



# Science - Year 3 & 4– autumn 1 – Rocks, Fossils and Soils

Vocabulary	Meaning
erosion	When water, wind or ice wears away the land.
fossilisation	The process by which fossils are made.
igneous rock	Rock that has been formed from magma or lava.
impermeable	When a material does not allow liquids to pass through it.
lava	Molten rock that comes out of the ground is called lava.
magma	Molten rock that remains underground.
metamorphic rock	Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure.
palaeontology	The study of fossils.
permeable	When a material allows liquids to pass through it.
rocks	Rocks are made up of grains that are packed together.
sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.

## Skills

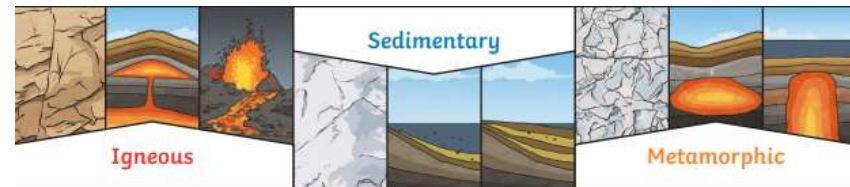
- Identify naturally occurring rocks and explore their uses.
- I am able to group rocks according to their characteristics.
- I know how to plan, carry out and evaluate experiments to compare rocks.
- I can identify that rocks are used for a particular purpose.

## Books

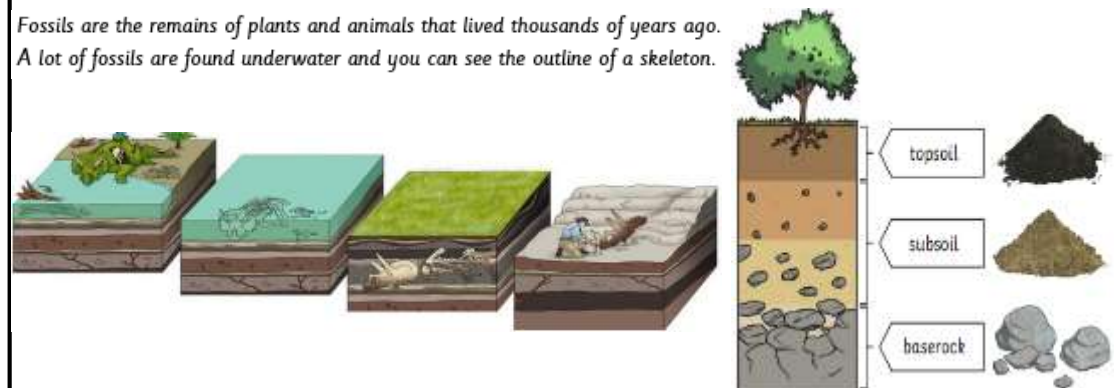


## Knowledge

There are three types of naturally occurring rock.



Fossils are the remains of plants and animals that lived thousands of years ago. A lot of fossils are found underwater and you can see the outline of a skeleton.



**What I should be able to do and know now.**

### Knowledge

I know what rocks are and can suggest where they come from.

I know the difference between natural and man-made objects.

I know that the earth is made up of many layers and materials.

I know how non-fiction books can help my learning.

### Skills

I can observe and organise objects into categories and display my findings.

I am able to read information from a chart or table.

I can compare, sort and group objects, rocks, soils and fossils.

I can evaluate results and draw conclusions and opinions.

## Key skills in Science

- I can make systematic and careful observations.
- I can set up some simple practical enquiries, including comparative tests.
- I am beginning to collect data in a variety of ways, including labelled diagrams, bar charts and tables.
- I am beginning to talk about and identify differences and similarities in the properties of materials.
- I am beginning to identify simple changes related to simple scientific phenomena.
- I am beginning to discuss criteria for grouping and sorting and can classify using a simple key.

### What I will be learning

- I know the terms erosion and permeable.
- I can explore soil and how it is formed. I know that it is made up of rocks and decaying organic matter.
- I am able to identify fossilised remains and describe how fossils are made.
- To explore naturally occurring rocks and know that they are used for a variety of purposes.

**What I will know and be able to do at the end of the topic.**

### Knowledge

I can explain the difference between igneous, sedimentary and metamorphic rock.

I understand that there are natural rocks as well as human-made rocks.

Can you identify and explain the process of fossilisation?

Three igneous rocks are O\_\_\_\_\_, G\_\_\_\_\_ and B\_\_\_\_\_.

Three sedimentary rocks are C\_\_\_\_\_, S\_\_\_\_\_ and L\_\_\_\_\_.

Three metamorphic rocks are M\_\_\_\_\_, Q\_\_\_\_\_ and S\_\_\_\_\_.

### Skills

What type of chart or diagram can I use to display my results?

I can explain my predictions and conclusions using key words or prompts.

Investigate the different types of rocks, fossils and soils.