**Plate Boundaries**

A wealth of geological activity takes place at plate boundaries, resulting in characteristic structures depending on the relative motion of the plates. The three types of boundaries are:

* Convergent
* Divergent
* Transform

**Convergent Plates**

**Map Symbol:**

* Causes the compression of plate material resulting in the following features:
  + Folding, reverse and thrust faults, mountains and earthquakes
* Specific features depend on plate materials

**Oceanic/Oceanic Convergent plates:**

Eg. Japan, Indonesia

* Oceanic plates are thin and heavy made of iron rich **mafic** rock called **Basalt**

**Diagram:**

**Continental/Oceanic Convergent plates:**

Eg. Coast of BC, Andes mountains

* Continental plates are thick but light made of **felsic** rock which contains less metal.
* The dense heavier oceanic plate is subducted under the continental plate

**Diagram:**

**Continental/Continental Convergent plates:**

Eg. Mt Everest

* No Subduction therefore no volcanoes
* Plate material crumbles and folds forming jagged mountains

**Diagram:**

**Divergent Plates:**

**Map Symbol:**

Eg. Mid-Atlantic Ridge

* Cause tension in the plate material and stretching/thinning of lithosphere
* Causes characteristic features
  + Volcanoes
  + shallow-focus earthquakes
  + “normal” faults
* Marked by mid-oceanic ridges in the oceans and rift valleys on land

**Diagram:**

**Transform Boundaries/Faults:**

**Map Symbol:**

Eg. San Andreas Fault

* Faults slip and slip against each other
* Often combine with divergent plates to make fractured mid-oceanic ridges

**Diagram:**