



6th Grade Science, Mrs. Michelle Felix

Office hours: Tuesday/Thursday 3:15 -3:45 Rm.26

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Course Description: This year, students should be able to demonstrate a greater capacity for connecting knowledge across, and between, the physical sciences, earth sciences, and engineering design. 6th grade will begin to form deeper connections between concepts previously learned. Such as collecting evidence and drawing conclusions, understanding relationships between objects, and critical thinking that leads to designing effective solutions for problems. For example, Physical and chemical interactions that affect the world around us, i.e., ocean acidification; Factors that affect and impact Earth, like climate change. Physical Sciences will explore topics including atomic chemistry, forces and fields, thermal energy, and the wave model. Such lessons will help prepare students for advanced classes—like physics, forensics, or chemistry in high school and college.

GPA Grading Guidelines:

Category	Grading Criteria	Percentage
Classwork	<ul style="list-style-type: none">• Completion/Quality <p>(Must have a minimum of 1 weekly grade)</p>	30%
Demonstrations of Learning	<ul style="list-style-type: none">• Key Course Assignments <p>(See course syllabus for Unit Key Assignments)</p>	35%
Homework/Independent Learning	<ul style="list-style-type: none">• Any work assigned to a student in which they complete on their own outside of class. <p>(Must have a minimum of 1 weekly grade)</p>	10%
Quarter Finals	<ul style="list-style-type: none">• Quarter finals are course specific, standards based exams that cover content from the 9 week quarter.	25%

* Classwork/Participation and Homework/Independent Learning will we updated weekly.



Prerequisites: 5th Grade Science: Earth Science (Rock and Water Cycle)

Course Materials: ISN (Interactive Science Notebook- Technology (provided). Material list with each project will be provided during Unit. Family participation in construction and engineering of project is encouraged!

Course Structure:

Project Based with quarterly exams and POL's (Presentations of Learning); Lectures and off-site Field lessons.

Course of Study:

Name of Unit (*Length of unit - 4 WEEKS - 8 LESSON*)

Content Standards	Learning Objectives	Key Assignments/Exams
PS2a- Force and Motion For any pair of interacting objects, the force exerted by the first object on the second object is equal in strength to the force that the second object exerts on the first, but in opposite direction. (Newton's Third Law)	Apply Newton's Law to design a problem involving the motion of two colliding objects.	Inventions Project Ferris Wheel Self Propelled Car Bridge Weather Vane Anemometer End of Unit Quiz
PS2b- Force and Motion (Newton) For every action there is an equal reaction	3rd Law of Newton, Claim, Evidence,	Newton's Cradle Model, Experiments/Model/POL Exam End of Unit Quiz
PS1- Structures of Matter Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it.	Molecules, inert Atoms, Chemical Reactions. Gather and made sense of information to describe that synthetic materials come from	Create a 3-Dimensional Model for the layers of the Earth with fictional story "My Journey to The Center of the Earth".



	natural resources and impact society.	
PS3- Energy, Kinetic, Potential ETS1- Engineering	Data Analysis, Temperature	Engineer a Roller Coaster Model to demonstrate different forms of energy /POL Exam End of Unit Quiz
PS4-Wave properties A wave model is useful for explaining brightness, color, frequency, bending of light, at a surface between media.	Transmitted, Absorbed, Measured, Reflected Develop and use model to describe that waves are reflected, absorbed, or transmitted through various materials.	Data Graph, Exam, Report Experiment of light Mirror reflection End of Unit Quiz
ESS2-C Roles of Water on Earth The complex patterns of the changes and the movement of water in the atmosphere, determine by winds, landform, and ocean temperatures and currents, are major determinants of local weather patterns. ETS1-Engineering	Weather/Erosion/Navigation Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	Weather Instruments Project/Forecasters POL Drop in the Bucket Activity https://streamsidescience.usu.edu/ou-files/pdfs/drop-in-the-bucket.pdf Create your map of water landscape (California) End of Unit Quiz
ESS3-5 Climate Change Weather and climate are influenced by interactions involving sunlight, the ocean, the atmosphere, ice, and landforms, and living things.	Research/Debate Cause and Effect Develop and use a model to describe how unequal heating and rotation of the earth cause patterns of the atmospheric and oceanic circulation that determine regional climates.	Guest Speakers from Cabrillo National Park (April) Lab on Ocean Acidification End of Unit Quiz
ESS3-C Human Impact on Earth's Systems	Sustainability, Models and Engineering Solutions	POL/Model/Report/Exam Engineer a Topographic



<p>Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise.</p> <p>ETS1- Engineering</p>	<p>Construct an argument supported by evidence for how increased in human population and per-capita consumption of natural impact Earth's systems.</p>	<p>Watershed Model to demonstrate human impact.</p> <p>End of Unit Quiz</p>
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Course Specific Student Expectations:

What do you expect of your students?

