

St Clement's Catholic Primary School- Science

Topic: Rocks Fossils and Soils

Year: 3

Term: Autumn 1

What should I know already?

That lava is molten rock that comes out of a volcano.
Soil contains nutrients, and these help plants to grow.
Why some materials are used for certain purposes because of their properties

Vocabulary

igneous rock	Rock formed from a volcanic eruption
sedimentary rock	Rock formed from layers of sediment
metamorphic rock	Igneous or metamorphic rock exposed to extreme heat or pressure
magma	Molten rock underground
particle	A tiny amount or fragment
sediment	Tiny particles that settle at the bottom of a liquid
permeable	Allows liquids to pass through it
impermeable	Does not allow liquids to pass through it
fossil	remains or traces of plants and animals that lived long ago.
erosion	When water, wind or ice wears away land
soil	The upper layer of the earth in which plants grow

What will I know by the end of the unit?

Diagrams

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, hard-wearing and **impermeable**.

Sedimentary:

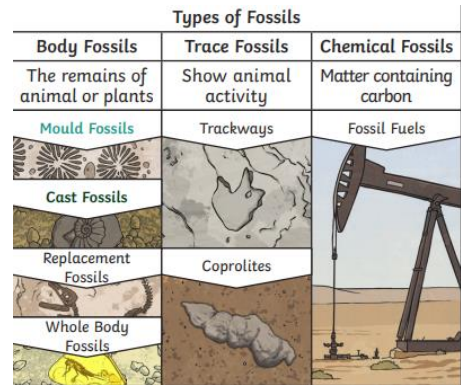
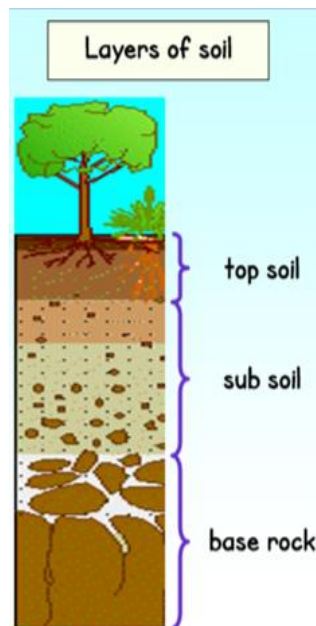
Sometimes, little pieces of rocks that have been **weathered** can be found at the bottom of lakes, seas and rivers. This is called **sediment**. Over millions of years, layers of this **sediment** builds up forming **sedimentary rocks**. Examples include limestone and chalk. **Sedimentary rocks** are **permeable** 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 very hardwearing.

Man-made rocks are concrete, brick and coade stone.

Soil is made from pieces of rock, minerals, decaying plants, air and water.



Fossilisation

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.

Key facts

Famous scientist(s)

It takes 500 years to make 2cm of soil.
There are millions of micro-organisms in soil.



Mary Anning (17799-1847) is remembered as being one of the greatest fossil hunters to ever live. She lived in the English seaside town of Lyme Regis in Dorset. Over the course of her life she made many incredible discoveries.