## YEAR 3

# MATERIALS

## ROCK, SOIL AND FOSSILS

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## Vocabulary 🔿

#### Mineral

A natural substance that makes up rock. **Rock** 

Made from one or more minerals.

#### Permeable

Allows water to pass through.

#### Impermeable

Doesn't allow water to pass through.

#### Crystals

Minerals that join together to make igneous rock.

#### Ore

Rock or mineral that contains metal.

#### Igneous

Rock formed from magma.

#### Magma

Hot liquid rock.

Sediment small bits of rock.

**Sedimentary** rock made from sediment e.g. granite, marble, sand, clay, limestone. **Humus:** part of soil made from dead plants and animals – gives soil a dark colour.

#### Fossil

The remains or impression of a prehistoric plant or animal.

The oldest fossils (microscopic life forms) are 3,700 million years old.

# We are learning to:

- 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

### WORKING SCIENTIFICALLY

- Ask relevant questions and use different types of scientific enquiries to answer them.
- Set up simple practical enquiries, comparative and fair tests.
- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment.
- Gather, record, classify and present data in a variety of ways to help in answering questions.
- Report on findings from enquiries, including oral and written explanations, displays o presentations of results and conclusions.

## OVERVIEW

- There are different types of rock e.g. sandstone, limestone, slate etc. which have different properties.
- Rocks can be different shapes and sizes (stones, pebbles, boulders).
- Soils are made up of pieces of ground down rock which may be mixed with plant and animal material (organic matter).
- Some rocks contain fossils. Fossils were formed millions of years ago. When plants and animals died, they fell to the seabed.

## **PRIOR LEARNING**

- Distinguish between an object and the material from which it is made.
- Identify and name a variety of everyday materials.
- Describe the simple physica properties of a variety of everyday materials.
  - Compare and group together a variety of everyday materials.
- Identify and compare the suitability of a variety of everyday materials for particular uses

## SOIL

- Topsoil

Subenil

Weathered rock fragme

Bedrock

Half of soil is air and water. In soil you can find sand, small stones, bits of leaves and roots. There are also millions of microorganisms in the soil which help break down the matter and make the soil healthy and full of life.



## Igneous Obsidian





Sedimentary



Limestone

Marble

Quartzite

Slate



FOSSILS

Igneous rock is very hard, dark and heavy. It often contains crystals or holes but no fossils. It is formed from molten rock.

<u>Sedimentary rock</u> is formed as a result of weathering (the action of water, wind or ice) and erosion.

Metamorphic rock is sedimentary rock changed by heat or pressure – a bit like cooking a cake!

## LET'S THINK LIKE SCIENTISTS

- How are rocks formed'
- Are all rocks the same?
- What rocks can be found where you live?





## Nurturing Lifelong Learning