Maple Tree Primary School

Year 3 – Why Do People Live Near Volcanoes?

What should I already know?

- Identify and locate characteristics of the UK on a map.
- Identify human and physical features.
- Locate human and physical features on a world map.
- Explain the difference between oceans and seas.
- Name and locate the five oceans on a world map.
- Use an aerial photograph to draw a simple sketch map.
- Collect data by sketching findings on a map and completing a tally chart.
- Present their findings in a bar chart

Knowledge and skills

- Name all four layers of the Earth in the correct order, stating one fact about each layer.
- Explain one or more ways a mountain can be formed.
- Give a correct example of a mountain range and its continent.
- Describe a tectonic plate and know that mountains occur along plate boundaries.
- Correctly label the features of shield and composite volcanoes and explain how they form.
- Name three ways in which volcanoes can be classified.
- Describe how volcanoes form at tectonic plate boundaries.
- Explain a mix of negative and positive consequences of living near a volcano.
- State whether they would or would not want to live near a volcano.
- State that an earthquake is caused when two plate boundaries move and shake the ground.
- Explain that earthquakes happen along plate boundaries.
- List some negative effects that an earthquake can have on a community.
- Observe, digitally record and map different rocks using a symbol on a map.
- Identify rock types and their origins based on collected data.

Vocabulary

ash	a mixture of rock, mineral and glass particles expelled from a volcano during an eruption
crust	the outermost shell of the earth
earthquake	a sudden violent shaking of the ground as a result of movements within the earth's crust or volcanic action
epicentre	the point on the earth's surface vertically above the focus of an earthquake
fault	a fracture or zone of fractures between two blocks of rock
inner core	the innermost part of earth is the core and is about 1500 miles thick
lava	molten rock that breaks through the earth's surface
magma – molten rock	extremely hot liquid and semi-liquid rock located under earth's surface
mantle	is the mostly solid bulk of earth's interior
outer core	the third layer of the earth
seismic waves	produced when some form of energy stored in earth's crust is suddenly released
tectonic plates	massive slab of solid rock made up of earth's lithosphere (crust and upper mantle)

Layers of the earth

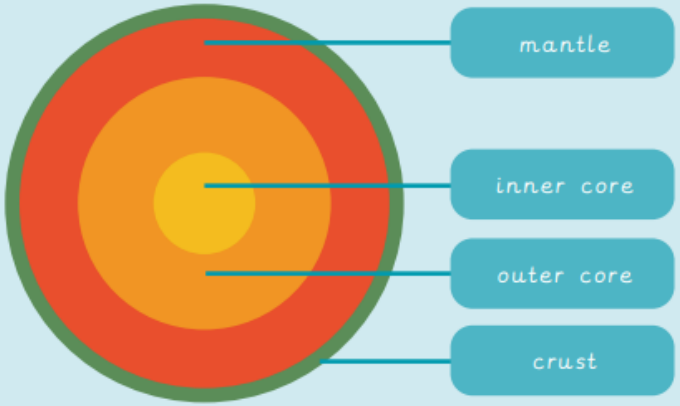
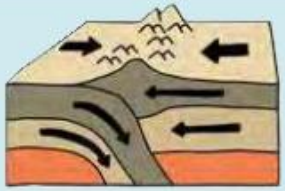
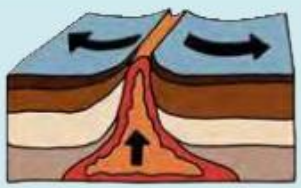


Plate boundaries



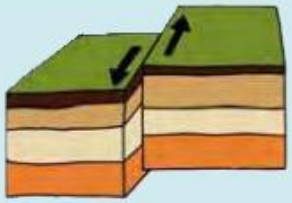
convergent

This is where two tectonic plates meet. The ground can fold up, creating fold mountains.



