

Year 3 Science – Rocks and Soils Knowledge Organiser

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 remains underground.

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.

Three types of naturally occurring rocks



Igneous



Sedimentary



Metamorphic

| Natural Rocks | | | Human-Made Rocks |
|---------------|-------------|-------------|------------------|
| Igneous | Sedimentary | Metamorphic | |
| Obsidian | Chalk | Marble | Brick |
| | | | |
| Granite | Sandstone | Quartzite | Concrete |
| | | | |
| Basalt | Limestone | Slate | Coade Stone |
| | | | |

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 – a process by which fossils are made.

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.

