



Cincinnati
Museum
Center

Teacher's Pre- and Post-Program Visit Guide

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| Program | Be a "Rock" Star |
| Grade Level | 3 - 6 |
| Time | 50 minutes |
| Location | Museum of Natural History & Science Classrooms |

Program Objectives

- Students will understand how rocks are formed and the components of the Earth.
- Students will gain insight into rock identification.
- Students will build science inquiry skills.
- Students will identify and examine the properties of minerals used for mineral classification.

Program Description

Take on the role of a geologist and follow the rock cycle by performing experiments to learn how rocks are formed. Discover the different properties of rocks and categorize them based on a set of criteria.

Major Vocabulary and Concepts

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| igneous rocks | metamorphic rocks | sedimentary rocks |
| erosion | rock | fossils |
| geologist | mineral | rock cycle |

Suggested things to do in your classroom before the program

- In your classroom, have students sort a variety of rocks by visible characteristics such as color, texture, hard, soft, etc. Have each child or team record their work.
- Discuss the three major types of rocks.
- Review terms and concepts listed above in your classroom.
- Have students begin a rock collection.

Suggested things to do after the program

- Observe and identify the sedimentary, metamorphic, and igneous rock found on the walls and floors of Union Terminal, Cincinnati Museum Center's building.
- Have students research the rocks they collected. Students could share their discoveries with the class.
- Use any candy bar that is made in layers to demonstrate layering and how pressure works. Cut it straight and at angles compare the angles and layers to pictures; apply pressure and squash it. Eat! Make/eat Dirt Pudding or Rock Candy. Discuss how this demonstrates the properties of rocks.

Curriculum and Standards Addressed

Ohio - Earth & Space Science, Scientific Inquiry, Scientific Ways of Knowing

Kentucky - Earth & Space Science, Scientific Inquiry, Applications & Connections

Indiana - The Physical Setting, Scientific Thinking, Common Themes

Related Exhibits and Features

- Union Terminal provides some interesting studies. The front of the building, the fountain and the fountain steps are made from limestone. In some areas of the steps, if you look closely, you can see fossils. The Rotunda walls are made of several kinds of marble. In the peach-colored marble you can see some well preserved fossils of Ammonites (coiled nautilus), a relative of squid and octopi. The Rotunda floor is made from ground up marble called terrazzo.
- View our Omnimax® film: *Ring of Fire*
- Display cases of rocks and minerals throughout the Museum of Natural History & Science

Resources

Teachers: 101 Questions & Answers About Planet Earth, by Brian & Brenda Williams

The Age of the Earth, by John Thackray

Students: Understanding & Collecting Rocks & Fossils, An Usborne Book

The Illustrated Encyclopedia of the Mineral Kingdom, Hamlyn
Rocks and Minerals, by Janice Van Cleave

The Best Book of Fossils, Rocks, and Minerals, by Chris Pellant