

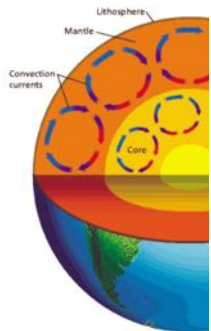
Our Restless Earth



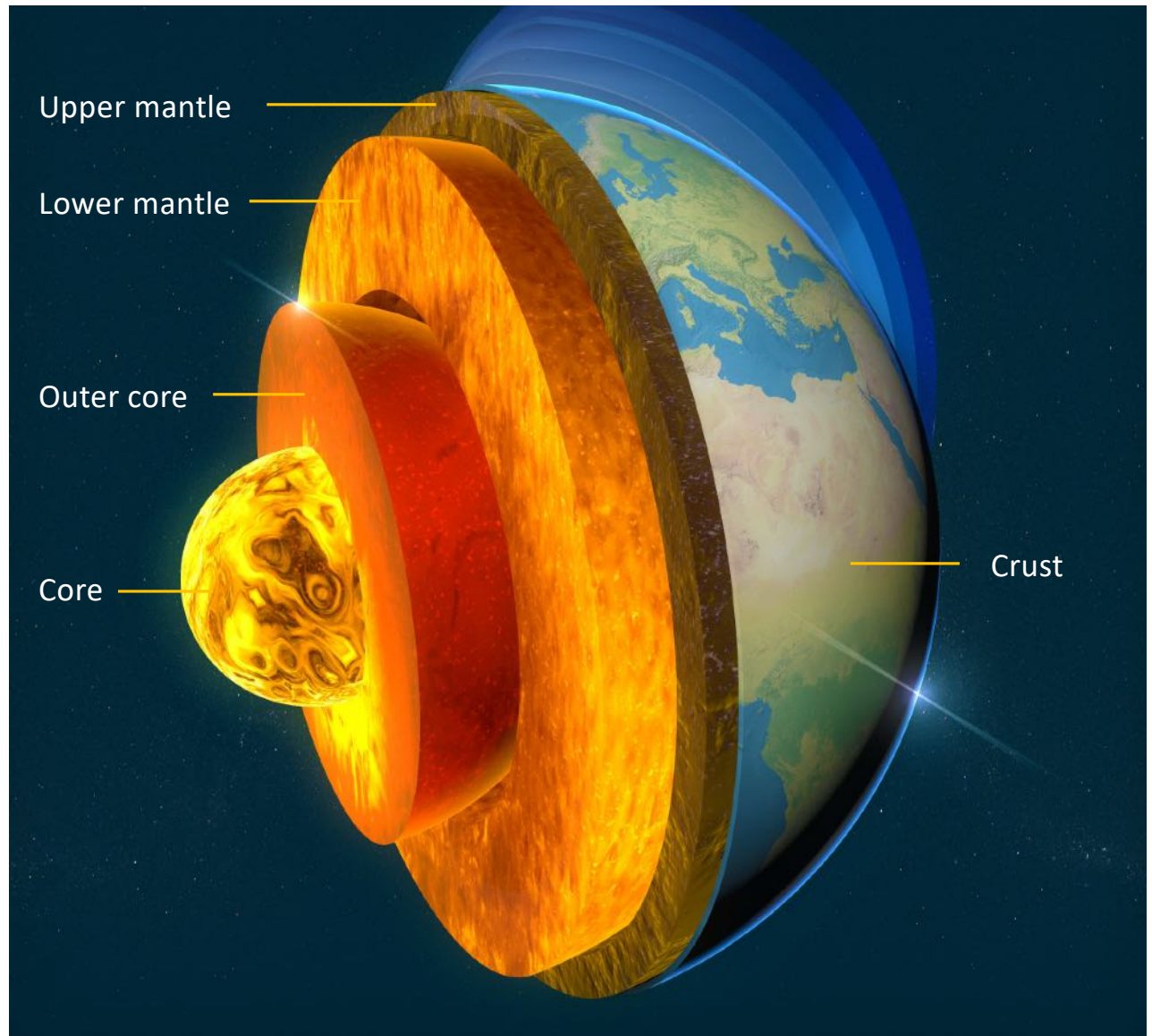
Looking inside Planet Earth

The **Earth** is divided into three main layers.

