

Skills Worksheet

Directed Reading B

Section: Earth’s Changing Continents (pp. 270–275)

PLATE TECTONICS

_____ 1. The theory that explains how Earth’s tectonic plates move and change shape is called
a. continental drift. **c.** plate theory.
b. tectonic drift. **d.** plate tectonics.

2. The thin, cool “skin” of Earth is called the _____.

3. Tectonic plates rest on a thick layer of slowly moving, solid rock called the _____.

4. How fast do tectonic plates move?

5. Why can tectonic plates move thousands of miles?

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

- | | |
|--|-------------------------------|
| _____ 6. where two or more tectonic plates collide, separate, or grind past each other | a. divergent boundary |
| _____ 7. where tectonic plates move toward each other | b. transform boundary |
| _____ 8. formed where plates of continental lithosphere are forced together, then crumple | c. mountain belt |
| _____ 9. formed where dense oceanic lithosphere sinks under continental lithosphere | d. earthquake |
| _____ 10. where tectonic plates move apart | e. convergent boundary |
| _____ 11. formed when plates move apart; can widen for millions of years to form a new ocean | f. rift |
| _____ 12. where tectonic plates slide past each other horizontally | g. plate boundary |
| _____ 13. caused by the horizontal movement of plates in areas like the San Andreas fault | h. line of volcanoes |

Directed Reading B *continued*

CONTINENTAL DRIFT

- _____ **14.** The continents once formed a single landmass, broke up, and drifted to their present locations because of
- a.** tectonic drift.
 - b.** plate tectonics.
 - c.** continental drift.
 - d.** continental tectonics.

- _____ **15.** As a continent moves across Earth's surface,
- a.** it carries oceans with it.
 - b.** it carries rocks and fossils with it.
 - c.** rocks and fossils fall off it.
 - d.** it carries lithosphere with it.

- 16.** What evidence from rocks shows that India, South America, and Africa were part of a single landmass located near the South Pole about 280 million years ago?

- 17.** How does finding *Mesosaurus* fossils in South America and southwestern Africa show that the continents of South America and Africa were joined?

HISTORY OF CONTINENTAL DRIFT

- _____ **18.** About 245 million years ago, all of Earth's continents made up a supercontinent called
- a.** Pandora.
 - b.** Godwanaland.
 - c.** Eurasia.
 - d.** Pangaea.

- _____ **19.** Beginning about 200 million years ago, the supercontinent Pangea
- a.** split into several new plates.
 - b.** joined with another supercontinent.
 - c.** was destroyed and reformed.
 - d.** began to be surrounded by a superocean.

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- _____ **20.** When Pangaea's new plates drifted apart and those new continents separated,
- a.** a superocean formed between them.
 - b.** tectonic plates stopped moving between them.
 - c.** new continents formed between them.
 - d.** a new ocean formed between them.

21. What happened to rocks and fossils as the tectonic plates separated and drifted apart?

22. If continents moved toward the equator because of continental drift, what happened to their climates?

23. How did continental drift affect temperature and precipitation patterns around the planet?

24. How did Antarctica become the icy land we see today?

25. How does the theory of continental drift explain why different organisms live on different continents?

26. How does the theory of continental drift explain changes to sea life when new oceans formed?

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27. How does the theory of continental drift explain why fossils of the same organisms are found on different continents?

CASE STUDY: THE PANAMA LAND BRIDGE

_____ **28.** About 3 million years ago, what narrow strip of land joined North and South America for the first time?

- a. the Panama Canal
- b. the Island of Panama
- c. the Pangaea Land Bridge
- d. the Panama Land Bridge

29. What are two types of animals that crossed the Panama Land Bridge from South America to North America?

30. What are two types of animals that crossed the Panama Land Bridge from North America to South America?

31. What happened to some populations of clams, snails, corals, and sea urchins that became separated by the Panama Land Bridge?

32. How was the Gulf Stream formed?

33. How was the climate of Western Europe affected by the Gulf Stream?
