Year 4 - Volcanoes

How do volcanoes erupt and where are active/dormant volcanoes located?

Lesson 1

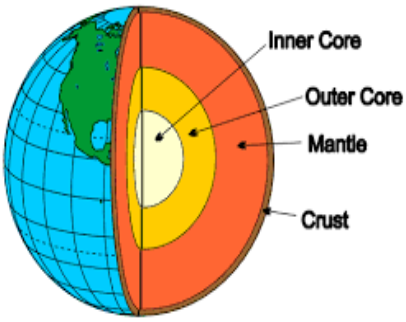
The Earth has a solid crust made up of **tectonic plates** with molten rock beneath.

Igneous rocks - form from molten rock below the Earth's crust - granite and basalt

Metamorphic rocks - form when rocks in the Earth's crust get squashed and heated in processes such as when tectonic plates press against - marble and slate.

Sedimentary rocks - Often start as sediments carried in rivers and deposited in lakes and oceans. When buried, the sediments lose water and become cemented to form rock - sandstone, limestone, and shale.

Lesson 2



Lesson 3

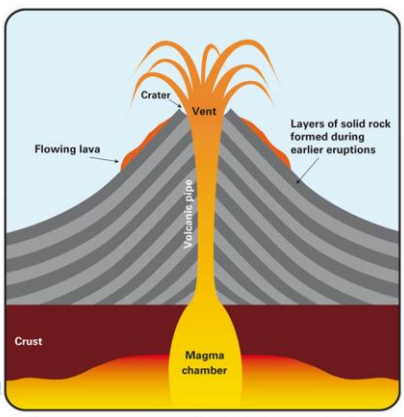
A **fault** is a crack in the surface of the Earth

Volcanoes form at the edges of tectonic plates where there are faults; **magma** – which is molten (hot liquid) rock bursts through the Earth's crust (becoming **lava**); this builds up in layers leading to a cone shape; some volcanoes are even tall enough to be classed as mountains.

Volcanoes are either **Active** –(they have erupted recently in the last 10,000 years) or **dormant** – (they have not erupted for a long time)

Lesson 4

Basic structure of a volcano



Lesson 5

Know that volcanic eruptions can be **deadly** for people living near to active volcanoes, but that the soil around volcanoes is very **fertile** meaning that people live there to ensure that crops grow successfully on farms.

Lesson 6

Mount Vesuvius is an example of a volcano and that the eruption at Pompeii in the times of ancient Rome (79 AD) is a famous historical example.

Compare to the 2018 eruption of **Anak Krakatoa** in Indonesia, the deadliest eruption of the 21st Century responsible for the deaths of 426 people

The most recent European volcano was in **Las Palmas** 2021

To find out more..

Vocabulary

	Rocks having solidified from lava or magma
sedimentary	Rocks having formed from sediment deposited from water or air
metemorphic	Formed when existing rock is transformed physically or chemically at elevated temperature
Techtonic plates	is a massive, irregularly shaped slab of solid rock
Core	The inner most part of the earth
Mantle	the mostly solid bulk of Earth's interior.
Crust	the outermost shell of a terrestrial planet
Fault line	a fracture or zone of fractures between two blocks of rock
eruption	when gas and/or lava are released from a volcano—sometimes explosively