

# Year 3 Rocks

## Key Vocabulary

**Rock** – made up of grains that are packed together

**Fossil** – the remains or impressions of a prehistoric plant or animal embedded in rock

**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

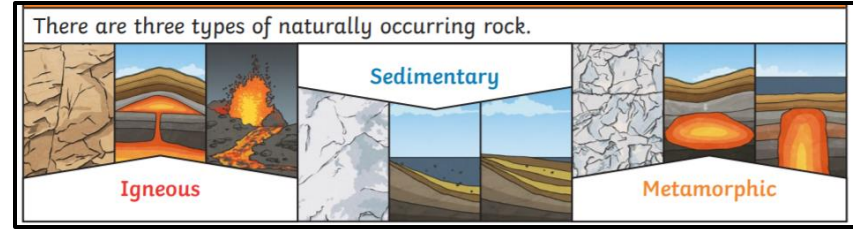
**Impermeable** – does not allow liquid to pass through it.

## Rocks

**IGNEOUS ROCKS** - are very hard, dark and heavy. They are formed when molten magma from a volcano cools down. They tend to have interlocking grains giving the rock a crystalline appearance. EXAMPLES: granite, basalt, obsidian.

**METAMORPHIC ROCKS** - are rocks which have been changed over time by pressure or heat. Fossils can be found in metamorphic rocks if plants and animals have been trapped in the rocks. They are hard but can be damaged by acids. EXAMPLES: slate, marble

**SEDIMENTARY ROCKS** – are formed by sediment (which includes minerals, small pieces of plants and other organic matter) that is deposited over time. The sediment is compressed over a long period of time before it become solid layers of rock



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

## 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.



## Soil

The property of soils is affected by the:

- type of rock
- size of rock pieces
- amount of organic matter in it

<p><b>Peat</b></p>	<ul style="list-style-type: none"> <li>- water-logged</li> <li>- contains partially decomposed plant material</li> <li>- soft and easily compressed</li> </ul>
<p><b>Sandy soil</b></p>	<ul style="list-style-type: none"> <li>- light and dry</li> <li>- lots of air gaps so water drains through quickly</li> </ul>
<p><b>Chalky soil</b></p>	<ul style="list-style-type: none"> <li>- stony and water drains through quickly</li> <li>- found in areas with lots of chalk</li> </ul>
<p><b>Clay soil</b></p>	<ul style="list-style-type: none"> <li>- very sticky when wet</li> <li>- a heavy soil</li> <li>- water does not drain through it quickly</li> </ul>