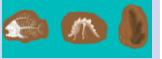




Key Vocabulary

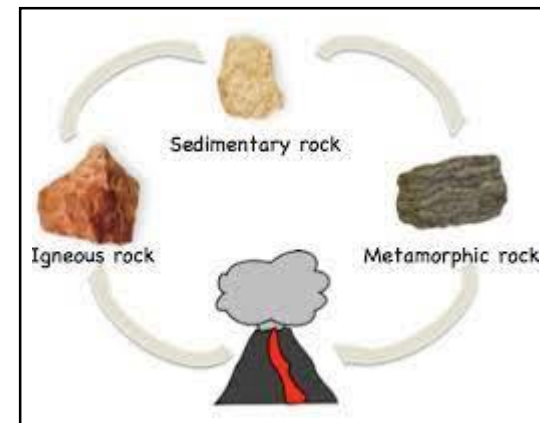
1		Layers- a section of something that alternates with a different material from top to bottom.
2		Texture- the feel or look of a surface.
3		Fossil- the remains or trace of a living animal or plant from a long time ago.
4		Grains- any tiny, hard piece of something.
5		Crystals- when the substance changes from a liquid to a solid, creating a structure that has a repeating pattern of flat surfaces. These reflect light and can make the substance sparkle when looked at from different directions.
6		Marble- a kind of stone that can be cut and polished to a hard, shiny surface.
7		Chalk- a soft, white limestone that comes mostly from tiny sea shells.
8		Clay- moist, stiff earth that is used for making brick, pottery, and tile.
9		Erosion- wearing away of the earth's surface by wind or water.
10		Strata- horizontal parallel layers.
11		Absorb- to take in or soak up.
12		Porous- having pores through which liquid or air may pass.
13		Permeable- a substance which allows gas or liquid to pass or diffuse through it.
14		Impermeable- not allowing the passing of liquid or gas.

Sticky Knowledge

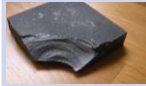
1	Some objects and materials can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay. Rock is a naturally occurring material.
2	The three different rock types: sedimentary, igneous and metamorphic.
3	Sedimentary rocks form from mud, sand and particles that have been squashed together over a long time to form rock. Examples include sandstone and limestone.
4	Igneous rocks are made from cooled magma or lava. They usually contain visible crystals. Examples include pumice and granite.
5	Metamorphic rocks are formed when existing rocks are heated by the magma under the Earth's crust or squashed by the movement of the Earth's tectonic plates. They are usually very hard. Examples include slate and marble.
6	Rocks can be grouped and classified by their characteristics. Rocks can be hard or soft. They have different sizes of grain or crystal. They may absorb water. Rocks can be different shapes and sizes (stones, pebbles, boulders).
7	Soils are made up of pieces of ground down rock which may be mixed with plant and animal material (organic matter). The type of rock, size of rock pieces and the amount of organic matter affect the property of the soil.
8	Some rocks contain fossils. Fossils were formed millions of years ago. When plants and animals died, they fell to the seabed. They became covered and squashed by other material. Over time the dissolving animal and plant matter is replaced by minerals from the water.

Key Questions

1	Can they compare and group together different rocks on the basis of their appearance and simple physical properties?
2	Can they describe and explain how different rocks can be useful to us?
3	Can they describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed?
4	Can they describe in simple terms how fossils are formed when things that have lived are trapped within rock?
5	Can they recognise that soils are made from rocks and organic matter?
6	Can they classify igneous and sedimentary rocks?
7	Can they begin to relate the properties of rocks with their uses?



**Prior Vocabulary**

1		Rock- a solid mass made up of minerals. Rock forms much of the earth's outer layer, including cliffs and mountains.
2		Stone- hard matter formed from mineral and earth material
3		Pebble- a small, smooth rock rounded by the action of water.
4		Boulder- a large, rounded rock.
5		Through- in one side or end and out the other.
6		Soil- the top layer of the earth's surface.
7		Hard- solid, firm, tough.
8		Soft- easy to bend or to shape; not firm or hard.

Prior Knowledge

1	In Years 1 and 2, rocks or stone will have been amongst the materials they will have looked at.
2	Pupils will know about soil because most will have made mud pies or cakes at some stage, or grown plants.
3	Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)
4	Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)
5	Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)
6	Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)
7	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)

Future Learning

1	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6 - Evolution and inheritance)
2	The composition of the Earth. (KS3)
3	The structure of the Earth. (KS3)
4	The rock cycle and the formation of igneous, sedimentary and metamorphic rocks. (KS3)