Question: What are the three main groups of rocks?

CLASSIFYING ROCKS

Geologists look at the mineral composition, color and texture of a rock, which can contain a mixture of minerals and other materials or only a single mineral.

rock-forming minerals - 20 minerals that make up most of the rocks of Earth's crust

→ Color - provides clues to the rock's mineral composition

- granite - light colored rock having high silica content
- basalt - dark colored rock that is low in silica

→ Texture - the look and feel of the rock's surface which is made up of particles of minerals or other fine rocks called grains

- Grain size
- Grain shape
- Grain pattern

Geologists classify rocks into three major rock groups based on how they form: Igneous, Sedimentary and Metamorphic Rocks.

Igneous - created when magma or lava cools and crystallizes

Sedimentary - rock material that forms where rocks are broken down into smaller pieces or dissolved in water as rocks erode or the remains of plants and animals are pressed and cemented together

Metamorphic - forms when existing rock is changed by heat, pressure or chemical reactions

Forces deep inside the Earth and at the surface produce a slow cycle that builds, destroys and changes the rocks in the crust.

rock cycle - series of processes that change one type of rock into another type of rock