

Science

Rocks

Year 3

Summer 2

## Key knowledge

Igneous	Strong, hard-wearing and non-porous rock formed when molten magma cools down. Examples include granite and basalt.
Sedimentary	Porous and easily worn down rocks that can be found when sediments (especially earth and pieces of rock) have been carried along and left somewhere by water, ice or wind. Over millions of years, layers of this sediment builds up forming sedimentary rocks. Examples include limestone and chalk.
Metamorphic	Strong rocks formed when igneous and sedimentary rocks are heated and squeezed (pressured). Examples include slate and marble.
Fossils	Fossils are the remains of prehistoric life, usually formed when a living thing dies and the body is covered up or buried by sediment over tens of thousands of years.
Soil	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: topsoil, subsoil and base rock. Above the soil is leaf litter and recently decaying plants. As the soil becomes deeper, the rock grains become larger until base rock is reached.

## Possible Experiences

- Explore the types of rocks you can find in the local environment. Explain why rocks are used for different purposes based on their properties.
- Research the different living things whose fossils are found.
- Explore the different kinds of soils, including those you can find in the local environment.
- Investigate what happens when rocks are rubbed together and when they are in water.
- Sort different types of rocks based on how rough or smooth they are, whether they have grains or crystals, how permeable they are, how easily they can break down, how strong they are and what they look like.

## Statutory Requirements

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- Recognise that soils are made from rocks and organic matter.

## Key Vocabulary

Igneous rocks	Rocks formed from lava or magma.
Sedimentary rocks	Rocks formed by layers of sediments being pressed down hard and sticking together.
Metamorphic rocks	Rocks formed when other rocks are affected by extreme heat or pressure.
Permeable	Allowing liquids to pass through it.
Impermeable	Not allowing liquids to pass through
Fossil	The preserved remains or traces of a dead organism.
Deposit	To lay down
Palaeontologist	A scientist who studies plants and animals that lived millions of years ago
Extinct	Gone forever
Particle	A tiny quantity or fragment
Sediment	Solid material that settles at the bottom of a liquid.

## Pictures and Diagrams

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