

# Rocks Knowledge Organiser

## Natural rock

**Sedimentary:** rock that forms in layers over time. Rock settles in layers as mud, sand, minerals and even the remains of living things (limestone, chalk, sandstone).

**Igneous:** rock that forms deep underground from magma (molten rock). When molten rock spills out of a volcano, it is called lava. It cools to form igneous rock (obsidian, granite, basalt).

**Metamorphic:** sedimentary or igneous rock that is heated up when near magma causing a chemical change (marble, quartz, slate).



## What is soil made from?

**Air:** oxygen, carbon dioxide, nitrogen etc.

**Organic Matter:** living and dead plants and animals.

**Water:** air and water fill the gaps between particles of soil.

**Minerals:** from broken down rock.



## Man-made rock: (also known as anthropic rock)

**Concrete:** a mixture of water, sand/rock/gravel and cement (chalk and clay).

**Bricks:** clay soil, sand or lime which has been air-dried or fire-hardened in the shape of bricks.

**Mock rock:** rock gardens and surfaces that look like rock but are made from other materials

## Key-vocabulary:

**Erosion:** Erosion occurs when water, ice, wind, or gravity moves rock or soil, called sediment, from one place to another.

**Weathering:** a natural process that slowly breaks apart or changes rock. Heat, water, wind, living things, and other natural forces cause weathering.

**Fossil:** the remains or impression left by a prehistoric plant or animal embedded in rock. Fossils are only found in sedimentary rock because heat from lava and magma in igneous and metamorphic rock is too high for the fossils to survive.



## Properties of rocks

**Hard:** some rocks need to be cut or split with tools because they are so hard (e.g. granite).

**Soft:** some rocks are soft and can be moulded (e.g. clay).

**Permeable:** permeable rocks allow water to pass through (e.g. pumice).

**Impermeable:** impermeable rocks do not let water pass through (e.g. marble).

**Durable:** rocks that are strong and hard-wearing. They are resistant to erosion.

**High-density:** the particles in the rock are tightly packed together. These rocks will sink in water (e.g. basalt).