- The dense, hot inner core and the surrounding molten outer core
- The mantle (upper and lower)
- The thin outer crust, which supports all life in the known universe.



Convection
currents in the
Earth's mantle
and outer core



CONTINENTAL DRIFT

Pangaea

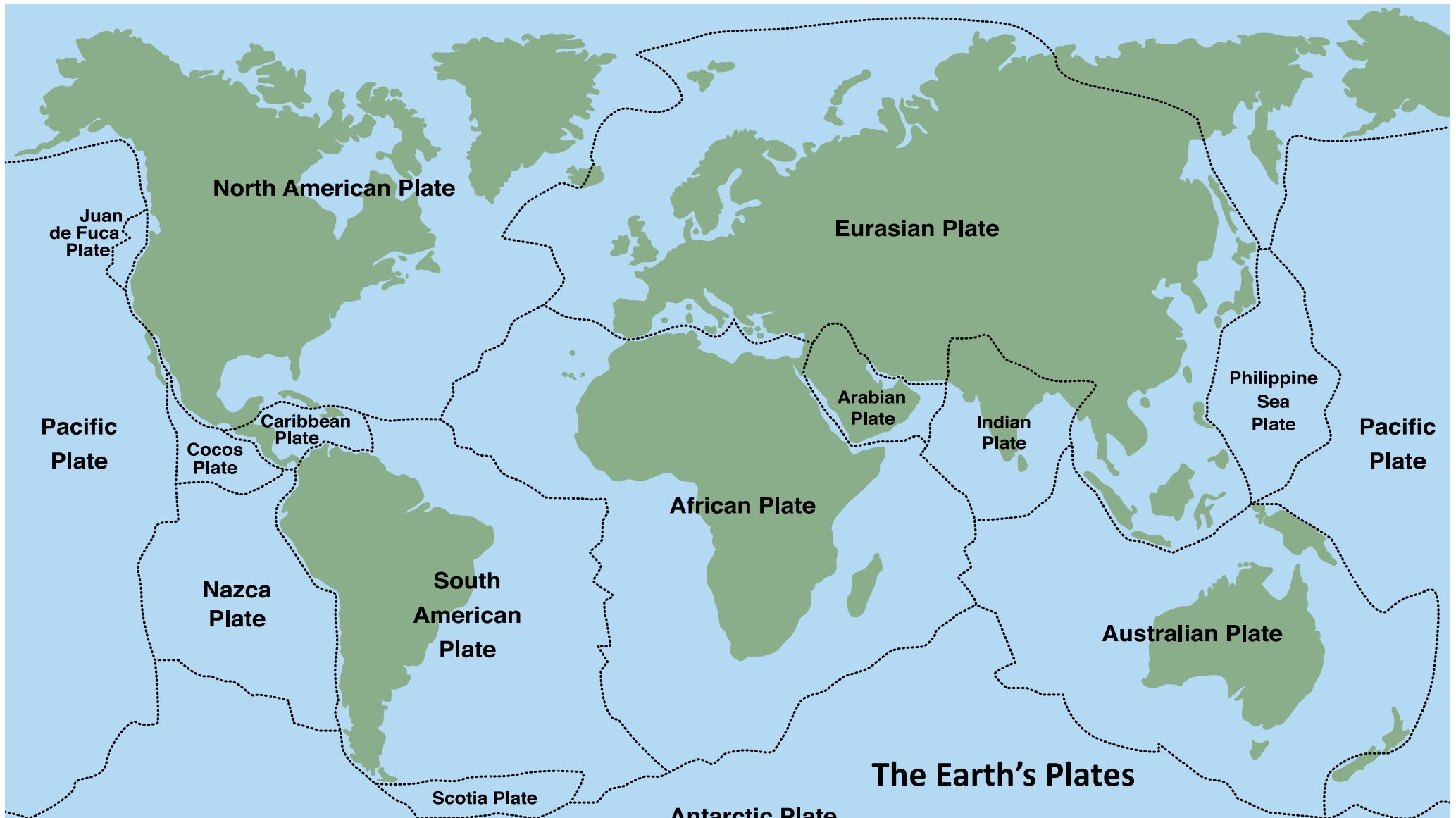


Laurasia and Gondwana



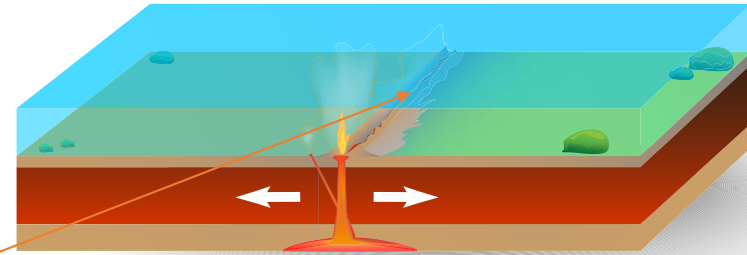
Modern world





