

Science Y3 Autumn 2 Who was greatest fossil hunter ever to live?

In this unit children will have the opportunity to explore different rocks and fossils. A rock is a solid made up of a bunch of different minerals. Rocks are generally not uniform or made up of exact structures that can be described by scientific formulas. Scientists generally classify rocks by how they were made or formed. There are three major types of rocks: Metamorphic, Igneous, and Sedimentary. The children will also learn about the life of one of the greatest fossil hunters ever to live; Mary Anning.

In this unit children will:

- **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**
- Research how natural and man made rocks are made and their uses.
- Classify rocks in a range of different ways, using appropriate vocabulary.
- Link rocks changing over time with their properties e.g. soft rocks get worn away more easily
- Explain what soils are made of
- Identify plant/animal matter and rocks in samples of soil
- Use secondary sources to find out about Mary Anning who is remembered as being one of the greatest fossil hunters ever to live.
- **Research how fossils are formed**

Prior Learning

EYFS Look closely at similarities, differences, patterns and change.

Year 1 Materials – describe the simple properties of materials

Year 2 Materials – Compare the suitability of materials for a particular use

Cross Curricular Links

History – Objects made in that era

DT - Pottery

Key Vocabulary

- **physical properties** - the properties that help geologists identify rock types using colour, density and crystal form.
- **sediment** – matter that settles to the bottom of the ocean such as sand and pieces of rock.
- **igneous** - rock type formed by the solidification of molten rock or magma.
- **metamorphic** - After its original formation this rock has been altered in structure and composition by heat, and chemically active fluids such as marble.
- **sedimentary** - Formed from the fragments of other rocks that have been weathered, eroded and transported, by water, ice or wind and finally deposited as sediments in water.
- **fossil** - is any preserved remains, impression, or trace of any once-living thing.
- **molten rock** – rock that has been reduced to liquid through heating.
- **permeable** - allowing water to pass through it.
- **Petrologist** – someone who studies rocks.
- **mineral** - solid chemical substances that occur naturally – examples include diamond, quartz, gypsum.

Key Knowledge

- There are three main types of rock – **igneous, sedimentary** and **metamorphic**.
- Igneous rocks are rocks that form when lava cools creating crystal structure rocks such as basalt and granite.
- **Sedimentary rocks** are formed by layers of **sediment** collecting and solidifying, these rocks will have layers throughout such as sandstone and limestone.
- **Metamorphic rocks** are formed when other rocks are affected by great temperature and pressure such as marble and slate.
- **Man made** rocks are often used for buildings and structures for example, concrete and bricks.
- Contained within the soil are millions of **micro-organisms** which help break down the matter and make the soil healthy and full of life.
- **Fossils** are the remains of traces of plants and animals that lived in the dinosaur era.



- **Mary Anning** was born on 21 May 1799. She lived in the English seaside town of Lyme Regis in Dorset.
- **Mary** would spend her time searching the coast looking for what she called '**curiosities**'. Later in her life, as she developed a better understanding of her finds, she realised they were actually **fossils**.

Key Questions

- Where are igneous rocks found?
- What was the biggest fossil Mary Anning ever found?
- What type of rock are fossils found in?
- Is coal a rock?