

Inspiring and enabling our school community to live life to the full



YEAR 3 SCIENCE

Rocks, Soils and Fossils

Our Science curriculum aims to enthuse children and help them to be curious and develop a sense of excitement about the world. Through a range of teaching, learning and extra-curricular opportunities, children will develop scientific knowledge and conceptual understanding to recognise the uses and implications of Science, today and for the future. We encourage children to ask their own questions; predict how things will behave and analyse causes, using Science to explain what is happening.

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:

- Children explore animals' diets and classify them into carnivores, herbivores and omnivores in year 1
- Children know how animals in all habitats depend on plants and each other for food by creating simple food chains in year 2
- In year 3, children explore different types of food, sorting them into different categories and planning meals. They begin to understand that different people may have different energy/nutritional requirements e.g. athletes or explorers.

Key Vocabulary taught in this unit:

Appearance, compare, drain, flood, layer, similar, structure, texture, evidence, identifying & classifying, microscope, crystal/crystalline, erosion, fossil, hardness, organic, palaeontologist, remains, rock, sediment, weathering, comparative, enquiry, identify, observe/observation, test, absorbent, durable, material, property, limestone, chalk, granite, slate, marble, sandstone, pumice, clay, sandy, silty, peaty, chalky, loamy, trilobite, starfish, sea urchin, ammonite.

Key Questions:

Q1: How are rocks different and what rock is this?

Q2: What are rocks used for?

Q3: How are soils different?

Q4: Which soils hold water?

Q5: What is this fossil?

Q6: Who was Mary Anning and how did she become a palaeontologist?

Intent: What do we want the children to know and be able to do by the time they complete this unit?

- 1: Rocks can be compared according to their appearance and simple properties.
- 2: Specific properties of different rocks make them useful for different purposes. Rocks change over time depending on their physical properties.
- 3: Soils are made from rocks and organic material.
- 4: Specific properties of different soils affect whether or not they absorb and hold water.
- 5: Some rocks contain fossils. Fossils are formed when living things are trapped within rocks.
- 6: Human knowledge of the living world has been developed through the lives and work of fossil scientists such as Mary Anning.

Working Scientifically:

- Setting up simple practical enquiries, comparative [and fair] tests.
- Making systematic and careful observations [and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers].
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, [bar charts] and tables.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support their findings

Impact / Outcome: What will the final product / result be?

Children will learn about the methods scientists use to build scientific knowledge about the natural world.

They will learn that scientists make systematic and careful observations in order to build explanations.

They will develop an understanding of the following types of enquiry: identifying and classifying, comparative testing, research using secondary sources.

P4C Inquiry (where appropriate):