General Course Information

Course Name: Earth Science	
Department: Science	Grade Level(s): 10, 11, 12
Duration/Credits: 1 year/1 credit	Prerequisites: None
BOE Approval Date: December 2022	Course Code: H3192
Course Description:	
This course focuses on the history of our planet and how Earth's systems simultaneously influence each other. Students will study the ways Earth has changed over the last 4.6 billion years and draw conclusions about past and current natural phenomena. Through the study of Earth's biosphere, atmosphere, hydrosphere, and geosphere, students will develop and use models to build an understanding of the interactions and feedback between systems. Combining knowledge from this course, students will explore the relationship between human activity and the impact on our planet.	
Course Rationale:	
In a world of global issues, students need to develop an understanding of the natural world, the impact of humans on nature and our planet, and how to use science as a tool for making informed decisions.	
Course Objectives:	
1. The student will demonstrate the use of models and carry out investigations to build understanding of Earth's systems and their interactions.	

2. The student will analyze data and draw written conclusions from the data about Earth Science topics. (A+ Writing)

3. The student will gather and analyze data to engage in scientific discussion or argumentation. (A+ Speaking and Listening)

4. The student will research a variety of environmental issues and propose or evaluate solutions using scientific evidence. (A+ Research)

5. The student will read and analyze published scientific work on Earth science topics. (A+ Reading)

Standards Alignment:
NGSS (MLS alignment)

Priority Standards

ESS1-6

Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.

- **Clarification Statement:** Emphasis is on using available evidence within the solar system to reconstruct the early history of Earth, which formed along with the rest of the solar system 4.6 billion years ago. Examples of evidence include the absolute ages of ancient materials (obtained by radiometric dating of meteorites, moon rocks, and Earth's oldest minerals), the sizes and compositions of solar system objects, and the impact cratering record of planetary surfaces.

ESS2-7

Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.