

# Rocks, Relics and Rumbles.

## Knowledge Organiser

### Key Words

Key word	Meaning
Erode	Be gradually worn away
Lava	Hot, molten rock that comes out of a
Magma	Hot molten rock found in the Earth's mantle.
Tectonic Plate	A large, slow-moving piece of rock that makes up the Earth's crust.
Liquid	A material that is runny and can be
Organic Matter	Dead and decaying animals.
Ring of Fire	Area around the Pacific Ocean where many earthquakes and volcanic eruptions

### Types of Rock

There are three main types of rock in the Earth's crust. These are sedimentary, igneous and metamorphic. Sedimentary rocks are made from layers of mud and sand, called sediment, that have settled in water and have been squashed over a long time to form rock. Igneous rocks are made from cooled magma or lava. Metamorphic rocks are formed when existing rocks are changed by heat and pressure.

Sedimentary rocks	Igneous rocks	Metamorphic rocks
 sandstone	 granite	 marble
 limestone	 obsidian	 slate

### Key Scientist

#### Mary Anning

English fossil collector, dealer and palaeontologist who became known around the world for finds she made in Jurassic marine fossil beds in the cliffs along the English Channel.



### Uses of Rocks.

The appearance and properties of rocks affect how they are used.

- ⇒ Chalk, a sedimentary rock, is soft and can be easily eroded. This makes chalk suitable for writing and drawing on blackboards.
- ⇒ Granite, an igneous rock, is very hard and impermeable. Granite is used for making kitchen work surfaces.
- ⇒ Marble is a metamorphic rock. It is easy to carve and is not easily eroded, making it suitable for sculptures.



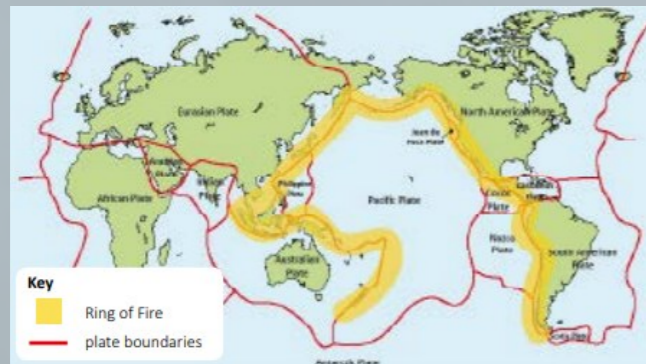
### Fossils.

Fossils are the remains, or traces, of once-living things preserved as rock. Fossils are only found in sedimentary rock and the conditions must be just right for them to develop.



## Plate Tectonics

The tectonic plates that make up the Earth's crust float on top of the mantle and are constantly moving. The places where tectonic plates meet are called plate boundaries. Tectonic plates can push together, pull apart or slide against each other. This movement at the plate boundaries can cause volcanic eruptions, earthquakes and tsunamis.



## Earthquakes.

Earthquakes are the sudden violent shaking of the ground. As the Earth's tectonic plates try to move past each other at plate boundaries they can get stuck. The pressure builds up so that when the plates eventually slip, a huge amount of energy is released causing an earthquake. Earthquakes can cause a lot of damage, especially to buildings and roads



## Volcanoes.

Volcanoes are mountains or hills with vents at the top through which lava, gases and ash erupt. There are four different types of volcano. There are shield, stratovolcano cinder cone and lava dome. Volcanoes are classed as active, dormant or extinct



## Tsunamis.

A tsunami is a series of waves caused by a volcanic eruption or earthquake under the sea. As the waves near the shore, they become larger and can travel a long way inland, causing a huge amount of damage to buildings, belongings and people.



## Structure of Earth.

Earth is made up of four layers. These are the crust, mantle, outer core and inner core. The crust is a thin layer of rock on the surface that is broken into large pieces called tectonic plates. The mantle is made up of molten and semi-molten rock called magma. The outer core is a liquid layer of metal. The inner core is solid metal, and the hottest part of the Earth.

