

Science Subject Knowledge Bank

Year 3: Rocks

<u>Vocabulary</u>	<u>Definition</u>
Sedimentary	Rocks formed by sediment.
Metamorphic	A rock that has undergone change by heat and pressure.
Igneous	A rock formed when magma or lava has cooled.

How are fossils formed?

- A living animal swimming in the sea.
- The animal dies and its body sinks to the sea floor.
- Other animals and bacteria feast upon its body. Only the bones of the animal are left behind.
- Mud and other minerals wash over the skeleton and build up a layer over the bones.
- Over hundreds, thousands and millions of years more and more layers of sediment build up burying the skeleton deeper. The layers eventually form sedimentary rocks.
- The minerals from the skeleton are left behind in the rocks showing a 'print' of the living animal.



What are the different types of rock?

There are three types of rocks that are formed naturally.

- **Igneous:** When molten magma cools, igneous rocks are formed.
- This either cools and forms rocks under the earth's surface, or flows out of erupting volcanoes as lava and may mix with other minerals. Examples include granite and basalt.
- This type of rock is strong, hardwearing and non-porous.
- **Sedimentary:** Sometimes, little pieces of rocks that have been weathered can be found at the bottom of lakes, seas and rivers, this is called sediment.
- Over millions of years, layers of this sediment builds up forming sedimentary rocks. Examples include limestone and chalk.
- Sedimentary rocks are porous and can easily be worn down.
- **Metamorphic:** When some igneous and sedimentary rocks are heated and squeezed (pressured), they form metamorphic rocks. • Examples include slate and marble.
- Metamorphic rocks are strong

Types of rock

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

How is soil formed?

- Soil is made from pieces of rock, minerals, decaying plants and water.
- When rock is broken down into small grains, soil is formed.
- There are layers of soil: above the soil is leaf litter and recently decaying plants.
- As the soil becomes deeper, the rock grains become larger until bedrock is reached.

What are the different types of soil?

- There are different types of soil, sandy, clay, chalk which have different properties.
- **Clay soil-** Restricted air and water movement, so can lie wet for long periods
- **Chalk soil-** Often shallow and free draining.
- **Sandy soil-** Free circulation of air and good drainage.