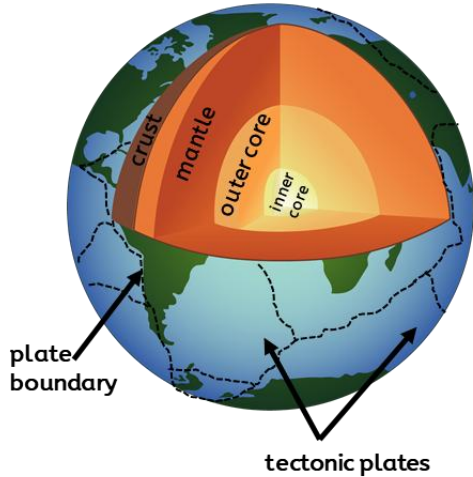


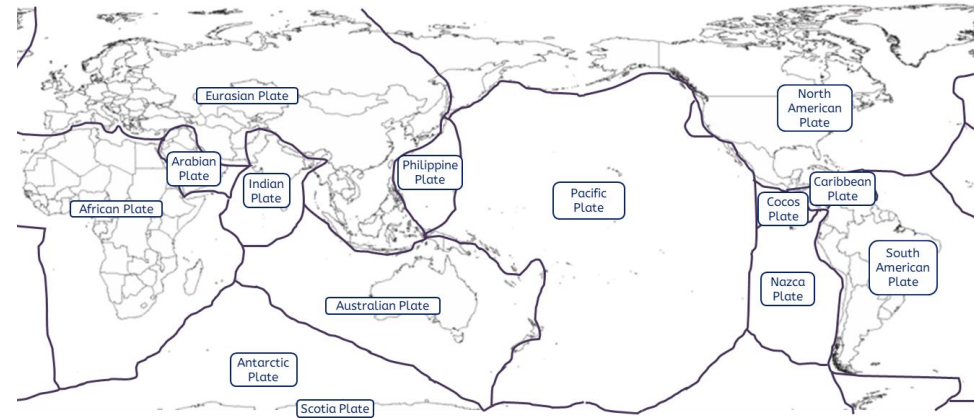
Volcanoes

The structure of the Earth



- The Earth is made of **four main layers**: the inner core, outer core, mantle and crust.
- The **crust** is split into different pieces known as **tectonic plates**.
- **Tectonic plates** fit together to make up the Earth's surface.
- Tectonic plates move towards, away from and next to each other.

Tectonic plates shown on a Pacific-centred map



Volcanoes

- Volcanoes can form where tectonic plates **push together**. Part of the crust is melted to form magma. This forces its way up through the Earth's crust to form a volcano. This is called a **destructive** plate boundary.
- Volcanoes can form where tectonic plates **pull apart**. This leaves a gap in the middle or a fracture, through which magma can rise to the surface. This is called a **constructive** plate boundary.
- Volcanoes can be **active** (erupted recently, will erupt again), **dormant** (have not erupted recently, may erupt again) or **extinct** (have not erupted recently, will not erupt again).
- Volcanic products are things that are produced in a volcanic eruption. They include lava flows, pyroclastic flows, lahars and ash clouds.

Vocabulary

- **lahar** (noun): mudflow where ash and soil have mixed with water during an eruption.
- **lava** (noun): magma that has gone above the Earth's surface.
- **magma** (noun): molten rock beneath the Earth's surface.
- **pyroclastic flow** (noun): a dense, fast-moving flow of solid lava pieces, volcanic ash and hot gases.
- **volcano** (noun): an opening in the Earth's crust through which lava, volcanic ash and gases escape – this can form a mountain.

