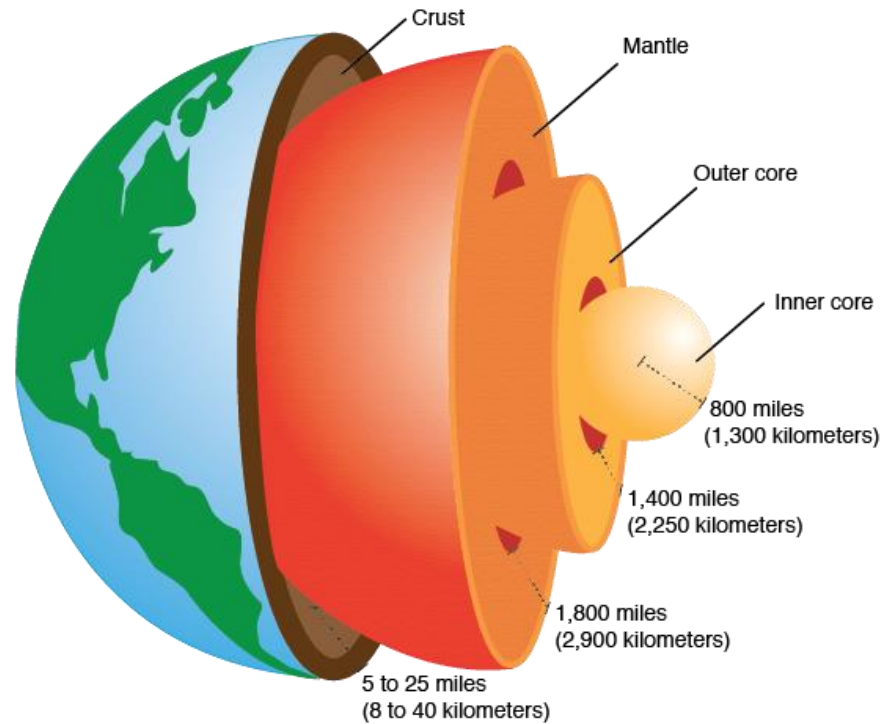


The Structure of the Earth

The Earth is made up of different layers:

- the **inner and outer cores** at the centre, which are mainly metal.
- the **mantle**, which is mainly rock.
- the **crust**, which is the part we can see.

The crust is made up of different pieces, called **tectonic plates**. These plates fit together like a jigsaw and move a few centimetres (cm) a year in different directions and at different speeds.

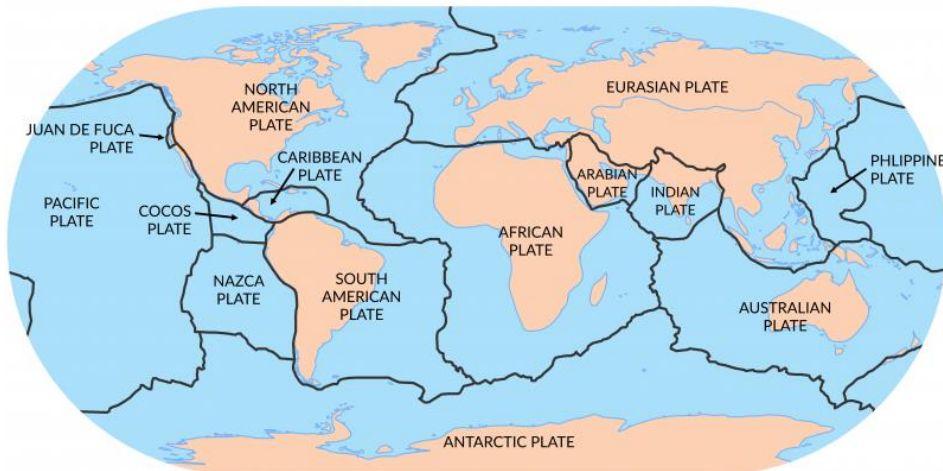


Extreme Earth

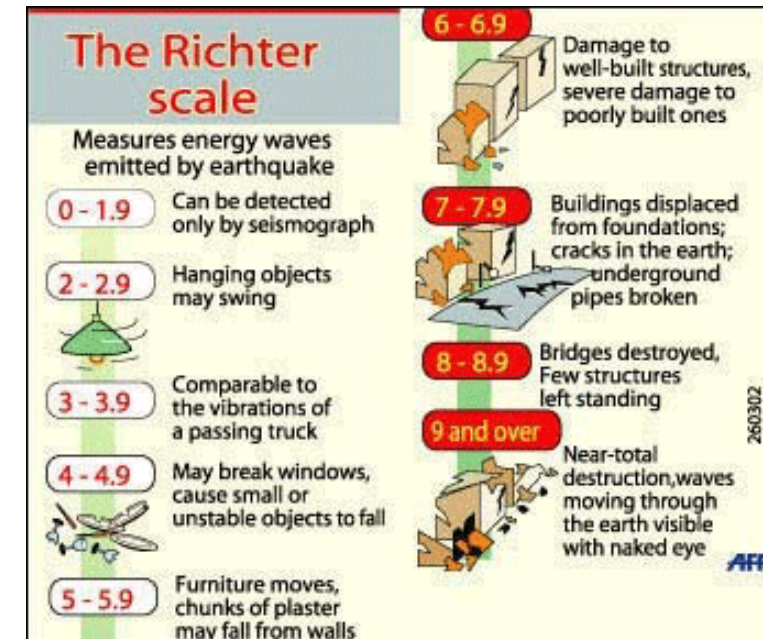
How do we respond to change?