- Students will need to explore, initiate and present their learning. Presentations and models will be a key requirement for passing this class.

Accommodations/Modification and Supports:

Any student who requires accommodations, modifications or additional supports should contact me as early as possible so that we may arrange accommodations, modifications and supports.

GPA Student Expectations:

School-wide Attendance: All students are expected to be punctual and in their classroom seat, ready to learn for each day. Under California law (Ed. Code 48200) all children between the ages of six and eighteen are required to be enrolled and in regular attendance at school. GPA families know that school attendance is the critical first step to make sure that each student receives an education that will help them on their path to college. Students cannot learn what they need to be prepared for the next grade level, if they are not in school. The more absences from school a student has, the more they fall behind in their classes and the more difficult it will be to make it to college.

Planner Use: All students are expected to write all assignments in their GPA planner daily. Your first GPA planner will be provided by the school to support organization and time management.

Homework Completion: As a school working toward college preparation, all GPA students are expected to complete their daily/weekly assignments. Students who fail to complete their homework assignments on time, and are unexcused, will be required to attend lunch and after



school tutoring support daily until completed. Until all assignments are completed, students may not be eligible for athletics, clubs, and other extracurricular activities.

Electronic Device Policy: Cell phones, smart watches, and other electronic communication devices that can send and/or receive data are not permitted to be visible, heard, or used in any manner during school hours except by approval of school authorities. Any violation and/or disruption of the learning process will result in the confiscation of the item. The parent/guardian must pick up the confiscated item from the Office of Student Conduct or the teacher.

Computer/Internet Usage Policy: Students may not use computers and/or the GPA network without proper adult supervision. The teacher/staff will choose resources on the Internet that are appropriate for classroom instruction and/or research for the needs, maturity, and ability of their students.

Acceptable Use-

- Access to any site that provides information relevant to current class assignments
- Access to college or university websites
- Use of teacher approved educational software (games, instructional tools, etc.)

Academic Integrity: Honest behavior is an expectation for all students at Gompers Preparatory Academy. Our goal is to create and maintain an ethical academic atmosphere. Acts of academic dishonesty that will not be tolerated at GPA are listed below:

- Cheating on any classroom assignment, test, or quiz
- Plagiarism - copying or representing another's ideas, words, or work as one's own, without properly citing the source. Plagiarism includes the misuse of published material, electronic material, and/or the work of other students. The original writer who intentionally shares his/her work for another to copy, without the permission of the teacher, is also engaged in plagiarism.
- Fabrication (any falsification or invention of date, citation, or other authority in an assignment); theft or alteration of materials
- Unauthorized collaboration
- Unauthorized use of electronic devices

Students found in violation of GPA's Academic Integrity Policy will be disciplined appropriately which may lead to formal suspension. Consequences for offenses may include, but are not limited to, detention, *lowering of academic and citizenship grade and/or suspensions/exclusion from extracurricular activities.*

Standards/Format for Writing Papers - MLA Format:

The standard format for all papers follows the MLA formatting rules:



1. Typed, double-spaced: TIMES NEW ROMAN, 12 font, including title
2. Heading: 4 lines - UPPER LEFT corner
Student name: "Sammy Gompers"
Teacher name: Ms. Teacher
Course name, period: English I, Period 3
Date 06 February 2009
3. All pages numbered: upper right corner, last name and page number; no punctuation, no "p." or "pg."
4. Title: centered, upper and lower case
5. Work Cited/ Documentation Format: It is necessary to credit any source that is used in a paper or project. Plagiarism is considered cheating. All sources must be documented. Citing sources in a paper must be thorough and accurate. MLA formatting for in text citations and works cited is mandatory

Important Dates:

Quarter 1:

- Q1 Finals Week: October 23rd and 27th
- Parent Conferences: October 23rd - 27th
- End Date: October 30th

Quarter 2:

- Q2 Finals Week: January 22nd - 26th
- Parent Conferences: January 16th - 22nd
- End Date: January 31st

Quarter 3:

- Q3 Finals Week: April 9th - 13th
- Parent Conferences: April 16th - 20th
- End Date: April 23rd

Quarter 4:

- Q4 Finals Week: May 29th - June 1st
- End Date: June 26th

Student Signature : _____ Parent/Guardian Signature: _____

Date: _____

