Science – Year 3

Spring 1 - Rocks and Soil

Key Vocabulary	Definition
Rock	Natural substance, made up of one or more minerals.
Fossil	Trace or remains of an ancient living thing.
Igneous rock	Rock that has been formed by the cooling and solidifying of magma or lava.
Metamorphic rock	Rock that was once igneous or sedimentary but has changed under the influence of heat and pressure.
Sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together.
Peat	Formed when plant material does not fully break down in acidic conditions, with no air.
Sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
Lava	Molten rock (magma) that comes out of the ground is called lava.

There are 3 main types of rock:

Igneous rock

Pumice

Obsidian

Granite

Sedimentary rock

Sandstone

Limestone

Metamorphic rock

Marble

Slate

The Earth has 3 layers.

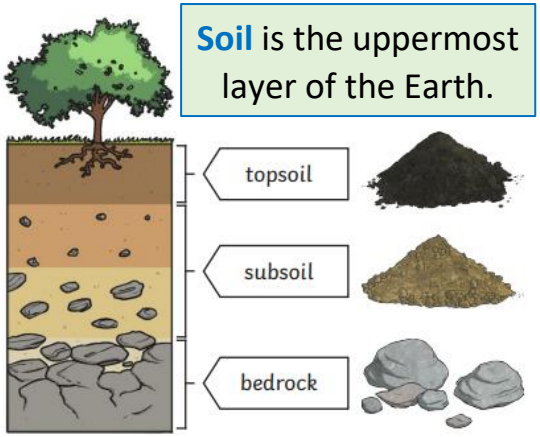
Crust

Mantle

Core

When a rock lets water through, the rock is said to be **permeable**.

When a rock doesn't let water through, the rock is said to be **impermeable**.



Soil is the uppermost layer of the Earth.

Soil is made from…

Air(oxygen, carbon dioxide, nitrogen etc.)

Organic matter(Living and dead plants and animals)

Water (air and water fill the gaps between particles of soil)

Minerals (from broken down rock)

There are three main types of soil:

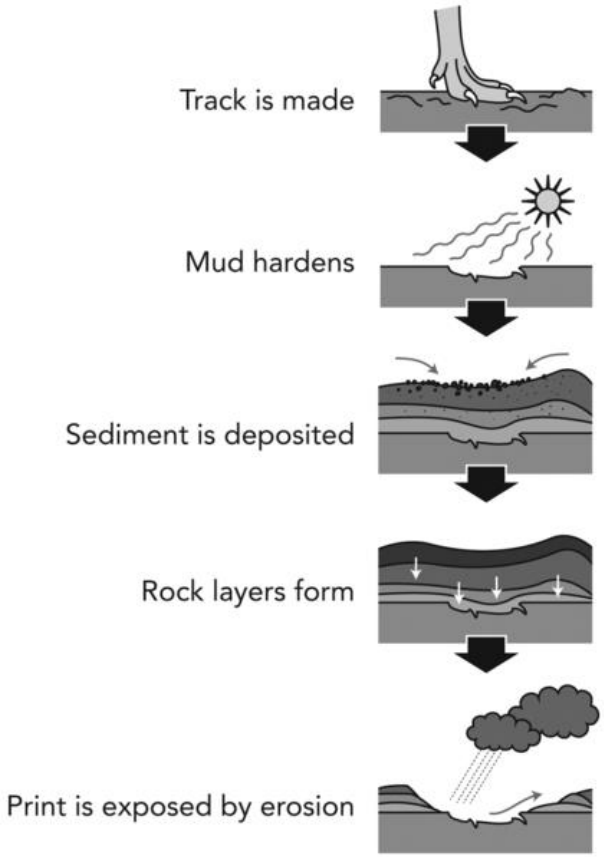
Sand

Silt

Clay

Loam soils are composed of a mixture of clay, sand and silt.

Fossil formation



Sutton is mostly made up of **sedimentary rock**, with chalk and clay.

	Sedimentary	Igneous	Metamorphic
Hardness	The softest rock type.	Hardest type of rock.	Harder than sedimentary rocks.
Permeability/ Layers	Has layers and is permeable.	No layers/gaps (impermeable).	Has thin layers.
Do they contain fossils?	Fossils trapped in them.	No fossils because they would melt in the hot magma.	Fossils are usually squashed out of shape.
Appearance	Small grains of tiny rock particles and bits of dead animals and plants.	Interlocking crystals that fit very tightly together, making the rock very hard.	Interlocking crystals arranged in layers.
Structure