

# Plate Tectonics Study Guide

Name \_\_\_\_\_ Block \_\_\_\_\_

Use the new Earth Science textbook. Refer to Pages 233-235.

1. Define **plate** -
2. Define **plate tectonics** -
3. Some plates are moving towards each other. Other plates are moving away from each other. Some are sliding past each other. Give an example of each:
  - a. away from -
  - b. toward -
  - c. sliding past -

4. Define **lithosphere** -

The lithosphere is \_\_\_\_\_ but broken into \_\_\_\_\_.

The composition of the lithosphere is like that of \_\_\_\_\_.

Because granite is \_\_\_\_\_ dense than basalt, continents \_\_\_\_\_ on top of the lithosphere.

5. Define **asthenosphere** -

Why is this layer so important to the Theory of Plate Tectonics?

6. Label this diagram with these words: convection current, moving toward, moving apart, trench, mid-Atlantic Ridge, heated material expands and rises.

7. How do plates move where convection currents are **rising**?  
Give an example:

How do plates move where convection currents are **sinking**?  
Give an example:

**Refer to Pages 236-239.**

8. Define **Theory of Continental Drift** -

Who proposed this theory?

9. List some of Wegener's evidence:

- a.
- b.
- c.
- d.

10. Why do earthquakes and volcanoes occur at plate boundaries?

Where is the largest belt of active earthquakes and volcanoes?

11. What is the pattern of magnetic polarity reversals?

Describe the age of ocean floor rocks relative to the spreading centers.

**Refer to Pages 240 - 244.**

12. How are plates moving at **diverging boundaries**?

What else is this called?

What two features occur at mid-ocean ridges?

Name two mid-ocean ridges:

Sketch a mid-ocean ridge:

13. How are plates moving at a **sliding boundary**?

Give an example of a sliding boundary:

Sketch a sliding boundary:

14. How are plates moving at a **converging boundary**?

What two different types of converging boundaries occur?

List	Example	Sketch
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- a.
- b.

**\*\*15. How are subduction boundaries related to mid-ocean ridges?**