

Plate Tectonics

- The proof of _____ supported Wegener's idea that the continents move. Scientists needed to come up with a new theory to explain why both oceanic and continental crust seem to _____.

Plate Tectonics – The theory that the Earth's _____ is divided into tectonic plates that move around on top of the _____.

Tectonic Plate Boundaries:

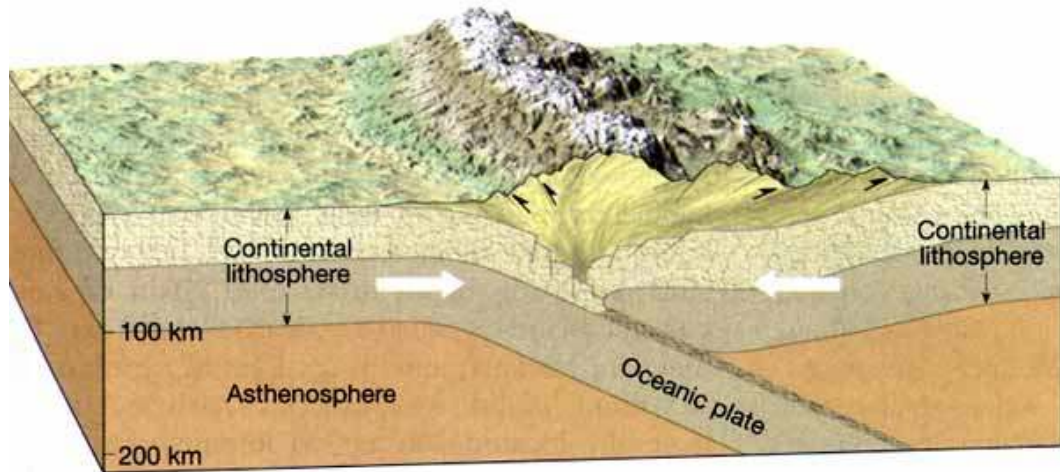
- Tectonic plate boundaries are divided into three types depending on how they _____ relative to one another.

* _____ – When two tectonic plates push into one another.

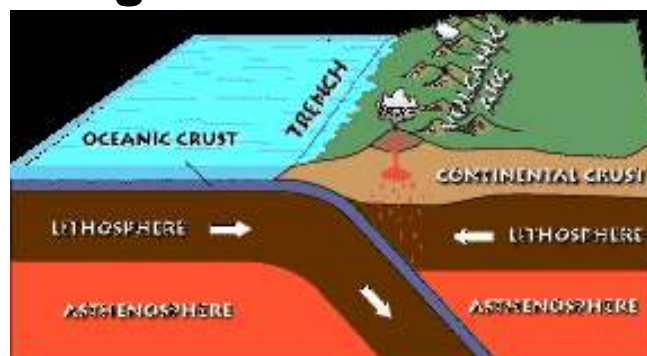
Three types:

Continental/Continental –

Crust buckles upward creating _____.



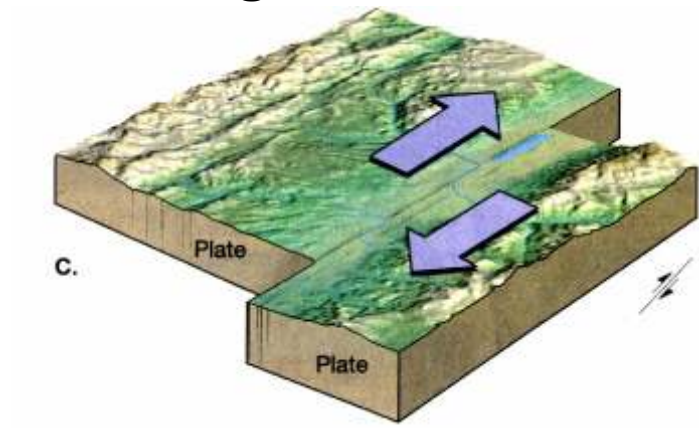
Continental/Oceanic – Oceanic crust slides beneath the continental crust because it is _____. The region where the oceanic plates sink down into the asthenosphere is called a _____. _____ . Deep trenches are created, and _____ form just past the subduction zone from molten oceanic crust rising to the surface.



Oceanic/Oceanic – One oceanic plate slides underneath the other forming a _____.

* _____ – **When two tectonic plates move away from each other. This is the type of boundary where _____ occurs.**

* _____ – **When two tectonic plates slide past each other horizontally. The plates do not move smoothly but move in quick jerks creating _____.**



Possible Causes of Plate Motion:

➤ _____ – **Oceanic lithosphere is _____ at the mid-ocean ridges, so gravity causes it to slide down the asthenosphere.**

- _____ – Oceanic lithosphere is denser than the asthenosphere, so the edge of the oceanic plate sinks pulling the rest of the plate with it.
- _____ – Heat from the core heats the lower part of the asthenosphere. This warmer material rises because it is less _____. This material cools as it rises causing its density to increase. It then sinks, creating _____ in the asthenosphere.

Tracking Tectonic Plate Motion

- Most tectonic plate motion is so slow that it can't be seen or felt. It is measured in _____ per year.
- Scientists use a network of satellites called the _____ _____ to measure the rate of tectonic plate movement.