

Rocks

There are many types of rocks which are varied in their mineral composition, colour, texture, permeability and grain size. The three main types are categorised under:

- Igneous Rock**
- Sedimentary Rock**
- Metamorphic Rock**

Igneous Rock

Rocks that are formed by the cooling and solidification of molten rock

When a volcano erupts, red hot lava bursts out and gushes downhill as boiling rivers of fire. Slowly the lava cools, solidifies and hardens into rock. This type of rock is called Igneous - which means made from fire. Igneous rock also forms underground when magma rock cools down.

As molten rock cools, crystals are formed.

Larger crystals form if the rock cools slowly.

Small crystals form if the rock cools quickly.

Basalt has tiny crystals and can have a smooth surface and often cools into six sided columns such as the Giants Causeway in Ireland

Sedimentary Rock

Rocks that are formed by the compaction of sediments or the crystallisation of dissolved minerals

Sand, mud and pebbles in a river or lake, or on a seabed, can be turned into rocks called sedimentary rocks. These can be told apart from other rocks because they have layers or strata. The sediments accumulate layer by layer over millions of years, forming thick deposits. The weight of the overlying sediment compacts those below which over time forms sedimentary rock. Sedimentary rocks can contain fossils.

Metamorphic Rock

Rocks that are changed into a different one by great heat or pressure.

Metamorphic rocks are formed when existing rocks are changed from their original state by great heat and/or pressure. This process takes place deep underground. Examples of this are Mudstone (Sedimentary) turning into Slate (Metamorphic) and Limestone (Sedimentary) turning into Marble (Metamorphic).

The Rock Cycle

