Rocks, Relics and Rumbles

What should I already know?

- Name physical features such as hills, rivers and mountains. Know that they form naturally and change over time.
- Materials can be natural such as rock, soil and sand and others are man made such as brick, glass and concrete.
- Erosion is caused by wind and water.
- An environment can change over time due to erosion or human activity.
- Fossils are created over many, many years.

Linked Science knowledge for the topic

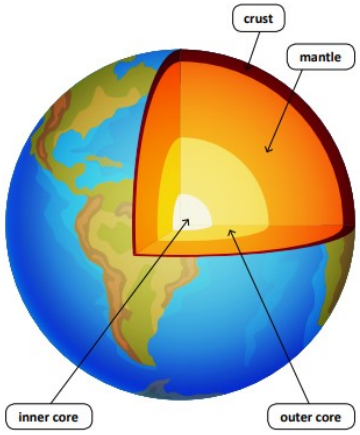
- Soils are made from tiny pieces of eroded rock, air and organic matter.
- There are a variety of naturally occurring soils including, clay, sand and silt.
- Different areas have different soil types.
- Soils are made up of organic mater (dead plants and animals) and rocky particles including sand, silt or clay.

Vocabulary	
erode	Be gradually **worn away**.
impermeable	Not allowing waters to pass through. Also described as **waterproof**.
lava	**Hot, molten rock** that comes out of a volcano.
liquid	A material that is runny, **can be poured** easily and takes the shape of its container.
magma	**Hot molten rock** found in the Earth's mantle.
molten	**Metal or rock that is in a liquid state** because of great heat.
Ring of Fire	**Area around the Pacific Ocean** where most earthquakes and volcanic eruptions occur.
tectonic plate	**Large slow moving piece of rock** that makes up the Earth's crust.
vent	An **opening in the Earth's crust** that lava escapes through.
volcanic eruption	The **sudden explosion** of lava, gas, ash and rock out of a volcano. Eruptions can be **explosive** or **effusive**..

By the end of the topic we will be able to...

Identify they layers of the layers of the Earth.
Give an explanation of tectonic plates and how plates pushing, pulling or sliding against each other cause volcanos, earthquakes and Tsunamis. Explain what the Ring of Fire is.
Name at least 2 volcanoes and describe their status.

The **Earth** is made up of **4 layers**.



Crust- A thin layer of **rock** on the surface that is broken in to large pieces called **tectonic plates.**

Mantle- made of molten rock called **Magma**.

Outer core- a liquid layer of metal.

Inner core-solid metal, the hottest part of Earth.

There are **3** main **types of rock** in the Earth's crust.

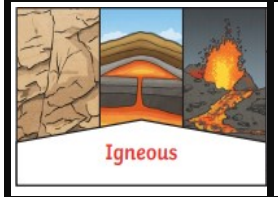
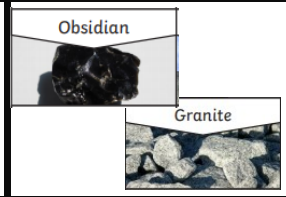
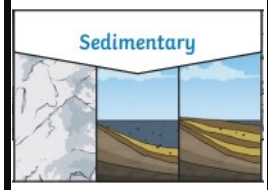
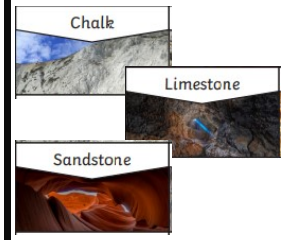
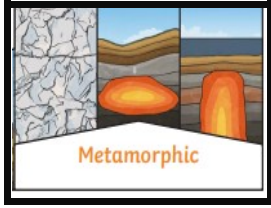
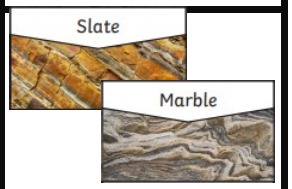
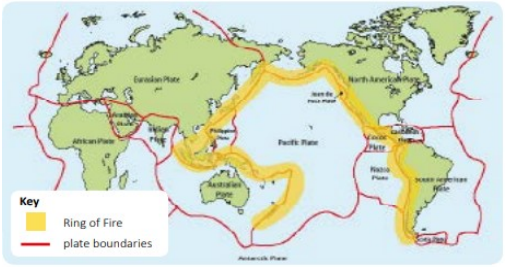
Type of rock	How it is made	Examples
	Made from cooled magma or lava.	
	Made from layers of mud and sand that have settled in water and been squashed over a long period of time.	
	Formed when existing rocks are changed by heat or pressure.	

Plate Tectonics



Tectonics plates that make up the Earth's crust **float** onto of **mantle** and are **always moving**.

They can push together ➡ ⬅

pull apart or ⬅ ➡

slide against each other. ⇄

This causes volcanic eruptions, earthquakes and tsunamis.

Earthquakes

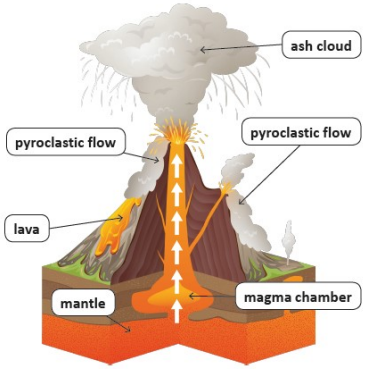
A **sudden, violent shaking** of the ground. Caused by tectonics plates trying to move past each other and getting **stuck**.

The **pressure builds** so when they eventually move a huge amount of **energy is released** causing an earthquake.

They cause lots of **damage**.

Volcanoes

Volcanoes are **mountains** or **hills** with **vents** at the top through which lava, gases and ash **erupt**.



Volcanoes are classed as active, dormant or extinct.

Active- Likely to erupt again.

Dormant- Might erupt again in the future.

Extinct- Will not erupt again.

Tsunamis

A **series of waves** caused by a volcanic eruption or earthquake **under the sea**. As waves near the shore, they become larger and **travel a long way in land**, causing a huge amount of **damage** to buildings, belonging and people.