

Unit Activities: Earthquakes and Volcanoes

Name:

Unit Objectives

- Understand the scales used to measure earthquakes.
- Be able to determine the distance to and location of earthquakes.
- Recognize the most likely locations of earthquakes and volcanoes.
- Be able to explain the cause of earthquakes and volcanoes
- Understand how seismic waves can be used to infer information about the earth's interior.
- Know seismic hazards and appropriate precaution.

Notes

- 1 _____ Measuring Earthquakes
- 2 _____ Analyzing Seismic Waves
- 3 _____ Earth's Interior

Base Assignments

(underlined assignments are mandatory)

-----Assignment 1: Due / / -----

- 4 _____ Lab: Earthquakes and the Mercalli Scale: (5 points- lab)

-----Assignment 2: Due / / -----

Choose 3 points

- 5 _____ Flash Cards: (3 points) Create flash cards using the following words- P wave, S wave, Mercalli Scale, Richter Scale, fault, epicenter, focus, and seismogram. You must include the word and definition on one side and a neat color diagram on the other.
- 6 _____ Book Work: (3 points) Read or listen to Measuring and Locating Earthquakes on Pp. 505-510 and complete study guide 19-3.
- 7 _____ Construct a Model: (3 points) Create a model of both a normal and a reverse fault. Make sure to show how the rock features have been offset and label both the hanging and foot walls. The model may be made of any material but it must be 3 dimensional. Extra credit may given for this assignment.
- 8 _____ Web Site Activity: (3 points each) Go to the Earthquake Unit on the class web site and follow the link for "Where Was that Earthquake?" Complete the questions found on the worksheet.

-----Assignment 3: Due / / -----

- 9 _____ Lab: Locating the Epicenter: (5 points- lab)

-----Assignment 4: Due / / -----

Choose 3 points

- 10 _____ Newspaper Articles: (3 points) Find 2 newspaper articles that discuss recent earthquakes. Summarize the articles being sure to include information about the location, scale, effects, and possible causes of the quakes. Hand in copies of the articles.
- 11 _____ Design an Earthquake Preparedness Brochure: (3 points) Get the directions for this activity in class or by going to the course web site and clicking on Copies of Activities. Extra credit may given for this assignment.
- 12 _____ Web Site Activity: (3 points each) Go to the Earthquake Unit on the class web site and follow the link for "Is it Safe to Live Near a Volcano?" Complete the questions found on the worksheet.
- 13 _____ Book Work: (3 points) Read or listen to Earthquakes and Society on Pp. 511-515 and complete study guide 19-4.

-----Assignment 5: Due / / -----

Choose 3 points

- 15 _____ Web Site Activities: (3 points each) Go to the Earthquake Unit on the class web site and follow the link for "How Do We Know About Layers Deep within the Earth?" Complete the questions found on the worksheet.
- 16 _____ Book Work: (3 points) Read or listen to Seismic Waves and Earth's Interior on Pp. 500-504 and complete study guide 19-2.