

Science- Rocks, Fossils and Soils - Year 3 Autumn Term

Prior Learning:

In **Year 1** you were taught to identify and name a variety of everyday materials and describe their properties.

In **Year 2** you were taught to compare the suitability of materials depending on uses.

Key Vocabulary

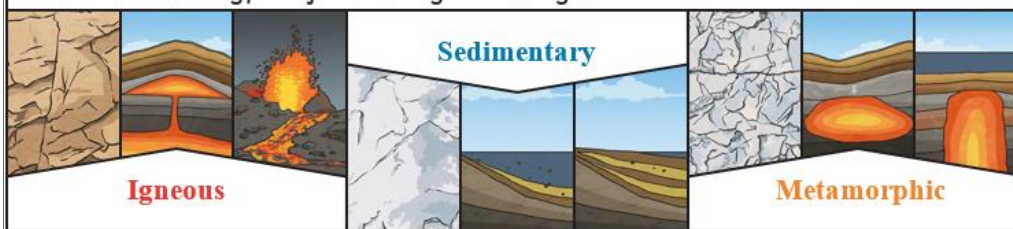
Igneous	Rock that has been formed by magma or lava.
Sedimentary	Rock formed by layers of sediment being pressed together.
Metamorphic	An existing rock that has been changed under extreme heat or pressure.
Magma	Molten rock beneath the ground.
lava	Magma once it has come out of the ground.
Sediment	Natural solid material that is moved from one place and dropped off in a new place by water or wind e.g. sand.
Permeable	Allows liquid to pass through it.
Impermeable	Does not allow liquid to pass through it.

Mary Anning 1799 - 1847

Found fossils on the beach called 'curiosities'. She discovered an ichthyosaur skull but was never credited for her own finds in her lifetime.



There are three types of naturally occurring rock.

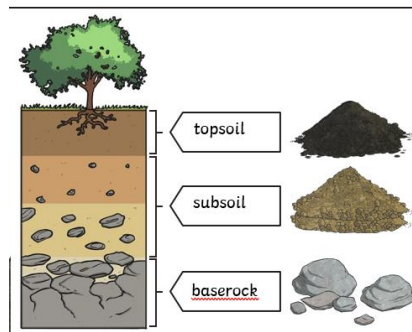


Soil

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).



How cast fossils are formed:

1. An animal dies. It gets covered with sediments which eventually become rock.



2. More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth.



3. 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.



4. Changes in sea level take place over a long period.



5. As erosion and weathering take place, eventually the fossil becomes exposed.



Key Learning

- 3 types of rock - Igneous, Sedimentary and Metamorphic.
- Rocks have different properties based on how they were formed.
- Fossils are found in Sedimentary rocks.

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

Can I...?

Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.

Describe in simple terms how fossils are formed when things that have lived are trapped within rock.

Recognise that soils are made from rocks and organic matter.