

Key Vocabulary	
<b>rock</b>	Rock is a naturally occurring material. Rocks can be hard or soft. They have different sizes of grain or crystal. They may absorb water.
<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, under the heading 'Igneous', it shows magma underground and lava flowing from a volcano. In the center, under 'Sedimentary', it shows layers of sediment being deposited and then compacted into rock. On the right, under 'Metamorphic', it shows existing rocks being transformed by heat and pressure into new rock types.

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.
<b>peat</b>	Peat is a type of soil that forms in waterlogged areas from partly decayed plants, which means it is high in nutrients. Gardeners add peat to their existing soil to improve its quality.
<b>sandy soil</b>	Sandy soil has anything from 80-100% sand and water drains through quickly.
<b>chalky soil</b>	Water drains quickly through chalk soil so plants cannot get enough moisture.
<b>clay soil</b>	Clay soil is anything from 50-100% clay and is able to hold on to water. It can become waterlogged and muddy. On the upside, clay soils also hold on well to nutrients so fewer artificial fertilisers are needed to support crop growth.

Key Knowledge	
<p>Soil is the uppermost layer of the Earth. It is a mixture of different things:</p> <ul style="list-style-type: none"> <li>minerals (the minerals in soil come from finely broken-down rock);</li> <li>air;</li> <li>water;</li> <li>organic matter (including living and dead plants and animals).</li> </ul>	<p><b>Soil</b></p> <p>The diagram shows a cross-section of the ground. At the top is a green tree with roots extending into the soil. Below the surface, there are three distinct layers. The top layer is dark brown and labeled 'topsoil'. The middle layer is lighter brown and labeled 'subsoil'. The bottom layer is grey and rocky, labeled 'base rock'. To the right of the diagram, there are three small illustrations: a pile of dark soil, a pile of light-colored soil, and several grey rocks.</p>

Fossilisation				
<p>An animal dies. It gets covered with <b>sediments</b> which eventually become rock.</p>	<p>More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth.</p>	<p>Over thousands of years, <b>sediment</b> might enter the mould to make a <b>cast fossil</b>. Bones may change to mineral but will stay the same shape.</p>	<p>Changes in sea level take place over a long period.</p>	<p>As erosion and weathering take place, eventually the fossil becomes exposed.</p>

