






# Year 3 Knowledge Organiser: Rocks and Soils



Key vocabulary	
Rock	A naturally occurring material made of minerals. They can be different sizes.
Fossil	The bones of <i>dead organisms</i> are sometimes preserved in rocks as <i>skeletons</i> .
soil	Ground up rock mixed with <i>dead plants</i> and animal remains.

## Soils

The property of soils is affected by the:	
<ul style="list-style-type: none"> <li>• type of rock</li> <li>• size of rock pieces</li> <li>• amount of organic matter in it.</li> </ul>	
<b>Peat</b> 	- water-logged - contains partially decomposed plant material - soft and easily compressed
<b>Sandy soil</b> 	- light and dry - lots of air gaps so water drains through quickly
<b>Chalky soil</b> 	- stony and water drains through quickly - found in areas with lots of chalk
<b>Clay soil</b> 	- very sticky when wet - a heavy soil - water does not drain through it quickly




Significant scientists	
<b>Mary Anning (1799-1847)</b> 	Mary Anning was an English palaeontologist and fossil collector. She became known around the world for important finds she made in Jurassic fossil beds in Dorset.
<b>Holly Betts</b> <i>PhD student, University of Bristol</i> Holly is a palaeobiologist. She is researching whether fossils are best for establishing a timescale for recent and ancient episodes in our evolutionary history.	

## Fossil formation



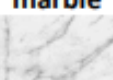
Fossils were formed millions of years ago.	
<b>1</b> Plants and animals died and sank to the seabed.	<b>Animal fossil</b> 
<b>2</b> The soft parts decayed away leaving the hard parts.	
<b>3</b> The hard parts were covered and squashed by many layers of sand and other materials.	<b>Plant fossil</b> 
<b>4</b> The animal/plant matter dissolves and is replaced by minerals, leaving a replica of the original bone called a fossil.	

## Types of rocks


### Sedimentary

<b>sandstone</b> 	<b>limestone</b> 
<b>chalk</b> 	Chalk is used for drawing because it is crumbly and soft.

### Metamorphic

<b>quartzite</b> 	<b>slate</b> 
<b>marble</b> 	Marble is good for gravestones because it does not rub away.

### Igneous

<b>basalt</b> 	<b>pumice</b> 
<b>granite</b> 	Granite is good for worktops because it is hard and does not absorb water.

## Words to describe the appearance of

