TYPES OF ROCKS

There are thousands of different rocks that make up the Earth's crust. Geologists divide all the rocks into three main groups according to how the rocks are formed.

1. IGNEOUS ROCKS
2. SEDIMENTARY ROCKS
3. METAMORPHIC ROCKS

All rocks are made up of one or more chemicals called minerals. Minerals are chemicals that are found in the Earth's crust e.g. quartz, asbestos, calcite.

Minerals that contain valuable elements used by man are given the special name ores

e.g. bauxite (contains aluminium), iron ore (contains iron).

Minerals that are usually clear, with beautiful colours and are rare are called gemstones e.g. rubies, diamonds, amethysts, sapphires, opals.

Igneous Rocks

Igneous rocks are formed when molten magma cools and solidifies. If the cooling takes place out on top of the Earth's surface we call them extrusive igneous rocks. If the cooling takes place inside the Earth's surface we call them intrusive igneous rocks.

Whether the magma cools slowly or quickly controls the size of the mineral crystals. Crystals are chemicals with special shapes.

Igneous Rocks

Intrusive Igneous Rocks	Extrusive Igneous Rocks
• Granite	• Basalt
• Dolerite	• Obsidian (Volcanic Glass)
• Gabbro	• Pumice

Sedimentary Rocks

Sedimentary rocks are formed when insoluble particles settle on the bottom of oceans lakes and rivers. The sediments which make up these rocks can be of almost any type of material.
Here are the names of three sedimentary rocks and the type of sediments they are made from:

- Limestone - made from skeletons or shells of tiny sea animals.
- Conglomerate - made from pebbles of gravel
- Sandstone - made from grains of sand

Metamorphic Rocks

Metamorphic rocks are formed from other rocks by the action of heat or pressure or both. For example, if some limestone is subjected to heat under the surface of the Earth it can be changed into marble. Metamorphic rocks can be difficult to identify due to the heat or pressure that caused the metamorphism. Many, however, have bands or layers of tightly fused, different coloured crystals.