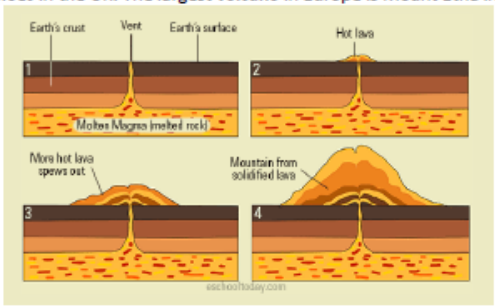
Topic: Volcanoes, Mountains and Earthquakes | **Phase: KS2** | **Strand: Human and Physical Geography (Concept: Tectonics)**

What should I already know?

- The seven continents and five oceans of the world.
- The location of some countries, including the UK and Kenya.
- What climate means and how it effects the vegetation in an area.

Volcanoes

- A volcano is a very deep hole in the Earth's top layer that can let out hot gasses, ash and lava. Many volcanoes are also mountains.
- Volcanoes have long vents that go all the way down through the Earth's first layer, the crust, to magma in between the crust and the mantle (the Earth's second layer). It's so hot there that rocks melt into liquid. This is called magma, which travels up through volcanoes and flows out as lava.
- There are three ways to describe a volcano and explain what it's doing – active, erupting, and dormant
- When a volcano erupts, magma comes up and out through the vents. Magma is called lava when it's outside the volcano.
- Some volcanoes are underwater.
- There are no volcanoes in the UK. The largest volcano in Europe is Mount Etna in Sicily (Italy).



Mountains

- When two tectonic plates of the earth's crust grind into each other the land can be pushed upwards, forming mountains.
- Many of the greatest mountain ranges of the world have formed because of enormous collisions between the tectonic plates.
- When many mountains are close together, this is called a range.
- The highest point of a mountain is called the peak or the summit.

Earthquakes

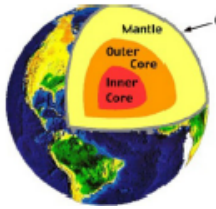
- The tectonic plates have edges and sometimes the edges, which are called fault lines, can get stuck, but the plates keep moving.
- Pressure slowly starts to build up where the edges are stuck and, once the pressure gets strong enough, the plates will suddenly move causing an earthquake.

Vocabulary

active	An **active volcano** has **erupted** recently or is expected to **erupt** quite soon
climate	the general weather conditions that are typical of a place
continent	a very large area of land that consists of many countries. Europe is a **continent**.
core	the central part of the earth, beneath the **mantle**
crust	The Earth's **crust** is its outer **layer**
dormant	not **active** but is capable of becoming **active** later on
earthquake	a shaking of the ground caused by movement of the Earth's **crust**
erupt	When a **volcano erupts**, it throws out a lot of hot, melted rock called **lava**, as well as ash and steam
fault lines	a long crack in the surface of the earth. **Earthquakes** usually occur along **fault lines**
form	move or arrange
gas	something that is neither liquid nor solid. A gas rapidly spreads out when it is warmed and contracts when it is cooled.
lava	the very hot liquid rock that comes out of a **volcano**
layers	If something has many layers, it has many different levels or parts
location	the place where something happens or is situated
magma	**molten** rock that is formed in very hot conditions inside the earth
mantle	the part of the earth between the **crust** and the **core**
melt	to change from a solid to a liquid state through heat or **pressure**
molten	**Molten** rock, metal, or glass has been heated to a very high temperature and has become a hot, thick liquid
mountain	a very high area of land with steep sides
peak	the highest point of a **mountain**, Also known as a **summit.**
pressure	force that you produce when you press hard on something
range (mountains)	A **range** of **mountains** or hills is a line of them
summit	the highest point of a **mountain**, Also known as a **peak.**
tectonic plates	any of the several segments of the Earth's **crust** that move
vegetation	plants, trees and flowers
vent	the part of a **volcano** through which **lava** and gases erupt
volcano	a **mountain** from which hot melted rock, gas, steam, and ash from inside the Earth sometimes burst.

The Earth

- The Earth has three layers – the crust at the very top, then the mantle, then the core at the very middle of the planet.
- The Earth's crust is made up of huge slabs called tectonic plates, which fit together like a jigsaw puzzle.
- These tectonic plates slowly move over a long period of time.



Geographical Skills and Fieldwork

- Describe the layers of the earth using key vocabulary.
- Locate tectonic plates on a map.
- Locate key mountain ranges around the world.
- Investigate and compare different mountains around the world, looking at height, vegetation, animals that live there and the range of the mountains. Which countries do they run through?
- Discuss the climate of mountains and explain why this may be the case.
- Locate volcanoes around the world.
- Locate where earthquakes have happened.
- Discuss what you notice about the location of volcanoes and earthquakes and the edges of tectonic plates.