Rock Query

Correlated Standards by Grade
Last Updated: 2024

IMPORTANT: Our classes have a base curriculum that can vary based on instructor, and some activities that match the standards below may not be taught. Please let us know if there is a standard below you would like us to focus on, and we will tailor our classes to make sure we address it!

Next Generation Science Standards (NGSS)

4th Grade

4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.
4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

5th Grade

5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
5-PS1-3. Make observations and measurements to identify materials based on their properties.

Middle School (6-8)

MS-ESS1-4. Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.
MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.
MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and non-living parts of an ecosystem.
MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

Alabama Course of Study (ACOS)

4th Grade

Science

SC.4.11. Construct explanations of Earth's changes over time through slow and rapid processes, citing evidence found in rock formations and fossils in rock layers. *(CCC: Stability and Change)*
SC.4.12. Plan and carry out investigations to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, and vegetation, investigating a single form of weathering or erosion at a time. *(CCC: Scale, Proportion, and Quantity)*

5th Grade

Science

SC.5.2. Analyze data collected through observations and measurements to identify materials based on their properties, including color, hardness, and reflectivity. *(CCC: Structure and Function)*
SC.5.12. Use a model to represent how any two of Earth's systems (atmosphere, biosphere, geosphere, and hydrosphere) interact and support life. *(CCC: Systems and System Models)*

6th Grade

Science

SC.6.5. Obtain, evaluate, and communicate evidence that explains how constructive and destructive processes shape Earth's surface. *(CCC: Cause and Effect)*

SC.6.5a Develop and use models to demonstrate the processes that form rocks and cycle Earth's materials. *(CCC: Cause and Effect)*

SC.6.5b. Construct an evidence-based explanation of how rocks are classified as metamorphic, igneous, or sedimentary based on their characteristics and the process of the rock cycle. *(CCC: Cause and Effect)*

SC.6.5c. Develop and use models to demonstrate types of weather, effects of agents of erosion and transportation, and the formation of environments of deposition. *(CCC: Cause and Effect)*

7th Grade

Science

SC.7.8 Construct an explanation that predicts patterns of interactions between and among organisms in different ecosystems. *(CCC: Cause and Effect)*

Social Studies

SS.7.3. Compare geographic patterns in the environment that result from processes within the atmosphere, biosphere, lithosphere, and hydrosphere of Earth's physical systems.

3b. Explaining processes that shape the physical environment, including long-range effects of extreme weather phenomena.

3c. Describing characteristics and physical processes that influence the spatial distribution and biomes on Earth's surface.

3d. Comparing how ecosystems vary from place to place and over time.

Mississippi College- and Career-Readiness Standards

4th Grade

Science

E.4.9C. Students will demonstrate an understanding of how natural processes and human activities affect the features of Earth's landforms and oceans.

9C.1. Analyze and interpret data to describe and predict how natural processes (e.g. weathering, person, deposition, earthquakes, tsunamis, hurricanes, or storms) affect Earth's surface.

9C.4. Research and explain how systems (i.e. the atmosphere, geosphere, and/or biosphere) interact and support life in the biosphere.

6th Grade

Social Studies

6.2. Identify geographic patterns in the environment that result from the processes of Earth's physical systems.

2.1. Define atmosphere, biosphere, lithosphere, and hydrosphere.

2.3. Explain the major processes and natural phenomena that shape the physical environment and how humans adapt to them.

2.4. Investigate ways humans change their environment.

8th Grade

Science

E.8.7. Students will demonstrate an understanding of geological evidence to analyze patterns in Earth's major events, processes, and evolution in history.

E.8.7.1. Use scientific evidence to create a timeline of Earth's history that depicts relative dates from index fossil records and layers of rock (strata).

E.8.7.2. Create a model of the processes involved in the rock cycle and relate it to the fossil record.