

TREMORS

HISTORY

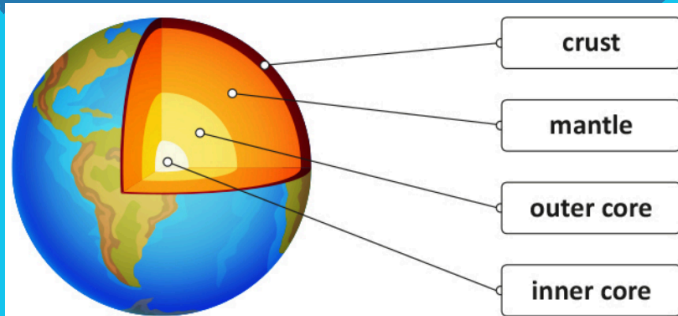
GEOGRAPHY

ART

Sticky Knowledge

What is the Earth?

The Earth is made of different layers. The inner core is made mostly of solid iron, the outer core is made of liquid iron and nickel. The mantle is made of solid rock and liquid rock called magma. The crust is a thin layer of solid rock that is broken into pieces called tectonic plates. These pieces move very slowly across the mantle.



What is an earthquake?

An earthquake happens when two tectonic plates move along a fault line. The earth shakes violently, especially at the centre of an earthquake, which is called the epicentre. Strong earthquakes can cause a lot of damage.







What are the types of rock?

The Earth's crust is made up of many kinds of rock that are formed over millions of years. There are three main kinds of rock.

Igneous rock- Is made from cooled lava. They usually contain visible crystals.

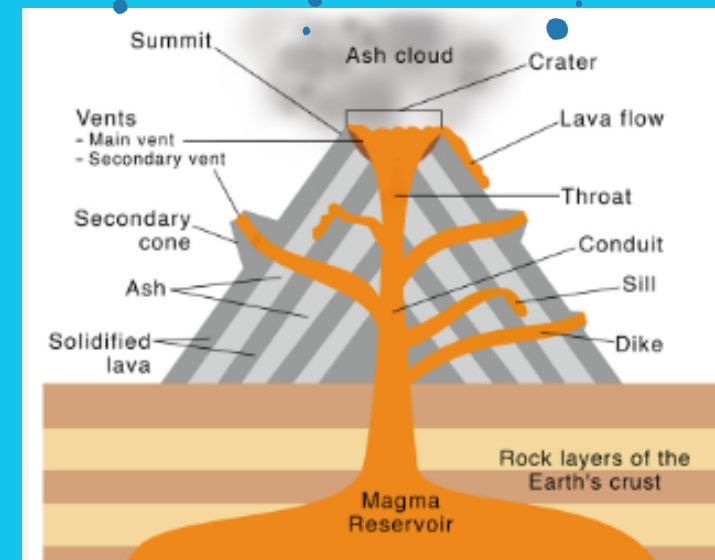
Sedimentary rocks- These are made from mud, sand and particles that have settled in water. They have been squashed over a long time to form rock.

Metamorphic rocks- These are formed when existing rocks are heated by magma under the Earth's crust or squashed by the movement of the Earth's tectonic plates. They are usually very hard.

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

What is a volcano?

When a volcano erupts, liquid magma collects in an underground magma chamber. The magma pushes through a crack called a vent and bursts out onto the Earth's surface. Lava, hot ash and mudslides from volcanic eruptions can cause severe damage.



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Timeline

What is the Ring of Fire?
The Ring of Fire runs around the edge of the Pacific Ocean and is made up of fault lines in the Earth's crust. Most of the world's earthquakes and volcanic eruptions happen along the Ring of Fire



Mount Vesuvius in Italy erupted in AD 79, covering the Roman town of Pompeii with volcanic ash. The town was rediscovered in the 16th century but excavations didn't begin until 1748 and archaeologists have been excavating ever since.

Vocabulary	Definition
Epicentre	The exact location on the Earth's surface that is directly above an earthquake.
Eruption column	A cloud of super-heated ash and gas produced during a volcanic eruption.
Fault line	A break in the Earth's crust.
Lava	Hot, molten rock that comes out of a volcano or the solid rock formed when it cools.
Magma	Hot molten rock found in the Earth's mantle.
Metamorphic rocks	Any rock, including igneous and sedimentary rocks, can become metamorphic rocks when the temperature or pressure changes. The word metamorphic means to change form, so that's what metamorphic rocks do!
Pumice stone	A very lightweight igneous rock produced by the volcano.
Richter scale	A mathematical scale (1-10) used by scientists to describe the size of an earthquake. 1 describes the weakest earthquake and 10 describes the strongest.
Seismometer	A device used to measure and record the strength and duration of an earthquake.
Tectonic plate	A large moving piece of rock that makes up the Earth's crust.
Vent	An opening in the Earth's crust through which lava escapes.
Volcanic ash	Tiny pieces of jagged rock and volcanic glass.
Volcanic Eruption	The sudden and violent explosion of lava, gas and rock out of a volcano.

24th August
79 AD

25th August
79 AD

September
79 AD

104 AD

1748

1860

Present day

8am- Small puffs of ash are seen from the volcano.

1pm- Mount Vesuvius erupts.

3pm- Hard pieces of cooled lava rain down.
5-6pm- Large pieces of pumice stone rain down.

4am- The eruption column of ash and gas from the volcano reaches 30km into the sky.

5 am- Violent earthquakes shakes the whole area.
7am- The eruption column collapses, sending rocks, gas, ash and heat into Pompeii. Anyone still in the town dies. The eruption continues for days.

The whole area is now buried in rock and ash. The crater of Vesuvius has collapsed and the volcano is 200m shorter than before the eruption.



Pliny the Younger writes two letters describing the eruption to a historian called Tacitus.

The excavation of Pompeii begins.

Giuseppe Fiorelli makes the famous plaster cast bodies of Pompeii by filling spaces left in the volcanic ash with plaster.



Archaeologists are still excavating the site.