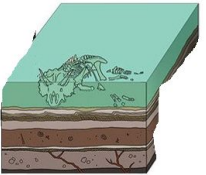


The process of fossilisation:



1) The organism dies. If in the sea, the body lands on the seabed. If on the ground, the body falls into the ground.



2) The organism is buried in loose material, called **sediment**. This needs to happen soon after the organism's death or a fossil will not be formed.



3) Over millions of years, the **sediment** is gradually compressed. It forms new rock called **sedimentary rock**. The shape of the animal is preserved inside the rock.



4) The rock containing the fossils is exposed, either naturally or deliberately. The fossils are used by palaeontologists to help them find out about animals that lived millions of years ago.

**Significant person:**

Mary Anning was a significant **geologist**. She discovered what turned out to be **the first complete Ichthyosaur fossil to be found**. This was an important discovery because it challenged the way scientists had thought the natural world had developed.



**Year Three Materials  
Rocks**



A geologist is a scientist who studies what the Earth is made from, including rocks.

There are three types of rock - sedimentary, igneous and metamorphic.

Rocks are made up of **minerals**.

Words that can be used to describe the properties of rocks: hard (measured using Mohs), soft, permeable, impermeable, crystalline, durable (resistant to **weathering**)

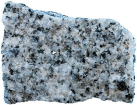







Sedimentary rocks are formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.

Metamorphic rocks started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure.

Igneous rocks are formed when **lava** cools.

Fossil fuels are dug up from the ground. They give us non-renewable energy.

Soil is the uppermost layer of the Earth. It is a mixture of minerals, air, water and organic matter (living and dead plants and animals)

Natural rocks			Artificial - not rocks
igneous	sedimentary	metamorphic	
granite	sandstone	marble	brick - not a rock
			
basalt	chalk	slate	Concrete - not a rock
			

**Key vocabulary**

Word	Definition
Earth's crust	The outer layer of the Earth. The Earth's crust is always moving and is made of huge plates of solid rock. It is made of sedimentary, metamorphic and igneous rocks.
fossil	The hardened remains or imprint of an ancient living thing which has been preserved in rock.
lava	Hot, molten rock that comes out of the Earth through a volcano.
magma	Hot, molten rock below or within the Earth's crust. Magma forms igneous rock when it cools.
mantle	Found underneath the Earth's crust. Made of rock that is so hot that it has melted.
mineral	A natural material found on Earth that is not from plants or animals. Rocks are made up of minerals.
sediment	Natural solid material that is moved and dropped off at a new place by wind or water e.g. sand
permeable	Something that lets liquid and gas flow through it.
weathering	Being worn down by the air.