

Name_____ Date_____ Section_____

Earth Science Unit 4 The Restless Earth

Title: Activity 14 Volcanoes

Challenge Question: How do volcanoes change Earth's surface?

Background:

- Earth's lithosphere is made up of tectonic plates that are always moving.
- Plate movement can cause changes to occur on Earth's surface.

Materials:

The Dynamic Earth book

Vocabulary: Define the following terms in your own words.

Term	Definition	Picture or Example
volcano		
magma		
lava		
vent		
tectonic plate		
hot spot		

Procedures:

1. Read pages 226 - 235 in the *Dynamic Earth* book.
2. Answer questions 1 - 3, and 5 - 15 from the reading.
3. Do Lesson Review on page 237, questions 1 - 10.
4. Create definitions for the Vocabulary. Answer Analysis Questions.

Data/Results: (Write your responses to the book questions on a separate sheet of paper.)

Analysis Questions:

1. What occurs to allow a caldera to form?

2. Examine the map of the Ring of Fire on page 231. Think about how a volcano forms. What is important about the Ring of Fire? Why do so many volcanoes form in this region?

3. How do pressure and temperature help to form magma?

4. How does new crust form at divergent boundaries?

5. How do mantle plumes generate volcanic activity at hot spots?
