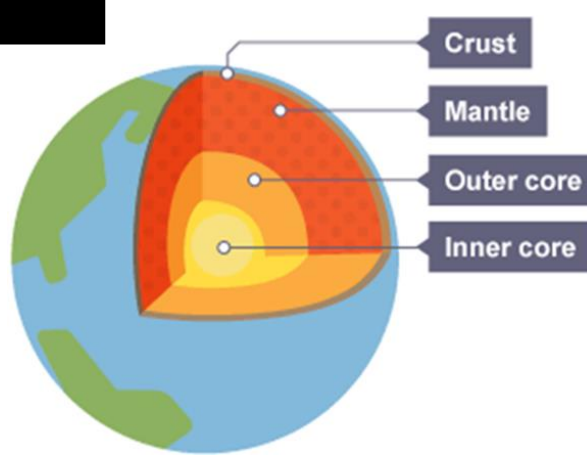


Key words:

- Lava** – liquid rock on the surface
- Magma** – liquid rock underground
- Crust** – surface of the earth
- Tectonic plate** – section of the Earth’s crust.
- Lahar** – mudflow running down a volcano
- Pyroclastic flow** – superheated blast of gas and debris surging down a volcano.
- Volcanic bombs** - large pieces of molten or semi molten pieces of rock ejected out of a volcano
- Vent** – Opening in the earths crust where magma escapes.
- Crater** – funnel shaped hollow at top of volcano
- Magma chamber** – store of magma below the earth’s crust.



Volcano types

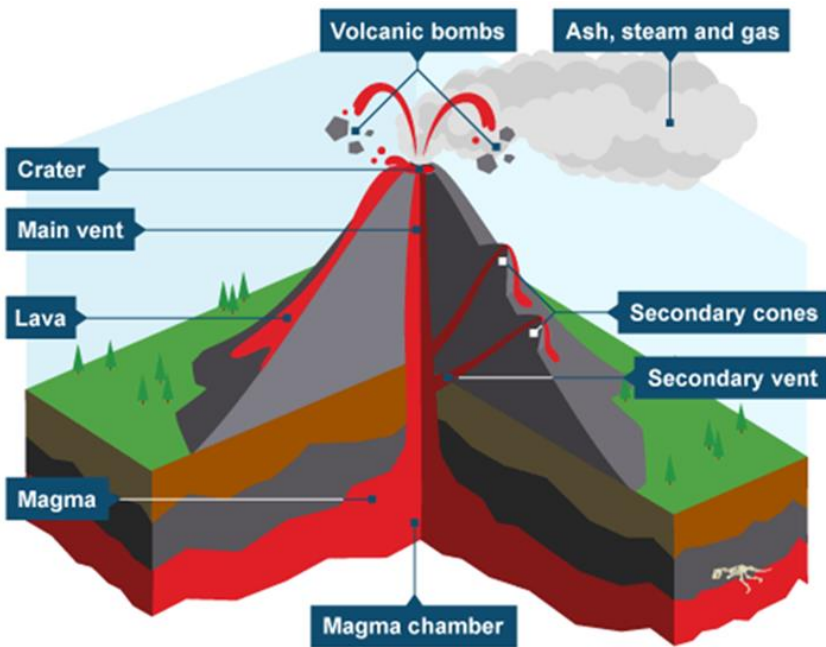


There are three different types of volcano. Geographers call the categories **active**, **dormant** or **extinct**.

- An **active** volcano is liable to erupt at any time, e.g. Mt Etna.
- A **dormant** volcano has not erupted for years. Mt Pinatubo erupted in 1991 after 500 years of dormancy.
- An **extinct** volcano has not erupted for a very long time and is unlikely to erupt again, e.g. Edinburgh.



Categorizing volcanoes can be tough. Chaitén in Chile erupted in 2008 for the first time since 7400BC!



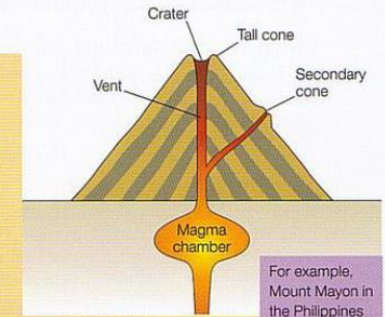
Short term responses	Long term responses
First aid	Settlements rebuilt
Evacuation of people	Roads and bridges rebuilt
Emergency services deployed	Development of monitoring systems
Lava flows diverted	Mining opportunities
Short term effects	Long term effects
Death and injury	Fertile soil
Buildings destroyed	Climate change
Destruction of farmland	Natural habitats destroyed or changed

Volcanoes

There are two main types of volcano.

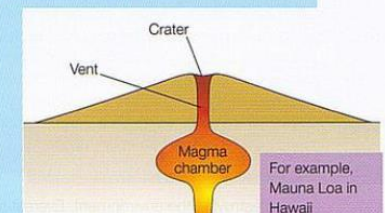
Composite volcanoes

- ◆ They're found at destructive plate margins. When the oceanic plate sinks into the mantle and melts, it forms magma. Magma mixed with sea water then rises up through cracks in the Earth's crust and erupts at the surface – forming volcanoes (page 11).
- ◆ Composite volcanoes have steep sides, and are made up of alternate layers of ash and lava.
- ◆ The lava is sticky, so it doesn't flow far. It's also acidic.
- ◆ Eruptions can be violent – expelling steam, ash, lava and rock – but they don't happen very often.



Shield volcanoes

- ◆ They're found at constructive plate margins. As the two plates move apart, magma rises up from the mantle. Some magma is forced to the surface through a vent – forming a volcano.
- ◆ Shield volcanoes have a wide base and gently sloping sides.
- ◆ The lava is runny and flows a long way. It's also basic (that's the opposite of acidic).
- ◆ There can be frequent eruptions, but they're not violent.



Why do people live near volcanoes?

1. Fertile soil – volcanic ash weathers to make good soil for farming.
2. Mining – gemstones and valuable metals are found close to volcanoes.
3. Tourism – volcanoes create beautiful scenery that attracts visitors.
4. Energy – Volcanoes can generate electricity and supply hot water.