Standard Indicators
2.1.3, 2.1.5

Are You Ready to Rock?

Purpose

Students will observe how certain rocks are similar and different. They will describe, both in writing and verbally, rocks as accurately as possible and compare observations with those of other people.

Materials

For each student: copy of Black Line Master (BLM) *Are You Ready to Rock?*
For each pair of students: magnifying glass, rock set containing 6 rocks (2 basalt, 2 granite, 2 quartz), sheet of black construction paper
For the class: chart paper

Activity

A. Introduction

1. Ask students: "What do you know about rocks?" Have students brainstorm all that they know about rocks (what they look like, what different kinds there are, etc.).
2. Discuss with students the various properties rocks can have and how scientists use these properties to classify rocks. Ask students: "What are some of the properties of rocks?" Discuss with students rock properties such as shape, color, luster, and pattern.

B. Rock Investigation

1. Divide the class into pairs and give each pair of students a rock set, a sheet of black construction paper, and a magnifier.
2. Direct students to investigate the rocks and make as many observations as they can. Ask students: "How are your rocks similar? How are they different? What color is each rock? What shape is each rock?"
3. Ask students to examine the rocks a final time and then describe the properties verbally to their partners. Have students alternate giving verbal descriptions of the rocks.

(continued)

EXTENDING THE ACTIVITY

Have students try to identify their rock using reference journals or rock guides.

connecting across the curriculum

Mathematics
Weigh rocks using a scale or balance. Create a bar graph identifying the type of rock and its weight.

Standards Links
2.2.5, 2.5.6

Activity (continued)

C. Explore and Document

1. Tell students they are going to try to learn more about the rocks by looking at the small pieces of rock that break apart when two rocks are rubbed together.
2. Instruct students to rub the similar rocks together over the black paper (have students rub the two basalt rocks together, the two granite rocks together, and the two quartz rocks together). Have students explore the pieces of rock on the paper by using magnifying glasses.
3. Have students draw pictures of what they observe on the BLM *Are You Ready to Rock?* Have students complete the BLM by writing accurate descriptions of each of their six rocks.

D. Community Circle: Data Sharing and Review

1. Reconvene as a whole group and allow students to share their findings. Have the students discuss what they discovered.
2. Record the student observations on chart paper and ask: "How are your observations different? How are they alike?"

Questions for Review

Basic Concepts and Processes

While students are busy sharing their observations of the rock, circulate the room and ask questions such as:

- How can classifying and grouping objects according to certain characteristics help us gain a better understanding of them?
- Can you describe what that rock looks like?
- How did you decide what the most important characteristics were?
- How did your observations differ from your partner's?

Name: _____

Are You Ready to Rock?

Directions: Interpret and draw what you see after rubbing your rocks together and observing with a magnifying glass.

Directions: Write a detailed description of each of your rocks. Make sure you describe the properties of each rock (shape, color, luster, pattern).

Rock #1:

Rock #2:

Rock #3:

Rock #4:

Rock #5:

Rock #6:

Are You Ready to Rock?

Teacher Directions

Divide the class into pairs and give each pair of students a rock set, a sheet of black construction paper, and a magnifier.

Direct students to investigate the rocks and make as many observations as they can. Ask students: "How are your rocks similar? How are they different? What color is each rock? What shape is each rock?"

Ask students to examine the rocks a final time and then describe the properties verbally to their partners. Have students alternate giving verbal descriptions of the rocks.

Tell students they are going to try to learn more about the rocks by looking at the small pieces of rock that break apart when two rocks are rubbed together. Instruct students to rub the similar rocks together over the black paper. (Have students rub the two basalt rocks together, the two granite rocks together, and the two quartz rocks together.) Have students explore the pieces of rock on the paper by using a magnifying glass. Guide students to interpret their findings.

Have students draw pictures of what they observe in the three circles of the BLM *Are You Ready to Rock?* Have students complete the BLM by writing accurate descriptions of each of their six rocks.

Answer Key

Answers will vary. Check student observations against their rocks to see if they came up with accurate observations.