

## Key Vocabulary:

**Rock** – made up of grains that are packed together

**Mineral** – solid chemical substances that occur naturally

**Fossil** – the remains or impressions of a prehistoric plant or animal embedded in rock

**Igneous** – lava or magma that has turned from liquid to solid (forming a rock)

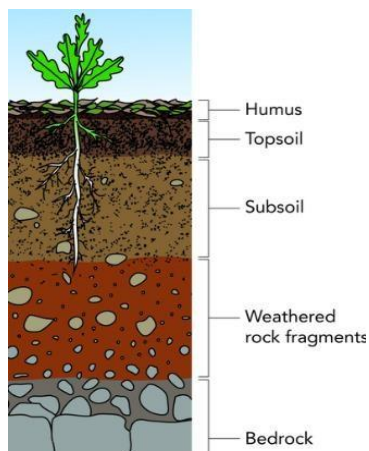
**Metamorphic** – an igneous or sedimentary rock that has been changed by extreme heat or pressure

**Sedimentary** – a rock formed from the build-up of sediment at the bottom of rivers or oceans

**Sediment** – dead animals, plants or pieces of rock that settles to the bottom of a liquid.

**Magma** – liquid rock inside a volcano

**Lava** – liquid rock which flows out of a volcano (ranges from 700 to 1200 degrees)



### Layers of Soil:

Half of soil is air and water. In soil you can find sand, small stones, bits of leaves and roots. There are also millions of micro-organisms in the soil which help break down the matter and make the soil healthy and full of life.



**Holy Family Halewood**

**Year 3 & 4 Science**

**Rocks**



## Learning Objectives:

- To be able to identify naturally occurring rocks and explore their uses
- To be able to group rocks according to their characteristics
- To be able to plan, carry out and evaluate experiments to compare rocks
- To explore soil and how it is formed (rocks and organic matter)
- To describe in simple terms how fossils are formed
- To identify fossilised remains as things that have lived, now trapped within rock

## Types of Rocks:

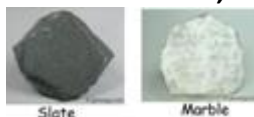
**IGNEOUS ROCKS** - are very hard, dark and heavy. They are formed when molten magma from a volcano cools down. They tend to have interlocking grains giving the rock a crystalline appearance.

**EXAMPLES: granite, basalt, obsidian.**



**METAMORPHIC ROCKS** - are rocks which have been changed over time by pressure or heat. Fossils can be found in metamorphic rocks if plants and animals have been trapped in the rocks. They are hard but can be damaged by acids.

**EXAMPLES: slate, marble**



**SEDIMENTARY ROCKS** – are formed by sediment (which includes minerals, small pieces of plants and other organic matter) that is deposited over time. The sediment is compressed over a long period of time before it becomes solid layers of rock. **EXAMPLES:**

**sandstone, limestone, flint, chalk**



### Fossils:



### Fossils:

When an animal or plant dies, it usually decays quickly or can be eaten. However, sometimes an animal's body sinks into thick mud where there is oxygen so the remains don't decay or aren't disturbed. The remains rest here for thousands/millions of years with more mud and pressure on them. Minerals in the mud turn the remains to stone.