

## COURSE SYLLABUS for EARTH SCIENCE: SEF21 – Sections 01/02/03/04

Mrs. Dubizh - Summer 2020

### Course Description:

The study of Earth Science this summer will consist of 3 basic units: Weather and Climate, Minerals, Rocks and Gems and The Theory of Plate Tectonics and the formation of Earth's features.

We will begin by exploring the concepts of weather and climate and how they contribute to the complex issue of Climate Change and the present-day concerns of Global Warming. Next we will look at what constitutes a mineral and how we use them in various ways in our daily life. Emphasis will also be put on the importance of recycling mineral resources. Finally, we will touch on how rocks are formed from these minerals through the rock cycle. The course will finish with a brief look at certain features of the Earth such as Volcanoes and Earthquakes, among others.

As a final project, students will choose a topic of interest and create a research question that they will answer in a short paper that they will present to the class.

### Weekly Breakdown:

Week 1: Introduction to Earth Science (1)  
Week 2: Meteorology  
Week 3: Climate Change  
Week 4: The Theory of Plate Tectonics  
Week 5: Earth's Features  
Week 6: Minerals, Rocks and Gems

### NGSS Learning Standards:

HS-ESS1-5. Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks.

HS-ESS2-1. Develop a model to illustrate how Earth's internal and surface processes operate at different spatial and temporal scales to form continental and ocean-floor features.

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

## Course Expectations:

### Grading Policy –

- 30% Exercises – Exercises will be posted weekly . Students are expected to answer questions IN THEIR OWN WORDS and be able to explain what they wrote and why.
- 30% Quizzes – Instead of a weekly exercise there will be 2 multiple choice and/or short answer quizzes that will be a review of independent work done during the week.
- 40% Summer Semester Project - Research Paper – 1page min. (double spaced)
  - You will choose your own topic that you are interested in and formulate a question that you would like answered about the topic using at least three sources. A reference bibliography will be necessary and students should be expected to share out their research with the class as a whole

### Text:

Glencoe/McGraw Hill - Earth Science, 2008  
Feather, Snyder, Zike, et al.

### Workbook:

Globe Fearon / Science Workshop Series:  
Seymour Rosen - Geology, 2000

