



Barack Obama Academy of International Studies

515 N. Highland Avenue | Pittsburgh, PA 15206
Phone: 412-529-5980 | Fax: 412-622-5983

September, 2016

Dear Parents/Guardians:

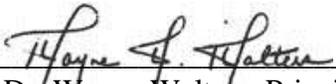
It is with great excitement that I welcome your child to the 2016-2017 school year and seventh grade Science. Our class will be engaged in many topics and I want you to become a partner in your child's science education. One of the ways to do that is to be aware of the expectations that I have of your child and to understand what we are covering during the school year.

Please review the course out line I have provided and keep it for reference.

Finally, the final two pages share the grading criteria, expectations, and policies for homework, late work, and the science project. Please review this letter, sign the bottom section of this page and return it to me. The returned paper is your child's first homework grade. I look forward to your child's participation in the science program this year.

Sincerely,

Mr. Aros Bartello

Approved: 
Dr. Wayne Walters, Principal

PLEASE SIGN AND RETURN THIS PAGE

I have read the contents of this letter and understand the requirements and expectations for this class.

Student's name and period for science _____

Parents Signature _____

Phone number(s) _____

E-mail if available _____





7th Grade Integrated Science Course Description

Course Title: Integrated Science Grade Level 7

Instructor: Mr. Aros Bartello

School Phone: 412-529-5980

Teacher Phone: 412-529-7020

Available hours Monday through Friday 8:15 am – 4:00 pm* leave a message or make an appointment with our secretary

E-mail abartello1@pghboe.net

Course Description:

Guiding questions

The seventh grade integrated science course provides a framework within which students will engage in the processes of scientific inquiry while examining various technological applications of the concepts of science. The guiding questions of the course are: How does matter behave and interact? How do the Earth's natural processes affect us? How does cell function and form work to keep organisms alive?

Course summary

The integrated science course is organized around the following overarching understandings:

- Scientists use systematic processes to study the world and solve problems.
- Matter makes up everything around us.
- Matter interactions control processes for reactions and chemical equations.
- Earth has natural processes that influence our environments.
- Cells are the basic units of living material.

These statements are the foundation to address the Pennsylvania academic standards.

Students will engage in an in-depth study of the following components of physical science, life science and earth science: the structure and properties of matter, atomic structure, energy, Earth's natural processes, cell processes, and molecular processes of life. Students will examine patterns, relationships, and changes within these systems in addition to the relationships between science, technology, and society.

While studying these science topics, students will simultaneously build conceptual understanding and proficiency in scientific process skills.

We will demonstrate mastery of these skills of scientific inquiry through the use of the eight science and engineering practices.

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data



5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Embedded in the curriculum are performance objectives that demonstrate understanding of the content. These provide a measure of student performance while also driving instruction. Along with performance objectives various other types of assessment are used throughout the course, including exams, lab reports, presentations, writing assessments and informal assessments.

The Pittsburgh public Schools middle science program will address the demands of the state standards and statewide testing program. The curriculum synthesizes and extends scientific knowledge from elementary school.

The use of technology in the course includes: videos, computer programs, Microsoft Excel and Word, accessing the World Wide Web for applicable science sites, and CD Rom programs. One of the most asked questions by 7th graders is, “When am I ever going to need to know this?” In this science course, I will make every effort to answer, demonstrate, and encourage students to see where and how science can influence and enrich their lives.

Overall Course Objectives:

Studies show that the most important time for students to develop an interest and grasp the fundamentals of science is during their middle years. In this course, my goal is to produce science literate citizens through an inquiry based approach that builds understanding of fundamental scientific processes and principles. It also involves improving the students’ proficiency in scientific reasoning and the ability to analyze the interplay among science, technology and society. The middle school curriculum provides opportunities for the students to apply and practice this type of thinking, thereby cultivating science literacy while also strengthening overall critical-thinking, problem solving and communication skills

The middle school science curriculum must center on investigation and experimentation. This approach provides a framework of experience on which students may build conceptual understanding and proficiency in relevant skills. Their comprehension will be strengthened and deepened thorough the integration of experimentation and investigation with direct instruction, and reading. Multiple instructional strategies must be incorporated, including a focus on writing in the middle school science curriculum to develop mastery of fundamental concepts and proficiency in scientific skills and will ensure that the students are prepared for the state assessments.



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Curriculum Materials:

Smithsonian Science Education Curriculum
Carolina Supply Company
PO Box 6010
Burlington, NC 27216-6010

GRADING CRITERIA:

Grades will be given based on the current assignments point value. The work is weighted based on the type of assignment (example: tests are more valuable than homework)

Type of assignments and weight:

Tests/ Major Exams/ quizzes	25%
Labs/Projects/ class work	25%
Homework	10%
Writing	20%
Participation	20%

The Barack Obama Academy of International Studies implementation of the International Baccalaureate Middle Years Programme also assesses students based on 4 criteria in science. These are:

- Criteria A – Knowing and understanding
- Criteria B – Inquiring and designing
- Criteria C – Processing and developing
- Criteria D – Reflecting on impacts in Science

Grade Scale percent as per school board guidelines

A= 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

Below 60 % is failing for the course



Student behavior expectations:

1. Be Productive, Polite, Prepared, and Prompt.
2. Students are expected to attend all classes. An accurate record will be kept by the instructor. It is the students' responsibility to bring excuses for the classes that they miss. Missing six or more classes for a report period without a valid excuse is an automatic failure. Bringing excuses does not excuse the child from the work. A student that brings excuses but does not make up the work is still subject to failure.
3. There will be no make-up quizzes given. If a major exam is missed it is the students' responsibility to make arrangements with the instructor and schedule a make up exam. A make up exam must be taken within 10 days from the original date or before the close of grades (Whichever is closer).
4. Please do not leave class or lab without checking that your area is clean, and all materials have been returned to their proper place. If not this will affect your participation grade.

Homework policy:

Homework will be assigned 3-4 times a week. You will lose 10% of their value for every day any assignment is late. Any homework more than a week late will receive a top score of 50%.

Late class work:

You will lose 10% for every day the assignment is late and work is not accepted after it is a week late. If you miss a lab it is up to you to catch up with your partners or to make arrangement for after school lab time.

Extra Credit: There will be no opportunities for creative assignments to assist in raising grades at the end of the report period.

Science Project:

All students are expected to complete three independent out of classroom science projects. One will be an informational poster with additional requirements in the 2nd report, the second will be a complete science experiment following the scientific method in the third report and finally a science model will be due in the fourth report. Parts of the projects will be assessed throughout the year.