

Directed Reading A

Section: Inside the Earth

1. The Earth is composed of several _____.

THE COMPOSITION OF THE EARTH

- _____ 2. A substance composed of two or more elements is a(n)
a. mix. c. compound.
b. amalgam. d. complex.
3. Why do less dense compounds make up Earth's crust while the densest compounds make up the core?

4. List the three layers of the Earth, based on their chemical composition.

5. What three elements make up most of the Earth's crust?

6. Oceanic crust is denser than the continental crust because it contains more of which three elements?

7. The mantle is composed of more of the element _____ than the crust is.

8. Why do scientists look to the ocean floor to research the mantle?

Directed Reading A *continued*

9. The mantle has less aluminum and less _____ than the crust does.

10. What element makes up most of the Earth's core?

11. How much of the Earth's mass is made up by the core?

THE PHYSICAL STRUCTURE OF THE EARTH

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

- | | |
|--|------------------|
| _____ 12. the outermost, rigid layer of the Earth | a. asthenosphere |
| _____ 13. a layer of slowly flowing rock in the mantle | b. lithosphere |
| _____ 14. the liquid layer of the core | c. mesosphere |
| _____ 15. the solid layer of the core | d. outer core |
| _____ 16. the strong, lower part of the mantle | e. inner core |

TECTONIC PLATES

- _____ 17. Large pieces of the lithosphere that move around on the asthenosphere are called
- a. mantle pieces.
 - b. crust pieces.
 - c. tectonic plates.
 - d. puzzle pieces.

18. Why are tectonic plates like the pieces of a jigsaw puzzle?

19. What are the two kinds of crust that a tectonic plate may contain?

Directed Reading A *continued*

20. List three ways in which tectonic plates floating on the asthenosphere are similar to ice cubes filling a punch bowl.

MAPPING THE EARTH'S INTERIOR

- _____ 21. What do scientists use to study Earth's interior?
- a. sea-floor spreading rates
 - b. magnetic reversals
 - c. global positioning system
 - d. seismic waves

- _____ 22. What are seismic waves?
- a. movements in the outer core
 - b. pictures of the Earth's interior
 - c. vibrations from an earthquake
 - d. vibrations from a seismograph

23. Will a seismic wave traveling through a solid go faster or slower than a seismic wave traveling through liquid? Explain your answer.
