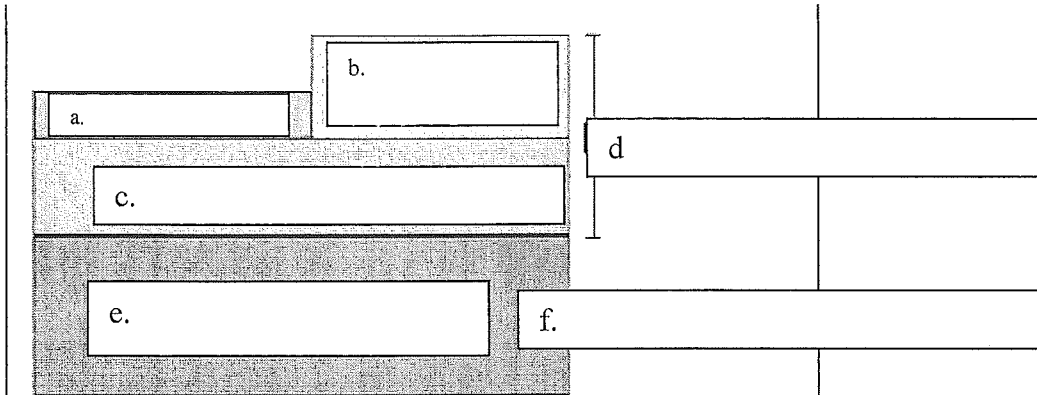


## PLATE TECTONICS – Part 3

### -Plate Boundaries-

**Review:**



*Fill in the blanks with:*

**Upper mantle, Lower mantle, Continental crust  
Oceanic crust, Asthenosphere, Lithosphere**

## PLATE BOUNDARIES

The Earth's surface is broken into many plates, and plate boundaries are where the edges of two plates touch. The direction of movement of these plates relative to each other is the cause of many of Earth's features, from volcanoes to earthquakes, from mountains to ocean trenches...

- There are **three types of plate boundaries:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

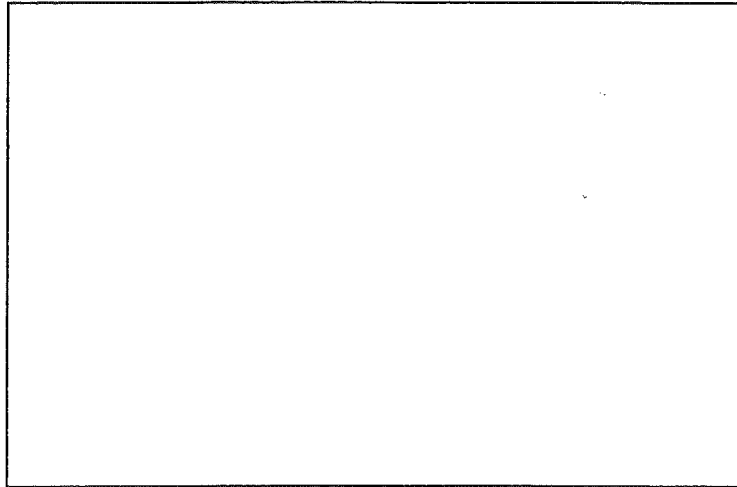
## Plate Boundaries

There are three types of boundaries between tectonic plates:

### 1. DIVERGING plate boundary

The plates move \_\_\_\_\_ from each other.

- As the plates separate, fresh new magma rises and cools, creating NEW oceanic crust!
- If under \_\_\_\_\_ crust = Sea-Floor Spreading and Ridge
  - a. Eg. Mid-Atlantic Ridge and Iceland!
- If under \_\_\_\_\_ crust = Rift Valley
  - a. Eg. Africa's Great Rift Valley!



Draw a divergent plate boundary here.

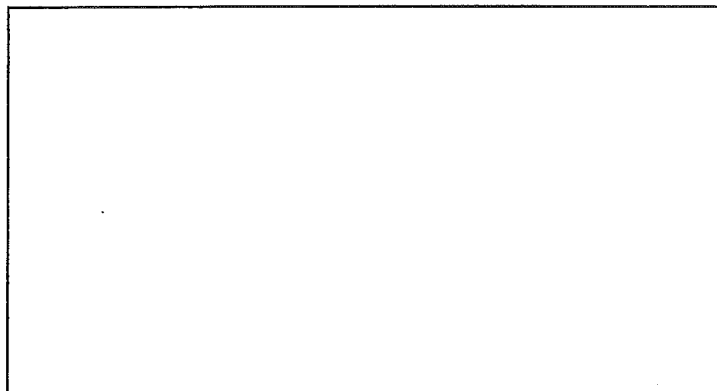
### 2. CONVERGING plate boundary

The plates move \_\_\_\_\_.

