

Chapter 17 Quiz

Part A: Modified True/False

Indicate in the left-hand column whether each statement is true or false. If the statement is false, change the statement to make it true.

- ____ 1. Tectonic plates drift on top of the lithosphere. _____

- ____ 2. At an oceanic-continental convergent boundary, the continental plate subducts.

- ____ 3. Some countries that are close to the equator have signs of ancient glacial movements. _____

Part B: Completion

Complete each of the following sentences.

4. Alfred Wegener proposed that all the continents were once joined together to form a single landmass that he called _____.
5. When plotted on a map, most _____ line up along ocean ridges and trenches.
6. Tuzo Wilson came to the understanding that the sea floor is cycled back into Earth at _____.

Part C: Matching

Match each type of evidence in the left column with the most appropriate phrase in the right column.

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| ____ 7. Magnetic striping provides evidence of | (a) continental drift. |
| ____ 8. Study of lava provides evidence of | (b) sea-floor spreading. |
| ____ 9. Distribution of fossils provides evidence of | (c) mantle composition. |

Part D: Multiple Choice

Circle the letter beside the answer that best completes the statement or answers the question.

10. What does the lithosphere consist of?
- A. crust and asthenosphere
 - B. crust and upper mantle
 - C. asthenosphere and outer core
 - D. asthenosphere and lower mantle

Chapter 17 Quiz (continued)

11. The most important method of investigating Earth's interior involves which type of study?
- A. tidal waves
B. radio waves
C. ocean waves
D. seismic waves
12. At a transform boundary, what occurs between two tectonic plates?
- A. they slide past each other
B. they slide under each other
C. they move toward each other
D. they move away from each other
13. In which of Earth's layers is the oceanic crust located?
- A. outer core
B. lithosphere
C. upper mantle
D. asthenosphere
14. Where does sea-floor spreading occur?
- A. strike-slip faults
B. mid-ocean ridges
C. subduction zones
D. deep ocean trenches
15. What is a major source of heat deep within Earth?
- A. high pressure
B. burning fossils
C. radioactive decay
D. convection currents
16. At what type of boundaries did the Himalayas form?
- A. divergent
B. transform
C. oceanic-continental convergent
D. continental-continental convergent
17. In places where a divergent boundary cuts across land, what does one see?
- A. rift valley
B. strike-slip fault
C. subduction zone
D. magnetic reversal
18. What part of Earth does the global positioning system track movements over time?
- A. crust
B. inner core
C. outer core
D. lower mantle
19. In a chain of volcanic islands in the Pacific Ocean, volcano X is 3 200 000 years old, and volcano Y is 1 700 000 years old. The distance between the two volcanoes is 120 km. Assuming that each volcano formed when the Pacific Plate moved over a fixed hot spot, calculate the speed of the Pacific Plate between volcanoes X and Y. (Note that 1 km = 100,000 cm; speed = distance/time.)
- A. 6 cm/a
B. 8 cm/a
C. 10 cm/a
D. 12 cm/a