

Physical Science

Grades:	6th – 8th
Days of Week:	Wednesday
Time of Class:	9:00 - 10:30 a.m. ET
Length of Class:	20 Weeks
Semester:	Fall & Winter
Tuition:	\$400.00

Class Dates:

Week 1 – Week of August 29

Week 2 – Week of September 5

Week 3 – Week of September 12

Week 4 – Week of September 19

Mid-Semester Break – Jewish High Holidays

Note: ALL the Jewish Holidays fall during the week this year and the way they hit there is an extra-long mid-semester break. Teachers will be giving a long-term project for students to work on during this time.

Week 5 – Week of October 24

Week 6 – Week of October 31

Week 7 – Week of November 6

Week 8 – Week of November 14

Week 9 – Week of November 28

Week 10 – Week of December 5

Make-Up Week – Week of December 12

Week 11 – Week of January 9

Week 12 – Week of January 16

Week 13 – Week of January 23

Week 14 – Week of January 30

Week 15 – Week of February 6

Week 16 – Week of February 13

Mid Semester Break: Week of February 20 – President's Day

Week 17 – Week of February 27

Week 18 – Week of March 6

Week 19 – Week of March 13

Week 20 – Week of March 20

Make Up Week – Week of March 27

Instructor's Name:
Instructor's Email:
Instructor's Phone:

Heather Getson
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517-442-9015

Description of Class:

This class is an introduction to the physical sciences including basic chemistry, geology, astronomy, and physics. These sciences make the world go around and having a strong introduction in the field will help students succeed later with their science studies. Middle school students are natural scientists, who with a little direction can walk in the footsteps of Isaac Newton, Marie Curie and Nicola Tesla (to just name a few!) With the help of these famous scientists, we will learn about the scientific method, writing lab reports, and get familiar with the periodic table, gravity, states of matter and much, much more!

This class will use a combination of live and virtual labs.

Class Approach:

Students will be asked to complete reading and research ahead of time so that our class time can focus on lectures, discussions, activities, etc. Student are encouraged to take a hands-on approach to learning.

Goals:

Students will be able to:

- Explain the scientific method
- Distinguish between physical and chemical change
- Explain the states of matter and their properties
- Become familiar with the periodic table of elements
- Interpret data from graphs
- Use formulas for density, mass, and volume to find values
- Use formulas for speed, velocity, distance and time to find values

Textbook:

Science Fusion – Module H – Matter and Energy

Science Fusion – Module I – Motions, Forces and Energy

Science Fusion – Module J – Sound and Light

The above interactive worktexts are all available from www.amazon.com for about \$10 - \$15 each. They are by Houghton Mifflin Harcourt.

Additional Supplies/Resources Needed:

- Webcam

- Microphone
- Notebook
- Pencil
- Paper

Students may join in when labs and experiments are completed by the teacher. Supply lists for these labs will be sent out 2-3 weeks prior to the experiment. Students are not obliged to follow along at home, the teacher will complete the experiment/lab live as well.

Requirements:

Students are expected to take part in class discussions and demonstrate a knowledge of the homework completed beforehand.

Weekly Homework:

Weekly homework will vary and will average approximately 1-2 hours per week.

Homework Policy:

Weekly homework will be due prior to class. Late assignments will be penalized 5% per day, for a maximum of 3 days. After 3 days, the student will not receive any marks for late homework. Late quizzes, exams and papers will not be accepted.

If you will have an issue meeting a deadline, please contact me to discuss.

Additional Policies:

Attendance is expected at all classes. There will be a strict zero-tolerance policy in regard to plagiarism and cheating. "Cheating" is defined as unauthorized help on an examination or assigned course material. A student must not receive from any other student or give to any other student any information, answers, or help during an exam. A student must not "steal" the answers from an unsuspecting student during an exam. "Plagiarism" is defined as the taking of a person's ideas, words, or information and claiming those properties as one's own. The use of all ideas, words, or information from any source must be properly referenced and due credit must be given to its author. All cheating and plagiarism infractions will result in a grade of "0" for the assignment.

Evaluation:

Class Participation – 10%

Term Project – 25%

Homework Exercises – 40%

Unit Quizzes - 25%

Grading Scale:

Percentages/Grades
100-90: A

89-80:	B
79-70:	C
69-60:	D
59 – 0:	No effort: F

Anticipated Weekly Course Schedule:

Week	Topic
Week 1	Introduction, Syllabus Review and Matter (Module 1)
Week 2	Matter and changes in matter (Module 1)
Week 3	Energy (Module 2)
Week 4	Energy – Lab (Module 2)
Week 5	Atoms and the Periodic Table (Module 3)
Week 6	Atoms and the Periodic Table Cont. (Module 3)
Week 7	Solutions, Acids and Bases (Module 5)
Week 8	Solutions, Acids and Bases – Lab (Module 5)
Week 9	Motions and Forces
Week 10	Motion and Forces - Lab
Week 11	Work, Energy and Machines
Week 12	Work, Energy and Machines - Lab
Week 13	Electricity and Magnetism
Week 14	Electricity and Magnetism - Lab
Week 15	Introduction to Waves (Module 1)
Week 16	Sound (Module 2)
Week 17	Sound – Lab (Module 2)
Week 18	Light (Module 3)
Week 19	Light - Lab (Module 3)
Week 20	Wrap - Up