Proficient (district: 48%; state: 70%). Zero (0) of our 7th grade students received a Warning. 93% of our 8th graders scored Advanced or Proficient (district: 59%; state: 78%). One (1) of our 8th grade students received a Warning. 96% of our 10th graders scored Advanced or Proficient (district: 64%; state: 81%). Zero (0) of our 10th grade students received a Warning.

Our three year trend shows an increasing number of students scoring Advanced or Proficient on the grade 7 ELA MCAS. (2007: 77%; 2008: 89%; 2009: 92%). Over the past three years, our performance on the grade 8 ELA MCAS has remained fairly constant (2007: 92% Advanced or Proficient; 2008: 89% Advanced or Proficient; 2009: 93% Advanced or Proficient). Similarly, our performance on the grade 10 ELA MCAS has

remained fairly constant (2007: 92% Advanced or Proficient; 2008: 97% Advanced or Proficient; 2009: 96% Advanced or Proficient); however, a higher percentage of our students are scoring at the Advanced level (2007: 11%; 2008: 29%; 2009: 27%).

Although there are some disparities in the performance levels of different subgroups (gender; race/ethnicity; language) on the 7th grade ELA MCAS, they (the disparities) are, generally speaking, not found in the performance levels on the 10th grade ELA MCAS. The most significant disparity can be found between the performance levels of our Limited or Formerly Limited English Proficient 10th grade students and the overall average performance levels of our 10th grade students. Our school's Instructional Leadership Team is actively exploring ways to address this achievement gap.

Information on the MCAS may be found at <http://www.doe.mass.edu/mcas/>.

2. Using Assessment Results:

The O'Bryant English, MATH and Science departments has used the Massachusetts Comprehensive Assessment System (MCAS), PSAT and Advanced Placement curricular assessments to vertically align instructional practices. Without "teaching to the tests," we embedded MCAS like, PSAT and advanced placement instructional practices into the curriculum. For example, as a result of MCAS data in English we changed the grade nine writing focus from narrative to literary analysis. All English students do a writing assessment the first week of each school year. This work is used as a base line assessment in order to determine the instructional needs of our students. An additional common writing assessment is completed at mid term to measure growth and achievement. In examining our PSAT data, we determined that our students were not prepared to work under timed constraints; as a result, many do not perform as well on SATs as they do on the MCAS in both English and Math. Looking at this data, we made the decision that these two essays would, for high school students, be timed assessments as well as in Math assessments. These timed assessments train students to write and solve problems under pressure, as they will in many standardized tests. During the third marking term all students complete a literature based research paper. This assessment reveals how well students have learned to apply and synthesize what they have learned. We understood that the ability to do research was an important skill, necessary for the college success of our students. We determined that a number of students did not do the assignment and did not perform quality work as seniors. We worked to vertically align the research skills from grades 7-12 and attained School Site Council approval to require the English research paper as a promotion requirement in grades 9-12, thus assuring that all students have reached this curricular benchmark before college. The math teachers analyzed the results and discovered that more emphasis must be placed on data analysis, statistics and probability and thus incorporated these areas in the "Do Now" activity at the beginning of each class . In Science data was analyzed to address weaknesses in the curriculum and to determine why students may have issues with certain questions on the exam. Teachers have now included more MCAS -type questions as part of their classroom assessment process.

3. Communicating Assessment Results:

Student performance on the MCAS is first communicated to parents by a parent/guardian report that is sent to parents by the district explaining what is the MCAS , the types of questions on the MCAS that is used to measure student learning, what the parent can do to help their child and how the test results are used. It also explains in detail their child's score on each test and sub-content areas measured by the test, their child's performance compared to school, district and state performance for their grade and how their child performed on individual test questions. These results are also explained by teachers to parents during parent conferences.

Teachers go over the tests with students in class, group students by content need found in analyzing the tests for instruction. The results are also published in the community and Boston newspapers.

