

**Key Vocabulary**

<b>igneous rock</b>	Rock that has been formed from <b>magma</b> or <b>lava</b> .
<b>sedimentary rock</b>	Rock that has been formed by layers of <b>sediment</b> being pressed down hard and sticking together. You can see the layers of <b>sediment</b> in the rock.
<b>metamorphic rock</b>	Rock that started out as <b>igneous</b> or <b>sedimentary rock</b> but changed due to being exposed to extreme heat or pressure.
<b>magma</b>	Molten rock that remains underground.
<b>lava</b>	Molten rock that comes out of the ground is called <b>lava</b> .
<b>sediment</b>	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
<b>permeable</b>	Allows liquids to pass through it.
<b>impermeable</b>	Does not allow liquids to pass through it.

**Key Knowledge**

There are three types of naturally occurring rock.

The diagram illustrates the formation of three types of rocks. On the left, **Igneous** rock is formed from magma cooling. In the middle, **Sedimentary** rock is formed from layers of sediment being pressed together. On the right, **Metamorphic** rock is formed from existing rocks under heat and pressure.

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

Some words you might use to discuss the properties of a rock:  
 hard, soft, **permeable**, **impermeable**, durable (meaning resistant to weathering), high density, low density. Density measures how 'bulky' the rock is (how tightly packed the molecules are).

**Key Vocabulary**

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

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

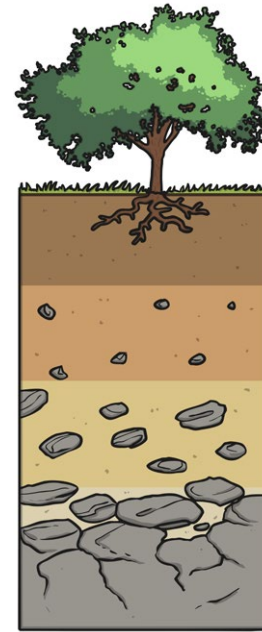


**Key Knowledge**

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).

**Soil**



topsoil



subsoil



bedrock



**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.

