

Rocks, Fossils and Soil

Year 3/4

Alston Primary School

Key Vocabulary

Word	Definition	● / ●
Bedrock	The hard rock that rests under soil.	
Erosion	Water, wind, and other natural forces cause rocks and earth to wear away.	
Fossil	The remains of a prehistoric plant or animal embedded in rock.	
Igneous	Rock that has been formed from magma or lava	
Impermeable	Does not allow liquid to pass through it.	
Lava	Molten rock that comes out of the ground is called lava.	
Magma	Molten rock that remains underground.	
Metamorphic	Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat	
Organic Matter	Living and dead plants and animals.	
Permeable	Allows liquid to pass through it.	
Petrologist	Somebody who studies how rocks are made and what they're made from.	
Sedimentary	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.	
Soil	Soil is the loose upper layer of the Earth's surface where plants grow. Soil consists of a mix of organic matter, air, water and minerals.	

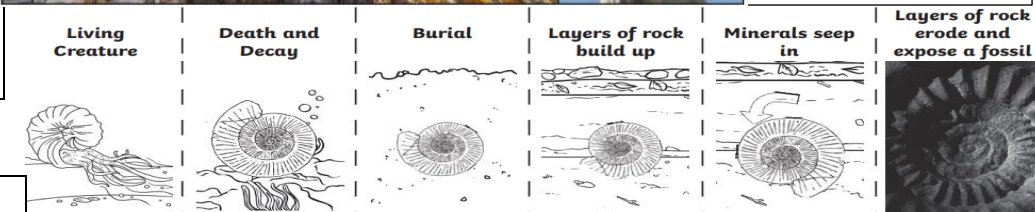
Previous Knowledge

- In Year 1 you learnt to:**
- Distinguish between an object and the material from which it is made.
 - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.
 - Describe the simple physical properties of a variety of everyday materials.
 - Compare and group together a variety of everyday materials on the basis of their simple physical properties.
- In Year 2, you learnt to:**
- Identify and compare the suitability of various everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard.
 - Change the shapes of solid objects made from some materials by squashing, bending, twisting and stretching.

Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
Granite	Sandstone	Quartzite	Concrete
Basalt	Limestone	Slate	Coade Stone

What makes soil?

- Air** - Oxygen, Carbon dioxide, nitrogen, etc.
- Organic Matter** - Living and dead plants and animals.
- Water** - Air and water fill the gaps between particles of soil.
- Minerals** - From broken down rocks.



Key Questions

- What are rocks used for?
- How are fossils made?
- Which rocks are permeable?
- What are the key properties of rocks?
- How/why do rocks change over time?
- How can I find my local bedrock?
- What is soil made from?

Focus Scientist:

Mary Anning (1799-1847) was a British fossil hunter who found fossils of many prehistoric animals. Although not trained as a Scientist, her discoveries changed Science.

Working Scientifically

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up and conducting practical enquiries including comparative and fair tests.
- Making systematic and careful observations by taking accurate measurements using standard units and a range of equipment.
- Gathering, recording, classifying and presenting data in a variety of ways to help answer questions.
- Recording findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables.
- Reporting findings of results and conclusions.
- Using results to draw simple conclusions, make new predictions, suggest improvements and raise further questions.
- Identifying differences, similarities or changes related to scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support findings.