

GEOGRAPHY · Y4–Y6

Volcanoes & Earthquakes

Knowledge Organiser — Y4–Y6

Tectonic plate basics

1

Tectonic plates

The Earth's crust is divided into approximately 15 large plates that float on the semi-liquid mantle below.

2

Plate boundary

Where two plates meet. Most volcanic and earthquake activity happens at plate boundaries.

3

Convergent boundary

Two plates move TOWARDS each other. Dense oceanic plate sinks under lighter continental plate (subduction) — forming trenches and triggering volcanoes.

Example: Andes, Peru-Chile Trench

4

Divergent boundary

Two plates move APART. Magma rises to fill the gap, forming new ocean floor or rift valleys.

Example: Mid-Atlantic Ridge

5

Transform boundary

Two plates slide PAST each other horizontally. Causes earthquakes but not volcanoes.

Example: San Andreas Fault, California

6

Ring of Fire

A horseshoe-shaped zone around the Pacific Ocean where 90% of the world's earthquakes and 75% of its volcanoes occur.

Example: Japan, New Zealand, western USA



Earthquakes

1

Focus

The point underground where an earthquake starts.

2

Epicentre

The point on the Earth's surface directly above the focus — where shaking is strongest.

3

Richter scale

A logarithmic scale measuring earthquake magnitude. Each level is 10× more powerful than the one below. Magnitude 7 is major; above 9 is catastrophic.

4

Seismic waves

Waves of energy released during an earthquake that travel through the Earth.

