

Carr Head Primary School - Knowledge Organiser

Science

Rocks

Year 3

Spring 1

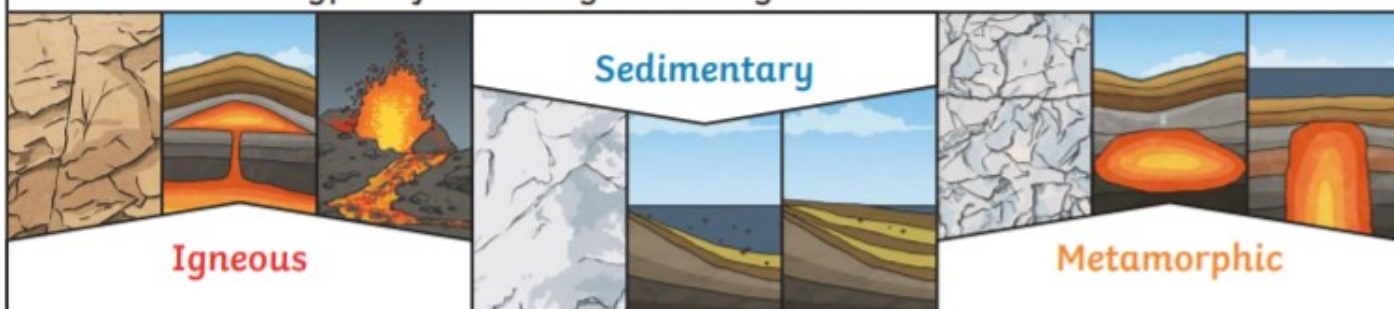
Key Knowledge

How many types of rock are there?	There are three types of naturally occurring rock: igneous, sedimentary and metamorphic .
Natural rocks Igneous	Obsidian, Granite, Basalt.
Natural rocks Sedimentary	Chalk, Sandstone, Limestone.
Natural rocks Metamorphic	Marble, Quartzite, Slate.
Human-Made rocks	Brick, Concrete, Coade Stone.
Which words can I use to discuss the properties of a rock?	Hard, soft, permeable, impermeable , durable, high density, low density. Density measures how 'bulky' the rock is (how tightly packed the molecules are).
What is soil?	Soil is the uppermost layer of the Earth. It is a mixture of different things: minerals which come from finely broken-down rock); air; water and organic matter (including living and dead plants and animals).

Key Vocabulary

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.
fossilisation	The process by which fossils are made.
palaeontology	The study of fossils.
erosion	When water, wind or ice wears away land.

There are three types of naturally occurring rock.



Know how to...

Working Scientifically

- Observe rocks and explore how and why they might have changed over time; use a hand lens or microscope.
- Identify and classify rocks.
- Research and discuss the different kinds of living things whose fossils are found in sedimentary rocks and explore how fossils are formed.
- Explore different soils and identify similarities and differences between them.
- Investigate what happens when rocks are rubbed together or what changes occur when they are in water.
- Raise and answer questions about the way soils are formed.


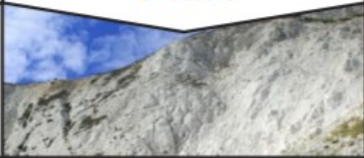



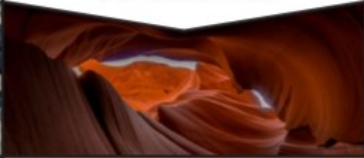



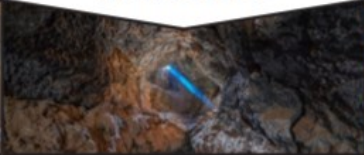


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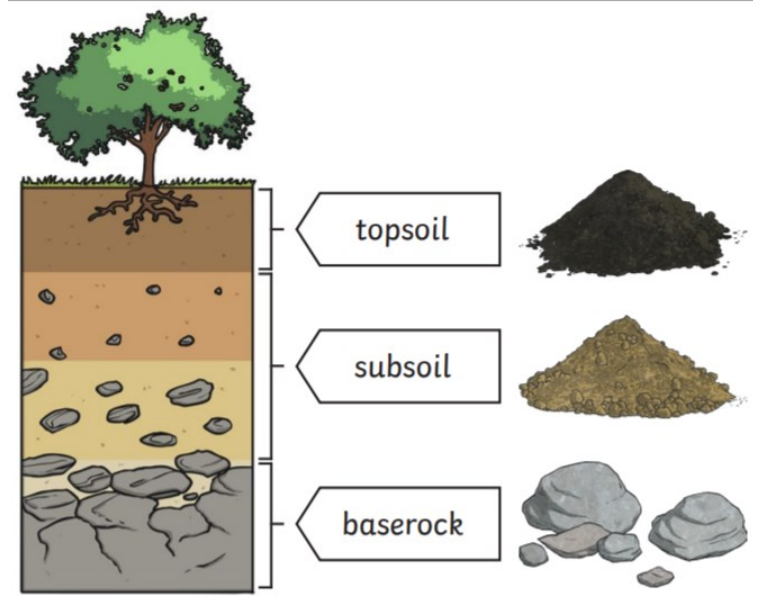
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Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
			
Granite	Sandstone	Quartzite	Concrete
			
Basalt	Limestone	Slate	Coade Stone
			

Soil

Caves are formed when water **permeates** through the base rock and **erodes** some of the rock away. Over thousands of years these caves can become very large.

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.