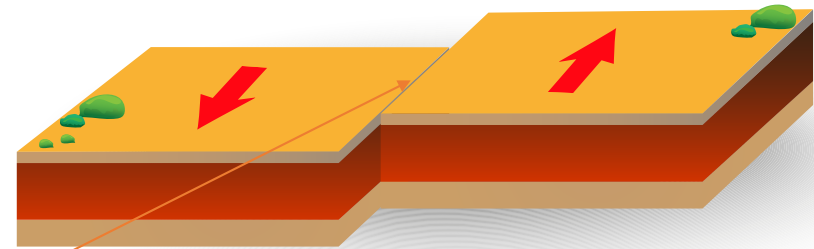
Types of plate movements

Plates moving apart



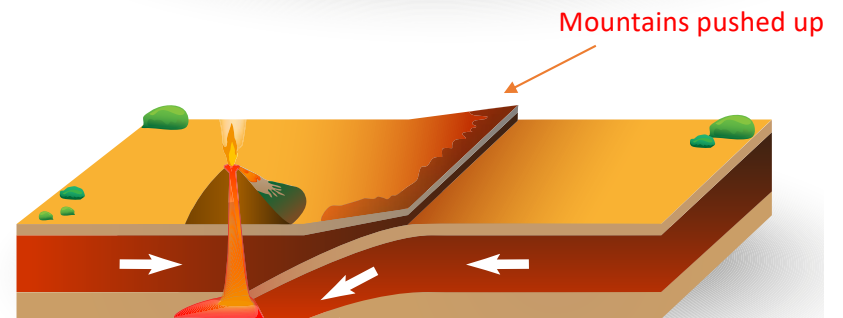
Ocean trench formed

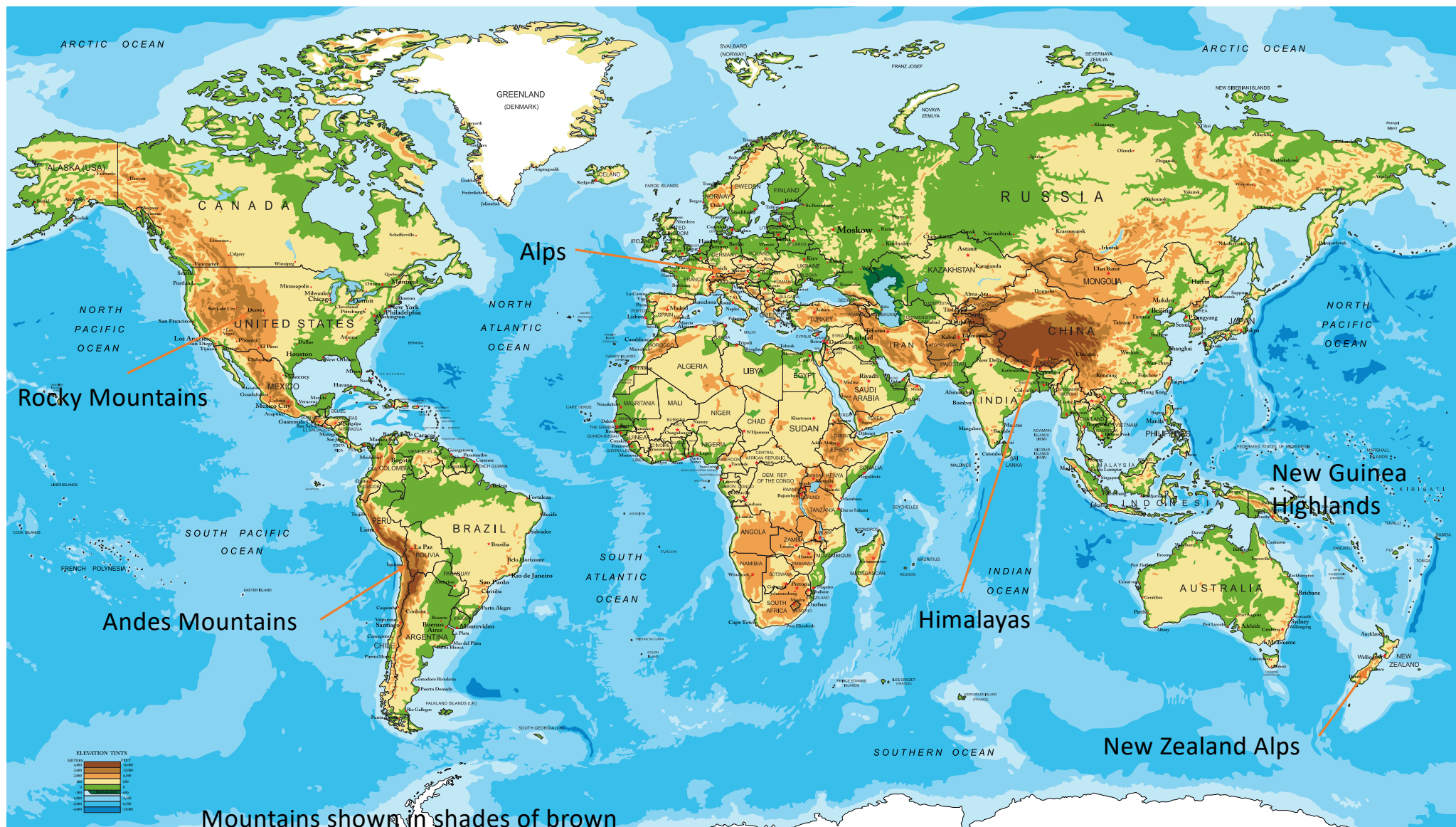
Plates moving sideways



Earthquakes occur when pressure released

Plates moving towards each other





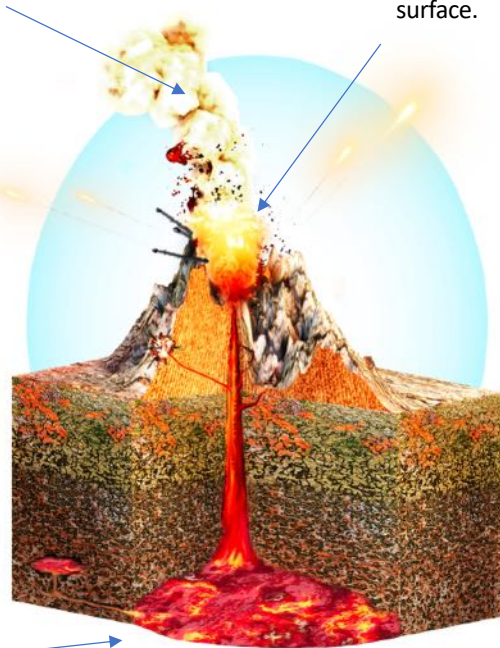


Satellite photograph
showing green forested
areas, grasslands and