4. **Sharing Success:**

The O'Bryant has always lauded and publicized student success, academic as well as in athletic and in the arts, first of all in our own school on the PA system, in performances conducted by the students, in our term awards assemblies, in our school newsletters, and in the community newspapers. The O'Bryant presents its accomplishments at the Showcase of Schools sponsored by the Boston Public Schools for parents and students who are considering attending the school. We welcome visitors to our school to observe classes, talk to students and staff, and volunteer in various program. Universities always want to place their student teachers at our school and many over time have been hired. It is a win-win situation for the students, teachers and the universities.

PART V - CURRICULUM AND INSTRUCTION

1. Curriculum:

O'Bryant Academic Expectations: O'Bryant students will be skillful:

1. Readers
2. Researchers
3. Users of Technology
4. Problem Solvers
5. Communicators

Mathematics: The Mathematics curriculum offers rigorous required courses and electives to prepare students to succeed. Students must take and pass six math courses if they enter in grade 7 or four courses if they enter in grade 9. Students are also allowed to take two math courses a year in the upper grades. The required courses are Pre-Algebra, Algebra 1, Geometry, Advanced Algebra, Pre-Calculus (the graduation requirement). Calculus, AP Calculus AB and BC, AP Statistics and Discrete Math are offered in grades 11 and 12. In these courses students develop an understanding of major topics in each through a process that emphasizes communication, reasoning and building connections between important mathematical concepts and real world applications. In Honors level above named courses the pace is accelerated and concepts are explored in greater depth. In all math courses teachers design classrooms using an inquiry/problem solving model of instruction that allows students to explore concepts from a variety of perspectives and representations.

English: Teachers utilize a student centered, college preparatory program of study, which integrates language, literature, presentation, research and composition. In line with O'Bryant student academic expectations, our students:

1. Read and analyze literature appropriate to their grade level
2. Develop and use critical thinking skills about literature and issues raised by literature
3. Express ideas effectively in writing
4. Express ideas orally with clarity
- 5.

History and Social Studies: The history / social studies program offers a comprehensive selection of both required and elective courses to students in grades 7-12. These include survey courses that are graduation requirements, Advanced Placement courses and electives that are offered to juniors and seniors. The required courses include: Grade 7 – World Geography, Grade 8 – Civics, Grade 9 – United States and World History I, Grade 10 – United States and World History II, Grade 11 – United States and World History I

The Advanced Placement courses include: AP United States History, AP European History, AP Economics and AP Government. The electives include: African-American History, Sociology, Economics, Latin American History and Global Issues

Foreign Languages: The school offers Chinese 1, 2, 3, French 1, 2, 3, Spanish 1, 2, 3, Spanish Native Speakers 1, 2, 3 and AP Spanish. Plans are now being formalized to offer an AP French course for school year 2010-2011. All students must take and pass one of the three languages for three years as a graduation requirement. Students learn to communicate, write and perform in the chosen language. The culture, customs, cuisine, geography and history of the chosen language enhances the students' knowledge and makes the courses more than just learning the language.

Music: The O'Bryant is fortunate to have as part of its school, The Roland Hayes School of Music, named after a deceased former Boston superintendent of schools. Students' educational experience is enhanced by its course of study which includes Fundamentals of Music, Music Theory, Instrumental Music and Band. O'Bryant's Best Practices for all Subjects

1. “Do Now” or “Start Up” activities that increase student time on task
2. Teaching for understanding through activities requiring development of higher-order thinking skills (These skills are evidenced by problem solving, creating, and applying, (interpreting a scene, staging it and acting it out for example), instead of simply reproducing knowledge)
3. Student developed, supported and documented research activities (individual and group researched projects and papers that encourage active learning)
4. Writing (drafting, editing, revising) as a tool for learning
5. Inclusion of authentic, multicultural literature and cultural experiences (literary texts, film study, outside cultural experiences) that increase appreciation and understanding of others and ourselves)

Teachers utilize a variety of instructional approaches based on the workshop model of instruction. This includes, but is not limited to teacher and student centered instruction, readings of primary and secondary sources, group projects, presentations, debates and analytical writing. All students keep a 3-ring binder that serves as an organizational tool and a repository of work completed in each class the class. All students have a Student planner which explains the policies and procedures of the O'Bryant, study skills, and helpful information on each subject. Students write their homework for each subject in their planner daily to inform their parents of what is required.

