

## What I already know

Identify and name everyday materials, including rocks.

## Learning Journey

Sc3/3.1a compare and group together different kinds of rocks on the basis of their appearance and simple physical properties

Sc3/3.1b describe in simple terms how fossils are formed when things that have lived are trapped within rock

Sc3/3.1c recognise that soils are made from rocks and organic matter.

## Key Question

How is a fossil made?



# Year 3: Rocks and Soil



## Key Vocabulary (red underlined)

### PROPERTIES OF ROCKS

- 1.) HARD / SOFT – Some rocks need to be cut or split with tools because they are so hard (e.g. granite) but others are soft and can be moulded (e.g. clay).
- 2.) PERMEABLE / IMPERMEABLE – Permeable rocks allow water to pass through (e.g. pumice) but impermeable rocks do not let water pass through (e.g. marble)
- 3.) DURABLE – Rocks which are resistant to erosion last longer and are more durable. Buildings are often made with these (e.g. limestone)
- 4.) DENSITY – If the particles in the rock tightly packed then it has a high density. These rocks would sink in water (e.g. basalt).

Where might you find examples of different types of rocks and fossils?

## Powerful Knowledge

### SEDIMENTARY

These rocks form under the sea. Rocks are broken into small pieces by wind/water (erosion). They settle as mud, sand, minerals and even remains of living things. Over time, layers pile up and the pressure turns this sediment into rock.

### IGNEOUS

Far underground, the temperature is so hot, rock melts into a liquid (molten rock).

When the liquid is underground it is called 'magma' and it can cool to form an intrusive rock. When it spills out (volcano), the liquid is called 'lava' and it cools to form extrusive rock.

### METAMORPHIC

When sedimentary or igneous rock is near magma, it heats up and chemicals change in the rock. However, it does not heat up enough to melt it. As it cools it becomes metamorphic rock.

### MAN-MADE ROCKS (ANTHROPIC)

These rocks are made by humans.  
CONCRETE – a mixture of water, sand/rock/gravel and cement (chalk & clay)  
BRICKS – Clay soil, sand or lime which have been air-dried or fire hardened.

MOCK ROCK – Victorians made rock gardens and surfaces that looked like rock



limestone  
chalk  
sandstone



marble  
quartzite  
slate



obsidian  
granite  
basalt

