**Pre-AP Geo Physical Science**

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Text Books:   Earth Science   Tarbuck, Lutgens

**Course Description:**

Pre-AP GeoPhysical Science is for 9th grade students in the Berthoud High School STEM program.  The goal of this course is to give students a solid foundation in science so they will be successful in future AP Science courses.  Many students go on to take AP Biology or AP Physics their 10th grade year and this course will give them the prerequisite skills to be successful.  The curriculum first semester will focus on Astronomy, Physics, and Earth Systems, while second semester will investigate more Climate Science, Chemistry, and Human Sustainability. There are numerous inquiry based labs with an emphasis on problem solving and the scientific method, and standards-based activities focused on building science knowledge and critical thinking skills.

**Materials:**

3-Ring Binder (1 ½”- 2”) Notebook, Pen or Pencil loose leaf or notebook paper, and colored pencils (12-count is fine), Students will have the opportunity to purchase their own safety goggles for $7 the first week of class.

**Standards-Based Grading System:**

Grades will be calculated based on summative and formative assessments.

*Summative Assessments:*

These assessments will focus on the Next Generation Science Standards and Science and Engineering Practices.  Students are expected to complete all forms of assessments and can take several forms, such as labs, research papers, or projects.  Assessments will be graded according to a rubric.

Assessments missed because of absences and any corrections made are to be completed by the end of the semester.  Corrections and makeups are to be scheduled with the teacher.  Assessment corrections are to be completed within a week and a half of when the original assessment was scored.

*Formative Assessments:*

These assessments will focus on the Next Generation Science Standards and Science and Engineering Practices.  Examples of these grades are practice assignments/homework, quizzes, pretests, and daily warm ups/exit tickets.

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**Grading Scale:**

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| --- | --- | --- | --- |
| 4321 | ExemplaryMeetsProgressingEmerging\*\*Students scoring a 1 out of 4 on ½ of their assessments will be expected to complete credit recovery | *Other Symbols*XIEML | Exempt (not figured into grade)Insufficient Evidence (worth 0/4)Missing (Has not been turned in)Late (will still have a grade) |

**Technology in the Classroom:**

Technology in the classroom is a useful tool and is even encouraged under the correct circumstances in an academic. However, devices should be used as a vehicle for learning and engaging in classroom activities and not for social media, texting/messaging with individuals within and outside of the classroom, and watching videos not related to the topic or task asked of the student in the classroom. A student will get two warnings to put their devices away, and on the third they will have to put it in a classroom crate. After getting it taken away twice within a few weeks, the student’s phone will not be returned to them, but sent to the front office where a parent/guardian will have to pick it up for their student. I ask that students keep their devices away until I let them know verbally that is is now okay to use devices. At that time, students are allowed to use their devices for classroom use ONLY. I do understand that situations in life happen, and if parents need to contact their student, I only ask that both student and parent let me know either verbally or via e-mail that there is a confidential situation and I will be understanding to that particular circumstance. Otherwise, I ask that students do not use their phones to contact parents during classroom time and reserve use to lunch and passing periods within school hours.

**Tips for Success:**

Keep in mind that I am and will always be on your side.  With everything that we do in our classroom, there is a purpose to benefit you.  However, it is up to you to utilize the resources available to you if help is needed.  There is me, for one thing, but don’t forget your classmates.  They are a wonderful resource and by helping you, they are also helping themselves.  The best way to learn something is by *teaching* it.

In the words of the great Albus Dumbledore, “Help will always be given...to those who ask for it.”

**Course Outline:**
***Second Semester***

**Unit 2: History of the Earth**

 Topic 2: Continental Drift and Plate Tectonics

 Topic 3: Plate Movement

Topic 4: Coevolution of Earth’s Systems and Life

**Unit 3: Earth Systems**

Topic 1: Effects of Water on Earth’s Surface

 Topic 2: Carbon in Biochemical Systems

 Topic 3: Cause and Effect of Systems

 Topic 4: Variation in Energy and Result on Climate Change

 Topic 5: Data on Climate Change

**Unit 4: Human Sustainability**

 Topic 1: Relationships in Earth’s Systems

 Topic 2: Energy Management

 Topic 3: Relationships Between Resources and Human Population

 Topic 4: Influences on Human Activity

 Topic 5: Solutions of Human Activities on Natural Systems