

## Earth Science (E) – Credit Recovery

### COURSE DESCRIPTION:

The introductory Earth Science course incorporates the body of knowledge and facts accumulated from people's observations of the Earth around them and the skies above them. This observed information of the earth has evolved over centuries into the branch of science known as Earth Science. Earth Science has several different branches of study: the solid earth (geology), the earth's waters (hydrology and oceanography), the earth's atmosphere (meteorology), and the universe beyond earth (astronomy).

### COURSE OBJECTIVES:

Using careful observation and experimentation, students will learn to effectively analyze and evaluate the earth's natural phenomena and their causes, as well as, its relationship in the universe by focusing on the four major areas of study.

This course has been specifically built with the credit recovery student in mind. The course content has been appropriately grouped into smaller topics to increase retention and expand opportunities for assessment. With each topic, diagnostic quizzes are presented to the student, allowing students to pass through areas of content that they have previously studied successfully. Post-topic quizzes are presented with each topic of content. Audio readings are included with every portion of content, allowing auditory learners the opportunity to engage with the course. Test pools and randomized test questions are utilized in pre- and post-topic quizzes as well as unit exams, ensuring that students taking the course will not be presented with the same exams.

The ELL version of the course includes additional practice activities (such as cloze activities), as well as pre-topic vocabulary lists, that introduce key vocabulary in English and in Spanish.

**PREREQUISITES:** None

**COURSE LENGTH:** Two semesters

**REQUIRED TEXT:** None

### COURSE OUTLINE:

#### Semester 1

##### GEOLOGY

##### Overview of Planet Earth in Terms of Earth Science

- What is Earth Science? Explore the branches of Earth Science and understand the importance
- Earth as a series of interrelated systems
- Think like an earth scientist (scientific method)

##### Minerals, Rocks, and the Rock Cycle

- Minerals and Basic Atomic Structure
- Rock-Forming Minerals
- Physical Properties of Minerals
- Igneous, Sedimentary, and Metamorphic Rocks
- Rock Cycle and Earth's Systems

(E) = ELL – Assistive Content Included in this Course

## **Earth Science (E) – Credit Recovery (continued)**

### **COURSE OUTLINE (continued):**

#### **Plate Tectonics, Deformation of Earth's Crust, Earthquakes, and Volcanoes**

- Plate Tectonics
- Folds, Faults, and Rock Deformation
- Earthquakes
- Volcanoes

#### **Weathering, Erosion, and Deposition; Glaciers and Deserts**

- Weathering
- Erosion
- Deposition
- Glaciers
- Deserts

#### **Geologic Time, Relative Age Dating, and Isotopic Dating**

- Geologic Time
- Relative Age Dating
- Isotopic Dating

### **Semester 2**

#### **HYDROLOGY & OCEANOGRAPHY**

##### **Hydrology**

- Rivers, Streams, and Floods
- Groundwater

##### **Oceanography**

- Ocean Basins
- Waves, Currents, and Tides
- Coastal Processes

#### **METEOROLOGY**

##### **The Atmosphere, Weather, and Climate**

- The Atmosphere
- Weather Factors and Patterns
- Climate Factors and Zones
- Climate Change

#### **ASTRONOMY**

##### **The Earth, Moon, Sun, Solar System, Stars, Galaxies, and the Universe**

- The Earth, Moon, and Sun
- The Solar System
- Stars, Galaxies, and the Universe

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