**Earth Science: The Land beneath… and above @** [**https://myfunscience.com/**](https://myfunscience.com/)

What’s inside the earth? What’s the weather today? What’s the big deal about the oceans? What’s going on with the sun and the moon? God created it all. There are four basic areas of Earth science: geology, meteorology, oceanography, and astronomy. **Geology** is the primary Earth science. It deals with the composition of Earth's interior and its surface. **Meteorology** is the study of the atmosphere and how processes in the atmosphere determine Earth's weather and climate. **Oceanography** is the study of Earth's oceans, which covers about 70% of our planet. **Astronomy** is the study of the universe and our solar system. In this full year (30 week) course we will explore all 4 aspects of Earth Science. We will understand how Earth’s processes have a significant impact on our lives. Why on Earth should we care about our Earth? Get ready to enjoy virtual labs, web quests, and hands-on experiments.

**Grades:** 8-12

**Prerequisites:** none

**Day & time of Class:** Wednesday 11:00 pm ET

**Semester:** Fall 2018- Spring 2019 (30 weeks)

**Instructor’s Name:** Elisabeth Rainey

**Instructor’s Email:** [erainey@myfunscience.com](mailto:erainey@myfunscience.com)

**Instructor’s Phone:** 919-264-6799

**Textbook:** none (eBook and worksheets provided)

**Additional Supplies/Resources Needed:**

1. headset, microphone, notebook, a device (such as a phone-nothing fancy)to take pictures of your experiments
2. Common household supplies such as (paperclip, scissors, soup can, water bottle, tack, rubber bands, glass jar, drinking straw, tinfoil, water, paper plate, cardboard, etc…)

**Weekly Homework:** Homework will be assigned at the end of each live class session and will be due before the next live class. Homework should take approximately 2.5 hours per week.

HW will consist of …

1. answering questions from the previous weeks assignment
2. completing experiment(s) & submitting lab notes & a picture
3. reading about the “new” topic that we will discuss in our next class

**Homework Policy:** The goal of homework is to reinforce and explore the concepts that were taught in class. This is a core class and you will need to keep up with assignments. Contact me if your assignments will be late. I will work with you. Otherwise, 5 points off per day.

**Additional Policies:** Students should conduct themselves appropriately with their speech and texts during our live class. Students who are unable to adhere to this type of conduct may be separated from the class or removed from the session.

**Evaluation:**

Weekly questions 30 % of final grade

Weekly Experiments/Activities 30% of final grade

Tests 40 % of final grade

100%

**Grading Scale:**

100-90: A

89-80: B

79-70: C

69-60: D

59 – 0: No effort: F

### Anticipated Weekly Course Schedule:

| week |  |  |
| --- | --- | --- |
| Week 1 |  | Inside Earth |
| Week 2 |  | Plate Tectonics |
| Week 3 |  | Earthquakes |
| Week 4 |  | Volcanoes |
| Week 5 |  | Land Forms |
| Week 6 |  | Weathering, Erosion |
| Week 7 |  | Erosion & water, wave, wind Deposition |
| Week 8 |  | Erosion (Glacier, Gravity) |
| Week 9 |  | Wrap up elements of movement |
| Week 10 |  | Soil |
| Week 11 |  | Sedimentary & Metamorphic rocks |
| Week 12 |  | Igneous Rocks |
| Week 13 |  | Rocks & Minerals |
| Week14 |  | Midterm Review |
| Week 15 |  | Weather, Climate |
| Week 16 |  | Clouds, Wind, Fronts |
| Week 17 |  | Wind, Air Movement, Air Pressure |
| Week 18 |  | Air Masses & Fronts |
| Week 19 |  | Wrap up weather & climate |
| Week 20 |  | Storms, Thunder, Lightning |
| Week 21 |  | Tornadoes, Hurricanes |
| Week22 |  | Weather Forecasting |
| Week23 |  | Earth’s Atmosphere |
| Week 24 |  | Climate Zones & Biomes |
| Week 25 |  | Rotation, Revolution, Seasons, etc |
| Week 26 |  | Sun, Moon, Earth System |
| Week 27 |  | Planets |
| Week 28 |  | Other objects in the Solar system |
| Week 29 |  | Space Exploration |
| Week 30 |  | Final Topics |