



Middle School Earth and Space Science Essential Standards

Essential Standards Quick Guide

Essential standards are explicitly taught, assessed more than once, and targeted for intervention if students have not yet reached proficiency. Assessments can be both formative and summative. Interventions are implemented within the classroom to support students who are not yet proficient.

All Idaho Content Standards are detailed in the Essential Standards Extended Guide. For the complete standards booklets and for further clarification on supporting content, explanations of standards, and assessment limits please utilize the Idaho Content Standards page. [Idaho Content Science Standards](#)

Essential Standards
Earth's Place in the Universe
MS-ESS-1.1 Develop and use a model of the Earth-Sun-Moon system to describe the cyclic patterns of lunar phases, eclipses of the Sun and Moon and seasons.
MS-ESS-1.2 Develop and use a model to describe the role of gravity in the orbital motions within galaxies and the solar system.
MS-ESS-1.3 Analyze and interpret data to determine scale properties of objects in the solar system.
MS-ESS-1.4 Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to analyze Earth's history.
Earth's Systems
MS-ESS-2.1 Develop a model to describe the cycling of Earth's materials and the internal and external flows of energy that drive the rock cycle processes.
MS-ESS-2.2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
MS-ESS-2.3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.
MS-ESS-2.4 Develop a model to describe the cycling of water through Earth's systems driven by energy from the Sun and the force of gravity.
MS-ESS-2.5 Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

Essential Standards
MS-ESS-2.6 Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.
Earth and Human Activity
MS-ESS-3.1 Construct a scientific explanation based on evidence for how Earth’s mineral, energy, and groundwater resources are unevenly distributed as a result of past and current geologic processes.
MS-ESS-3.2 Analyze and interpret data on natural hazards to forecast future catastrophic events to mitigate their effects.
MS-ESS-3.3 Apply scientific practices to design a method for monitoring human activity and increasing beneficial human influences on the environment.
MS-ESS-3.4 Construct an argument based on evidence for how changes in human population and per-capita consumption of natural resources positively and negatively affect Earth’s systems.
MS-ESS-3.5 Ask questions to interpret evidence of the factors that cause climate variability throughout Earth’s history.

For Questions Contact

Andrea Baerwald abaerwald@sde.idaho.gov
Idaho Department of Education
650 W State Street, Boise, ID 83702
208 332 6800 | www.sde.idaho.gov