All teachers are encouraged to use the resources of the Boston area to support their instruction. Historic / Cultural sites visited by students and teachers include, but are not limited to: The Freedom Trail and associated sites, the Museum of Fine Arts, The John F. Kennedy Library and Museum, Harvard University Museums, the Roxbury Heritage Trail and other sites around the city.

2b. (Secondary Schools) English:

(This question is for secondary schools only)

Common assessments help English teachers to inform instructional practice and to indicate academic progress towards mastery. To that end the following assessments are shared by the department:

1. September Writing Prompt (a base line assessment)
2. January Writing Prompt (growth and achievement)
3. Research Paper (application and synthesis of learning)
4. Year end Final Exam common sections:
 - a. figurative language
 - b. idiomatic expressions
 - c. grammatical usage.
 - d.

English teachers instruct students in the correct usage of specific literary and rhetorical language, the alignment of which is based upon Massachusetts Curricular Frameworks and College Board recommendations. Because many of our students are second language learners our teachers provide instruction in the use of idiomatic language and the mechanics of English (grammar, syntax, diction and vocabulary development through studies of word derivations and contextual clues. In doing so, we help students gain greater verbal and reading comprehension.

Because of the importance of research skills for college success, the English research paper is a promotion requirement for all students in grades 9-12. Research skills have been vertically aligned from grades 7-12. Teachers in all grades instruct students in the process of research. Students are expected to write well-organized papers that prove a [literature related] thesis using logical organization, effective supporting evidence, variety in sentence structure [and MLA documentation].

3. Additional Curriculum Area:

Science Curriculum Description

The John D. O'Bryant School of Mathematics and Science provides a comprehensive educational experience in the sciences for all students. Students in grades 7-12 must successfully complete at least one full-year science course each year. The O'Bryant requires all students to complete four years of science at the high school level in order to graduate – three of these courses must include Biology, Chemistry and Physics. We believe that all students need to have a foundational understanding in each of these major areas of science in order to become science literate citizens.

Students at the grade 7 and 8 levels use the research-based, FOSS (Full Option Science System) curriculum. Students use an inquiry-based approach to learning science and they explore different areas of the life sciences, physical sciences, and earth sciences each year. By using this curriculum students learn to actively construct ideas through their own inquiries, investigations, and analyses. Over the course of two years students complete modules (of 10-12 week long duration) in the following areas: Diversity of Life, Populations and Ecosystems, Earth History, Planetary Science, Forces and Motion, Chemical Interactions.

At the high school level, students generally take a sequence of college-preparatory courses in Biology (grade 9), Chemistry (grade 10), Physics (grade 11), and elective science/AP science (grade 12). Many students opt to take two or more science courses during their Junior and Senior years. Students participating in our Engineering pathway program complete a different sequence of courses – a Physics course and Engineering Design course in Grade 9, Chemistry course and Robotics course in Grade 10, a Biology or AP science course in grade 11, and then another elective science/AP science/engineering course in grade 12.

4. Instructional Methods:

The school differentiates instruction by using a variety of methods, cooperative learning, small group instruction, peer tutoring, think, pair and share, oral presentations, acting, role-playing, teacher led discussions, student led discussions and is always observing students. Data from all forms of testing, student work and observations of students is constantly being analyzed to modify instruction.

5. Professional Development:

Professional Development Overview

The John D. O'Bryant School has a comprehensive Professional Development program that is driven by the school's Whole School Improvement Plan (WSIP). Professional Development (PD) is both school based and teacher driven, with each teacher planning their own individual PD plan.

The school based professional development takes place during contractually mandated after school time. The whole staff PD, which supports both the school's WSIP as well as the district's PD plan includes topics such as formative and summative assessment, instructional strategies, student support and community building. Time is also allotted during the school based PD for instructors to meet by discipline so they have an opportunity to collaborate with colleagues sharing best practices, Looking at Student Work (LASW), reviewing data and planning curriculum.

