

### Plate Tectonics "We Do"



1. Draw arrows to represent movement at each plate boundary.



Convergent



Divergent



Transform

2. What is causing the tectonic plates to move, causing these boundaries?

\_\_\_\_\_

3. Place an X in the box that matches the event with the plate boundary:

Boundary	Volcanoes	Mountains	Earthquakes	Ocean Ridges
Convergent: Land/Land				
Convergent: Land/Ocean				
Divergent				
Transform				

4. What events that change the Earth's surface take place slowly?

Tectonic plate movement  
Volcanoes

Earthquakes  
Weathering, Erosion, Deposition

5. What events that change the Earth's surface take place rapidly?

Tectonic plate movement  
Volcanoes

Earthquakes  
Weathering, Erosion, Deposition

6. What caused Pangea to break up into the plates we know today?

Convection movement in the mantle

Rapid movement such as earthquakes

EXIT TICKET: What are the different plate boundaries and how do they cause changes to the Earth's surface?

Divergent boundaries

Convergent boundaries

Transform boundaries

Earthquakes

### Plate Tectonics ESSENTIAL QUESTION:

#### Earth's Layers:

**Crust:** hard, rigid, \_\_\_\_\_, surface layer (\_\_\_\_\_).  
Crust is land, \_\_\_\_\_ Crust is the ocean floor).

**Mantle:** the layer below the crust:

- **Lithosphere:** Where the \_\_\_\_\_ meets the \_\_\_\_\_.
- **Asthenosphere:** hot magma, \_\_\_\_\_ -like. \_\_\_\_\_ in the magma in this layer make the plates move.

**Outer Core:** Hot, \_\_\_\_\_, layer that surrounds the inner core. (Iron-Nickel)

**Inner Core:** Hot, \_\_\_\_\_, VERY \_\_\_\_\_ center of the planet.

High \_\_\_\_\_ = solid. (Iron-Nickel)

#### What is Plate Tectonics?

The theory of plate tectonics states that the Earth's \_\_\_\_\_ is broken into a dozen \_\_\_\_\_ that are moving \_\_\_\_\_ to one another as they ride atop the hot, \_\_\_\_\_ mantle.

- The entire Earth's surface is continually \_\_\_\_\_.

#### Convergent Boundaries:

**Continental-Continental:** Two \_\_\_\_\_ plates collide.

Result: \_\_\_\_\_ building and earthquakes. (Ex. Himalayas)

**Continental-Oceanic:** One continental and one oceanic plate meet and the more \_\_\_\_\_ oceanic plate gets pushed \_\_\_\_\_ the continental plate (Ex. Ring of Fire)

Result: \_\_\_\_\_ and \_\_\_\_\_.

**Oceanic-Oceanic:** When they meet, the \_\_\_\_\_ plate gets pushed under the other. Result: \_\_\_\_\_ islands and \_\_\_\_\_.

#### Divergent Boundaries:

Where tectonic \_\_\_\_\_ are moving \_\_\_\_\_ from each other. Magma rises and new \_\_\_\_\_ is added.

Result: a mid- ocean \_\_\_\_\_, underwater \_\_\_\_\_.

#### Transform Boundaries:

Where two plates move (and \_\_\_\_\_) against each other in \_\_\_\_\_ directions. This creates \_\_\_\_\_ that is released when the plates move \_\_\_\_\_.

Result: \_\_\_\_\_ (Ex. San Andreas fault along the California coast.)