Knowledge Organiser Focus: Rocks

Igneous rock	Rock that has been formed from magma or lava.
Sedimentary rock	Rock that has been formed by layers of sediment being pressed together.
Metamorphic rock	Rock that has started out as igneous and sedimentary rock but has changed due to extreme heat/ 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.
permeable	Allows liquid to pass through it.
impermeable	Does not allow liquid to pass through it.
Fossil	The remains or impression of a prehistoric plant or animal.
Soil	The upper layer of earth in which plants grow.

In the future:

-Observe that rock change state when they are heated or cooled.

I will learn:

- Compare and group together different kinds of rocks.
-Describe how fossils are formed.
- Recognise that soil is made from rocks and organic matter.

I should already know:

- Identify and discuss the suitability of rock for different purposes.

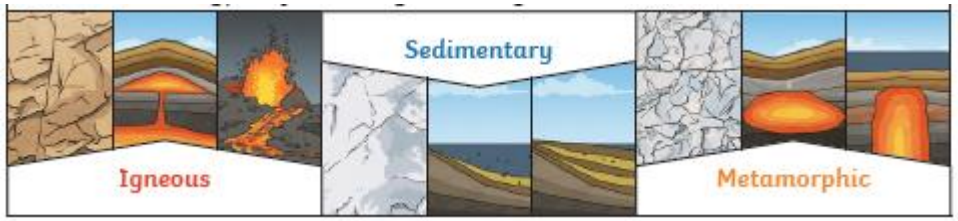
Thinking deeper challenge:

Make links between our science and geography learning through researching fossils from Prehistory.

Knowledge Organiser Focus: Rocks

Rocks

There are 3 types of naturally occurring rock



Three example of Igneous rock are obsidian, granite and basalt. Igneous rock is formed from lava or magma.

Three examples of sedimentary rock are chalk, sandstone and limestone. Sedimentary rock is formed when layers of sediment are pressed together.

Three examples of metamorphic rock are marble, quartzite and slate. Metamorphic rocks are formed when an igneous or sedimentary rock has been under extreme heat or pressure.

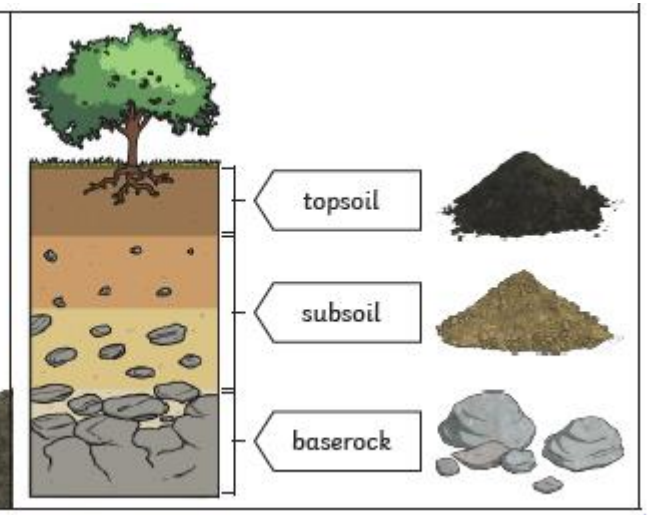
Igneous	Sedimentary	Metamorphic
Obsidian	Chalk	Marble
Granite	Sandstone	Quartzite
Basalt	Limestone	Slate

Fossils and soil

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).



What are the different elements of soil?

Fossils

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.

Fossils teach us about plants and animals that died out long before we were born.

The oldest fossils ever found are from 3.5 billion years ago!