LKS2 Science Knowledge and Skills Organiser

Caveman to Iron Warrior

Key Knowledge and Skills

Different kinds of rocks

There are three main types of rocks, which are classified by how they are formed: sedimentary, igneous and metamorphic.

Limestone

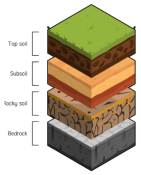
Slate

Pumice

Rocks have different appearances and properties. We will be performing different tests on the properties:
Permeability, density and durability.
Depending on their properties, different rocks have different uses. Slate is suitable for a roof because it is not permeable; chalk is good to draw with because it is soft.

Soils

Soil is formed from pieces of rock and organic matter. There are different kinds of soil and different layers. Fossils are preserved skeletons found in the ground.

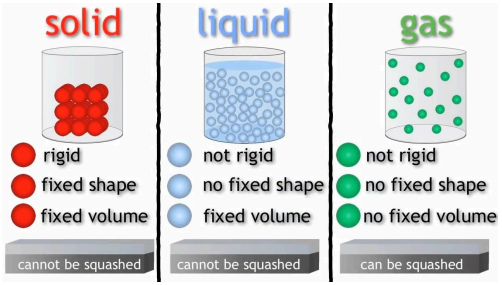


Skills

Taking accurate measurements, making observations, testing the properties of materials. Using fair testing.

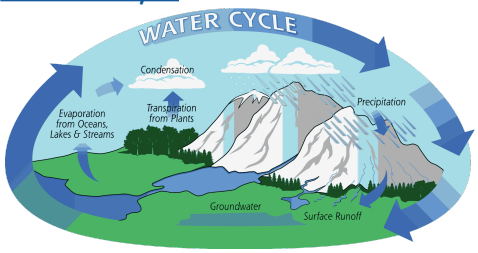
Solids, liquids and gases

There are three different states of matter:
Solids, liquids and gases. Different materials have different states of matter at different temperatures.



When water changes into a solid, we call this **freezing**; when ice turns into a liquid, this is **melting**. When water heats and turns into a gas, this is **evaporation;** when water cools and turns from a solid to a liquid this is called **condensation.**
These processes can be seen in the water cycle:

The Water Cycle



Skills:

To plan tests to answer scientific questions, to make predictions, to record findings in different ways.

Key Vocabulary

Word	Definition
igneous	Rock that has formed from cooled molten lava from the earth
metamorphic	Rock that has formed under pressure
sedimentary	Rock formed from crushed rock and living organisms
permeability	Allowing water to pass through
density	The quality of how dense or compact an object it-dense objects sink in water.
durability	Durable rocks are very strong and do not wear easily e.g. granite;
fossils	These are preserved skeletons and imprints of living creatures and plants
solid	When the atoms are held in a fixed, rigid shape and the bonds are strong/
liquid	When the atoms are held in a non fixed shape, though they have a fixed volume.
gas	When atoms have a little or no bons and therefore have no fixed shape or volume.
evaporation	The change of states when heating from a liquid to a gas
melting	When a solids is heated and becomes a liquid
freezing	When a liquid is cooled and becomes a solid.
Condensing	When cooled a gas becomes a liquid.

Famous Scientists

William Smith and Rev Frederick Kendeall. These were recognised as the first geologists in Scarborough.. They studied rock formations in the country.

Mary Anning
She was famous for her studies of fossils. She was a pioneer of her time.

John Dalton 1766 - 1844
In 1803 he proposed that matter is made up of atoms. When the bonds are broken, states of matter change.