## **Knowledge Organiser- Year 3**

# **Volcanoes and Earthquakes**

## **Key questions:**

- How are volcanoesformed?
- How are earthquakescaused?
- Where are some of the world's most famous volcanoes?

#### **Key facts and figures**

# How are volcanoes 1. Magmarisesthroughcracksor formed? 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 newcrust. 5. Overtime, afters ever aler uptions, the rock builds up and a volcano forms. What causes an An earthquake is the shaking and vibration earthquake? of the Earth's crust due to movement of the Earth'splates(plate tectonics). Earthquakes can happen along any type of plate boundary. Earthquakes occur when tension is released frominsidethecrust.Platesdo 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

# Where are some of the world's most famous volcanoes?

- Mount Vesuvius, near Naples, Italy
- Krakatoa, Indonesia
- Mount St. Helens, Washington, USA

## Mount Tambora, Indonesia

- Mauna Loa, Hawaii
- Eyjafjallajökull, Iceland
- Mount Pelée, Martinique, Caribbean

### Did you know...?

- The word **volcano** originally comes from the name of the Roman god of fire, Vulcan.
- The object with the most **volcanic** activity in our solar system is lo, one of Jupiter's moons. Covered in volcanoes, its surface is constantly changing due to the large amount of volcanic activity.
- Volcanic eruptions can send as hhigh into the air, over 30km (17 miles) above the Earth's surface.
- Pumice is a unique **volcanic** rock (igneous) that can float in water.

tends to occur.

- Scient is tsuse the different speeds of seismic waves to locate the epicentre (the point on the surface directly above the contract of the surface directly above the surface directlwhere the earthquake originated) of earthquakes.
- The most powerful earthquake ever recorded on Earth was in Valdivia, Chile. Occurring in 1960, it had a magnitude of 9.5.

### **Key vocabulary**

- Volcano
- Magma
- Lava
- Crater
- Earth's crust
- Eruption

- Earthquake
- Earth's plates
- Plate tectonics
- Epicentre
- Vibration
- Seismic waves