Teachers regularly review data during professional development and use the observations made to improve instruction. MCAS data for students in grades 7, 8, 9 and 10 is reviewed in order to identify areas of instruction, curriculum and student comprehension that need to be addressed. Advanced Placement scores are examined to identify areas where the program can be expanded as well as courses in need of additional support. Midterm and year end common assessments are reviewed to identify strengths and weaknesses in instruction and make adjustments to the curriculum.

Professional development at O'Bryant is aligned with course content standards and supports both instruction and student learning. The whole school PD sessions provide teachers with specific strategies help students with reading comprehension and test taking like "Question Answer Relationships" and strategies for working

with English Language Learners (ELLs), which comprise a large percentage of the student population. Department break out sessions provide teachers with the opportunity to learn from content area specialists and collaborate with colleagues on areas of instruction and assessment.

The comprehensive professional development plan at O'Bryant provides opportunities for district mandated PD, whole school PD, content area and individual professional development that support improved instruction, learning and the school climate at O'Bryant.

6. School Leadership:

The O'Bryant Headmaster, Mr. Steve Sullivan, is the central figure for leadership at the John D. O'Bryant School of Mathematics and Science. In his short tenure, he has created a school-wide vision and has provided a direction and focus for student learning in keeping with the mission and goals of our school.

The Headmaster is a visible force in the school. He holds regular monthly meetings with the Faculty Senate, School Site Council and Parents' Council.

In furthering his vision for the school, the Headmaster makes regular classroom visits most of which are informal in nature. Structured visits usually take the pattern of: grade book and curriculum review; evaluation of teaching practices; and, finally, review and discussion of the written evaluation. The Headmaster's policy is to try to visit two classrooms a day for informal observation. In actual practice, four or five visits are made to classrooms each week.

The headmaster keeps students and staff abreast of information that pertains to the general welfare of the school and student population. Announcements are made each day. The Headmaster has been quick to act if student become disruptive and has responded with appropriate disciplinary action. Finally, to insure the safety of students and staff, the headmaster has requested that security cameras be installed in the building. All students and staff have been issued identification badges.

At O'Bryant, Assistant Headmasters and Program Directors are given the autonomy by the Headmaster to evaluate teacher performance within their assigned departments. Through this medium, and the planning time within each department led by the Assistant Headmasters responsible for each departmental group, reinforcement of school-wide expectations are established and reinforced, and areas of needed support are identified. Additionally, through the Whole School Improvement Planning process, the Headmaster and administrative staff are able to provide a specific focus for the furtherance of the school's academic expectations.

As leaders of the school, the school administrators, support service personnel and other non-teaching professionals routinely participate in discussions with teachers about the quality of, and issues associated with, student learning, department, and well-being.

Individual administrators are assigned to each department and meet weekly to discuss curriculum, programs and student learning. In addition, each administrator oversees one grade level, and therefore has the opportunity to present an overview of student's general progress. Individual student problems are reported to appropriate grade level administrator in written form. Teachers, however, report inconsistent feedback from administration and more effort needs to be directed to the continuing flow of communication between teachers and administrators. Middle school administrators do, however, provide consistent written feedback to teachers concerning student matters and keep detailed files on students. These procedures are not routinely implemented in the high school.

PART VII - ASSESSMENT RESULTS

STATE CRITERION-REFERENCED TESTS

Subject: Mathematics

Grade: 10

Test: MCAS

Edition/Publication Year: test differs each year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	May	May	May	May	May
SCHOOL SCORES					
% Proficient plus % Advanced	99	98	98	98	95
% Advanced	83	87	77	77	67
Number of students tested	238	249	260	220	224
Percent of total students tested	100	99	100	100	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	100	99	99	98	94
% Advanced	86	89	79	80	69
Number of students tested	112	135	156	147	146
2. African American Students					
% Proficient plus % Advanced	97	96	96	97	93
% Advanced	77	82	73	72	63
Number of students tested	91	107	124	99	99
3. Hispanic or Latino Students					
% Proficient plus % Advanced	100	97	98	100	91
% Advanced	84	83	73	71	61
Number of students tested	61	42	64	34	44
4. Special Education Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
5. Limited English Proficient Students					
% Proficient plus % Advanced	100	100			
% Advanced	100	100			
Number of students tested	17	10			
6. Largest Other Subgroup					
% Proficient plus % Advanced	100	99	96	98	100
% Advanced	88	92	86	86	79
Number of students tested	56	61	49	58	57

Notes:

Largest Other Subgroup = Asian, for years 2009,2008,2007,2006,2005

In 2009, 2008 and 2007 all students were given free lunch given the large percentage of eligible students. Only students new to the Boston Public Schools were required to fill out a free/reduced lunch application.

