



## Physical/Earth Science Honors

Scituate High School  
2019-20 Course Syllabus

**Dr. Peter A. McCarthy** - [peter.mccarthy@scituateschoolsri.net](mailto:peter.mccarthy@scituateschoolsri.net)  
*B.S. Chemistry, Boston College*  
*Ph.D. Organic Chemistry, Massachusetts Institute of Technology*

### Course Description

This course explores the fundamentals of the science and technology of Physics and Chemistry, and their relationship to every day experiences. It includes, but is not limited to, the study of matter, its structure and composition, and the various forms of energy (mechanical, heat, sound, and light).

### Required Textbook

*Conceptual Integrated Science Explorations*, P.G. Hewitt, S. Lyons, J. Suchocki, J. Yeh, Addison-Wesley, New York, 2010

### Grading Policies

The overall grade will be computed as follows:

1Q Grade	20%
2Q Grade	20%
3Q Grade	20%
4Q Grade	20%
Final Exam	20%

The grade for each quarter will be the weighted average of a student's grades in four categories: tests, lab reports, quizzes/assignments, and participation. The weight on each category is shown below. Within each category, a student's grade is simply the total points earned divided by the total points assigned.

Tests	40%
Lab Reports	30%
Quizzes/Assignments	20%
Participation	10%

## **Course Topics**

- 1) About Science
- 2) Newton's First Law of Motion
- 3) Newton's Second Law of Motion – Force and Acceleration
- 4) Newton's Third Law of Motion – Action and Reaction
- 5) Momentum
- 6) Energy
- 7) Gravity
- 8) Heat
- 9) The Atom
- 10) Nuclear Energy
- 11) Elements of Chemistry
- 12) Electricity
- 13) Magnetism
- 14) Wave and Sounds

## **Safety**

Maintaining a safe classroom requires special attention in science. The SHS science teachers have taken specialized training in science classroom safety, but students need to do their part as well. To this end, students and their parents will need to read and sign a safety contract (see <http://www.scituatescience.com/>). Please understand that safety rules are strictly enforced to ensure the safety of all students.

## **Class Rules**

The purpose of class rules is to foster and maintain the learning environment for all students. For this reason, students are expected to comply with all aspects of the SHS Student Handbook (see <http://scituateri3.net/shs02/index.php>) and SHS Science Student Policies and Expectations Handbook (see <http://www.scituatescience.com/>). Additional rules, procedures and expectations will be introduced at the beginning of the year. Students, parents and teachers have a shared responsibility to see that these rules are followed and the learning environment is optimum.



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### **Acknowledgement Form**

Please sign this acknowledgment form and return it to Dr. McCarthy as instructed.

#### **Student**

I have read and understood this syllabus.

Student name (please print): \_\_\_\_\_

Student signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### **Parent/Guardian**

As the parent/guardian of the student above, I have reviewed this syllabus.

Parent/Guardian name (please print): \_\_\_\_\_

Parent/Guardian signature: \_\_\_\_\_ Date: \_\_\_\_\_

*Parents are encouraged to monitor their child's progress on PowerSchool.  
Please contact Dr. McCarthy with any concerns*