

# Geography / Science Knowledge Organiser

Year 3 Term 2.1 2023-24 ★ Volcanoes, earthquakes and mountains

## Key Vocabulary

**Volcano** - an opening or rupture in the Earth's crust through which lava, ash and gases escape.

**Magma** - a molten substance beneath the Earth's crust.

**Lava** - molten, hot rock flowing from a volcano.

**Crater** - the mouth of a volcano.

**Eruption** - a volcano erupts when it shoots out lava.

**Molten** - hot, melted rocks.

**Earthquake** - a violent movement of parts of the Earth's surface.

**Epicentre** - the point on the Earth's surface at the centre of an earthquake.

**Earth's crusts** - the surface layer covering our planet. There are 2 types of crust - oceanic and continental.

**Earth's mantle** - under the crust is the mantle forming about half of the Earth.

**Earth's core** - the core is at the centre of the Earth.

## Prior Learning

*In key Stage 1 you learnt:*

to use basic geographical vocabulary to refer to key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather.

You will have discussed volcanoes and mountains as part of looking at different habitats and key physical features of a studied country.

## Significant People

### Katia and Maurice Krafft



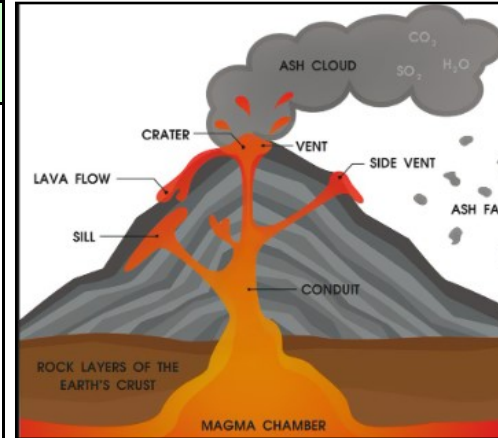
- French married couple.
- pioneers in filming, photographing and recording volcanic eruptions.
- their fearlessness meant they often went within metres of erupting volcanoes to study and sample them easily.
- visited hundreds of volcanoes in their lifetime.
- used their knowledge and images to help develop safety procedures and volcano evacuation procedures.
- both killed by a volcanic eruption in Japan in June 1991.
- the Krafft Medal honours their memory and is awarded every 4 years to someone who has made significant contributions to volcanology through service to communities affected by volcanic activity.

## Volcanoes

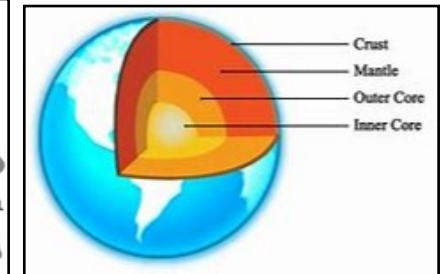
### How are volcanoes formed?

1. Magma rises through cracks or weaknesses in the Earth's crust.
2. Pressure builds up inside the Earth.
3. When this pressure is released, e.g. as a result of plate movement, magma explodes to the surface causing a volcanic eruption.
4. The lava from the eruption cools to form a new crust.
5. Over time, after several eruptions, the rock builds up and a volcano forms.

### Volcano diagram



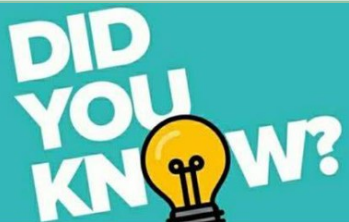
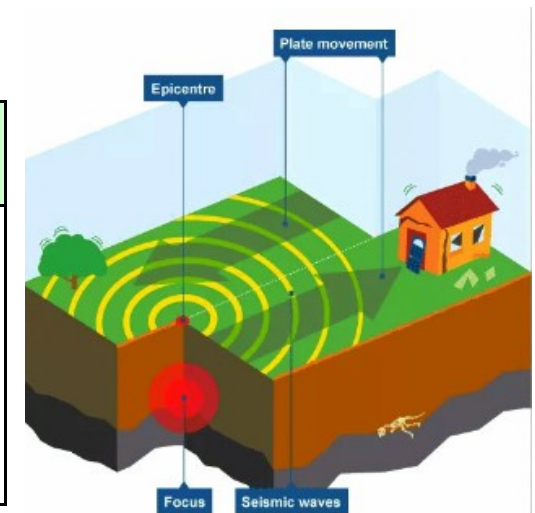
### Layers of the Earth



## Earthquakes

### What causes an earthquake?

An earthquake is the shaking and vibration of the Earth's crust due to movement of the Earth's plates (plate tectonics). Earthquakes can happen along any type of plate boundary. Earthquakes occur when tension is released from inside the crust. Plates do not always move smoothly alongside each other and sometimes get stuck. When this happens pressure builds up. When this pressure is eventually released an earthquake tends to occur.



Volcanoes are named after **Vulcan**, the Roman god of fire. The Romans thought Vulcan was a blacksmith who made weapons for other gods using the fires that were under an island called Vulcano in the Mediterranean near Italy that is made from a volcano.