

### **Lesson 3: “The Big Rock” Lesson: Introduction to Rocks**

#### Target Grade or Age Level:

Sixth grade earth science

#### Scientific Process(es) Addressed:

Observing, communicating, inferring and defining operationally

#### Science Concepts Addressed/Proposed PDE Academic Standards:

- 3.2.7 Inquiry and Design
  - Explain and apply scientific and technological knowledge
    - Answer “What if” questions based on observation, inference or prior knowledge or experience
  - Identify and use the elements of scientific inquiry to solve problems
    - Generate questions about objects, organisms and/or events that can be answered through scientific investigations
- 3.5.7 Earth Sciences
  - Recognize earth resources and how they affect everyday life
    - Identify and locate significant earth resources (rock types) in Pennsylvania.

#### Instructional Objectives

- Students will observe properties of rocks
- Students will make inferences about what they understand about rocks from prior experience and their observations
- Students will be able to define operationally what a rock is from literature connections and Internet resources
- Students will begin to communicate their ideas about rocks to their classmates

#### Materials Needed

*The Big Book* illustrated by Bruce Hiscock, science journal or notebook, pencils, samples of rocks, Web exploration worksheet, Internet, computer lab

#### The “5Es” Instructional Model

1. **Engage**—I will introduce the topic of rocks by sharing and reading a picture book entitled *The Big Rock* illustrated by Bruce Hiscock. Students will be encouraged to look closely at the pictures of the rock and to pay close attention to how rocks came about. After reading the story, I will ask students to write a brief paragraph about their favorite rock in their science journals. The students must give at least 6 descriptive adjectives that explain what their rock looks like. Students are encouraged to give the name of the rock. Students will be called on to share and communicate with the rest of the class. Lastly, I will pose a question, “What stuff are found inside of rocks?” This will be the basis for our exploration.
2. **Explore**—During the first day of instruction, the students will pick a rock at random from a bag. This activity will be a free exploration. The students will have the