

Chapter 9 Plate Tectonics

Section 9.3 Theory of Plate Tectonics

This section discusses plate tectonics, including lithospheric plates and types of plate boundaries.

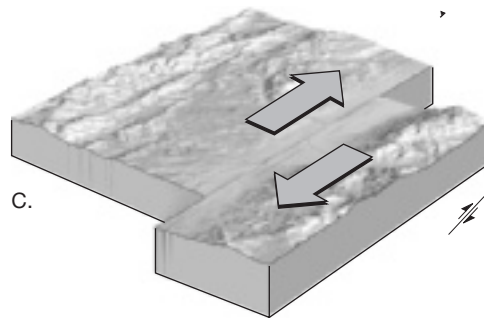
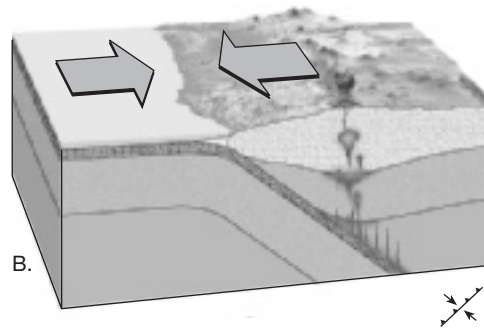
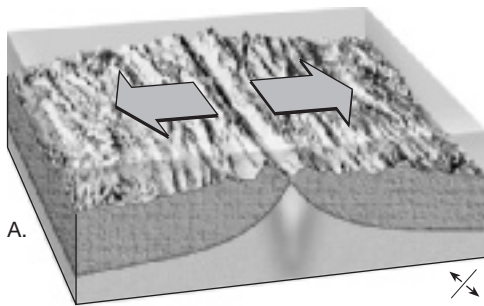
Reading Strategy

Comparing and Contrasting After you read, compare the three types of plate boundaries by completing the table. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Boundary Type	Relative Plate Motion
convergent	a.
divergent	b.
transform fault	c.

Earth's Moving Plates

- Is the following sentence true or false? The lithospheric plates move at about 5 km per year. _____
- ➊ Identify each type of plate boundary shown in the figure.



- A. _____
 B. _____
 C. _____

- Circle the letter of the type of plate boundary that occurs when two plates move together.
 - divergent
 - spreading center
 - convergent
 - transform fault

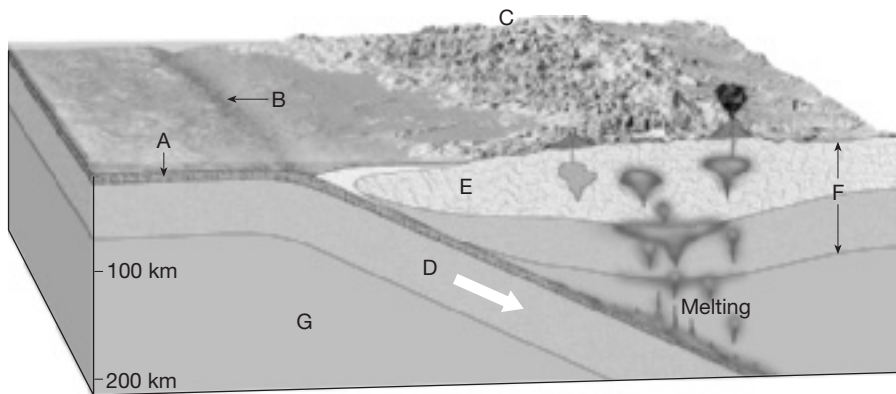
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Divergent Boundaries

4. Is the following sentence true or false? Oceanic lithosphere is created at divergent boundaries. _____
5. Is the following sentence true or false? Divergent boundaries only occur on the ocean floor. _____

Convergent Boundaries

6. Select the appropriate letter in the figure that identifies each of the following features.



- _____ Subducting oceanic lithosphere
- _____ Oceanic crust
- _____ Trench
- _____ Continental volcanic arc
- _____ Continental lithosphere
- _____ Continental crust
- _____ Asthenosphere

7. Newly formed land consisting of an arc-shaped island chain is called a(n) _____.
8. Is the following sentence true or false? Mountains form as a result of a collision between two continental plates.

Transform Fault Boundaries

9. What happens at a transform fault boundary? _____

10. Circle the letter of the example of a transform fault boundary that is NOT located in an ocean basin.

a. the San Andreas Fault	b. the Aleutian Trench
c. the Himalayan mountains	d. the Nazca plate