CHAPTER 3

Review and Assessment

LESSON 3 The Theory of Plate Tectonics

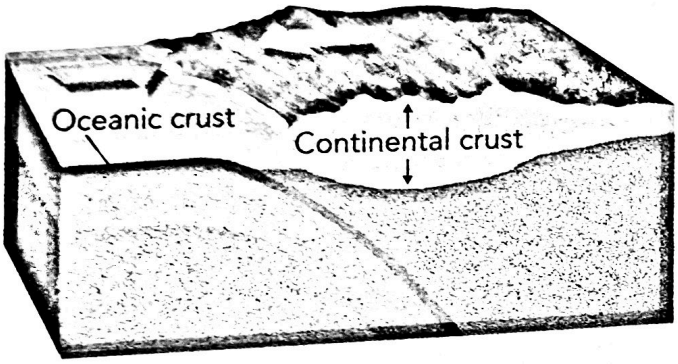
12. At which boundary do two plates pull apart?

a. convergent **b.** transform

c. divergent **d.** mantle-crust

13. When a divergent boundary occurs on land, it forms a _____.

Use the diagram to answer Questions 14–15.



14. Classify What type of plate boundary is shown in the diagram?

_____

15. Predict What type of landforms will result from the plate movement shown in the diagram?

_____

16. Compare and Contrast How does the density of oceanic crust differ from that of continental crust? Why is this difference important?

_____

_____

_____

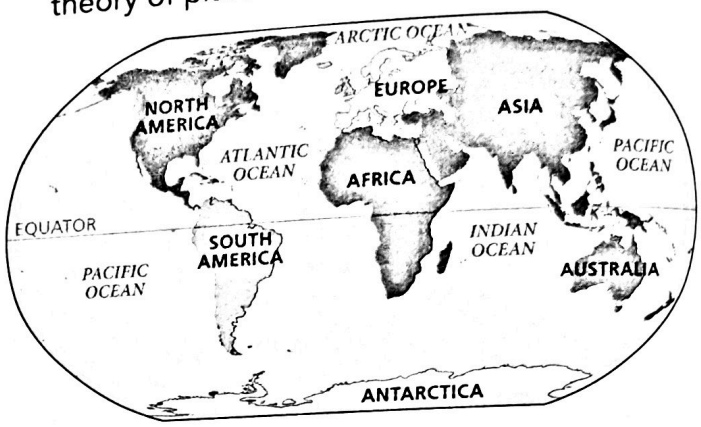
_____

17. math! It takes 100,000 years for a plate to move about 2 kilometers. What is the rate of motion in centimeters per year?

_____

APPLY THE BIG QUESTION How do moving plates change Earth's crust?

18. Summarize Suppose Earth's landmasses someday all move together again. Describe the changes that would occur in Earth's oceans and Earth's landmasses. Use the map and the theory of plate tectonics to explain your ideas.

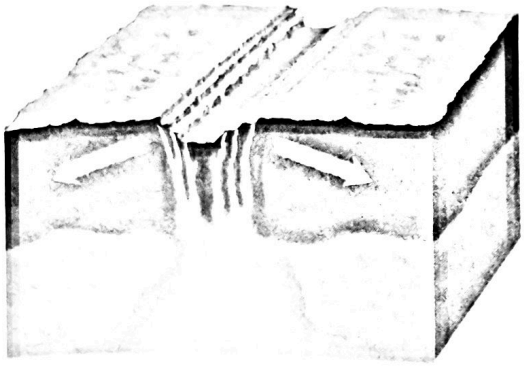


Standardized Test Prep

Multiple Choice

Circle the letter of the best answer.

1. The diagram shows a process in Earth's crust.



Which statement best describes the process in the diagram?

A Converging plates form mountains.
B Converging plates form volcanoes.
C Diverging plates form mountains.
D Diverging plates form a rift valley.

2. What is one piece of evidence that caused Wegener to think that continents moved?

A He found an old map of the world that showed movement.
B He found similar fossils on different continents that are separated by oceans.
C He proved his hypothesis with an experiment that measured movement.
D He observed the continents moving with his own eyes.

3. Which of the following is evidence for sea-floor spreading?

A matching patterns of magnetic stripes found in the crust of the ocean floor
B new rock found farther from mid-ocean ridges than older rock
C pieces of different crust found on different continents
D changes in climate on the continent of Africa

4. What happens to new oceanic crust at a mid-ocean ridge?

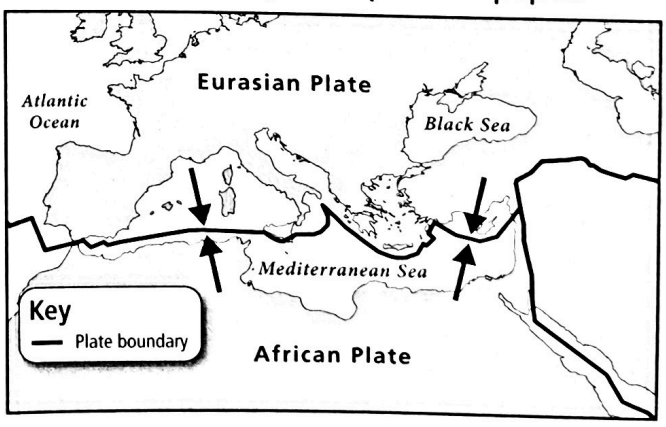
A It forms new mountains under the water.
B It climbs up the mantle to form a trench.
C It gets hotter and sinks into a trench.
D It is so dense that gravity pulls it into a deep-ocean trench.

5. What force causes the movement of Earth's plates?

A convection currents
B pressure
C sound waves
D cooling

Constructed Response

Use the map below and your knowledge of science to help you answer Question 6. Write your answer on a separate piece of paper.



6. The African plate is moving toward the Eurasian plate at a rate of a few centimeters per year. How will this area change in 100 million years? In your answer, consider how the continents will change and how the Mediterranean Sea will change.