

Unit 2 - Changes to the Earth's Land

Content Area: **Science**
Course(s): **Science 2**
Time Period: **January**
Length: **20 Days**
Status: **Published**

Unit Summary

In this unit of study, students apply their understanding of the idea that **climate**, wind and water can change the shape of land to compare design solutions to slow or prevent such change. The crosscutting concepts of *stability and change*; *structure and function*; and *the influence of engineering, technology, and science on society and the natural world* are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in *asking questions and defining problems*, *developing and using models*, and *constructing explanations and designing solutions*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

Standards

CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
SCI.2-ESS1-1	Use information from several sources to provide evidence that Earth events can occur quickly or slowly.
TECH.8.1.2.A.CS1	Understand and use technology systems.
2-ESS2	Earth's Systems
2-ESS1	Earth's Place in the Universe
2-ESS1-1.ESS1.C	The History of Planet Earth
2-ESS2-1.ESS2.A	Earth Materials and Systems
2-ESS2-3.ESS2.C	The Roles of Water in Earth's Surface Processes
2-PS1-1.PSI.A	Structure and Properties of Matter

Student Learning Objectives

Students will learn to...

- use information from several sources to provide evidence that Earth events can occur quickly or slowly.
- compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land
- ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- **Students will learn to tell the difference between climate and weather.**

Students will learn how climate can cause slow and fast changes to our earth.

Essential Questions

- How can rocks be separated by size?
- How else can rocks be sorted?
- Is there an earth material smaller than sand?
- What earth material is smaller than silt?
- How does climate change affect our earth?

Enduring Understandings

- Students will understand cause and effect for fast and slow changes to the Earth.
- Students will understand that these changes have different scales, proportions, and quantities.
- Students will understand that landforms have periods of change, and periods of stability.
- **students will understand how global climate change refers to the average long-term changes over the entire Earth. These include warming temperatures and changes in precipitation.**