deserts

Volcanoes

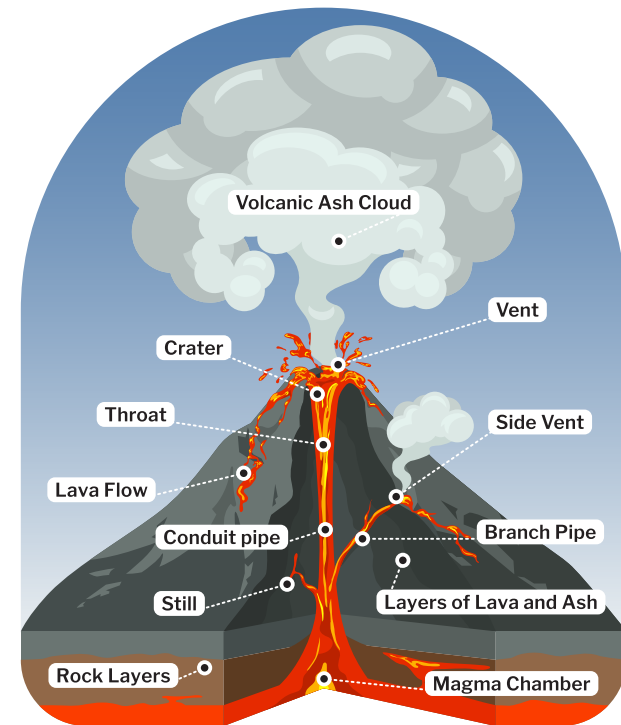


Over time, pressure builds in the magma chamber forcing magma up through the cracks in the crust's surface. This can occur with explosive force. As a result, an **ash cloud** made up of dust, rocks and other particles is formed.



A **crater** is formed when the volcano 'blows its top'. The escaping lava and gas pushes away anything on the Earth's surface.

