

Syllabus

Introduction

- a. **About Earth Science and Space Science:** Earth and space science incorporates many aspects of physics, geology, chemistry, meteorology, oceanography and biology to assess the world and universe we live in. We will study the scientific process and examine evidence to make logical conclusions about the earth and space.
- b. **Book:** We will be using the book *Earth Science: Geology, the Environment, and the Universe*, ISBN#: 078664233.
- c. **Teacher info:** Allen Mauer Work Phone#: 491-6602 mauera@gmail.com
- d. **Class Website:** <http://www.csecacademics.info>
- e. **Required Materials:** calculator (scientific), blank notebook or section of 3 ring binder, a positive attitude!
- f. **Attendance:** Decide not to come to class, and you will miss valuable opportunities to improve your grade. Also, lunch detention will be issued for three unexcused absences.
- g. **Class Structure:** We will be using cooperative learning and direct instruction to achieve competency across the classroom. Students will be expected to participate in the learning, teambuilding, and class-building activities provided.
- h. **Online Learning and Planning:** The website will contain all assignments handed out in class, links to academic content, online assignments, practice tests, and a list of all assignments on a calendar. **Students are strongly encouraged (and will sometimes be required) to log in** (using their Powerschool ID and password) and so are parents.

Earth Science Standards

GRADES 9-12 - Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.

Benchmarks:

1. the Earth's interior has a composition and structure
2. the theory of plate tectonics helps to explain relationships among earthquakes, volcanoes, mid-ocean ridges, and deep-sea trenches
3. the feasibility of predicting and controlling natural events can be evaluated (*for example: earthquakes, floods, landslides*)
4. there are costs, benefits, and consequences of natural resource exploration, development, and consumption (*for example: geosphere, biosphere, hydrosphere, atmosphere and greenhouse gas*)
5. there are consequences for the use of renewable and nonrenewable resources
6. evidence is used (*for example: fossils, rock layers, ice cores, radiometric dating*) to investigate how Earth has changed or remained constant over short and long periods of time (*for example: Mount St. Helen's eruption, Pangaea, and geologic time*)
7. the atmosphere has a current structure and composition and has evolved over geologic time (*for example: effects of volcanic activity and the change of life forms*)
8. energy transferred within the atmosphere influences weather (*for example: the role of conduction, radiation, convection, and heat of condensation in clouds, precipitation, winds, storms*)

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9. weather is caused by differential heating, the spin of the Earth and changes in humidity (air pressure, wind patterns, coriolis effect)
10. there are interrelationships between the circulation of oceans and weather and climate
11. there are factors that may influence weather patterns and climate and their effects within ecosystems (*for example: elevation, proximity to oceans, prevailing winds, fossil fuel burning, volcanic eruptions*)
12. water and other Earth systems interact (*for example: the biosphere, lithosphere, and atmosphere*)
13. continental water resources are replenished and purified through the hydrologic cycle
14. gravity governs the motions observed in the solar system and beyond
15. there is electromagnetic radiation produced by the Sun and other stars (*for example: X-ray, ultraviolet, visible light, infrared, radio*)
16. stars differ from each other in mass, color, temperature and age
17. the scales of size and separation of components of the solar system are complex

Course Content – Test dates are flexible based on school activities. They will be posted online at least two weeks in advance. **Heavy emphasis on Units 7 and 8.

1. Unit 4 (*January 5 – Jan 22*)
 - a. Chapter 13 – The nature of storms
 - b. Chapter 14 – Climate
 - c. Chapter 15 – Physical oceanography
 - d. Chapter 16 – The marine environment
2. Unit 5 (*Jan 25 – Feb 5*)
 - a. Chapter 17 – Plate tectonics
 - b. Chapter 18 – Volcanic activity
 - c. Chapter 19 – Earthquakes
 - d. Chapter 20 – Mountain building
3. Unit 6 (*Feb 8 – Feb 19*)
 - a. Chapter 21 – Fossils and the rock record
 - b. Chapter 22 – The Precambrian Earth
 - c. Chapter 23 – The Paleozoic era
 - d. Chapter 24 – The Mesozoic and Cenozoic eras
4. Unit 7 (*Feb 22 – Apr 2*)
 - a. Chapter 25 – Earth resources
 - b. Chapter 26 – Energy resources
 - c. Chapter 27 – Human impact on Earth resources
5. Unit 8 (*Apr 5 – May 21*)
 - a. Chapter 28 – The Sun-Earth-Moon system
 - b. Chapter 29 - Our Solar system
 - c. Chapter 30 – Stars
 - d. Chapter 31 – Galaxies and the Universe

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Assignments:

Per Unit:

- Unit packet	
o Unit project	20 pts
o Unit questions	20 pts
o Current event paper	20 pts
- <u>Unit test</u>	<u>40 pts</u>
Total	100pts

Grading:

All work will be graded within one week, and posted on Powerschool. A standard, point-based system will be used to calculate a grade. (100-93, A; 92-90, A-; 89-87, B+; 86-83, B; 82-80, B-; 79-77, C+; 76-73, C; 72-70, C-; below 70 – no credit *school policy*)

Expectations:

All students will demonstrate RESPECT, EMPATHY, RESPONSIBILITY, and INTEGRITY. Discipline will be handled on a case-by-case basis, and school policies will be followed with respect to dress-code, insubordination, and all other issues outlined in the student fact sheet.

Student Services:

Any student with a 504 or IEP will be given the accommodations / modifications specified by their plan and all students will be monitored closely for any difficulties they are having in the classroom. Parents are strongly encouraged to contact the teacher with any concerns or specific information about their student. Students also need to be strong self-advocates and ask for help if they need it!

Behavioral Contract:

I _____, agree to abide by the following class rules and consequences:

- Students will listen when others are talking to the class, including the teacher.
- Students will respect the teacher's request to relocate seats at any time for any reason.
- Students will not use profanity or inappropriate language in the classroom.
- Students will come to class on time with the proper materials, including a textbook, calculator, notebook, and pen/pencil.
- Students will not interfere with ability of others to learn.
- Students will follow directions to the best of their ability when asked to participate in classroom activities.
- Students will keep their hands and all body parts to themselves at all times.
- *If students do not comply with certain rules, they may be asked to leave the classroom and may be subject to further administrative disciplinary action.*