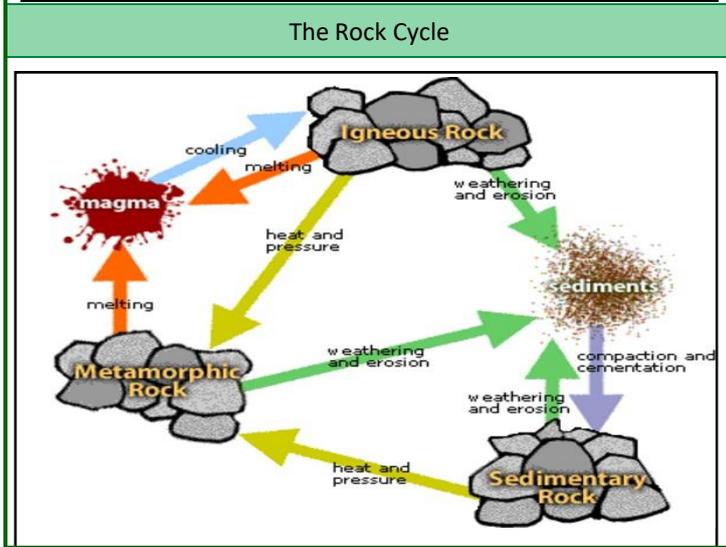


# Uplands Manor Primary School - Science Unit Organiser

<b>Science Topic:</b>	<b>Rocks</b>		<b>Year 3</b>	
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What? (Key Vocabulary)	
Spelling	Definition/Sentence
<b>Erosion</b>	The gradual wearing away of something
<b>Magma</b>	Hot fluid below or within the Earth's crust from which lava and other igneous rock is formed on cooling
<b>Tectonic plates</b>	A layer under the ground made up of large, moving pieces called plate (all of Earth's land and water sit on these plates)
<b>Solidify</b>	To become solid or hard
<b>Dissolve</b>	To become part of a liquid

Diagrams and Symbols		
		
Sedimentary	Metamorphic	Igneous



Recommended Experiments	
A minimum of two experiments should take place during this unit of work with one final written outcome linked to the scientific enquiry skills and approaches used.	
	Describing in simple terms how fossils are formed when things that have lived are trapped within rock
	Comparing and grouping together different kinds of rocks on the basis of their simple physical properties
	Making systematic and careful observations, gathering and recording data when eroding rocks

What? (Key Knowledge)	
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	<b>Sedimentary rocks</b> 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 time hardens into rock.
Metamorphic	<b>Metamorphic rocks</b> are formed under the surface of the earth from the metamorphosis (change) that occurs due to intense heat and pressure (squeezing).
Igneous	<b>Igneous rock</b> is formed when magma cools and solidifies, it may do this above or below the Earth's surface.

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 crystals</li> </ul>

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>

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>
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>

<b>Builds on:</b> learning in Year 2 - Spring - Unit: Uses of Everyday Materials	<b>Learning links</b>	<b>Leads to:</b> learning in Year 4 - Spring - Unit: States of Matter
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