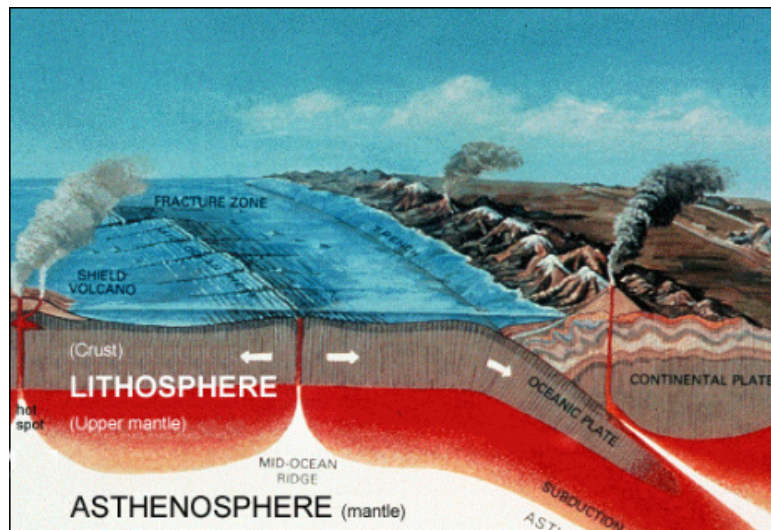


Lithosphere:

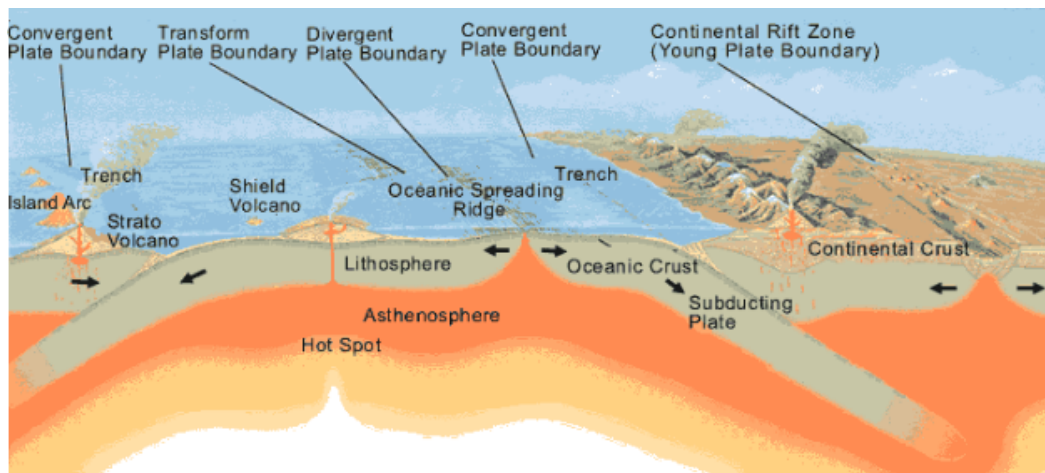
The lithosphere of the Earth, is not homogeneous. Crust under the oceans is only about 5 km thick while continental crust can be up to 65 km thick. Also, ocean crust is made of denser minerals than continental crust. The tectonic plates are made up of Earth's crust and the upper part of the mantle layer underneath. Together the crust and upper mantle are called the **lithosphere** and they extend about 80 km deep.



The continental plates making up the earth are in constant, if very slow, motion.



All of the features of the Earth, including mountains and volcanoes, can be explained using the idea of continental drift, glaciation and weathering.



The Lithosphere is made up of a large variety of minerals. These minerals are all composed of the chemical elements.

Element	Chemical Symbol	Percent Weight in Earth's Crust
Oxygen	O	46.60
Silicon	Si	27.72
Aluminum	Al	8.13
Iron	Fe	5.00
Calcium	Ca	3.63
Sodium	Na	2.83
Potassium	K	2.59
Magnesium	Mg	2.09

Minerals make up all of the types of rock that we know about. There are three basic types of rocks; Igneous rock, sedimentary rocks and metamorphic rocks.

Igneous rock is rock formed by the hardening and crystallization of molten material that originates deep within the earth. Two important variables used for the classification of igneous rocks are particle size, which largely depends upon the cooling history, and the

Sedimentary rock:

Rivers, oceans, winds, and rain runoff all have the ability to carry the particles washed off of eroding rocks. Such material, called *detritus*, consists of fragments of rocks and minerals. When the energy of the transporting current is not strong enough to carry these particles, the particles drop out in the process of *sedimentation*.

here are three major types of sedimentary rocks: *Clastic Sedimentary Rocks*, *Chemical Sedimentary Rocks*, and *Biogenic Sedimentary Rocks*.

Metamorphic Rock

Metamorphic rocks are rocks that have "morphed" into another kind of rock.

These rocks were once igneous or sedimentary rocks.

Identifying rocks