

In this unit: Pupils will investigate the work of a famous geologist. They will use this as a basis to investigate how fossils are formed and create their own fossils. Pupils will explore different rocks and sort them based on their appearance and deciding which could contain fossils.

Children should know:

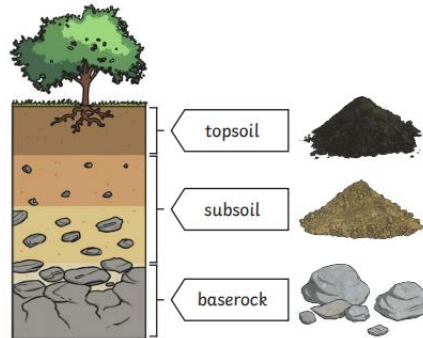
- that soil contains nutrients that help plants to grow.
- that some materials are used for certain purposes because of their properties/

By the end of this unit, children will know:

- that there are three different types of rocks that are formed naturally.
- that igneous rocks are formed when molten magma from a volcano cools and mixes with other minerals. Igneous rocks are strong, hard-wearing and non-porous.
- that sedimentary rocks are formed over millions of years when sediment collects and is compressed. Sedimentary rocks are porous and can be easily worn away.
- that metamorphic rocks are formed when some igneous or sedimentary rocks are heated and squeezed. Metamorphic rocks are strong.
- that fossils are the remains of prehistoric life.
- that fossils are formed when a living thing dies and is covered by sediment over tens of thousands of years.
- that fossils tell us about the Earth and about life from millions of years ago.
- that soils are made from pieces of rock, minerals and decaying plant and water.
- that there are layers to soil.

Pupils could investigate:

- the different types of rocks in the local environment.
- what happens to rocks when they are rubbed together.
- what happens to rocks when they are in water.
- the different types of rocks, based on their properties.
- how fossils are formed.



### Key Vocabulary

crystals	a clear, transparent mineral found in some rocks
decaying	gradually rotting away and being destroyed by a natural process
erosion	the process of being worn away by wind or water
formed	when something is made
fossils	the remains or imprint of a prehistoric plant or animal in a rock
geologist	a person who is an expert in the physical structure of earth and rocks
grains	a tiny, hard piece of something such as sand or salt
igneous	rocks that are formed by molten magma from volcanoes
magma	molten rock that is formed inside the earth
metamorphic	rocks that are formed when their original structure is changed by heat and pressure
mineral	something that is formed naturally within rocks
molten	melted at a really high temperature
non-porous	doesn't have tiny holes to allow liquid or gas through
organic	relating to or made from something living
permeable	allows water and other liquid or gases to pass through
porous	has tiny holes that allow water and gas to pass through
preserve	to protect from decay
rocks	a solid mass made up of minerals
sediment	solid material that settles at the bottom of a liquid
sedimentary	rocks that are formed by sediment
soil	the substance where plants grow
volcano	a mountain from which molten magma escapes
weathered	changed or altered by the weather

Key Questions:

- what is soil?
- what are fossils and how are they formed?
- what are the different types of rock?
- how do we know that sandstone is a type of sedimentary rock?
- how are rocks formed?
- what effect does the wind have on the earth?
- in which type of rocks would you find crystals?