

# 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.
- b. amalgam.
- c. compound.
- 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 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.

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

\_\_\_\_\_

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**Directed Reading A *continued***

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9. The mantle has less aluminum and less \_\_\_\_\_ than the crust.

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

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

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**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

\_\_\_\_\_ 13. a layer of slowly flowing rock in the mantle

\_\_\_\_\_ 14. the liquid layer of the core

\_\_\_\_\_ 15. the solid layer of the core

\_\_\_\_\_ 16. the strong, lower part of the mantle

a. asthenosphere

b. lithosphere

c. mesosphere

d. outer core

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?

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

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**Directed Reading A *continued***

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

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**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? Why or why not?

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