



**Prior Knowledge**

This Unit builds on:  
Year 1 Identifying Materials,  
Year 1 Comparing Materials,  
Year 2 Uses of Materials.

Rocks will have been compared to other materials in terms of:  
Rough/smooth  
Hard/soft  
Transparent/opaque  
Float/sink

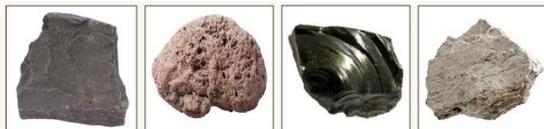


**Key Vocabulary**

- Fossil** - The remains or impression of a prehistoric plant or animal embedded in a rock and preserved.
- Marble** - Hard crystal-like metamorphic form of limestone.
- Chalk** - A white, soft, earthy limestone formed from the skeletal remains of sea creatures.
- Granite** - A very hard crystal-like igneous rock consisting of minerals such as: quartz, mica and feldspar.
- Sandstone** - Sedimentary rock consisting of sand and quartz grains cemented together.
- Slate** - A fine-grained metamorphic rock easily split into flat plates.
- Soil** - The upper layer of earth.
- Limestone** - A carbonated sedimentary rock.
- Absorb** - To take in or soak up.
- Crystal** - A clear transparent mineral.
- Mineral** - A solid naturally occurring inorganic substance.
- Erosion** - The gradual destruction of something.

**Igneous rocks**

Very hard, dark and heavy rocks. They are formed when molten magma from a volcano cools down. They tend to have interlocking grains giving the rock a crystal-like appearance.



Basalt      Pumice      Obsidian      Rhyolite



Scoria      Dacite      Granite      Gabbro

**Metamorphic rocks**

Rocks which have 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.



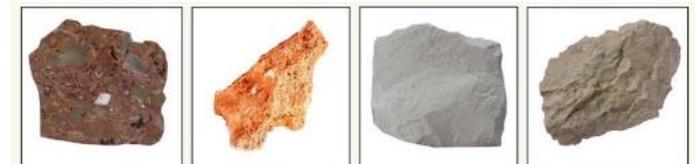
Gneiss      Slate      Quartzite



Schist      Marble      Phyllite

**Sedimentary rocks**

These 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 time before it becomes solid layers of rock.

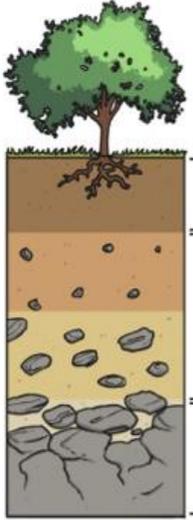


Breccia      Caliche      Chalk      Chert



Coal      Conglomerate      Diatomite      Limestone

### Layers of soil



Half of soil is air and water. In soil you can find: sand, small stones, bits of leaves and roots. There are also millions of micro-organisms in the soil which help break down the matter and make the soil healthy and full of life.

### Fossils

When an animal or plant dies, it usually decays quickly or can be eaten. However, sometimes an animal's body sinks into thick mud where there is oxygen so the remains don't decay and aren't disturbed. The remains rest here for thousands/millions of years with more mud and pressure on them. Minerals in the mud turn the remains to stone.



### Rock Recognition!



### 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.

