

Welton Primary School—Science Knowledge Organiser



Year: 3

Rocks

Chemistry





What should I already know?

- I can distinguish between an object and the material from which it is made.
- I can identify, name and give properties of a variety of everyday materials.
- I can compare and group a variety of everyday materials on the basis of physical properties, comparing their suitability for different purposes.

Vocabulary

rock	A solid mass made up of minerals.
stone	A solid mass of minerals like a rock.
pebble	A small, rounded stone.
soil	Substance on surface of the earth
boulder	A large, rounded piece of rock.
grain	A tiny hard piece of sand or salt.
crystals	Quartz that is colourless or clear.
layer	Form one thickness of something.
texture	How something feels when touched.
absorb	Soak up or take in something.
porous	It lets water through.
peat	Dark coloured material that is the remains of plants.

Classification of Rocks

Sedimentary	Igneous	Metamorphic	Meteorite
<ul style="list-style-type: none"> • These rocks are formed when small particles of minerals are washed down rivers. They become squashed at the bottom of lakes and are formed over millions of years as more sediment is squashed on top. • They are porous and can be easily worn down. 	<ul style="list-style-type: none"> • Igneous rocks are formed from magma: a hot underground liquid. • Magma can cool under the earth's surface and form rocks or flow out in volcanic eruptions as lava. It mixes with other minerals to form rocks on the surface. • Many igneous rocks are non-porous. 	<ul style="list-style-type: none"> • These rocks are formed when rock becomes warm enough to bend and mould, but not enough to become a liquid. • Metamorphic rocks can sometimes form interesting shapes, depending upon how they have been moulded. • Normally metamorphic rocks are non-porous. 	<ul style="list-style-type: none"> • Meteorites are rocks that have landed on Earth from space. • These rocks were not formed on Earth. • This means that scientists are able to study planets without ever actually going there. 

Fossils

A fossil is the preserved remains of something that was once living. The process in which fossils are formed is called fossilisation. Most living things don't become fossilized—it takes special conditions!

1. After an animal dies, the soft parts of the body rot away leaving just the hard things, like teeth and bones.
2. The remains are buried by sediment.
3. As more layers of sediment build on top, the sediment around the remains begins to harden into rock.
4. Water seeps through, dissolving the bones. Minerals replace them, creating a rock replica of the bone called a fossil!

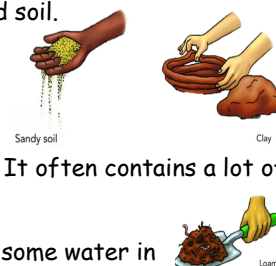


Soil

Soil is a combination of different materials, including ground up pieces of rock, particles from dead plants and animals, air, and soil.

These mix together to create different soil types:

- Sandy soil is dry soil with lots of air found in it.
- Clay soil is sticky and doesn't have much air in it. It often contains a lot of water.
- Loam soil is somewhere between the two - it has some water in it as well as some air. It is the best type of soil to grow plants in.



Rocks

marble	A type of limestone that can be polished.
chalk	A soft, light coloured rock.
granite	A very hard rock used in buildings and statues.
sandstone	A sedimentary rock made of compacted sand.
slate	A blueish grey rock that splits into layers.

Sedimentary Rocks

Metamorphic Rocks

Igneous Rocks

Sandstone

Chalk

Limestone

Marble

Slate

Gneiss

Phyllite

Basalt

Granite

Pumice