II. Common Rocks found in Utah – In this activity, students will be given a bag of 12 rocks. They should study them with a magnifying lens. First, students can make their predictions as to the identification of each rock. Place the rocks on the prediction page where the students think they belong. Secondly, using the notes on the different rocks below, they should try and identify all the individual rocks and determine if their predictions were correct. After all the rocks have been correctly identified, look at the pictures of rock formations found in Utah.

1. Sedimentary – These rocks are formed from sediments produced by weathering and erosion. Sedimentary rocks consist of very small pieces of rocks or organic matter that have been buried and cemented together in flat-lying layers. Sedimentary rocks many times contain round edged minerals.

Sandstone – Sandstone is made from sand grains cemented together by pressure squeezing the layers together. Try and rub some sand off of the sandstone rock. Sandstone occurs in different colors based on the sand it was formed from. Sandstone can be used in landscaping, concrete, and some ancient buildings were even made of sandstone. Sandstone is the main sedimentary rock found in Arches and Zion National Park.

Conglomerate – This rock is made of well-rounded gravel that is cemented together with sand and clay. As this mixture was pressed together, the sedimentary rock was formed. This rock looks like a mixture of many different rocks all stuck together. Conglomerate can be used in construction and flooring. Conglomerate formations can be found near Price, Utah.

Shale – Shale is made up of very small particles of gray colored mud or clay. Layers are many times evident in shale. Shale can be used as filler in paint, plastic and roofing materials. Oil shale is used as a source for oil. Many trilobite fossils are found in shale near Price, Utah.

Limestone – Limestone is made mostly of calcite, which came from ancient seabeds filled with sea animal shells. Limestone is used to make concrete and to produce lime, which is an important chemical used in steel production and water purification. Limestone can be found in the Oquirrh Mountains and Parley's Canyon.

2. Igneous – These rocks are formed from the cooling of hot molten rock. This is either magma, which is molten rock underground (intrusive igneous rocks); or lava, which is the molten rock once it comes through the Earth's surface (extrusive igneous rocks). Igneous rocks do not appear to have layers. Some igneous rocks have crystals, air holes, or some are glasslike.

Basalt – This rock cooled very rapidly above ground. Crystals are not formed when the rock cools rapidly. This rock is dense, black and forms large formations. Basalt is used in asphalt and concrete. It can be found in the Black Rock Desert of Western Utah.

Obsidian – Obsidian cools very rapidly above ground. No crystals are visible. When the rock forms it becomes a black glassy rock. This rock is used in jewelry and in making arrowheads because it is very strong and sharp on its edges. Found in the Black Rock Desert of Western Utah.

Pumice – Pumice cools very rapidly above ground from a frothy volcanic mixture. Since the mixture was frothy and it cooled quickly, this rock has many small air holes and individual crystals cannot be seen. This rock normally floats in water (try it) and has an abrasive quality. Pumice can be used in cleaners and concrete. Also found in the Black Rock Desert of Western Utah.

Granite – This rock cooled slowly below ground. Since it cooled slowly, crystals had time to form. Most granite is made up of 3 different mineral crystals. This is many times used in homes for countertops and building materials. Granite can be found throughout Utah.

3. Metamorphic – These rocks used to be igneous or sedimentary rocks that were put under great pressure or heat underneath the Earth's surface and became a new type of rock. They differ from each other due to the sedimentary or igneous rock they formed from. You can usually see characteristics of the former rock in the final metamorphic rock.

Marble – Marble rock formed from the sedimentary rock limestone. Look for the calcite crystals and lines in the marble. Marble is used in homes and sculptures. Marble is a dense, crystalline rock that can be found in Big Cottonwood Canyon.

Gneiss – Gneiss was formed from high heat and pressure on layers of different mineral crystals. Gneiss many times has a banded look due to its different mineral composition that can include mica and quartz. Gneiss is used to make statues, ornamental stones and flooring. Gneiss can be found in Farmington Canyon and Antelope State Park.

Schist – This rock is formed from a high crystal muscovite content of sedimentary rock. This gives the rock a satiny sheen and many times layers can be seen. Schist is used to make beautiful structures for decoration because it is not very strong for building. This rock is found in Little Cottonwood Canyon.

Slate – This rock is formed from the metamorphosis of the sedimentary rock shale. Slate is fine grained, dense and brittle. We can use slate for chalkboards, counters and flooring. This rock can be found in Box Elder County.