

Directed Reading A

8.1

Section: What Are Earthquakes?

1. What is seismology?

2. The scientists who study earthquakes are called _____.

WHERE DO EARTHQUAKES OCCUR?

3. Where do most earthquakes take place?

4. Giant pieces of Earth's thin, outermost layer are called _____.

5. When tectonic plates move and slip past each other, they cause _____ in Earth's crust.

6. Why do earthquakes occur along faults?

WHAT CAUSES EARTHQUAKES?

Match the correct definition with the correct term. Write the letter in the space provided.

- | | |
|---|------------------------|
| _____ 7. rock deformation that is like a stretched rubber band and leads to earthquakes | a. deformation |
| _____ 8. change in the shape of rocks in response to stress | b. plastic deformation |
| _____ 9. sudden return of elastically deformed rock to its undeformed shape | c. elastic deformation |
| _____ 10. rock deformation that is like a piece of molded clay and does not lead to earthquakes | d. elastic rebound |

Directed Reading A *continued*

11. What causes rock deformation?

12. What occurs when more pressure is applied to a rock than it can withstand?

13. During elastic rebound, energy is released that travels as seismic waves. What do the seismic waves cause?

FAULTS AT TECTONIC PLATE BOUNDARIES

- _____ 14. Places where a large number of faults are located are
- a. convergent zones.
 - b. divergent zones.
 - c. earthquake zones.
 - d. boundary zones.

Match the correct definition with the correct term. Write the letter in the space provided.

- | | |
|---|----------------------|
| _____ 15. occurs where two plates slip past each other | a. divergent motion |
| _____ 16. occurs where two plates push together | b. convergent motion |
| _____ 17. occurs where two plates pull away from each other | c. transform motion |

18. Where do most earthquakes happen?