The **Richter scale** is used to measure the size of earthquakes.

Tectonic Plates



As plates carry on moving in different directions over long periods of time, friction causes energy to build up. Eventually it becomes so great that the energy is released, which creates a shock wave - an **earthquake**. If the earthquake is beneath the ocean it can create a series of huge waves, called a **tsunami**.



Effects of an Earthquake



Ground shaking



Tsunami



Landslides

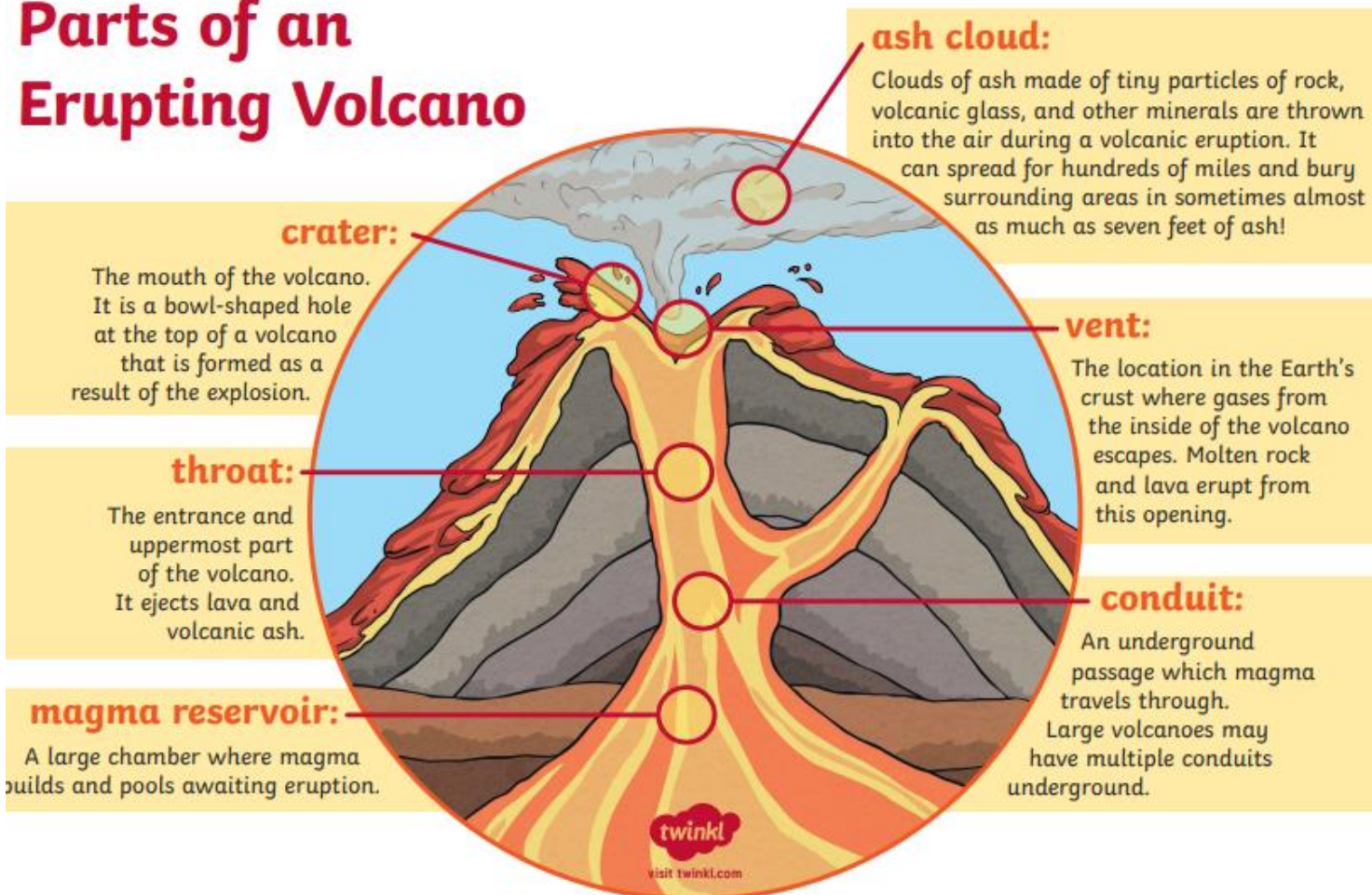


Raising or lowering of land



Liquefaction

Parts of an Erupting Volcano



Key Vocabulary

Earthquakes

Earth plates

Tectonic plates

Epicenter

Vibration

Seismic wave

Inner core

Outer core

Richter scale

Volcanoes

Volcanic

Eruption

Magma

Lava

Crate

Earth's crust

Active

Dormant

Extinct

A volcano is an opening in the Earth's **crust** that allows **magma**, hot ash and gases to escape. Volcanoes can look like mountains or small hills, depending on what type they are.

Magma is **molten rock** - rock that is so hot it has turned into liquid. When magma reaches the surface of the Earth it is called lava and comes out of the volcano as a volcanic eruption, along with gases and ash.