



**Science Focus:**

Rocks

**Year 3**

**Term:**

## Types of Rocks

There are three main types of rock	<ul style="list-style-type: none"> <li>Sedimentary</li> <li>Metamorphic</li> <li>Igneous</li> </ul>
Sedimentary	Sedimentary rocks are formed from particles of sand, shells, pebbles, and other fragments of material. Together, all these particles are called sediment. Gradually, the sediment accumulates into layers and over a long period of
Metamorphic	Metamorphic rocks are formed under the surface of the earth from the metamorphosis (change) that occurs due to intense heat and pressure (squeezing).
Igneous	Igneous rock is formed when magma cools and solidifies, it may do this above

## How to spot each type of rock

Sedimentary	<ul style="list-style-type: none"> <li>Usually crumbly and allow water through them</li> <li>Made of layers and stuck together with mineral crystals</li> <li>They can contain fossils within their layers</li> </ul>
Metamorphic	<ul style="list-style-type: none"> <li>Usually hard</li> <li>May contain tiny crystals or fossils</li> </ul>
Igneous	<ul style="list-style-type: none"> <li>Very hard</li> <li>Contain crystal</li> </ul>

## What? (Key Vocabulary)

Spelling	Definition/Sentence
Erosion	The gradual wearing away of something.
Magma	Hot fluid below or within the earth's crust from which lava and other igneous rock is formed on cooling.
Solidify	To become solid or hard.
Dissolve	To become part of a liquid

## Heat from the Earth's interior shapes its surface

Below the surface heat from the Earth causes movement in molten rock, which can affect the surface of the Earth. The solid surface of the Earth is constantly changing through rock formation and weathering.

## Diagrams and Symbols

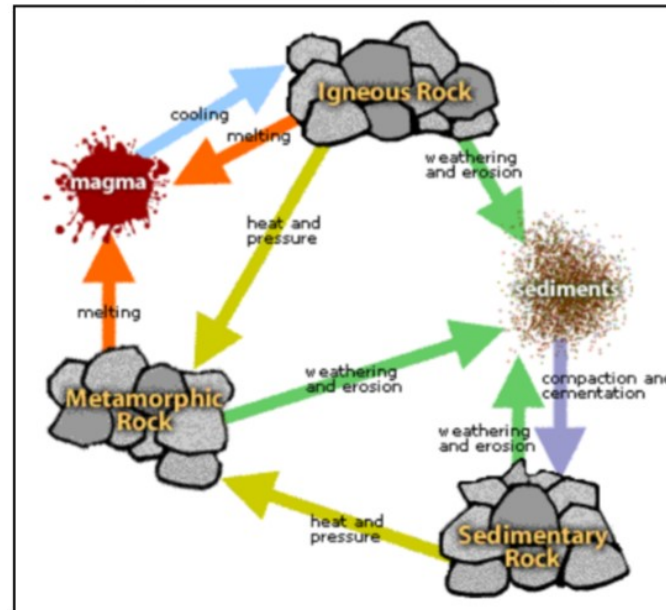


Sedimentary

Metamorphic

Igneous

## The Rock Cycle



## How fossils are formed

How are fossils formed?	<ul style="list-style-type: none"> <li>An animal dies, its skeleton settles on the sea floor and is buried by sediment.</li> <li>The sediment surrounding the skeleton thickens and begins to turn to stone.</li> <li>The skeleton dissolves and a mould is formed.</li> <li>Minerals crystallise inside the mould and a cast is formed.</li> <li>The fossil is exposed on the Earth's surface.</li> </ul>
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## How is soil made

What is soil made from?	<ul style="list-style-type: none"> <li>Minerals (small stone fragments: clay, silt or sand)</li> <li>Organic Matter (decaying plants and animals)</li> <li>Water (which the nutrients in the minerals and the organic matter dissolve into)</li> <li>Air (which fills the gaps between the mineral and organic matter parts).</li> </ul>
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Types of soil	<p><b>Sandy soil</b> is pale in colour with lots of small air gaps. Water drains through sandy soil easily so it usually feels quite dry.</p> <p><b>Clay soil</b> is an orange or blue-ish sticky soil with very few air gaps. Water does not drain through it easily. When it rains, puddles stay on top of clay soil for a long time.</p> <p><b>Chalky soil</b> is a light brown soil. Water drains through it quickly.</p> <p><b>Peat</b> is different from other soils because it does not contain any rock particles. It is made from very old decayed plants and is dark, crumbly and rich in nutrients (chemicals plants need to grow).</p>
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## Working as a Scientist

- Keep a pet rock
- Make your own rock. (Crayon rocks)
- How to erode rocks experiment
- Classify rock types by characteristic using class rock pack on Science shelves