



Y3 Science - Rocks



Rocks like brick and concrete are man-made. Slate, granite, marble and many more are natural.



Rocks

If you dig down anywhere on Earth you will find rock. Rocks can be hard, soft, permeable or impermeable, depending on what type of rock it is. Slate, marble, chalk and granite are all different types of rock and all have different uses.



Mary Anning was a fossil hunter from Lyme Regis in Devon. She was born in 1799. When she was 12, she discovered the fossil of an ichthyosaurus. She is known as a pioneer of palaeontology today.



rock - natural, solid material

fossil - preserved remains of a plant or animal

soil - rock, minerals, dead plants

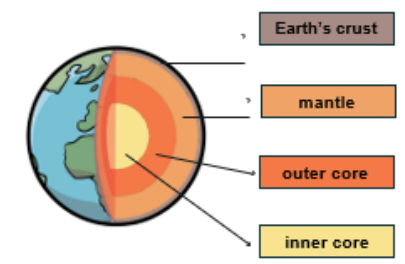
decay - to rot

Igneous - rock from cooled magma

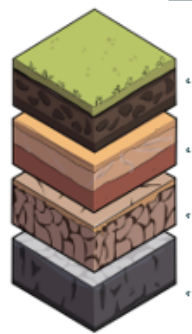
Metamorphic - rock from heat or pressure change

Sedimentary - rock from layers of sediment

Under our feet



Soils



Top soil which is full of nutrients and contains rotting plants and organisms.

Subsoil which is tightly packed soil, lighter in colour to the top soil as it contains fewer nutrients.

Rocky soil which is rocks that are breaking down in to soil.

Bedrock which is just rock.

Types of rock

Igneous rock - When a volcano is about to erupt, magma comes to the surface. As it flows down the volcano and across the land, it cools and turns back into a solid. This forms rock.

Sedimentary rock - When a river reaches the sea, pieces of broken rock settle at the bottom of the sea to form a layer of sediment. Over millions of years, more and more layers of sediment settle on top and squash it down until it turns into rock.

Metamorphic rock - Metamorphic rock is formed from other rocks that are changed because of heat or pressure.



Y3 Science - Light



Scientist

Justus Von Liebig

He was a German scientist that invented the mirror.

Shadow – an area of darkness where light is blocked.

Opaque – describes objects that do not let any light pass through them.

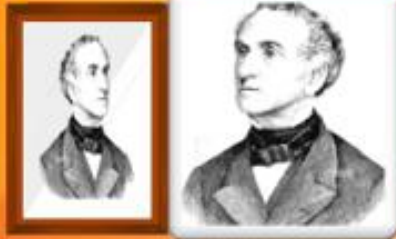
Translucent – describes objects that let some light through, but scatter the light so we cannot see through them probably.

Transparent – describes objects that let light travel through them easily, meaning that you can see through the object.

We need **light** to be able to see things. **Light** travels in a straight line. When **light** hits an object, it is **reflected** (bounces off). If the **reflected light** hits our eyes, we can see the object. Some surfaces and materials **reflect light** well. Other materials do not **reflect light** well. Reflective surfaces and material can be very useful...

Light sources

A light source makes light. The sun and other stars, fires torches and lamps all make their own light, so they are examples of sources of light.



Key Vocabulary

light	A form of energy that travels in a wave from a source.
light source	An object that makes its own light .
dark	Dark is the absence of light .
reflection	The process where light hits the surface of an object and bounces back into our eyes.
reflect	To bounce off.
reflective	A word to describe something which reflects light well.
ray	Waves of light are called light rays . They can also be called beams.

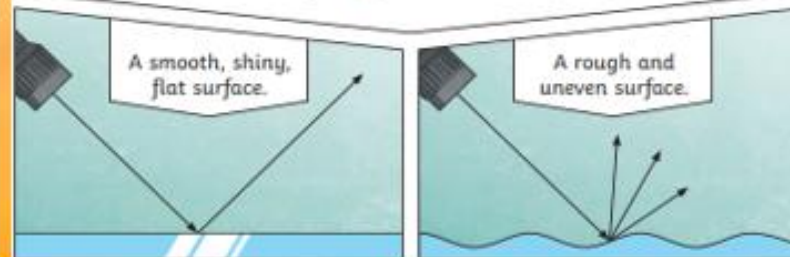


The Sun



The Sun is the biggest light source we use. It is a giant ball of hot, burning gas. It can damage our eyes if we look directly at it. We should protect our eyes from the Sun by wearing sunglasses and a hat.

The surfaces that reflect **light** best are smooth, shiny and flat.



When the **light** source is directly above the object, the **shadow** will be directly underneath.



midday

When a **light** source is to one side of an object, the **shadow** will appear on the opposite side. The **shadow** will also be longer.



sunset