

## Rationale

Everything in the world around us is built upon the Earth, grows on the Earth, or depends on the environment of the Earth in some way. Much of human history has been influenced directly or indirectly by earth science including use of resources, natural hazards, and environmental impacts. This course is designed to engage the student in relevant application and exploration of earth science topics that will impact their lives.

## Course Description

The earth science course develops understanding of a wide range of topics that build from elementary school into more advanced content. There are six topics addressed and they are space systems, history of Earth, Earth's interior systems, Earth's surface systems, weather and climate, and human impacts. There is a great emphasis on systems and socially relevant concepts such as resources, hazards, and environmental impacts in this course.

## Course Objectives

In this course,

The student will demonstrate proficiency in developing and using models.

The student will demonstrate proficiency analyzing and interpreting data.

The student will demonstrate proficiency constructing explanations.

The student will also see the parallels between Earth science concepts and engineering and technology.

The student will formulate answers to the following questions:

"What is Earth's place in the Universe? What makes up our solar system and how can the motion of Earth explain seasons and eclipses?"

"How do people determine that the Earth and life on Earth have changed over time? How does the movement of tectonic plates impact the surface of Earth?"

"How do the materials in and on the Earth's crust change over time? How does water influence weather, circulate in the oceans, and shape Earth's surface?"

"What factors interact and influence weather and climate?"

"How can natural hazards be predicted? How do human activities affect Earth systems?"

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