There are three main groups of rocks: Igneous, Metamorphic, and Sedimentary

Igneous rock forms when magma cools and makes crystals. Magma is a hot liquid made of melted minerals. The minerals can form crystals when they cool. Igneous rock can form underground, where the magma cools slowly. Or, igneous rock can form above ground, where the magma cools quickly. When magma pours out on Earth's surface, it is called lava. Yes, the same liquid rock matter that you see coming out of volcanoes.

On Earth's surface, wind and water can break rock into pieces. They can also carry rock pieces to another place. Usually, the rock pieces, called sediments, drop from the wind or water to make a layer. Existing layers are buried under new layers of sediments. After a long time, the sediments are cemented together due to the pressure caused by the weight of the overlying layers. This makes sedimentary rock. In this way, igneous rock can become sedimentary rock.

When either sedimentary or igneous rock is exposed to heat and pressure from the interior of the Earth, they change to become metamorphic rock. The heat bakes the rocks (temperatures 300-700°C). Baked rocks do not melt, but do change.

All rock can be heated. Where does the heat come from? Inside Earth there is heat from pressure (push your hands together very hard and feel the heat). There is heat from friction (rub your hands together and feel the heat). There is also heat from radioactive decay (the process that gives us nuclear power plants that make electricity). When Earth's tectonic plates move around, they produce heat. When they collide, they build mountains and metamorphose (met-ah-MORE-foes) the rock.