



Name:

Hr:

KNOW YOUR BOUNDARIES

Divergent Boundaries

Two plates are separating apart

Mid-Ocean ridge (new sea floor) is found here

Example: Sea-floor spreading at the mid-Atlantic ridge and the Pacific rise.

Transform Boundaries

Two tectonic plates are sliding past one another horizontally

LOTS of earthquakes!

Example: San Andreas Fault (California)

Convergent Boundaries (a.k.a. Fight Club)

Rules of engagement....

If two plates meet, the more dense layer is pushed down.

* Continental Crust is not very dense. Made from Granite. Older.

* Oceanic Crust is very dense. Made from Basalt. Younger.

Continental vs. Continental

- Neither plate is dense enough to subduct the other.
- Therefore, both plates push up. This usually results in mountain formation
- Example: Himalayas

Continental vs. Oceanic

- The oceanic plate is more dense, therefore the oceanic plate is subducted and remelted into Earth's mantle.
- This can result in small ocean trench and volcanoes being formed on the land.
- Example: west coast of South America (Andes Mtns) and Mt. St. Helen's

Oceanic vs. Oceanic

- Both plates are very dense, but only one can be subducted. Therefore, the more dense plate (*older) is subducted.
- The result is usually a trench formation or under water volcanoes.
- Ex. Marianas Trench

* When you have two oceanic plates, which are both fairly dense, the older plate is the one that is usually subducted.

a) What is happening at this boundary?

(On front = describe the plate motion)

(On back = describe which plate is being subducted)

b) What kind of geologic formation (mountains, volcanoes, etc.) would you find here?

c) Example – Specific place you would go to see this boundary