



### What should I know already?

- Identify and compare a variety of everyday materials, including rocks.
- Compare these materials on the basis of their simple physical properties.
- These materials are used for certain things because of their properties.
- Soil contains nutrients and these help plants to grow.

### Things I need to know

#### 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.

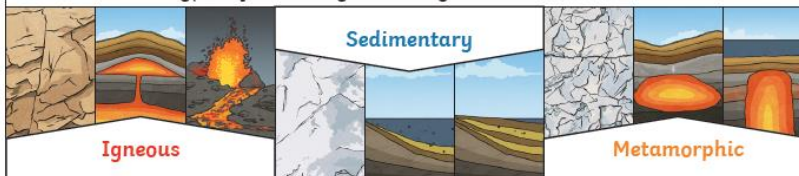
As **erosion** and weathering take place, eventually the fossil becomes exposed.



- There are three types of rocks that are formed naturally; igneous, sedimentary and metamorphic.
- Bricks and concrete are not rocks because they are man-made.
- Fossils are the remains of prehistoric life.
- Soil is made from pieces of rock, mineral, decaying plants and water.

### Diagrams

There are three types of naturally occurring rock.



Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
Granite	Sandstone	Quartzite	Concrete
Basalt	Limestone	Slate	Coade Stone

Types of Fossils			Soil
Body Fossils	Trace Fossils	Chemical Fossils	
The remains of animal or plants	Show animal activity	Matter containing carbon	Soil is the uppermost layer of the Earth. It is a mixture of different things: <ul style="list-style-type: none"> <li>• minerals (the minerals in soil come from finely broken-down rock);</li> <li>• air;</li> <li>• water;</li> <li>• organic matter (including living and dead plants and animals).</li> </ul>
Mould Fossils	Trackways	Fossil Fuels	
Cast Fossils	Coprolites		
Replacement Fossils			
Whole Body Fossils			

### Vocabulary

- Igneous rock**- Rock that has been formed from magma or lava.
- Sedimentary rock**- rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.
- Metamorphic rock**- Rock that started out at igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure.
- Magma**- Molten rock that remains underground.
- Lava**- molten rock that comes out of the ground is called lava.
- Sediment**- Natural solid material that is moved and dropped off in a new place by water and wind, e.g. sand.
- Permeable**- allows liquids to pass through it.
- Impermeable**- does not allow liquids to pass through it.
- Mould fossil**- Mould fossils form when all the parts (including the bones) have decayed and all that is left is the mould of the animal. (it's the space where the living things once was.)
- Cast fossil**- Cast fossils form from mould fossils as the mould fossil is filled up with sediment- so they are not made up of the original matter of the animal or plant.
- Fossilisation**- The process by which fossils are made.
- Palaeontology**- the study of fossils.
- Erosion**- When water, wind or ice wears away land.