

Review and Assessment

LESSON 1 Forces in Earth's Crust

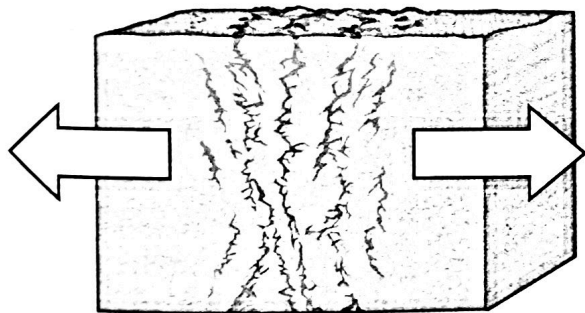
1. Which force squeezes Earth's crust to make the crust shorter and thicker?

- a. tension
- b. normal
- c. shearing
- d. compression

2. Rocks on either side of a _____ fault slip past each other with little up and down motion.

3. List Give two examples of mountain ranges in the world that have been caused by folding.

4. Interpret Diagrams What type of stress is shown in the diagram below?



5. Relate Cause and Effect Plateaus are large, flat, elevated areas of land. What is one way plateaus can form?

6. **Write About It** Compression causes folds called anticlines and synclines. How do these features resemble each other? How do they differ from one another?

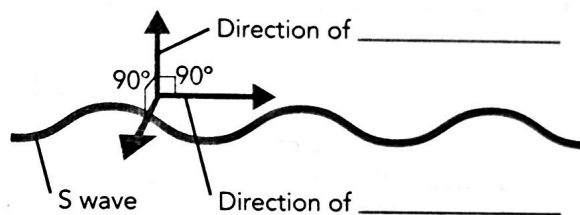
LESSON 2 Earthquakes and Seismic Waves

7. Which of these scales rates earthquake damage at a particular location?

- a. focus
- b. Modified Mercalli
- c. Richter
- d. moment magnitude

8. The point on Earth's surface directly above an earthquake's focus is called _____

9. Interpret Diagrams Label the diagram to show the directions an S wave travels and vibrates.



10. Explain How is the energy released by an earthquake related to its moment magnitude?

11. Interpret Data Can geologists use data from only two seismographic stations to locate an earthquake's epicenter? Explain.

12. **math!** Seismograph A records P waves at 6:05 P.M. and S waves at 6:10 P.M. Seismograph B records P waves at 6:10 P.M. and S waves at 6:25 P.M. What is the difference in the arrival times at each device? Which device is closer to the earthquake's epicenter?

CHAPTER 4

Review and Assessment

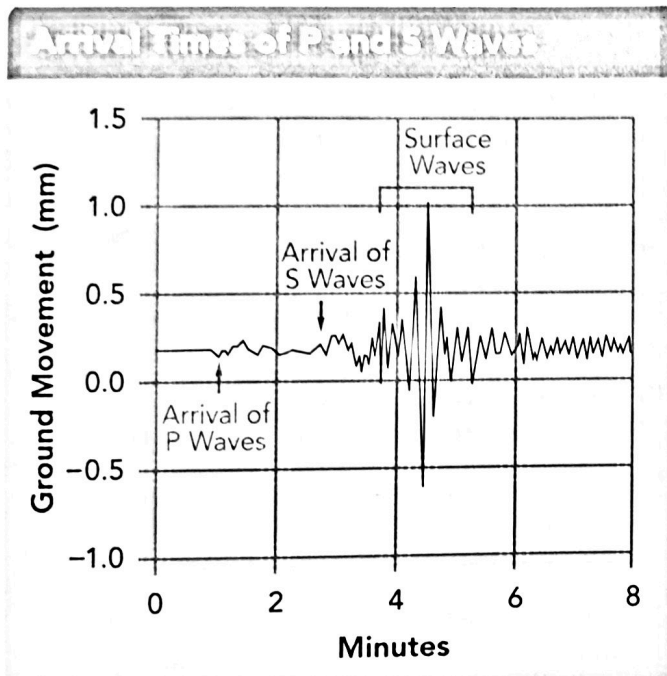
LESSON 1 Monitoring Earthquakes

13. In which type of location is earthquake risk the greatest?

- a. at plate centers b. on big plates
c. at plate boundaries d. on small plates

14. Very high, jagged lines on a seismogram indicate that an earthquake is either _____

Use the graph to answer questions 15–16.



15. **Read Graphs** Which type of seismic waves produced the largest ground movement?

16. **Interpret Data** What was the difference in arrival times for the P waves and the S waves?

17. **Write About It** There is a high risk of earthquakes along the San Andreas fault in California. What is happening in Earth's crust along the fault to cause this high earthquake risk? Use the theory of plate tectonics in your answer.



Why do earthquakes occur more often in some places than in others?

18. An architect is hired to design a skyscraper in the Indonesian city of Jakarta, which is near the Ring of Fire. The architect must follow special building codes that the city has written. What might those codes be for and why are they important in Jakarta?

