



The Rock Cycle

4th Grade

Duration

Visit: 20-30 minutes

Post-Visit: 15-20 minutes

Location

Gem & Mineral Hall

Supplies

- Worksheet
- Pencil
- Clipboards (optional)

Standards

Science 4.4.4a

Vocabulary

Rock Cycle

Igneous

Metamorphic

Sedimentary

Concepts

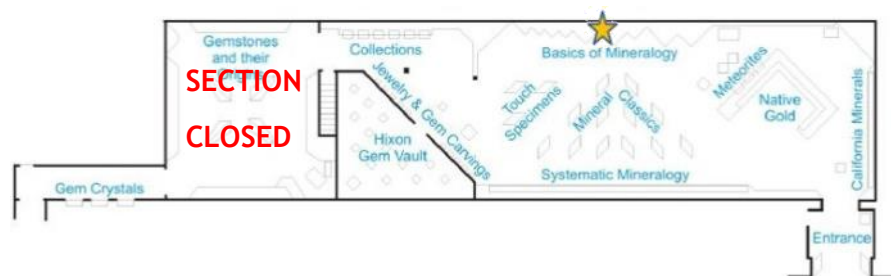
- There are three major types of rock formed by geologic processes: igneous, metamorphic and sedimentary.
- The rock cycle explains the cyclic processes in which these kind of rocks are formed.

Objectives

- Students will identify the three major types of rocks that are formed.
- Students will be able to explain the different processes that form these three types of rock.
- Students will compare and contrast these types of rocks and the process under which they are formed using examples from the Natural History Museum.

Outline

1. At the Museum, introduce students to the concept and ask them to use the Gem & Mineral Hall to complete the worksheet.
2. Back in the classroom, share and compare answers. Discuss questions and clarify misinformation. Then, together as a class continue to compare and contrast the three kinds of rocks and their processes using a Venn diagram.



Museum

At the Museum, take sometime to describe the three types of rock and how they are formed. Students can find the information on the wall of the exhibit, and you may choose to use this as teaching support.

Next, have students write down one example of each kind of rock on their worksheets. These can be found in a glass case on the wall. They should also write the distinguishing feature that identifies that sample as being sedimentary, metamorphic or igneous.

Either in the Gem & Mineral Hall or back at the classroom, give students time to complete the worksheet by comparing and contrasting the three different types of rock that are displayed. Use a Venn diagram with three circles.

Post-Visit

In the classroom have students share answers with the class. Take this time to clear up misconceptions or misinformation. When you reach the last section, create a three-circle Venn diagram on the board and as a class, work to compare and contrast the three types of rocks and their processes.

Take some time to review and reflect on the exercise.

Variations & Extensions

- Have students create a poster or 3D model depicting the rock cycle, using the specimens they chose at the museum as examples.
- Have students write a story from the perspective of one of the rocks they chose, as it goes through the rock cycle.



Using the Exhibits in the Gem & Mineral Hall

1. Using the table below, name the three types of rock formed in the rock cycle and explain how each type is formed.

Type of Rock	How it is formed



Compare and Contrast

- Using the Venn diagram below, compare and contrast three the three types of rock using examples from the exhibit. Be sure to consider process, as well as attributes like physical appearance.

