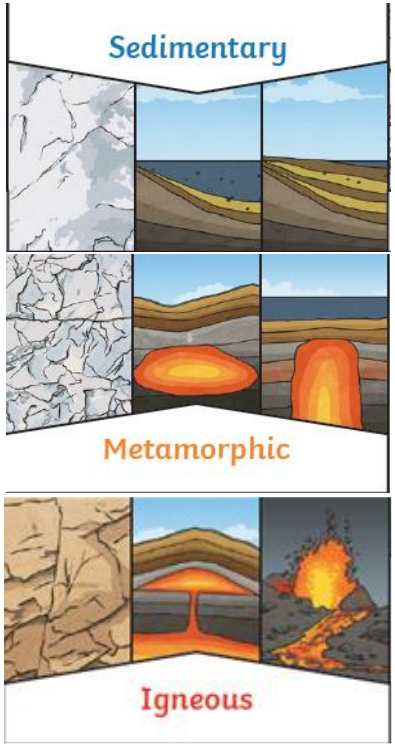
Year 3 Science – Rocks.

Curriculum Objectives
Compare and group together different kinds of rocks based on their appearance and simple physical properties.
Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
Recognise that soils are made from rocks and organic matter.

Selected Vocabulary and Definitions	
igneous	Rock formed by magma or lava
sedimentary	Rock formed by layers of sediment being pressed down hard and the parts sticking together.
metamorphic	Rock that started off as igneous or sedimentary but changed due to extreme heat or pressure.
magma	Molten rock that is underground.
lava	Molten rock that has come out of the ground.
sediment	Matural solid materials that has moved and been dropped off in a new place eg. sand
permeable	Solid that allows liquid to pass through.
impermeable	Solid that doesn't allow liquid to pass through it.
fossil	Any preserved remains, impression, or trace of any once-living thing from a past geological age.
palaeontology	The study of fossils.
organic	Is decaying plant or animal material.
erosion	When water, wind or ice wear away land.

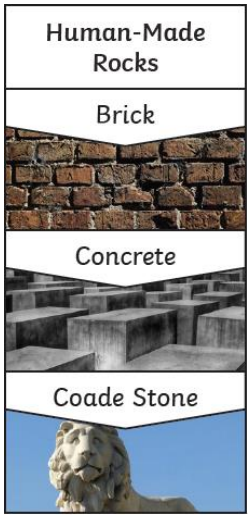
Key Questions
What are the three main types of rocks?
What are fossils?
How are fossils formed?
What is soil made up of?
What is organic matter?

Three types of naturally occurring rocks.



Fun Facts

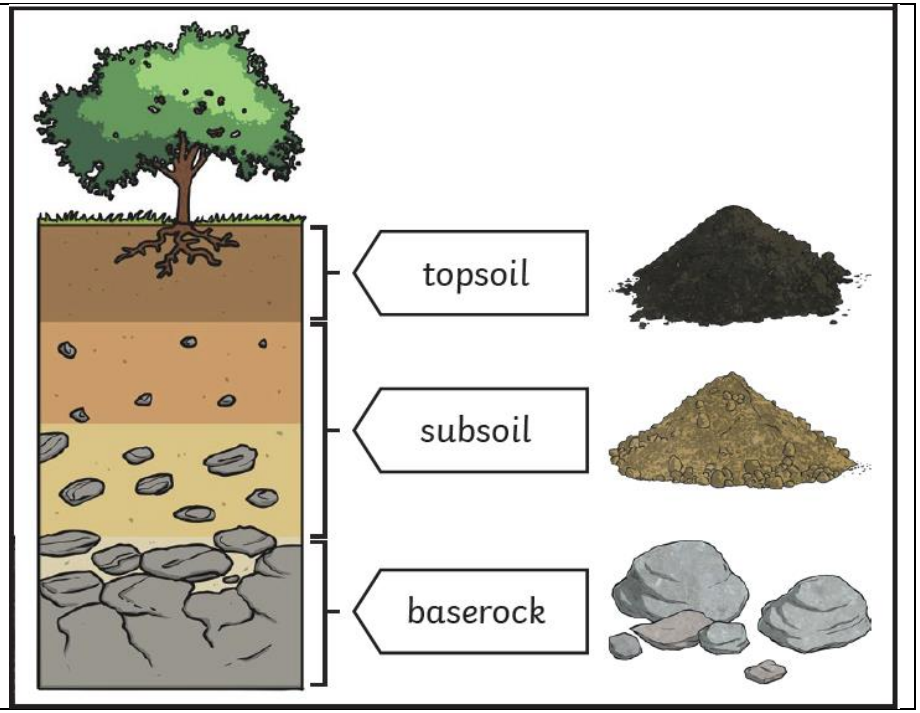
The biggest dinosaur fossil found is a Sauroposeidon and was as heavy as 9 elephants.
4% of your body is made up of minerals and rocks.
Prehistoric footprints have been discovered in the sediment beds on Formby beach.
Ammonite, belemnite and trace fossils can all be found within the limestone floor slabs across the terminal building at Liverpool John Lennon Airport.



What is soil?

Soil is the top layer of the earth above the baserock and is a mixture of many things including:-

- Minerals (from finely broken down rock)
- Air
- Organic matter
- Water



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.