Study Guide

____ 1. The youngest rocks on the ocean floor are located ____.
a. near continents
b. at mid-ocean ridges
c. far from mid-ocean ridges
d. near Asia

____ 2. Scientists have observed that the plates move at rates ranging from 1 cm to 12 cm per ____.
a. century
b. decade
c. day
d. year

____ 3. The presence of the same ____ on several continents supports the hypothesis of continental drift.
a. fossils
b. rocks
c. neither a nor b
d. both a and b

____ 4. The hypothesis that continents have slowly moved to their current locations is called ____.
a. continental drift
b. continental slope
c. magnetic reversal
d. convection

____ 5. The alignment of iron minerals in rocks when they are formed reflects the fact that Earth's ____ has reversed itself several times in the past.
a. magnetic field
b. core
c. asthenosphere
d. gravity

____ 6. A lack of explanation for continental drift prevented many scientists from accepting that a single supercontinent called ____ once existed.
a. *Glomar*
b. *Glossopteris*
c. Pangaea
d. Wegener

____ 7. The *Glomar Challenger* provided support for the theory of plate tectonics by providing ____.
a. high-altitude photos of existing continents
b. samples of plant life from mid-ocean ridges
c. samples of older rock found far from mid-ocean ridges
d. direct measurements of the movement of continents

____ 8. Seafloor spreading occurs because ____.
a. new material is being added to the asthenosphere
b. earthquakes break apart the ocean floor
c. sediments accumulate at the area of spreading
d. molten material beneath Earth's crust rises to the surface

____ 9. While studying the ocean floor, scientists found ____ bands of magnetism.
a. plastic
b. alternating
c. no
d. rectangular

____ 10. Continental drift states that continents have moved ____ to their current location.
a. vertically
b. slowly
c. quickly
d. very little

____ 11. Wegener believed that the continents originally broke apart about ____ years ago.
a. 200 million
b. 300 million
c. 400 million
d. 500 million

____ 12. A fossil plant that helps support the theory of continental drift is ____.
a. *Mesosaurus*
c. *Glomar*

b. *Glossopteris*
d. Pangaea

____ 13. Matching ____ on different continents are evidence for continental drift.
a. river systems
b. rock structures
c. weather patterns
d. wind systems

Matching

Match each term with the correct statement below.
a. seafloor
b. Pangaea
c. continents
d. lithosphere

____ 14. Alfred Wegener believed that the _____ were once joined.

____ 15. The name _____ comes from two words that mean "all land."

____ 16. The *Glomar Challenger* gathered information about rocks on the _____.

Short Answer

17. Why did Alfred Wegener believe that all of the continents once had been joined?

18. Figure 7-2 shows the puzzlelike fit of South America and Africa. Explain some of the other evidence used to support the hypothesis of continental drift.

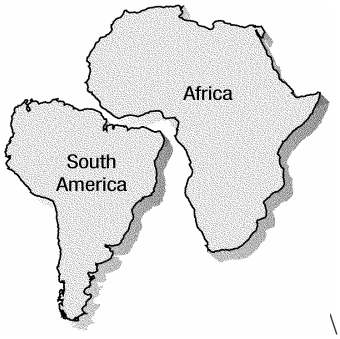

Figure 7-2

19. What new technology was used to map the seafloor beginning in the 1940s and 1950s?

20. Explain how the ages of rocks on the ocean floor support the theory of seafloor spreading.

Be able to explain converge, diverge, and transform and the landforms they make