



High 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
HS-ESS-1.2 Construct an explanation of the current model of the origin of the universe based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe.
HS-ESS-1.4 Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.
HE-ESS-1.5 Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks.
HS-ESS-1.6 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.
Earth's Systems
HS-ESS-2.2 Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth Systems.
HS-ESS-2.3 Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection.
HS-ESS-2.4 Use a model to describe how variations in the flow of energy into and out of Earth's systems result in variations in climate.
HS-ESS-2.6 Develop a model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.
HS-ESS-2.7 Construct and argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.
Earth and Human Activity

Essential Standards
HS-ESS-3.1 Construct an explanation based on evidence for how availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
HS-ESS-3.2 Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.
HS-ESS-3.4 Evaluate or refine a scientific or technological solution that mitigates or enhances human influences on natural systems.
HS-ESS-3.5 Analyze geoscience data and the results from global climate models to make an evidence-based explanation of how climate variability can affect Earth’s systems on a global and regional scale.

For Questions Contact

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