Geology
Grade 5-7
Teacher's Guide

Lake Erie Nature & Science Center

Description

Hands-on investigations will help students gain an understanding of the "rock cycle" and the earth's composition. Students will try their hand at rock AND mineral identification. We will study Ohio geology and hike to explore the geological features of Huntington Reservation.
Available during the school year in the months of September, October, April or May.
Length: 2 hours. **Adult chaperones recommended**: 4

Content Standards

Subject	Gr	Standard	Objectives/ I Can Statements
Earth/ Space	6	• Minerals have specific, quantifiable properties. • Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification. • Igneous, metamorphic and sedimentary rocks form in different ways. • Soil is unconsolidated material that contains nutrient matter and weathered rock. • Rocks, minerals and soils have common and practical uses.	• Compare and contrast rocks and minerals. • Recognize that minerals have measurable properties that can be used for identification and/or classification • Use a dichotomous key to identify and classify rocks using their characteristics. • Explore how rocks are formed. • Identify where the components of soil come from. • Discuss how rocks and minerals are used.

Pre-Trip Activities at School

Vocabulary

cleavage
crystal
fluorescence
fossil
hardness
igneous
luster
magnetism
metamorphic
mineral
particle
rock
rock cycle
sedimentary
streak

Recommended Books and Field Guides

- Awesome Rocks by by Katy Lennon. Penguin Random House, 2015.
- Explore Rocks and Minerals by Cynthia Light Brown. Nomad Press, 2010.
- Geology: The Study of Rocks by Susan H. Gray. Scholastic, 2012.
- Investigating the Rock Cycle by Mary Lindeen. Lerner Publications, 2016.
- Rocks by Ann Squire. Scholastic, 2013.
- Rocks and Minerals by Melvin and Gilda Berger. Scholastic, 2010.
- Rocks and Fossils by Chris Pellant. Kingfisher, 2011.

Post-Trip and Extension Activities at School

- Determine, using scientific investigation, the best mineral to use to solve a problem or serve a specific function. Ask: What is the best mineral or rock to use to neutralize acidic soil? What is the best rock to use to make a statue? What is the best mineral to use for sandpaper? Evaluate the results and use the data to draw a conclusion. Share findings with an authentic audience.
- Using a geologic map of a region of the United States, determine what types of rocks are represented (igneous, sedimentary, metamorphic). Based on the environment required for these rock types to form, develop a hypothesis regarding the geologic history of the region. Research the actual geologic history of the region and compare to findings. Discuss reasons for the similarities and differences with the class.