



Auckland College Knowledge Organiser – Rocks



There are three types of **naturally occurring rock**: **Igneous, Sedimentary and Metamorphic.**

Igneous Rocks: Obsidian, Granite, Basalt.

Sedimentary Rocks: Chalk, Sandstone, Limestone.

Metamorphic Rocks: Marble, Quartzite, Slate.

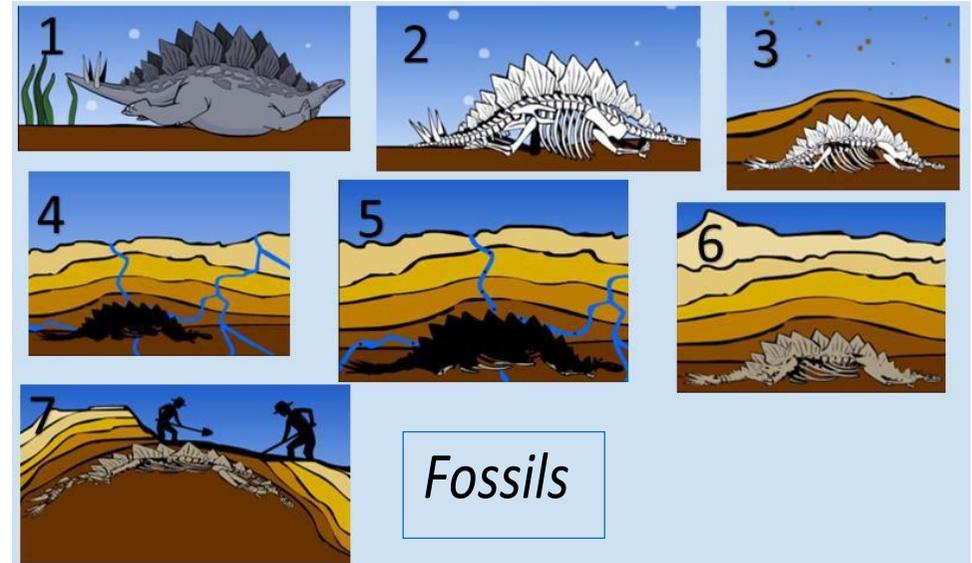
There are also types of **human-made rocks**: **Brick, Concrete, Coade Stone.**

Types of Rock

Sedimentary	types of rock that are formed by the accumulation or deposition of small particles	
Igneous	formed from molten rock (magma) that has cooled and solidified	
Metamorphic	the transformation of existing rock from heat and pressure	

Key vocabulary

igneous rock	Rock that has been formed from magma or lava
sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock
metamorphic rock	Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure
magma	Molten rock that remains underground
lava	Molten rock that comes out of the ground is called lava
sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand
permeable	Allows liquids to pass through it
impermeable	Does not allow liquids to pass through it





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Describing a rock

Some words used to describe the properties of a rock: hard, soft, permeable, impermeable, durable (meaning resistant to weathering), high density, low density.

Density measures how 'bulky' the rock is (how tightly packed the molecules are).

Caves are formed when water permeates through the bedrock and erodes some of the rock away.

Over thousands of years these caves can become very large.

Soil is the uppermost layer of the Earth. It is a mixture of different things:

- minerals (the minerals in soil come from finely broken-down rock)
- air
- water
- organic matter (including living and dead plants and animals)

Fossilisation

- An animal dies, it gets covered with sediments which eventually become rock
- More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth
- Over thousands of years, sediment might enter the mould to make a cast fossil
- Bones may change to mineral but will stay the same shape
- Changes in sea level take place over a long period
- As erosion and weathering take place, eventually the fossil becomes exposed