Subject: Reading

Grade: 10

Test: MCAS

Edition/Publication Year: test differ each year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	Mar	Mar	May	May	May
SCHOOL SCORES					
% Proficient plus % Advanced	96	97	92	95	89
% Advanced	27	29	11	17	15
Number of students tested	236	254	262	221	224
Percent of total students tested	100	99	100	100	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	95	98	90	95	86
% Advanced	24	31	11	14	15
Number of students tested	112	137	156	147	146
2. African American Students					
% Proficient plus % Advanced	98	98	93	96	94
% Advanced	26	33	15	21	12
Number of students tested	90	110	126	99	99
3. Hispanic or Latino Students					
% Proficient plus % Advanced	97	98	99	97	84
% Advanced	30	40	11	12	14
Number of students tested	60	43	64	34	44
4. Special Education Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
5. Limited English Proficient Students					
% Proficient plus % Advanced	88	100			
% Advanced	12	30			
Number of students tested	17	10			
6. Largest Other Subgroup					
% Proficient plus % Advanced	93	97	79	89	82
% Advanced	23	18	2	5	19
Number of students tested	56	62	48	58	57

Notes:

Largest Other Subgroup - Asian 2009, 2008, 2007, 2006 , 2005

In 2009, 2008 and 2007 all students were given free lunch due to large percentage of low income students. Only students new to the Boston Public schools were required to fill out a free/reduced lunch form application

Subject: Mathematics

Grade: 7

Test: MCAS

Edition/Publication Year: Different test every year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	May	May	May	May	
SCHOOL SCORES					
% Proficient plus % Advanced	55	76	54	60	0
% Advanced	5	17	6	9	0
Number of students tested	120	150	163	103	0
Percent of total students tested	99	100	99	100	0
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	62	82	57	70	
% Advanced	4	19	4	10	
Number of students tested	55	112	107	72	
2. African American Students					
% Proficient plus % Advanced	42	70	45	56	
% Advanced	4	6	5	6	
Number of students tested	47	50	65	36	
3. Hispanic or Latino Students					
% Proficient plus % Advanced	58	66	60	60	
% Advanced	0	16	4	4	
Number of students tested	31	38	48	27	
4. Special Education Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
5. Limited English Proficient Students					
% Proficient plus % Advanced	69	90	50		
% Advanced	5	30	8		
Number of students tested	22	10	12		
6. Largest Other Subgroup					
% Proficient plus % Advanced	70	89	41	80	
% Advanced	11	32	8	16	
Number of students tested	27	37	24	25	

Notes:

In 2004-2005 Math MCAS for Gr. 7 did not exist

In 2009, 2008 and 2007 all students received free lunch due to high number of low income students, only those students new to the Boston Public School were required to fill out a free/reduced lunch application.

Largest Other Subgroup Asian - 2009, 2008, 2006,

White - 2007

Subject: Reading

Grade: 7

Test: MCAS

Edition/Publication Year: different tests every year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	Mar	Mar	May	May	May
SCHOOL SCORES					
% Proficient plus % Advanced	92	89	77	81	90
% Advanced	5	9	1	4	5
Number of students tested	119	150	162	103	131
Percent of total students tested	98	100	99	100	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	93	88	76	79	89
% Advanced	4	8	2	4	5
Number of students tested	54	112	107	72	99
2. African American Students					
% Proficient plus % Advanced	96	94	86	86	91
% Advanced	9	8	2	3	5
Number of students tested	47	50	64	36	57
3. Hispanic or Latino Students					
% Proficient plus % Advanced	90	89	67	88	91
% Advanced	7	13	2	7	5
Number of students tested	30	38	48	27	22
4. Special Education Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
5. Limited English Proficient Students					
% Proficient plus % Advanced	82	60	75		
% Advanced	0	0	0		
Number of students tested	22	10	12		
6. Largest Other Subgroup					
% Proficient plus % Advanced	93	81	83	64	87
% Advanced	0	5	0	0	6
Number of students tested	27	37	24	25	32

Notes:

Students with disabilities at the O'Bryant attend all regular classes and some have study skills as a class. As the MCAS is untimed, which the students need, they take the test in the regular classroom.