There are **three** types of converging plate boundary:

#### a. Continental Crust – Continental Crust

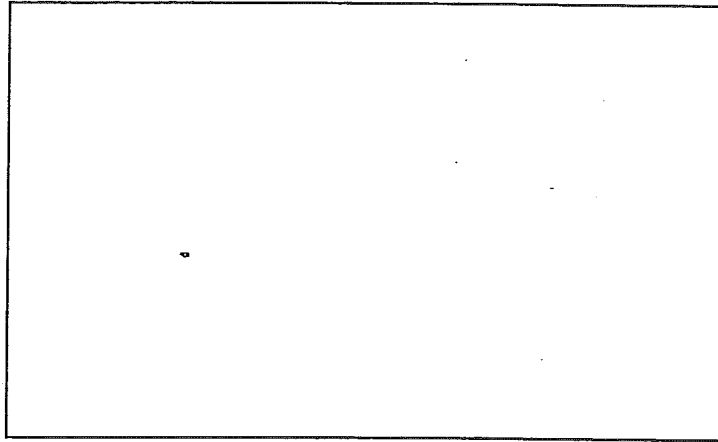
- Creates \_\_\_\_\_!
- Causes lots of \_\_\_\_\_.
- Eg. The India Plate is pushing northward into China at about 5cm/year. The Himalayan Mountains (and Mount Everest) are the result!



Draw a C-C convergent boundary here.

**b. Continental Crust – Oceanic Crust**

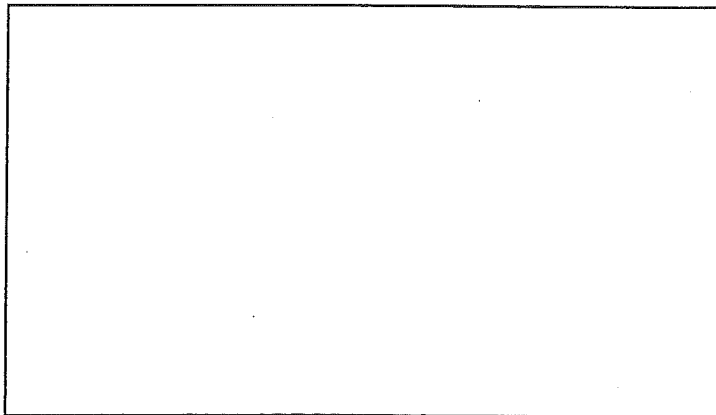
- Creates a \_\_\_\_\_ = the denser Oceanic Crust slides under the less-dense Continental Crust, creating a deep-sea trench.
- Causes lots of Earthquakes, some very \_\_\_\_\_.
- Causes lots of \_\_\_\_\_!
- Eg. The Juan de Fuca Plate is subducting below the North American Plate. The oceanic plate melts as it sinks; creating magma that moves up and erupts, making volcanoes such as Mount St. Helens.



Draw a C-O convergent boundary here.

**c. Oceanic Crust – Oceanic Crust**

- Creates a \_\_\_\_\_ = one of the oceanic plates subducts under the other, melts, and the magma rises to create a chain of volcanoes, and a parallel deep-sea trench.
- Causes \_\_\_\_\_.
- Causes chains of \_\_\_\_\_.
- Eg. The Philippine Plate is subducting under the Pacific Plate, creating the **Mariana Trench** (the deepest trench in the oceans!) The Mariana Islands run parallel to the trench.

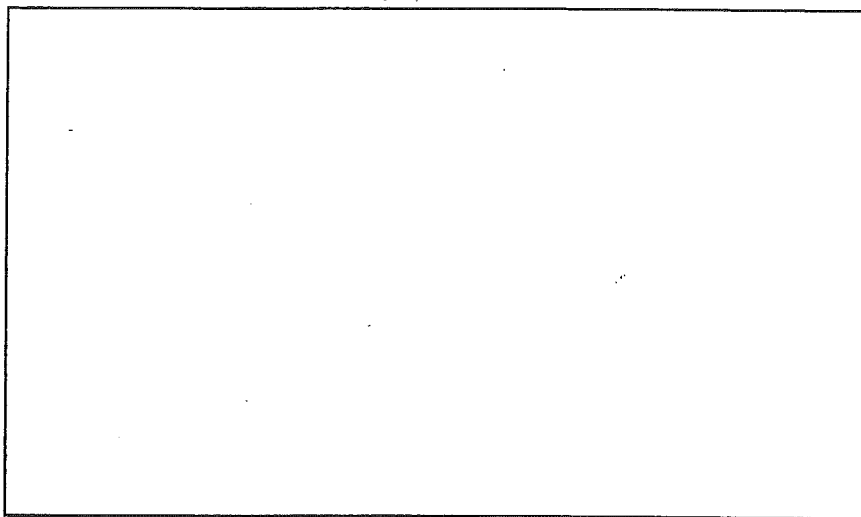


Draw an O-O convergent boundary here.

### 3. TRANSFORM plate boundary

The plates \_\_\_\_\_ past each other.

- Two plates slide laterally creating a \_\_\_\_\_.
- Causes lots of \_\_\_\_\_!
- NO \_\_\_\_\_.
- Eg. The North American Plate is sliding past the Pacific Plate, creating **The San Andreas Fault**, which moves 5cm/year, and causes all the earthquakes in LA and San Francisco!



Draw a transform plate boundary here.