

Chapter 8, continued

9. Look at the diagram at the bottom of page 203. Once the seismologists know how far an epicenter is from a certain seismograph station, how do they find the location of the epicenter?

Measuring Earthquake Strength (p. 204)

10. Who is interested in the strength of earthquakes?
(Circle all that apply.)
- a. seismologists c. businesses
b. public officials d. safety organizations
11. On the modified Richter scale shown on page 204, an earthquake with a magnitude of _____ causes damage at the epicenter.
12. An earthquake with a magnitude of _____ would release 31.7 times as much energy as an earthquake with a magnitude of 6.0.

Review (p. 204)

Now that you've finished Section 2, review what you learned by answering the Review questions in your ScienceLog.

Section 3: Earthquakes and Society (p. 205)

1. Scientists have had no success in predicting earthquakes.
True or False? (Circle one.)

Earthquake Hazard (p. 205)

2. What does a seismologist study to determine the earthquake-hazard level for a particular area?

Chapter 8, continued

3. Look at Figure 10 at the bottom of page 205. Florida has a _____ earthquake-hazard level.
(high or low)

Earthquake Forecasting (p. 206)

Mark each of the following statements *True* or *False*.

4. _____ It is difficult to predict when earthquakes will occur.
5. _____ The strength of earthquakes varies with how often they occur.
6. _____ If an area has strong earthquakes, it never has weaker earthquakes.
7. In your own words, explain how seismic gaps relate to the gap hypothesis.

Earthquakes and Buildings (p. 207)

8. Why do buildings sometimes collapse during an earthquake?

9. Buildings can be designed to withstand the forces of an earthquake. True or False? (Circle one.)

Use the diagram on page 208 to answer the following questions.

10. Engineers design pipes with _____ that help prevent water and gas lines from breaking.
11. A _____ is a large weight in a building's roof that is shifted to counteract the building's movement.
12. _____ absorb seismic waves.
13. _____ are placed between floors to counteract pressure put on the side of a building.
14. An _____ works like the weight in question 11 but is located in the base of a building.