

# St Mark's Church of England School - Knowledge Organiser

Subject: Science

Year: 3

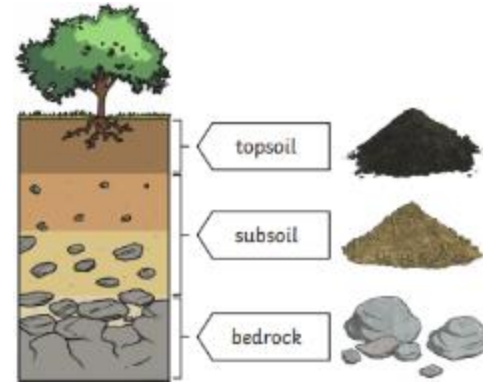
Topic: Rocks

## What should I already know?

The names of everyday materials: wood, metal, plastic, glass, brick, rock, paper and cardboard. These materials are suitable for a range of different uses e.g. metal for coins, wood for tables. Some materials can be changed by squashing, bending, twisting and stretching.

## What I should know at the end.

- There are 3 types of naturally occurring rock: igneous, sedimentary, metamorphic.
- Some rocks are made by humans: brick, concrete.
- When magma or lava cools and hardens it becomes an **igneous rock**
- **Sedimentary** rocks form under the sea through the process of sedimentation, compaction and cementation.
- **Metamorphic** rocks are formed when rocks are put under immense heat or pressure. This happens near magma or where tectonic plates meet.
- When an animal dies, it gets covered by sediment and then buried in layers of rock. After a while, only the hard parts (such as shells or bones) remain. This creates a **fossil**.
- **Soils** are made from minerals (finely broken down rocks), air, water and organic matter



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

## Working Scientifically

**Observing over time:** observing rocks, exploring how and why they might have changed over time  
**Classifying and Grouping:** observe, classify and group rocks in a variety of different ways (grains, crystals or fossils)  
**Secondary Sources:** explore how fossils are formed.  
**Comparative Testing:** Explore different soils and identify similarities and differences between them

## 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.
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.
palaeontology	The study of fossils
erosion	When water, wind or ice wears away land