

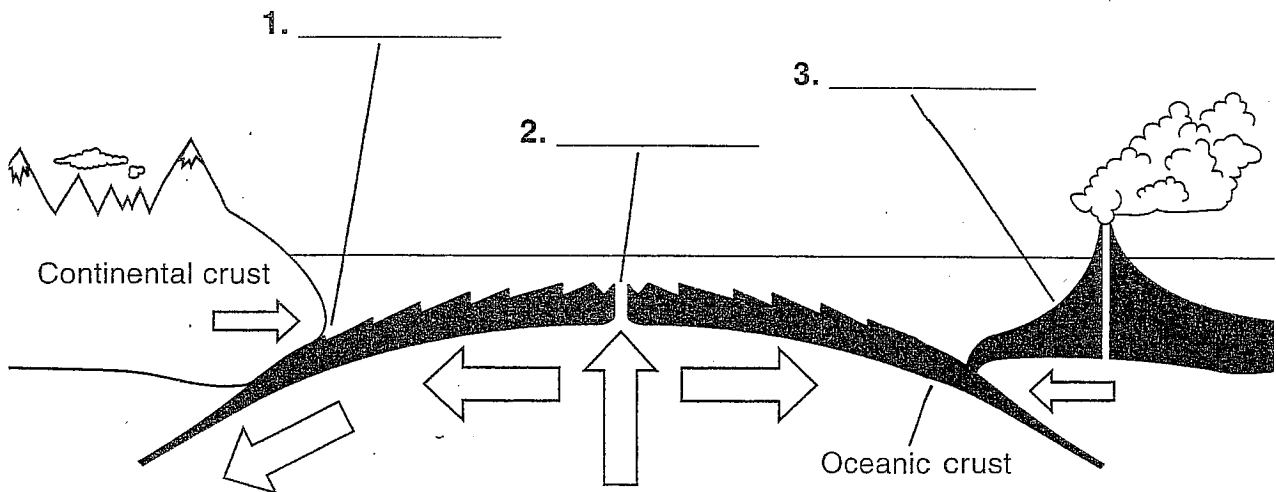


Directed Reading for  
Content Mastery

Overview  
Plate Tectonics

**Directions:** Study the following diagram. Then label each part with the letter of the correct description below.

- A. A mid-ocean ridge forms whenever diverging plates continue to separate, creating a new ocean basin. As the rising magma cools, it forms new ocean crust.
- B. When an oceanic plate converges with a less dense continental plate, the denser oceanic plate sinks under the continental plate.
- C. When two oceanic plates converge, the denser plate is forced beneath the other plate and volcanic islands form above the sinking plate.



**Directions:** Circle the words in parentheses that best complete the sentences below.

4. (Fossils, Human bones), rocks, and climate provided Wegener with support for his continental drift theory.
5. The fact that the (youngest, oldest) rocks are located at the mid-ocean ridges is evidence for seafloor spreading.
6. The transfer of (solar, heat) energy inside Earth moves plates.

**SECTION**  
**3**

**Reinforcement**

**Theory of Plate Tectonics**

**Directions:** Use the following words to fill in the blanks below.

asthenosphere

lithosphere

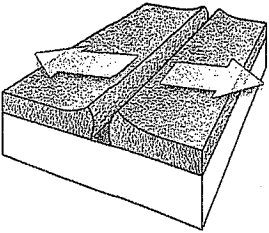
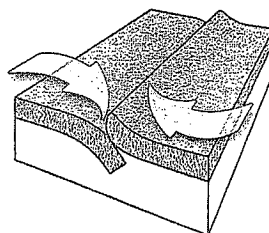
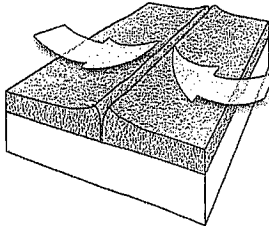
plate tectonics

convection

plates

- The theory of \_\_\_\_\_ states that Earth's crust and upper mantle are broken into sections.
- These sections, called \_\_\_\_\_, are composed of the crust and a part of the upper mantle.
- The crust and upper mantle together are called the \_\_\_\_\_.
- Beneath this layer is the plasticlike \_\_\_\_\_.
- Scientists suggest that differences in density cause hot, plasticlike rock to be forced upward toward the surface, cool, and sink. This cycle is called a \_\_\_\_\_ current.

**Directions:** Four diagrams are shown in the table below. Label and describe each diagram in the space provided in order to complete the table.

Diagram	Type of boundary and motion at boundary	Diagram	Type of boundary and motion at boundary
6. 		8. 	
7. 		9. 