

# Frogwell School Year 3 Knowledge Organiser Term 2

## Rocks and Soils

### Working scientifically

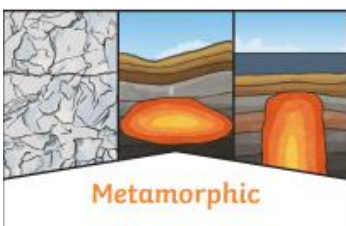
- Ask questions about rocks and carry out practical enquires and fair tests to answer them.
- Make careful observations of rock samples.
- Gather, record and present data in different ways to show our answers.
- Use scientific language and evidence to explain what we are finding out about Rocks.
- Use our results to draw simple conclusions about how rocks are formed and used in the world around us.

### KEY VOCABULARY TO LEARN

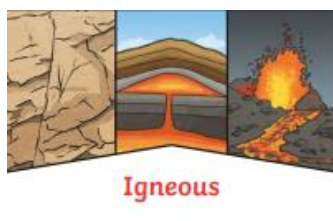
<b>rocks</b>	Rocks are made up of grains that are packed together.
<b>mineral</b>	Minerals are solid chemical substances that occur naturally e.g. diamond, quartz. Each grain that makes up the rock is made from a mineral.
<b>fossils</b>	The remains or impression of a prehistoric plant or animal embedded in a rock.
<b>soil</b>	Soil is a mixture of tiny particles of rocks, organic matter from animals and plants, as well as air and water.
<b>molten rock</b>	A rock that has been reduced to liquid through heating.
<b>magma</b>	Liquid rock inside a volcano.
<b>lava</b>	Liquid rock that flows out of a volcano. Fresh lave glows red hot to white hot when it flows.
<b>permeable</b>	Allowing liquids to pass through it.
<b>impermeable</b>	Does not allow liquids to pass through it.
<b>sediment</b>	Natural solid material that is moved and dropped off in a new place by water or wind e.g. sand.

### Types of rock and how they are formed

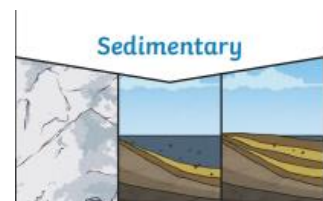
**Metamorphic rocks** - formed when other rocks are changed due to heat or pressure.  
E.g. slate and marble.



**Igneous rocks** -formed when magma or lava from volcanoes cools. Most are very hard.  
E.g. basalt and granite.



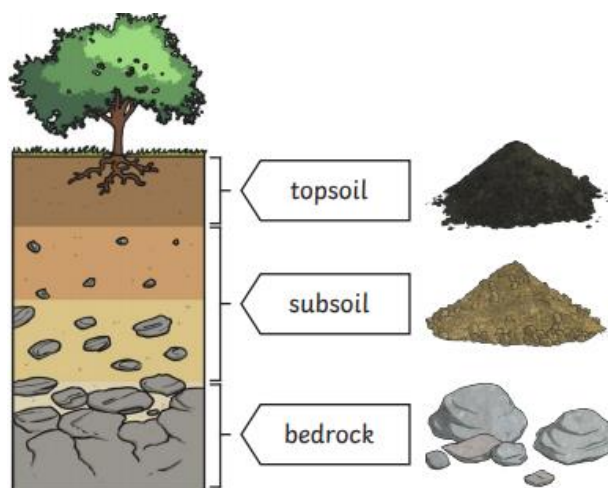
**Sedimentary rocks** -formed by layers of sediment being pressed down hard and stickling together.  
E.g. sandstone, coal and chalk.



## Soil

Soil is the uppermost layer of the Earth. It is a mixture of different things:

- minerals (the minerals in soil come from finely broken-down rock)
- air
- water
- organic matter (including living and dead plants and animals)








## Fossils

Fossilisation - the process by which fossils are made.

Palaeontology - the study of fossils.

Erosion - when water, wind or ice wears away land.

Fossilisation				
An animal dies. It gets covered with <b>sediments</b> 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, <b>sediment</b> might enter the mould to make a <b>cast fossil</b> . Bones may change to mineral but will stay the same shape.	Changes in sea level take place over a long period.	As <b>erosion</b> and weathering take place, eventually the fossil becomes exposed.
				



Ammonites found near Yeovil in Somerset.



Mary Anning - a famous fossil hunter from Lyme Regis.