

Spring 2013

Physical Science - Regular

Mr. Sexton

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Course overview

Expectations

- 1. Show up** – You are here on time, in your seat writing in your journal, and have proper materials.
- 2. Participation** – You are willing to be active physically and mentally in the daily activities.
- 3. Be proactive** – If you are not getting a concept, you need to come in and see me. This is your class; take pride in it.

Note: Students will be expected to submit work into the class dropbox online form time to time, and/or submit blog entries, or online posting in forums. As such you will be able to find your course information and assignments at www.phillipsexton.com. You will also be able to submit work via that website.

Goals

Thermodynamics

Students will look to the world of thermodynamics, dealing with: thermal expansion, contraction, the movement of energy, and the rate of movement based upon the physical properties specific heat.

Waves

Students will explore the world of waves and their uses in the world around us. These waves include: surface waves, compression waves, and electromagnetic waves. Students will be able to describe them, and interact with them physically and or through virtual labs.

Optics

Students will study how it is that light, a form of electromagnetic waves, behaves as it passes through a medium, or bounces off of an object. Students will work with lasers, measuring reflection and refraction through different media.

Electricity and Magnetism

Students will work with Ohm's laws of electricity, and develop an understanding of series, and parallel circuits. Vocabulary present in this unit are: resistance, voltage, and ampere.

Newtonian Mechanics

Students will interact with the world of motion. Students will find velocity, speed, vectors, forces, momentum, and experience Newton's three laws of motion.

Roller Coaster

In the spring the students will make a roller coaster that demonstrates Newton's three laws as well as other physical properties that will be discussed in the spring. Students will work in groups of no more than three and need not be in a group at all.

Language Objectives

It is the goal of this course that students would be able to synthesize, analyze, produce, and experience the language of Physics, in English, through: labs, blogs, and forum entries, as well as the demonstration and explanation of their roller coaster.

Grading

The student can determine his or her letter grade for all assignments, labs, quizzes, and tests by calculating the percentage of the possible points earned. The corresponding letter grade for each percentage is shown below. Daily work and tests will consist of 40% each of the final semester grade and the final exam will account for the other 20% of the students' semester grade. All grades are **EARNED**, not given.

A+ = 100 – 98%	B + = 91 - 90%	C + = 82 - 80%	D + = 71 - 70%
A = 97-93%	B = 89 - 85%	C = 79 - 75%	D = 69 - 65%
A- = 92-91%	B- = 84 - 83%	C- = 74 - 72%	F = 64 - 0%

All **homework** will be accepted on the day that it is due. Any late homework will count as a "0" for that assignment. Students will be given 6 grace passes per semester. These passes may be used to: use the restroom during task time, turn in an assignment one day late, be used to place their name on their no name paper, be accepted to class after the class bell has rung without being marked tardy (within reason). Students will be allowed, at times, to **correct** tests as deemed appropriate by the teacher. **Corrections** for incorrect answers will be allowed until the third class period following the test, and may only be worked on in the **classroom** before or after school.

Students will be given the opportunity to attend **help class** on Tuesday afternoons (3:00-4:00pm). These will be times where students may come and receive help in Physical Science. Students are encouraged to bring in homework prior to or following the class day to have it looked over by the teacher.

Students will be asked to respond to quizzes and assignments given online, and

Resources

Bring all materials necessary for class (3 ring binder, scientific calculator, 2 notebooks, textbook, agenda book, pencil, **assignment that is due**). Students will not be allowed to return to their lockers for missing material, unless they use a grace pass.

- All labs will be done in **pencil**.
- Each student must be seated and begin the daily journal entry before class begins.
- **Each student** is responsible for getting missed assignments. Utilize your lab partner, classmate, agenda, and teacher. Plan on coming to help classes to catch up.
- Make up work is allowed 1 class day for each excused class day a student is absent. It is important that absences be made up ASAP, so that the student does not fall

Academic honesty

Students are expected to create their own work. Students that are found to have projects copied from the internet, or done by someone else will result in a zero on the project, and referral to the principal as it violates “our values”. The same applies to daily work.