

### Topic Intent

Pupils will explore different kinds of rocks and soils, including those in the local environment. They will investigate the uses and properties of rocks and will use this knowledge to complete scientific investigations. Pupils will explore different soils and will identify similarities and differences between them.



### Key Skills

- I can name different types of rock.
- I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- I can describe how fossils are formed.
- I can recognise that soils are made from rocks and organic matter.

### Key Knowledge

<p><b>Layers of soil</b></p>	<p>The diagram shows a cross-section of the ground. At the top is a tree with roots extending into the soil. The soil is divided into layers: a thin top layer of dark brown humus, a thicker layer of top soil, a layer of sub soil, and a bottom layer of bed rock. A plant is shown growing in the top soil layer.</p>
<p><b>Fossils</b></p>	<p><b>What is a fossil?</b> A fossil is the preserved remains or impressions of a living organism such as a plant, animal, or insect. Some fossils are very old. Studying fossils helps scientists to learn about the past history of life on Earth.</p> <p><b>Where are fossils found?</b> Fossils are found all over the world. Most fossils are found in sedimentary rock such as shale, limestone, and sandstone.</p>
<p><b>Examples of rocks.</b></p>	<p>Granite, chalk, limestone, sandstone, basalt, marble, pumice and slate.</p>

### Key Vocabulary

<b>absorbent</b>	A material that soaks up a liquid.
<b>appearance</b>	What something looks like.
<b>boulder</b>	A large, rounded rock.
<b>characteristic</b>	Something that makes a rock different from other rocks.
<b>chalky soil</b>	Soil that is light brown in colour, that water drains through quickly.
<b>classify</b>	To sort into groups dependent upon characteristics.
<b>clay soil</b>	Clay soil is usually sticky and has small particles. They contain very few air gaps and water does not drain through it easily.
<b>erosion</b>	When water wind wears away rocks and soils this is called erosion.
<b>fossils</b>	The bones or other remains of living things are sometimes preserved in rocks as fossils.
<b>igneous rock</b>	Igneous rocks form when hot liquid rock from deep in the earth cools and becomes solid.
<b>man-made rocks</b>	Rocks that are made by humans.
<b>metamorphic rock</b>	Metamorphic rocks are igneous or sedimentary rocks that have been changed by heat or compression.
<b>microscope</b>	Are used to magnify tiny objects.
<b>natural rocks.</b>	Rocks that occur naturally in the environment.
<b>organic matter</b>	Organic matter comes from plants and animals.
<b>properties</b>	A characteristic of a rock.
<b>permeability</b>	Water can go through permeable materials.
<b>sedimentary rock</b>	Sedimentary rock is formed when sediment collects at the bottom of a lake or sea.

### For Further Information

<https://www.bbc.com/bitesize/articles/zsgkdmn>