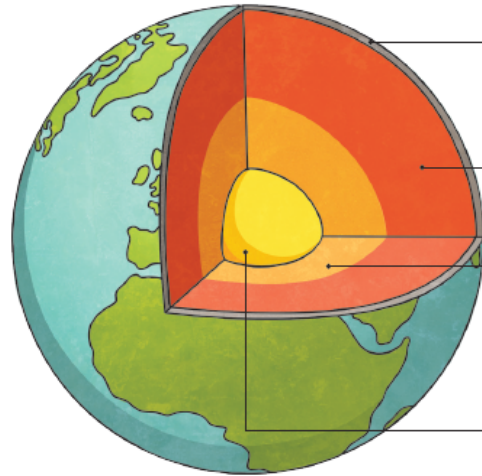


Rocks, Relics and Rumbles - Knowledge Organiser – Y4 Spring 1

Layers of Earth



Crust

Thin outer layer. Hard rock. 10km–90km thick.

Mantle

Extremely hot rock that flows. 3000km thick.

Outer core

Iron and nickel. Mostly liquid with some rocky parts. 4000°C.

Inner core

Iron and nickel. Hottest layer at over 5000°C.

Volcanoes

- Volcanoes are made when pressure builds up inside the earth. This affects the earth's crust causing **magma** to sometimes **erupt** through it.
- Active volcanoes have **erupted** in the last 10 000 years.
- Dormant volcanoes haven't **erupted** in the last 10 000 years but may erupt again.
- Extinct volcanoes aren't expected to **erupt** again.



Earthquakes

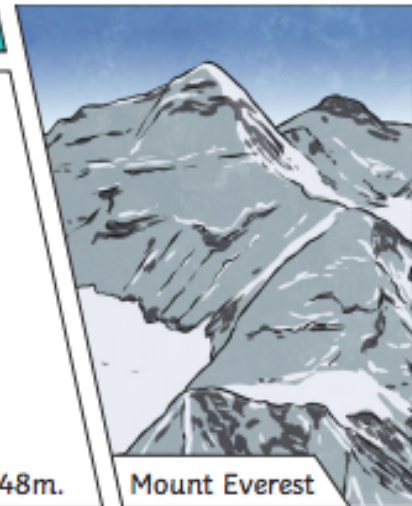
- Earthquakes are caused when the earth's **tectonic plates** suddenly move.
- Most earthquakes occur near the **tectonic plate** boundaries.
- Earthquakes can cause lots of damage to roads, buildings and property.



Key vocabulary	
Crust	The outermost layer of the earth.
Erupt	To suddenly burst out causing lava to explode out of the earth's surface.
Gorges	A narrow valley with steep walls, found between hills or mountains.
Lava	Hot, liquid that flows from a volcano.
Magma	Hot, liquid rock located deep below the earth's surface.
Summit	The highest point of the mountain.
Tectonic plate	Pieces of the earth's crust connected together.

Mountains

- Mountains are a natural part of the landscape with steep slopes.
- They rise above 300m.
- They have a **summit** of at least 600m.
- Some mountains are found in groups called a mountain range but some mountains can be on their own.
- Not all mountains are single **summits**.
- Mount Everest is the highest mountain in the world – 8848m.



How Are Mountains Made?

Fold mountains	Fault-block mountains	Volcanic mountains	Dome mountains	Plateau mountains
Tectonic plates collide and rock is pushed up.	Cracks in the earth's surface open up, some chunks of rock are pushed up, some down.	Formed around volcanoes and made of layers of ash and cooled lava .	Formed when magma is forced upwards but doesn't ever flow out of the crust .	Materials taken away through erosion leave deep valleys or gorges next to high cliffs.