divergent

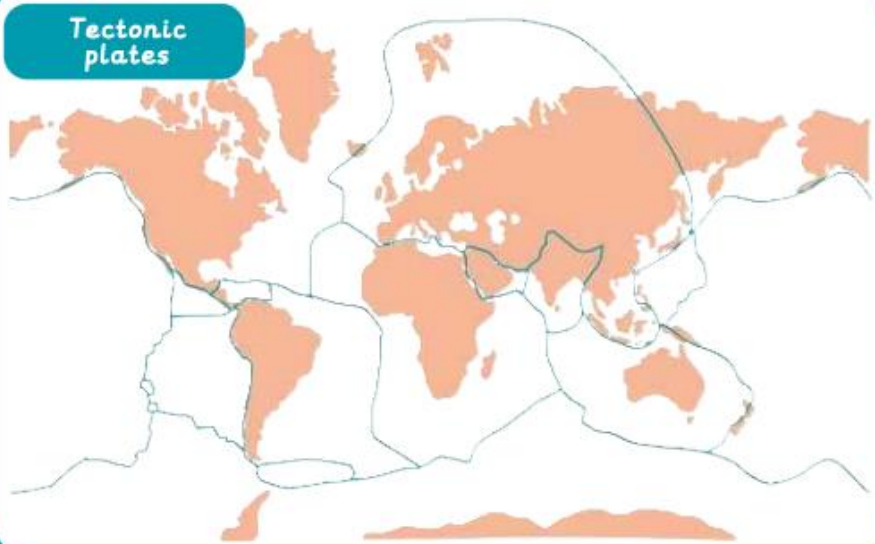
This is where two tectonic plates move apart. Magma can come through the gap, creating a volcanic mountain.



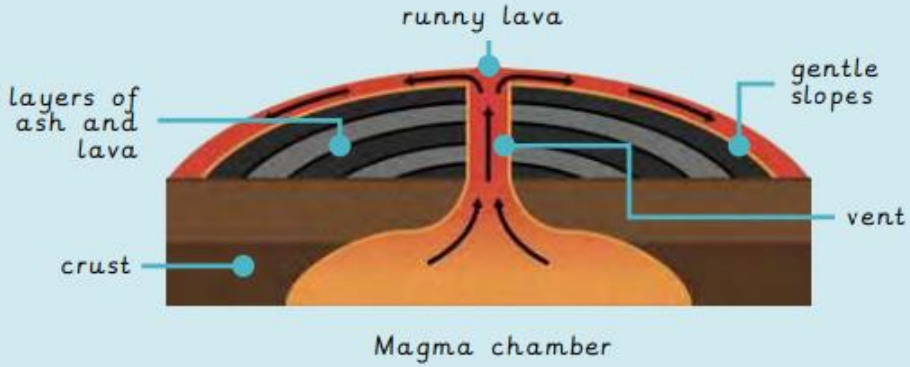
transform

This is where two tectonic plates slide past one another. Cracks in the plates can cause fault-block mountains.

Tectonic plates

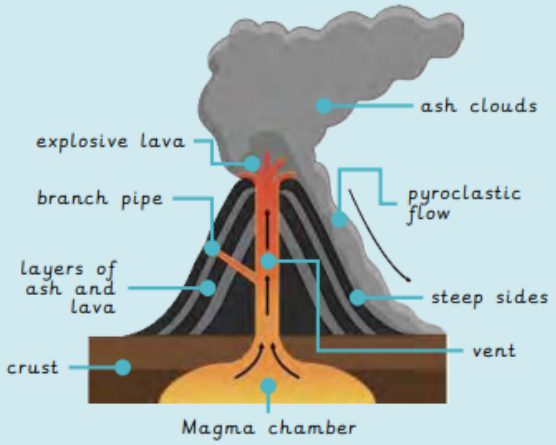


Shield volcano



A less-explosive, gently sloping volcano.

Composite volcano



An explosive, steep-sided volcano.

Negative and positive effects of living near a volcanoe

Negative

People may be injured or killed.

Forests and farmland may be destroyed.

Homes may be destroyed.

Carbon dioxide emissions contribute to climate change.

Ash clouds can pollute rivers, killing fish.

Tsunamis and earthquakes may happen.

Positive

Rich, fertile soil is created.

New land is created over time from hardened lava.

Volcanoes can be beautiful landscapes.

Hot springs and skin-brightening mud attract tourists.

Tourism to volcanoes creates jobs for people.

Geothermal energy from the steam is environmentally friendly.

Jobs are created mining precious stones made by the volcano.

Volcano classification

active

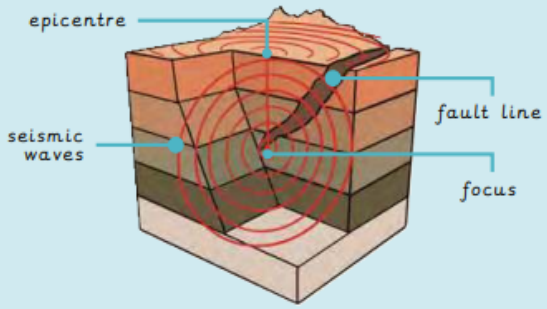
A volcano currently erupting or is likely to erupt soon.

extinct

A volcano that has not erupted in 10,000 years and is not expected to erupt again.

dormant

A volcano that may erupt again but has not erupted for a while.



earthquake

A shaking of the ground caused by tectonic plates moving.

Map of mountains, volcanoes and earthquakes