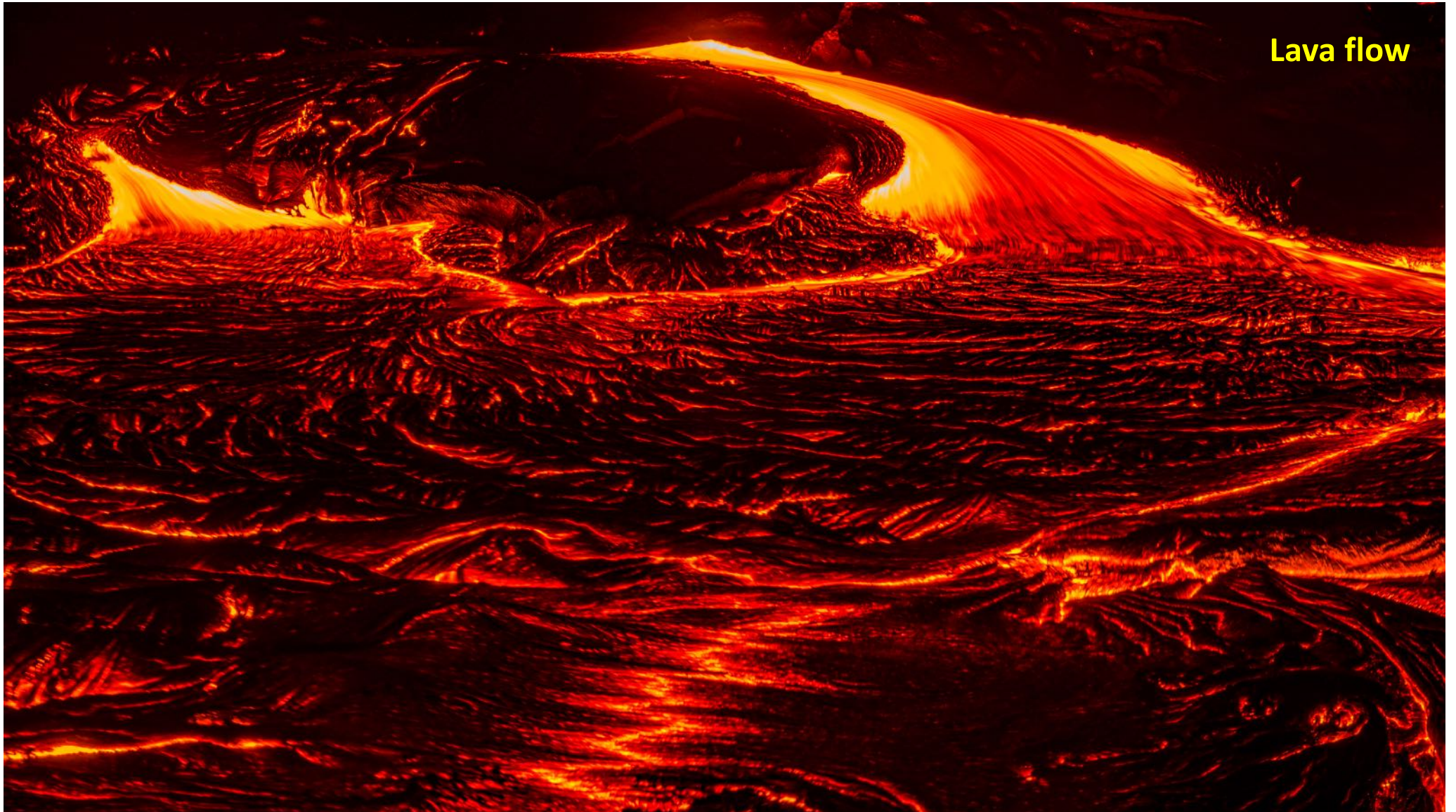
Well below the surface of the Earth, magma is held within a vast **magma chamber**. Also present are gasses that start to build up pressure over time. When the pressure becomes too great, the magma is pushed out through what is called a **vent** – a type of pipeline that the magma travels through in order to escape.



