



Park Lane Primary School

Topic: Rocks

Year: 3

Subject: Science

Prior Knowledge:

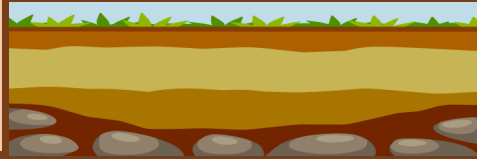
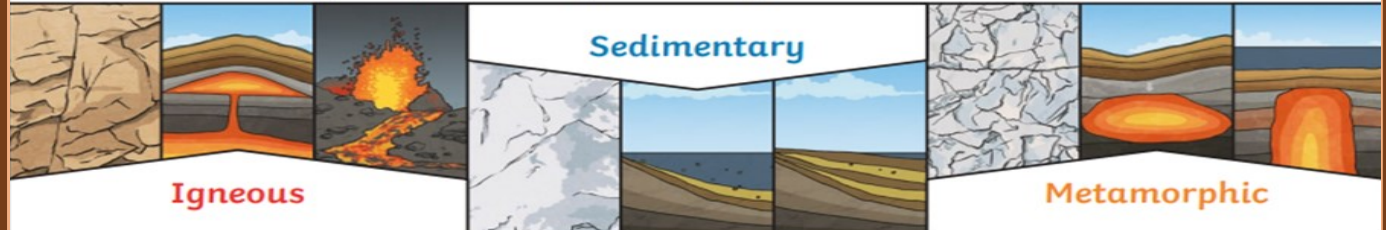
- To be able to talk about what they see, using a wide vocabulary.
- To be able to explore the natural world around them.

Key Knowledge:

- * 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.

Key Knowledge

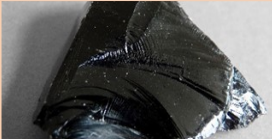
There are three types of naturally occurring rock.



Key Vocabulary

rock	A hard, solid material that is made of minerals and is found in nature.
igneous rock	Rock that has been formed from magma or lava .
sedimentary rock	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.
metamorphic rock	Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure.
magma	Molten rock that remains underground.
lava	Molten rock that comes out of the ground is called lava .
sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
permeable	Allows liquids to pass through it.
impermeable	Does not allow liquids to pass through it.

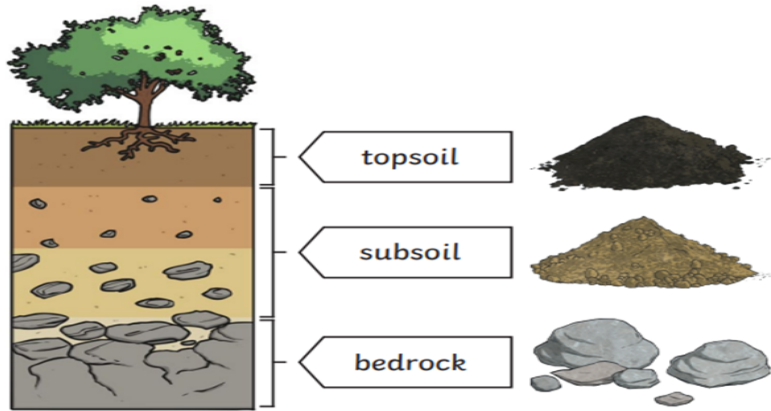
Types of Rocks

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

Soil

Soil is the uppermost layer of the Earth. It is a mixture of different things:

- minerals (the minerals in soil come from finely broken-down rock);
- air;
- water;
- organic matter (including living and dead plants and animals).



Key Vocabulary

Soil

The top layer of the ground, in which plants grow; dirt

Mineral

A solid, natural material that does not come from a living thing.

Weathering

The process of wearing away or otherwise changing Earth's surface, caused by natural forces.

Bedrock

The solid **rock** underneath **soil** or loose rocks; the lowest of three main layers of soil.

Subsoil

The middle layer of **soil**, which contains more rocks than topsoil.

Topsoil

The top layer of **soil**, in which most plants have their roots.

fossil

The remains of a plant or animal that turned to stone over a long period of time. Mostly found in sedimentary rock.

fossilisation

The process by which fossils are made.

palaeontology

The study of fossils.

erosion

When water, wind or ice wears away land.

Mary Anning 1799—1847

Mary Anning is significant because she found the first fossils of prehistoric animals. She found fossils in the Jurassic marine fossil beds on the English Channel at Lyme Regis. When she was just 12, she discovered the skull of a mysterious creature poking out from a cliff. She thought it might be a crocodile, but what she had discovered was actually an ancient reptile called an **ichthyosaur** (which means 'fish lizard'). Her work influenced the way of scientific thinking about the history of the Earth and prehistoric life.



Fossilisation

An animal dies. It gets covered with **sediments** which eventually become rock.



More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth.



Over thousands of years, **sediment** might enter the mould to make a **cast fossil**. Bones may change to mineral but will stay the same shape.



Changes in sea level take place over a long period.



As **erosion** and weathering take place, eventually the fossil becomes exposed.

