



Earthquakes



What is an earthquake?
An earthquake is a vibration of the Earth's crust. An earthquake's strength is called its **magnitude** and is measured on the **Richter scale**. Like volcanoes, earthquakes mostly occur along **plate boundaries**.

Earthquakes are common at transform **plate boundaries**. Friction may cause two plates to stick, but when they become unstuck a violent jolt (earthquake) can occur.

Tectonic Plates
The Earth's surface is made up of different sections called plates.

Mountains

Mount Everest

- At 8,848 metres it is the highest mountain in the world.
- The first successful ascent was on 29th May 1953, by Edmund Hillary and Tenzing Norgay.

Types of mountains
Fold mountains, fault block mountains and dome mountains.

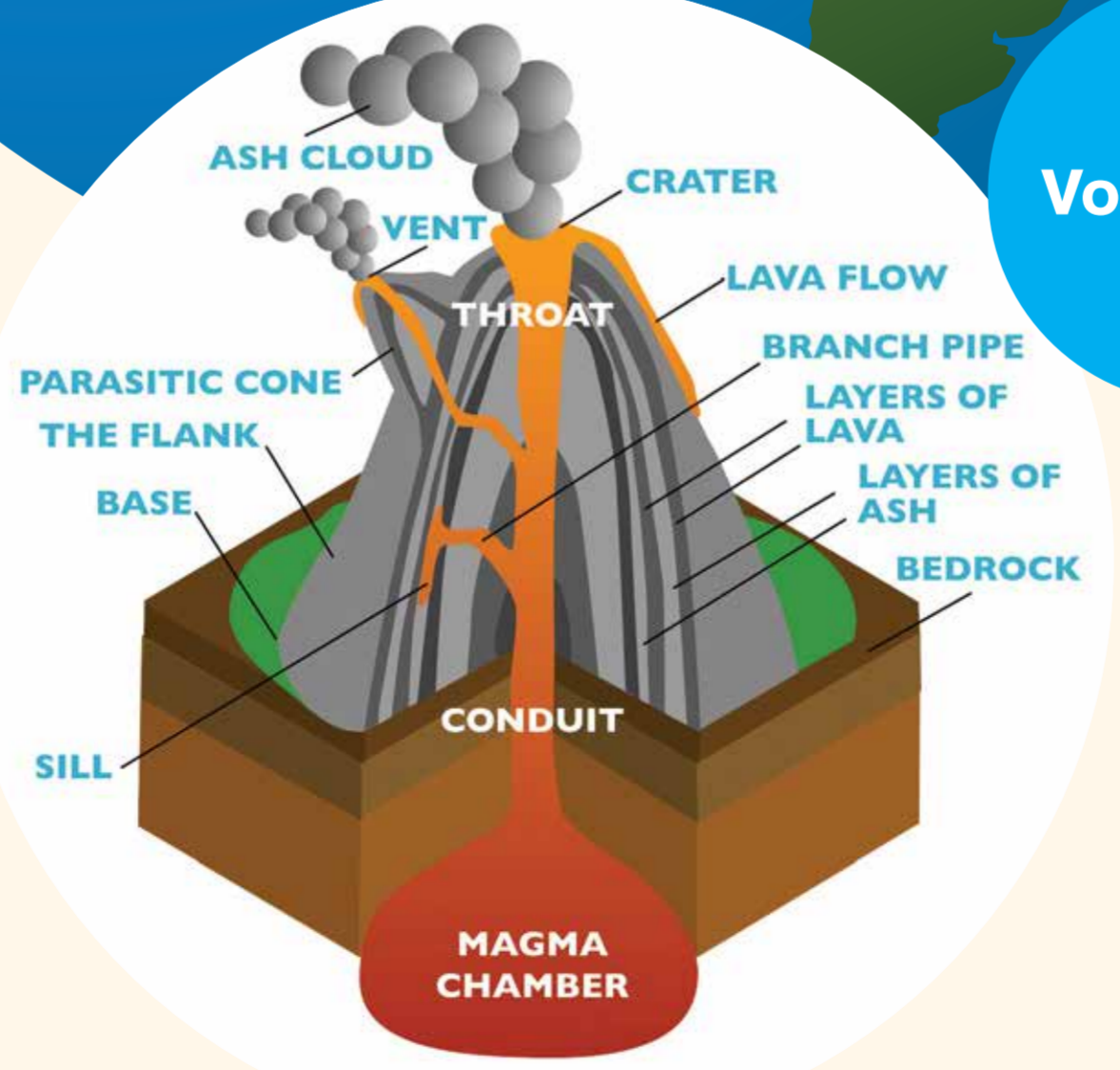
Mountains, Volcanoes and Earthquakes

The **focus** of an earthquake is the point deep underground where it begins.

The **epicentre** is the point on the Earth's surface that is immediately above the focus.

The structure of the Earth

- **Inner core** is primarily a solid ball of iron.
- **Outer core** is liquid iron and nickel.
- **Mantle** is semi-molten rock or **magma**.
- **Crust** is solid rock.



Volcanoes

What is a volcanic eruption?
Pressure is placed on the **magma** when it is deep underground. When the magma rises through a volcano's vent this pressure is released as **lava** and gas.

Shield volcanoes have runny lava; because of this they do not have an 'explosive' eruption. Lava spreads quickly across the landscape. With each eruption a new layer of rock is built on the previous one. Gradually a wide dome of rock is built up.

Composite volcanoes are formed by hardened layers of lava and ash from successive eruptions. The lava is viscous and it cools and hardens before spreading far. The eruptions tend to be violent.

Plate boundaries
Constructive plate boundaries: when two plates pull apart, magma rises and erupts as lava. This lava hardens to form new crust.

Destructive plate boundaries: when two plates collide or converge. One plate is pushed under the other. The plate underneath melts and the crust becomes magma. This magma rises to the surface to form volcanoes.