Science

Rocks and Soils

Year 4

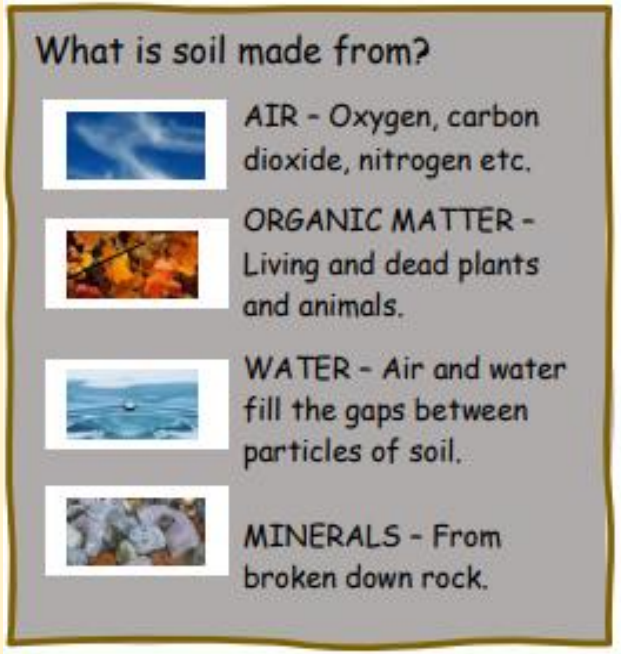
Key Vocabulary

WORD	DEFINITION
Erosion	The gradual destruction and removal of rock or soil by rivers, the sea or the weather
Fossils	The remains of animals or plants that have been preserved in rock.
Geologist	A scientist who studies the surface of the Earth, especially rocks.
Impermeable	A property of a material that prevents water from passing through.
Lava	Molten (liquid) rock once it has reached the Earth's surface.
Magma	Molten rock stored below the Earth's surface.
Micro-organism or microbe	A tiny living thing which you can only see if you use a microscope.
Minerals	Metals or other substances found in nature, especially in rocks.
Organic	Organic substances are produced by or found in living things.
Permeable	A property of a material that allows water to pass through.
Saturated	Soaked; containing the maximum amount of water possible.
Sediment	Solid 'bits' of material, especially soil and pieces of rock, that have been carried along by water, ice or wind and then left (deposited) somewhere.

Granite		Igneous
Limestone		Sedimentary
Chalk		Sedimentary

Sandstone		Sedimentary
Slate		Metamorphic
Marble		Metamorphic

Key Knowledge



Soil is made from tiny particles of rocks, organic material (rotting plants and animals), air and water.

Living organisms, including worms and micro-organisms, live in the soil and help to keep it healthy.

Clay soil is usually sticky and has few air gaps, which means water cannot drain through this soil easily.

Chalky soil is usually light-coloured, stony and allows water to drain quickly.

Sandy soil is usually pale-coloured with large, grainy particles which means water drains through easily.

Types of Rocks - There are three main types of rock

Igneous	Metamorphic	Sedimentary
Far underground the temperature is so hot, rock melts into a liquid (molten rock). When the liquid is underground it is called magma and it can cool to form igneous rock. 	Metamorphic rocks are formed under the surface of the earth from the change (metamorphosis) that occurs under the intense heat and pressure (squeezing). 	These rocks form under the sea. Rocks are broken into small pieces by wind and water (erosion). They settle as mud, sand, minerals and even remains of living things. Over time layers build up and the pressure turns this sediment into rock.