

# Features of Mountains



# Key Features

## summit

The top of a mountain.

## snow line

Above here snow and ice cover the mountain all year.

## outcrop

A rock formation visible from the surface.

## slope

An area of ground increasing in height.

## plateau

An area of flat, high ground.

## valley

The area of low land between mountains.

## tree line

The highest point forests are found.

## ridge

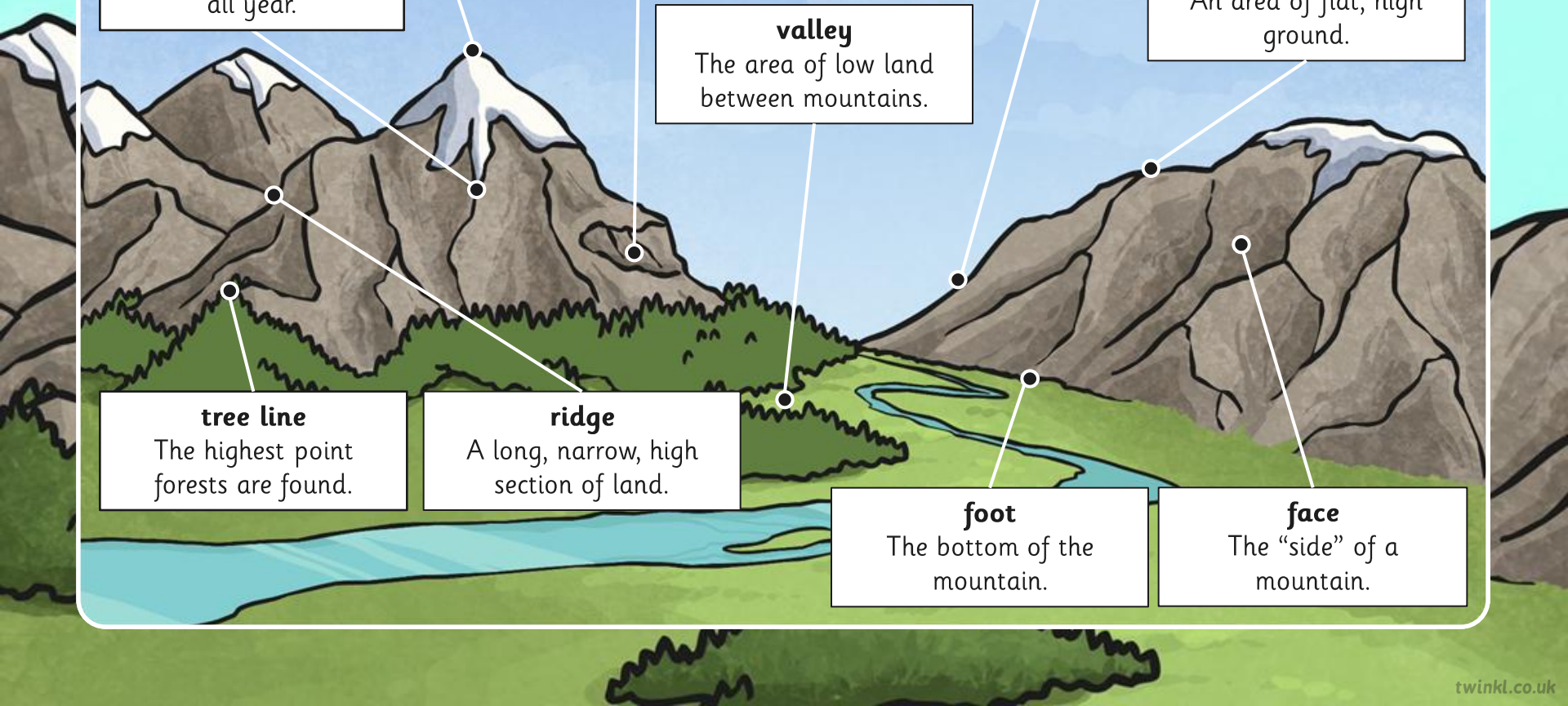
A long, narrow, high section of land.

