

Subject: Science

Grade Level: 4th

Unit Title: The Earth Beneath Our Feet

Length of Study: 10 weeks

Big Ideas: Earth History and Matter: Properties and Change

Essential Questions:

How does the study of our Earth tell us about the history and its composition?

Guiding Questions:

[Enduring Understandings]

What does a fossil tell us?

How does erosion and weathering affect the surface of the Earth?

How do rocks differ?

How are rocks and minerals classified?

Concept(s):

Understand the composition and properties of matter before and after they undergo a change or interaction.

Understand the use of fossils and changes in the surface of the earth as evidence of the history of the Earth and its changing life forms.

Standard(s):

4.P.2.1 Compare the physical properties of samples of matter (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reactions to water and fire).

4.P.2.2 Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage, and streak.

4.P.2.3 Classify rocks as metamorphic, sedimentary, or igneous based on their composition, how they are formed and the processes that create them.

4.E.2.1 Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms.

4.E.2.2 Infer ideas about Earth's early environments from fossils of plants and animals that lived long ago.

4.E.2.3 Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.

Clarifying Objective(s):

[Learning Targets]

- I can learn about the Earth's past by studying fossils.
- I can identify rocks and minerals based on their properties.
- I can explain how erosion and weathering can change the Earth's surface.