

Physical Science Syllabus - 2018 - Semester 1

Welcome to science at Steller!

Physical Science with Brian explores some very serious questions about life:

- How do the things we use everyday actually work?
- What is going on with humans and the earth?

The first stage of this expedition involves exploring the fundamentals of physics (hooray!). Fortunately, all active humans are already familiar with this topic of study since our daily lives are governed by Newton's Laws, the interaction of forces, the persistence of gravity, as well as the transmission and transformation of energy. Students will emerge with the skills to understand what rules and actions determine the success of an olympic gymnast, professional snowboarder, or football lineman - but I make no promises about athletic improvement!

Moving forward from this physical science basecamp, we will expand our objectives to include the greater earth around us. While daunting, the global-scale cycles of changing forms of energy, weather, and the earth's seemingly slow movements affect our lives everyday. Learning to expand our thinking to encompass ideas on a variety of scales and timeframes will leave students with transferrable skills that will grow during their future scientific studies.

As an introductory science course, Physical Science with Brian truly focuses on developing successful methods for processing information through the scientific method. Again, we are all already scientists - everyday experience provides a strong background of the application of the scientific method since every new experience is truly an experiment. However, most people struggle to engage the process of reflection and meaning-making that allows us to cement new knowledge. We will be using the interactive science notebook model to build a wide range of methods with which to reflect on the process of doing science.

Grading

Notebook / Assignments 40%

Interactive science notebooks are the lifeblood of this class, therefore **each student should obtain a 100 page composition style notebook** (available from the Steller store). These notebooks will include course content as well as student generated reflections that serve to deepen understanding, teach successful study methods, and provide a complete portfolio of the course. Assignments will be added to the notebook either during class or after completion and grading.

Tests and Quizzes 30%

We will be building a repertoire of test taking strategies to improve test performance. Testing is a significant component in school as well as the real world, and there are simple methods to improve scores. Often tests stress students out, and this effect destroys student performance. We

name _____
period _____

Brian Gehring ~ gehring_brian@asdk12.org

will work on diminishing stress by practicing effective test preparation through structured review activities that reference the complete content in the notebooks. There will be interactive, group, online, and activity-based test/quiz components in addition to standard calculations and written responses.

Labs 20%

It is hard to learn science without engaging in the process! Labs will include a variety of activities, observations, experiments, projects, and simulations. Simply following instructions is not a good way to learn, so students must take the responsibility to engage in the process of science by producing meaningful work that uses their own words to reflect, explain, question, or expand upon the topic. Remember, every new life experience involves the same scientific process, so committing to quality work in class will improve your real life!

Citizenship / Participation 10%

Students are the citizenry of the classroom, and every student is able to propel the classroom positively. Full credit in this category will result from asking questions, participating in groups, keeping the room orderly, and helping other students.

Other

Excused Absence Only - Late Work

I will accept late assignments up to 5 school days after the absence and we will arrange labs or alternative assignments to be completed within 5 school days. Turn in late work directly to Brian. **Please meet with Brian to arrange work for extended absences in advance!!** Unexcused absences will not receive credit (barring exceptional excuses)!

Academic Honesty

Never copy work. **Do not copy** from other students, and do not cut and paste from digital sources **as this will earn a 0%**. If you completed work with the help of a source (like wikipedia, or your friend Cary) then simply give them credit by writing a name, website, or ideally a complete citation/reference. Pictures need credit too! If you ever notice Brian presenting work without a reference, point out the egregious error to the class and you will earn a bonus!

Please sign below if you have read this document and agree to the expectations

STUDENT _____ DATE _____

PARENT/GUARDIAN _____ DATE _____

Remember to get a 100 page composition notebook soon! Available from Steller as well!

Visit www.mistergehring.weebly.com to stay up to date on class assignments, documents, and online content used in class.

Comments for Brian: