Name Period Date

Unit	Handout
3	19

Lesson 7: Getting Started

Purpose:	To think about what happens to rocks when plates move.
Guiding Questions:	**-** How do rocks change when earth's plates move? **-** What affects how rocks change?

Pre-activity. Answer the following questions to help you situate your thinking about the guiding question.

1. What happens to a stick when you bend it at both ends?

2. What happens to a substance like Silly Putty when you bend it at both ends?

3. What do you think would happen to a rock when you bend it at both ends?

4. What do you think would happen to a rock from the mantle when you bend it at both ends?

Activity. Answer the following questions.

5. What do you think happens to rocks when plates move? (Tip: think about rocks at all locations on a plate. Think about rocks being pushed into the earth, rocks found where plates meet, etc.) Give specific examples/locations to support your thinking.

6. Look at the rocks on your table. The rocks are in pairs and show changes that happened to the rocks. Describe the changes you see. Be sure to include the names of the rocks in your answer.

7. Observe and list some properties of the objects you are given (essentially, describe the object). Then, classify each one as being brittle or ductile. You can find the definition of these terms on page 92.

Term	Definition
Brittle	
Ductile	

Object	Observations	Brittle or Ductile?

8. Discuss your group's classifications and reasons for choosing each with the class. Answer the following:

   a. How did you apply force to each object? How did each object respond to that force?

   b. How did temperature and pressure affect the behavior of your objects?

   c. Based on these observations, what do you think are the conditions that affect how an object responds to a force?

Connecting. Using the ideas from this activity, answer the following questions about earth's rocks.

9. In what part of the earth might rocks be more brittle and fracture more easily? In what part do you think they would be more ductile?