

Grade 3rd grade

Topic: Rocks and Minerals

Title: *Layers of the Earth (part 1)*

Objectives:

Students will become aware of layers in Earth's surface.

Standards

- 3.1.2 Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.
- 3.1.3 Keep and report records of investigations and observations using tools, such as journals, charts, graphs, and computers.
- 3.1.4 Discuss the results of investigations and consider the explanations of others.
- 3.1.5 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.
- 3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.
- 3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.
- 3.6.3 Explain how a model of something is different from the real thing but can be used to learn something about the real thing.
- 3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.

Materials:

Scott Foresman Science book p. 193-195
Core Sampler from Cooper Science Lab
Glue
Soil card
Student science notebook.

Activities:

1. See pre assessment.
2. Have students sketch or describe layers of Earth in their notebooks.
3. Give students vocabulary words; rock, mineral, igneous rock, sedimentary rock, metamorphic rock, soil, decay, nutrient, and loam (listed in SF p. 195) and have them write what they know.
4. Introduce and discuss vocabulary words and definitions on p. 195 of *Scott Foresman Science* book.
5. Guide students to examine the picture that illustrates each vocabulary word. (p.194-195 SF)
6. K-W-L chart about what they know about layers of the Earth.

7. Core Sampler (from Cooper Science Lab)- take students outside and extract a core sample from a place on the playground.
8. Students will glue soil from the extracted sample onto their personal soil charts.
9. Begin an adjective chart to keep posted in class throughout the unit.
10. Revisit original student sketch of the Earth's layers and add more detail to it.
11. Students will reflect upon the core sample activity, as well as write at least two further questions they have regarding layers in Earth's surface.
12. See post assessment.

Assessment

Pre/Post

Students will answer the question, "What do you know about layers of the Earth?" They will sketch, draw, and/or write about layers of Earth in their science notebooks. Students will compare their knowledge at the beginning and end of the lesson. Under the "Line of Learning" students should record further ideas that came out of the discussion.

Further Assessment:

Scott Foresman Science student workbook, page 61. (May be used for Lesson 1 or Lesson 2). See Rubric A

References:

Rocks and Minerals teacher's guide (2002). STC The National Science Foundation: Burlington, NC.

Scott Foresman Indiana Science Teacher's Edition Grade 3 (2006). Scott Foresman: Glenview, IL. Vol.1.