

Geography Year 3 Spring — Angry Earth – volcanoes, earthquakes and tsunamis

Key knowledge to know and use

The Earth's crust is broken into huge areas called **tectonic plates** which float on top of the mantle.

The **mantle** is the mostly-solid bulk of Earth's interior. The mantle lies between Earth's dense, super-heated core and its thin outer layer, the crust. The mantle is about 2,900 kilometers (1,802 miles) thick, and makes up a whopping 84% of Earth's total volume.

The **outer core** is the third layer of the Earth. It is the only liquid layer, and is mainly made up of the metals iron and nickel, as well as small amounts of other substances. The outer core is responsible for Earth's magnetic field.

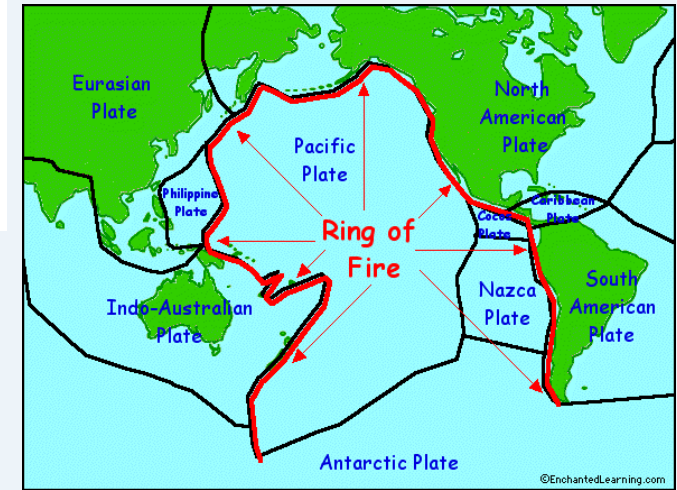
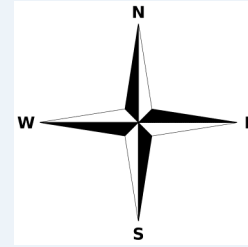
The **inner core** is the hottest part of the planet. It is a mainly solid ball. The inner core is more than 5,000 kilometres below the Earth's surface.

A **volcano** is formed when hot molten rock, ash and gases escape from an opening in the Earth's surface. The **molten rock** and ash solidify as they cool, forming the distinctive cone shaped volcano shown below. As a volcano erupts, it spills **lava** that flows downslope.

An **earthquake** is what happens when two blocks, or 'plates' of the Earth suddenly slip past one another. Most earthquakes occur along the edge of the tectonic plates.

The **Ring of Fire** is a major area in the basin of the Pacific Ocean where many earthquakes and volcanic eruptions occur.

Tsunami is a Japanese word. It means 'Harbour Wave'.



The Ring of Fire is a chain of volcanoes that surround the Pacific Ocean.

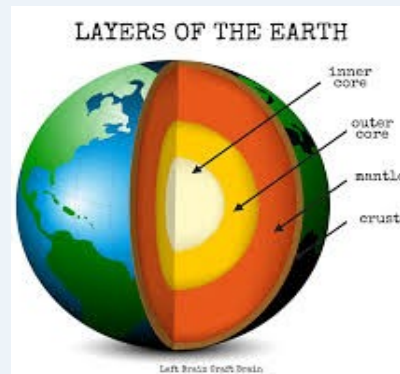
Key vocabulary to remember and use in your learning

Word	Definition
volcano	An opening in the Earth's crust through which lava, ash, and gases erupt.
earthquake	A sudden violent shaking of the ground.
tectonic plate	Gigantic pieces of the earth's crust.
tsunami	A giant wave caused by a huge earthquake under the ocean.
crust	A thin shell on the outside of the Earth, accounting for less than 1% of Earth's volume.
mantle	The second layer of the Earth's interior that lies between the core and the crust.
outer core	The third layer of the Earth's interior.
inner core	The centre of the Earth's interior.
disaster	A sudden accident or event that causes great damage or loss of life.

Volcanoes have a distinctive shape. This volcano is erupting, spouting hot lava and ash.



The layers of the Earth are the crust, mantle, outer core and inner core.



Left: Brata South Brata