



# KNOWLEDGE ORGANISER

**GEOGRAPHY: Can the earth shake rattle and roll?**

**Y4 SUMMER TERM**

KEY VOCABULARY:	
WORDS	MEANING
<b>Active volcano</b>	a volcano that has had an eruption in the last 10,000 years, and it is possible it may erupt in the future
<b>Crater</b>	a cup-shaped depression in the surface of the earth, caused by volcanic activity'
<b>Dormant volcano</b>	a volcano that has not erupted in the last 10,000 years, but it is possible that it will erupt in the future
<b>Earthquake</b>	movements, fractures and vibrations in the earth's crust as tectonic plates move
<b>Eruption</b>	the ejection of rock and gas from a volcano
<b>Extinct volcano</b>	a volcano that has not had an eruption in the last 10,000 years, and will not erupt in the future
<b>Lava</b>	molten, fluid rock that is ejected from a volcano and solidifies as it cools
<b>Plate boundary</b>	where two tectonic plates meet
<b>Richter scale</b>	a scale to measure the magnitude of an earthquake
<b>Tectonic plate</b>	a massive slab of rock that 'floats' on top of the mantle (and inner layer) of the Earth
<b>Tsunami</b>	a series of waves of water caused by the movement of tectonic plates below the surface
<b>Volcano</b>	a vent in the earth's crust where lava, steam and ash is ejected during an eruption.

KEY KNOWLEDGE:
<b>QUESTION 1: What is the cause of a volcano erupting?</b>
<b>ANSWER</b> Volcano eruptions happen when magma erupts from beneath the earth's crust. When the volcano erupts the magma becomes lava and it shoots into the air or runs down the side of the volcano.
<b>QUESTION 2: Where are there active volcanoes?</b>
<b>ANSWER</b> There are an estimated 1,510 active volcanoes in the world. One in 10 people live within the danger range of volcanoes.
<b>QUESTION 3: What causes an earthquake?</b>
<b>ANSWER</b> Earthquakes are usually caused when rock underground suddenly breaks along a fault. This sudden release of energy causes the seismic waves that make the ground shake. When two blocks of rock or two plates are rubbing against each other, they stick a little. They catch on each other and break under pressure. During the earthquake the blocks move until they get stuck again.
<b>QUESTION 4: Why do people live near volcanoes?</b>
<b>ANSWER</b> Many people depend on volcanoes for their everyday survival. The steam from volcanoes is used to produce energy in some power station e.g. in New Zealand and Iceland. They attract tourists and therefore jobs in hotels, restaurants and gift shops. Once cooled, lava can be mined and can contain precious metals e.g. gold, silver and diamonds. Volcanoes are mineral rich so the area around is very fertile land.
<b>QUESTION 5: How can you make life safer in an earthquake zone?</b>
<b>ANSWER</b> Buildings in earthquake zones are designed and constructed to be earthquake resistant, for example concrete walls are reinforced with steel, roofs are made as light as possible with heavy sections closer to the ground.



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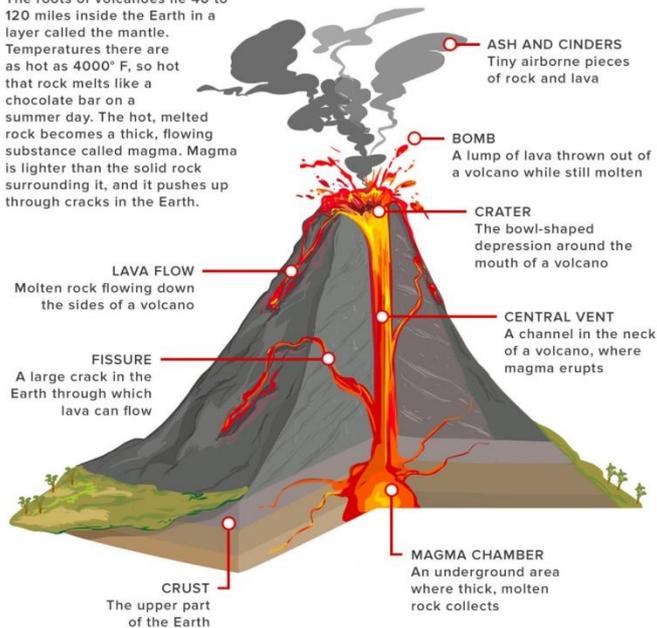
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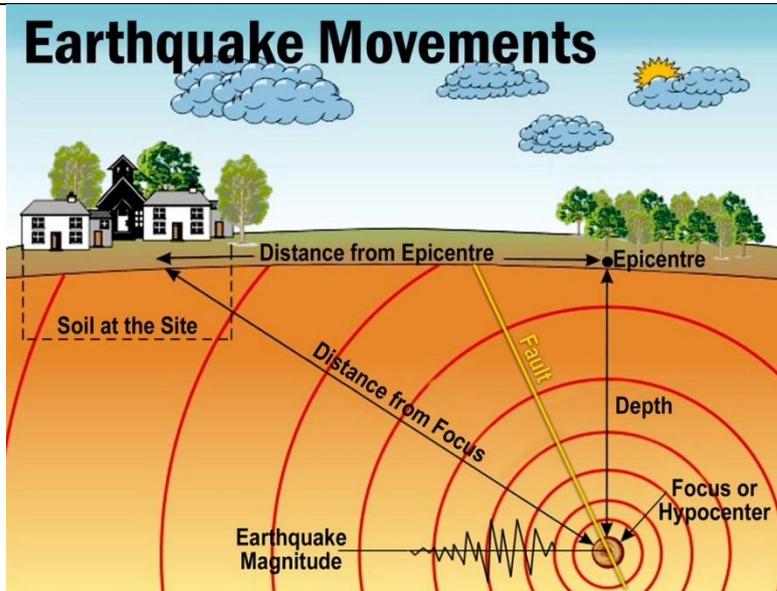
## RELATED INFORMATION:

### VOLCANO

The roots of volcanoes lie 40 to 120 miles inside the Earth in a layer called the mantle. Temperatures there are as hot as 4000° F, so hot that rock melts like a chocolate bar on a summer day. The hot, melted rock becomes a thick, flowing substance called magma. Magma is lighter than the solid rock surrounding it, and it pushes up through cracks in the Earth.



### EARTHQUAKES



## SUGGESTED WEBSITES TO FIND OUT MORE:

[www.easyscienceforkids.com/all-about-earthquakes/](http://www.easyscienceforkids.com/all-about-earthquakes/)

[www.3dgeography.co.uk/what-is-a-volcano](http://www.3dgeography.co.uk/what-is-a-volcano)