

**Key Vocabulary**

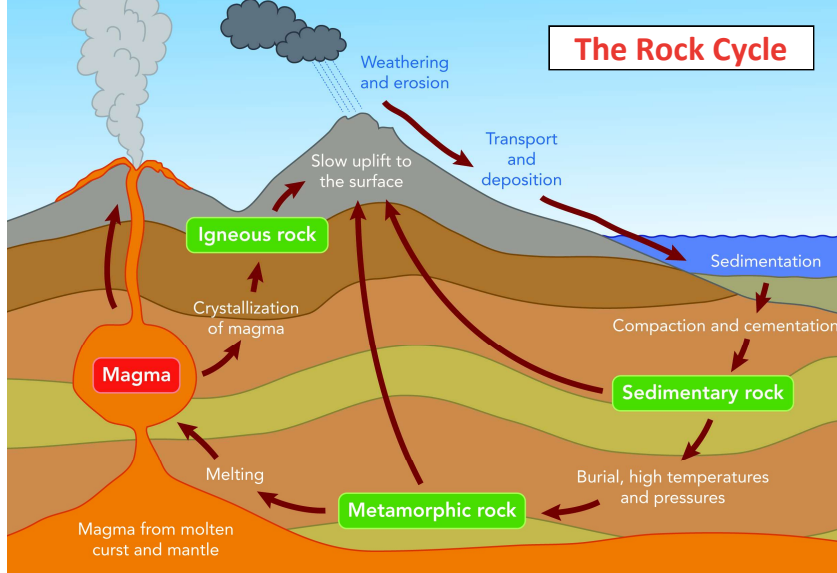
<b>igneous rock</b>	Rock that has been formed from <b>magma</b> or <b>lava</b> .
<b>sedimentary rock</b>	Rock that has been formed by layers of <b>sediment</b> being pressed down hard and sticking together. You can see the layers of <b>sediment</b> in the rock.
<b>metamorphic rock</b>	Rock that started 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. **Igneous** rocks are formed from magma or lava. **Sedimentary** rocks are formed from layers of sediment being pressed together. **Metamorphic** rocks are formed from other rocks under high heat and pressure.

Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
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 base rock and **erodes** some of the rock away. Over thousands of years these caves can become very large.

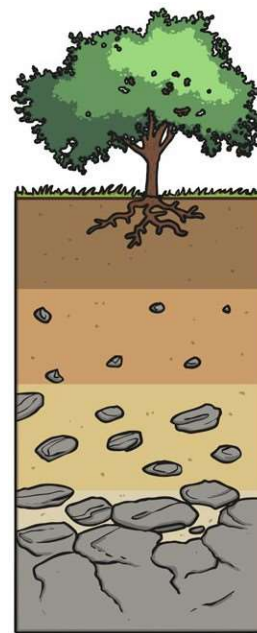


Key Knowledge

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).



**Additions-** something is added  
**Losses-** parts of the soil are removed  
**Transformation-** something changes  
**Translocation-** something moves



topsoil

Is rich in minerals and humus good for seed growth. Worms and rodents live here.



subsoil

Is thick and compact, only the roots of big strong plants can reach here.



base rock/  
bedrock

There is no plant or organic matter down here. Supports all layers above.

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.