In 2009, 2008 and 2007 all students received free lunch due to the high number of low income students. Only students new to the Boston Public Schools were required to fill out a free/reduced lunch application.

Largest Other Subgroup - Asian 2009, 2008, 2006, 2005, White - 2007

***For all grade levels and subjects Performance level definitions are:

ADVANCED (A) Students at this level demonstrate a comprehensive and in-depth understanding of challenging subject matter and provide sophisticated solutions to complex problems. Advanced scores range from 260 to 280.

PROFICIENT (P) Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems. Proficient scores from 240 to 258.

Subject: Mathematics

Grade: 8

Test: MCAS

Edition/Publication Year: Test is different each year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	May	May	May	May	May
SCHOOL SCORES					
% Proficient plus % Advanced	77	68	65	81	62
% Advanced	26	11	13	27	9
Number of students tested	146	151	100	123	151
Percent of total students tested	100	100	99	98	100
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	81	68	76	79	63
% Advanced	23	11	16	29	10
Number of students tested	73	104	55	86	107
2. African American Students					
% Proficient plus % Advanced	69	62	54	79	59
% Advanced	22	9	14	19	7
Number of students tested	45	57	35	53	61
3. Hispanic or Latino Students					
% Proficient plus % Advanced	71	69	56	64	72
% Advanced	18	16	15	11	9
Number of students tested	38	45	27	19	35
4. Special Education Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
5. Limited English Proficient Students					
% Proficient plus % Advanced					
% Advanced					
Number of students tested					
6. Largest Other Subgroup					
% Proficient plus % Advanced	92	92	96	91	67
% Advanced	43	4	12	53	21
Number of students tested	35	24	25	32	28

Notes:

Largest Other Subgroup = Asian 2009,2008, 2007, 2006, 2005

In 2009,2008,and 2007 all students received free lunch due to the large number of low income students. IOOnly students new to the Boston public Schools were required to fill out a low income free/reduced lunch application.

Subject: Reading

Grade: 8

Test: English

Edition/Publication Year: test changes every year

Publisher: Measured Progress

	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005
Testing Month	Mar	Mar	May	May	May
SCHOOL SCORES					
% Proficient plus % Advanced	93	89	92	94	0
% Advanced	5	3	9	11	0
Number of students tested	146	151	100	124	0
Percent of total students tested	100	100	99	100	0
Number of students alternatively assessed	0	0	0	0	0
Percent of students alternatively assessed	0	0	0	0	0
SUBGROUP SCORES					
1. Socio-Economic Disadvantaged/Free and Reduced-Price Meal Students					
% Proficient plus % Advanced	93	87	89	93	0
% Advanced	3	2	7	7	0
Number of students tested	73	104	55	86	0
2. African American Students					
% Proficient plus % Advanced	95	95	95	96	0
% Advanced	4	4	9	11	0
Number of students tested	45	57	35	53	0
3. Hispanic or Latino Students					
% Proficient plus % Advanced	92	84	100	100	0
% Advanced	3	0	11	5	0
Number of students tested	38	45	27	19	0
4. Special Education Students					
% Proficient plus % Advanced			0		0
% Advanced			0		0
Number of students tested	2	3	0	3	0
5. Limited English Proficient Students					
% Proficient plus % Advanced					0
% Advanced					0
Number of students tested	8	2	4	0	0
6. Largest Other Subgroup					
% Proficient plus % Advanced	92	88	84	87	0
% Advanced	6	0	8	3	0
Number of students tested	35	24	25	32	0

Notes:

Students with disabilities are tested in regular classrooms as they just need more time and the MCAS for all students is untimed

No Gr. 8 ELA test given in 2004-2005

Largest Other Subgroup = Asian 2009, 2008, 2007, 2006