Parts of a volcano

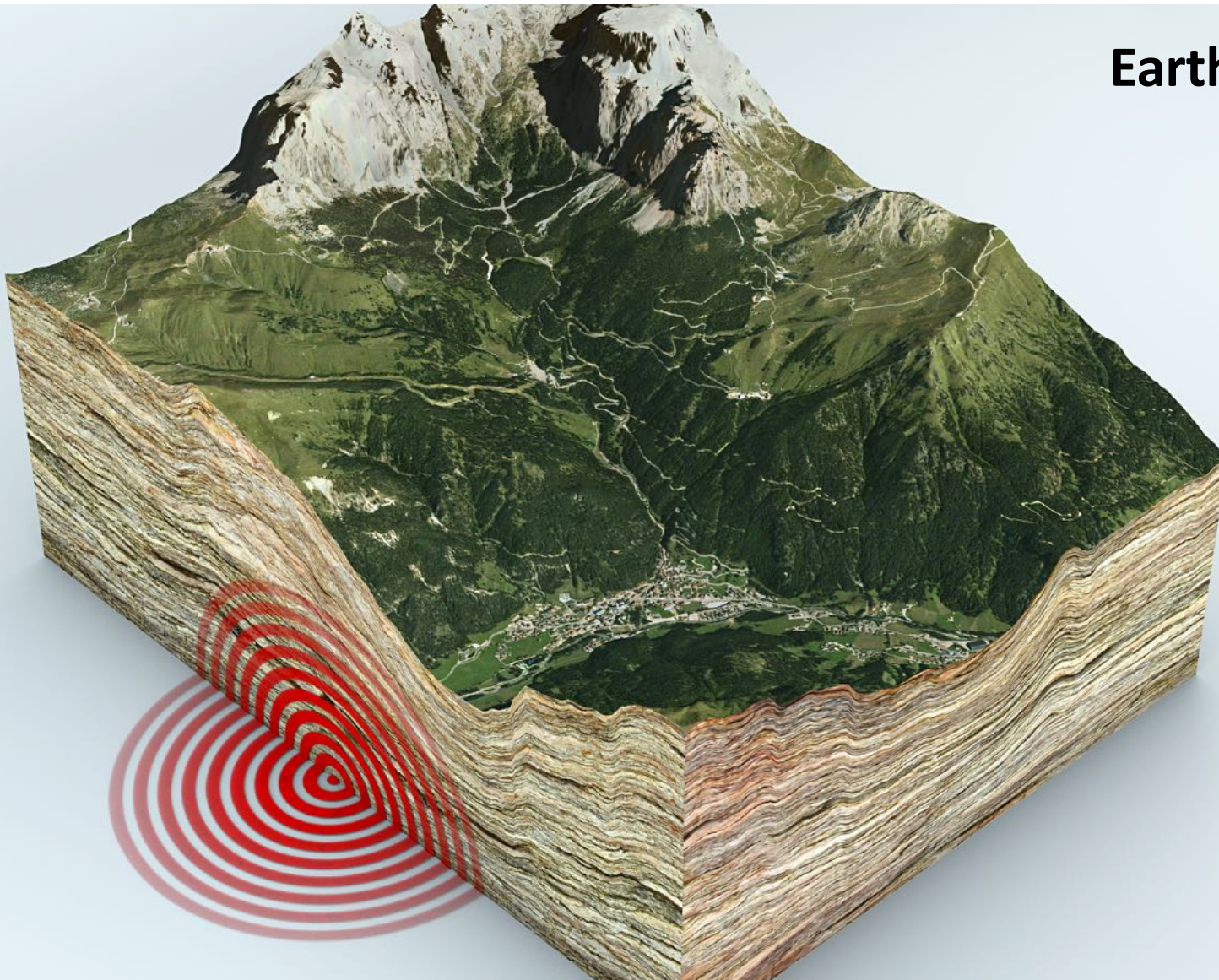
Volcanic eruption

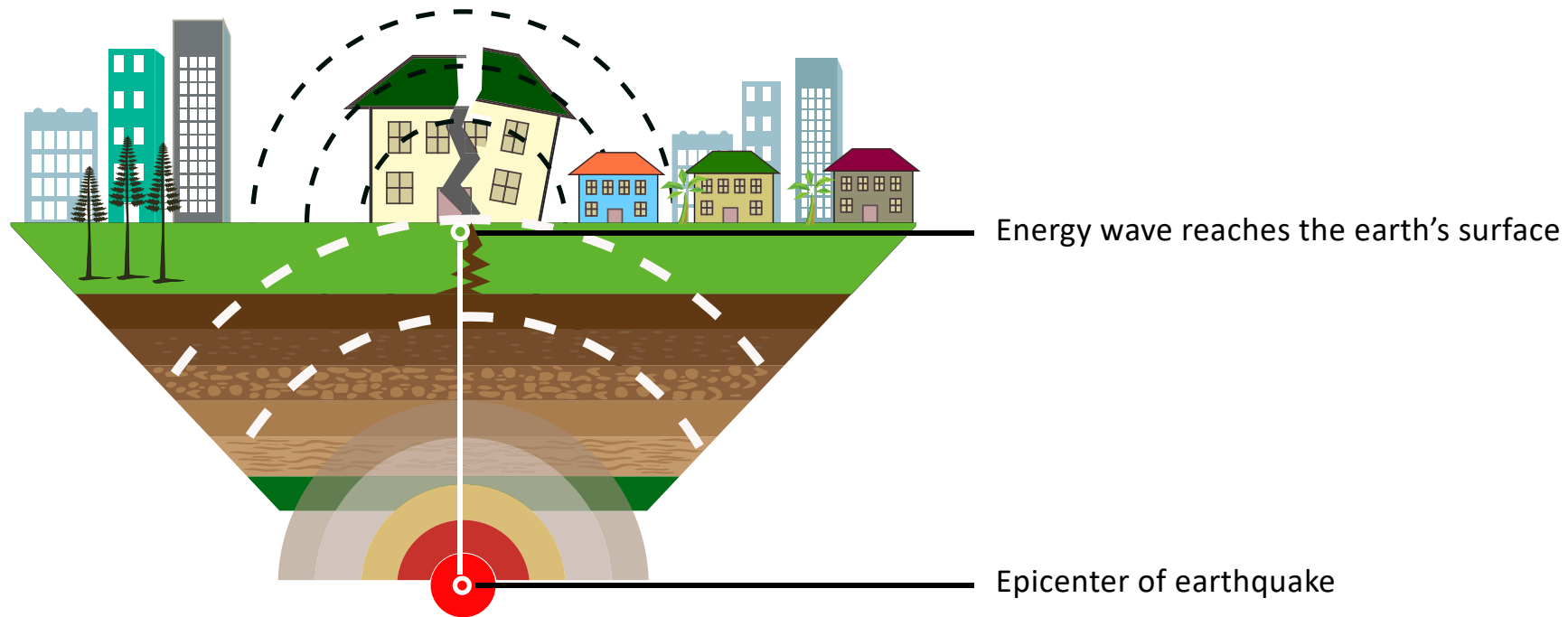




