Chapter 1 Section 5: The Theory of Plate Tectonics.

Plates - The earth's lithosphere is broken into separate sections called plates.

Scientific theory : a well tested concept that explains a wide range of observations.

Plate tectonics- the geological theory that states that pieces of Earth's crust are in constant, slow motion, driven by convection currents in the mantle.

* The theory of plate tectonics explains the formation, movement, and subduction of Earth's crust.

Plate boundaries - extend deep into the lithosphere.

Faults - breaks in Earth's crust where rocks have slipped past each other
- form along plate boundaries.

<u>Transform boundaries</u> - crust is neither created nor destroyed. Two plates slip past each other, moving in opposite directions. Earthquakes occur frequently around these boundaries

<u>Divergent boundaries</u> : The place where two plates move apart/or diverge (mid oceanic ridge).

rift valley - divergent boundary on land. A deep valley on land called a rift valley forms along the divergent boundary.

~~Congruent~~

Convergent boundary : The place where two plates come together, or converge. (Collision)

The density of the plates determines which one comes out on top. Oceanic plates (mostly basalt) = more dense

- When two plates of continental crust collide - the collision squeezes the crust into mighty mountains.