

## Lesson Plans: Sci05: Plates, Volcanoes, and Earthquakes

**Title :** Sci05: Plates, Volcanoes, and Earthquakes

**Student Target :** I can explain what causes volcanoes and earthquakes and identify where most will happen on a world map.

**Materials :** **Activity:**

Lesson Power Point: [Structure, Volcanoes and Earthquakes](#), set of ABCD response cards for each team.

**Textbook:**

Harcourt pp. 268-269 (plates), pp. 270-271 (earthquakes) and pp. 272-273 (volcanoes)

**Warm-Up :** **ENGAGE** (I do)

Review - Show the first slide of the lesson Power Point, the *Earth Temperature and Composition* data table. Have the students look at the information in the data table and answer these discussion questions.

Ask, "Which layer of the Earth is the hottest?" (*Answer- the inner core*) "Which is the coolest?" (*Answer-the crust*). "What state of matter is the outer core?" (*Answer- liquid*) "What state of matter is the mantle material?" (*Answer- semi-liquid – molten is a kind of very hot plastic*).

Tell students "The temperature and the composition of the Earth's layers affects how the Earth's surface (*landforms*) forms and look over time. In today's lesson we will learn how the Earth's structure causes two types of natural disasters, volcanoes and earthquakes."

**Vocabulary :** volcanoes, magma, lava, earthquakes, plates, faults

**Lesson/Activity :** **EXPLORE** (We do)

Use slides 3-12 of the *Structures Volcanoes and Earthquakes* Power Point (*linked above*) and the embedded videos (Volcanoes 101 and Earthquakes 101) to explore how the Earth's structure affects where volcanoes and earthquakes happen.

**Wrap-Up :** **EXPLAIN** (You Do)

Printing the notes for the Power Point above will provide you with a script, discussion and assessment questions for the lesson.

**Daily Assessment :** **EVALUATE**

Use the *What did we Learn?* and *ABCD* response cards with assessment Power Point slides 18-21 to assess the student's understanding.

**Standard/Benchmark:** Florida Sunshine State FL Science Curriculum Framework (2005)  
Grades 3-5

Strand D: Processes that Shape the Earth

Standard 1: The student recognizes that processes in the lithosphere, atmosphere, hydrosphere, and biosphere interact to shape the Earth.

Benchmark SC.D.1.2.4: The student knows that the surface of the Earth is in a continuous state of change as waves, weather, and shifts of the land constantly change and produce many new features.

Benchmark SC.D.1.2.5: The student knows that some changes in the Earth's surface are due to slow processes and some changes are due to rapid processes.

**Other Activities/Resources :** Harcourt p. 275, Reading and Homework Support, "How do Movements of the Crust change Earth?" p. RS 56-57.

**Reteaching/Enrichment :** **ELABORATE**

### **Reteaching:**

Modeling a Volcanic Eruption – Harcourt, p. 267.

Modeling Magma – Harcourt, p. 267, Electronic Transparency IS 5305.

Cause and Effect – Harcourt, p. 268, Electronic Transparency RS 5305

Modeling Earthquakes – Harcourt, p. 271, Insta-Lab, Shake 'n Quake

### **Enrichment:**

Narrative writing – Pompeii, an ancient Roman city was destroyed in A.D. 79. Find out what happened to Pompeii. Write a description of the events as though you were there.

**Creator :** GRADE FIVE SCIENCE ADMINISTRATOR

**File Attachments :** [Plates\\_Volcanoes\\_Earthquakes.ppt](#)

**Date Created :** November 04, 2009

**Date Modified :** January 26, 2010

## **Discussion**