Lava flow

Earthquakes



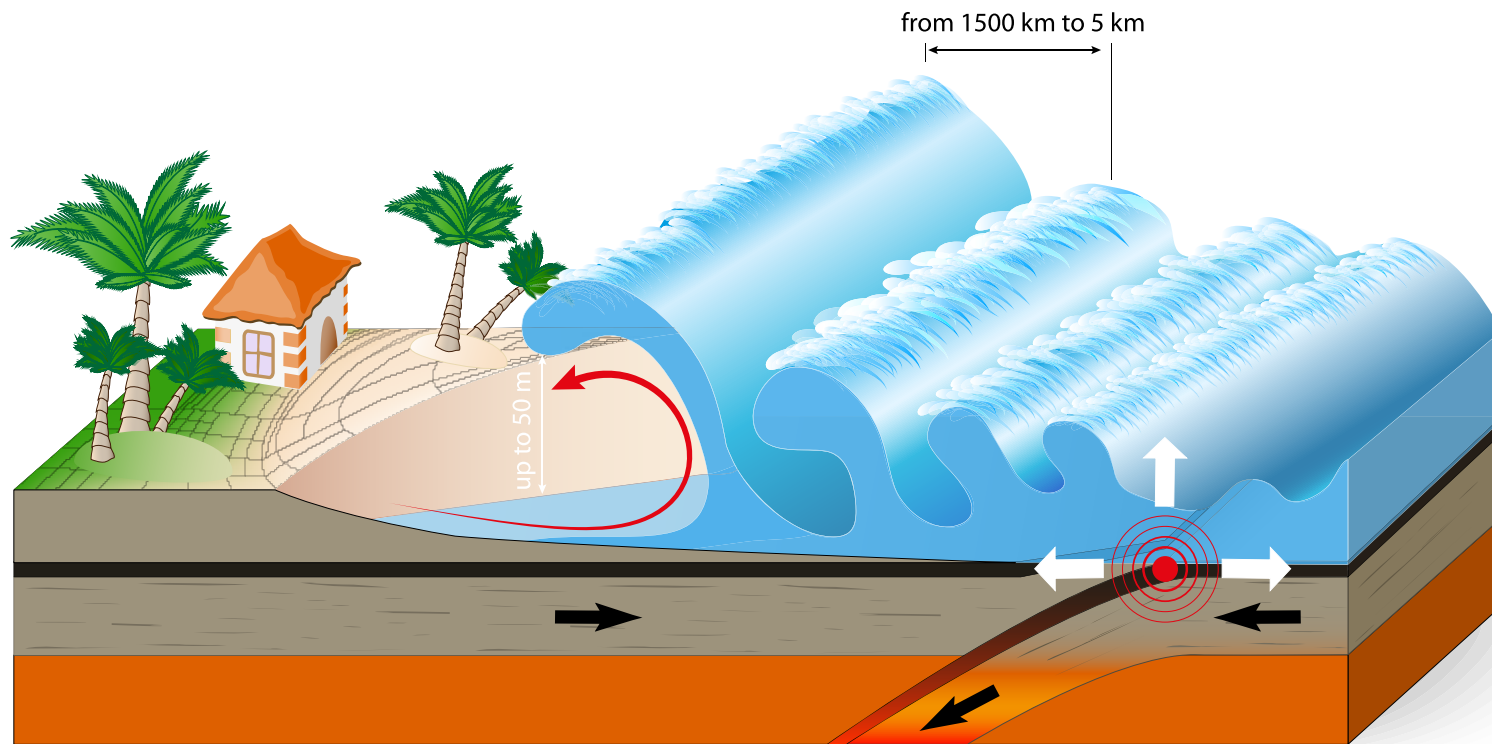


EARTHQUAKE





TSUNAMI





Tsunami damage, Banda Aceh,
Indonesia, 2004



Tsunami damage, Fukushima,
Japan, 2011