## foot

The bottom of the mountain.

## face

The "side" of a mountain.







# How Mountains Are Made



# Aim

- I can explain how different types of mountains are formed.

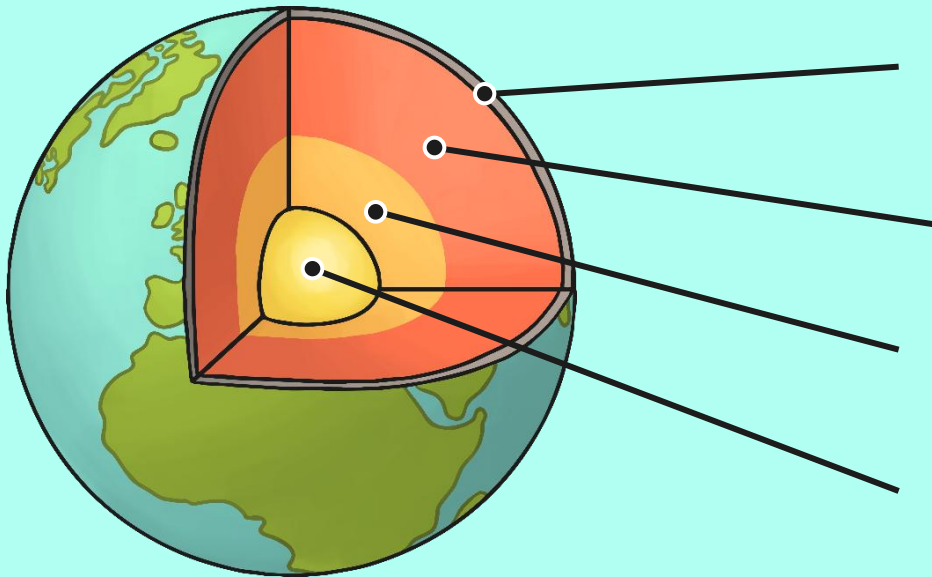
# Success Criteria

- I can tell you that mountains formed a very long time ago.
- I can describe how tectonic plates move together to create fold mountains.
- I can describe how lava flow creates volcanic mountains.
- I can describe how fault lines in the Earth's crust move to create mountains.
- I can describe how pressure from magma under the Earth's surface creates dome mountains.
- I can describe how erosion creates plateau mountains.

# Can You Remember What's under Your Feet?



Can you join the words to the correct layers?



inner core

mantle

crust

outer core



# Can You Remember What's under Your Feet?

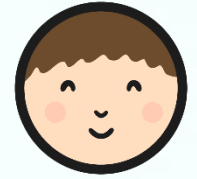
The Earth's crust isn't one solid layer.

It is broken up into huge areas called tectonic plates that float on top of the mantle.

This map shows where the tectonic plates are.



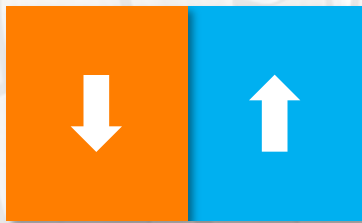
# How Can You Move Your Plates?



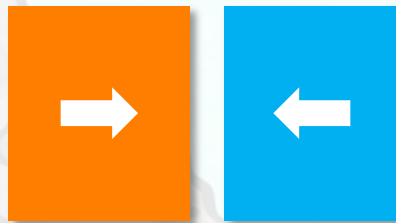
Use the two pieces of paper you have been given.

Lay your “plates” flat onto the table.

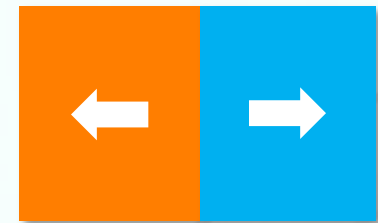
How many different ways can you move the plates around?



**Rubbing  
together**



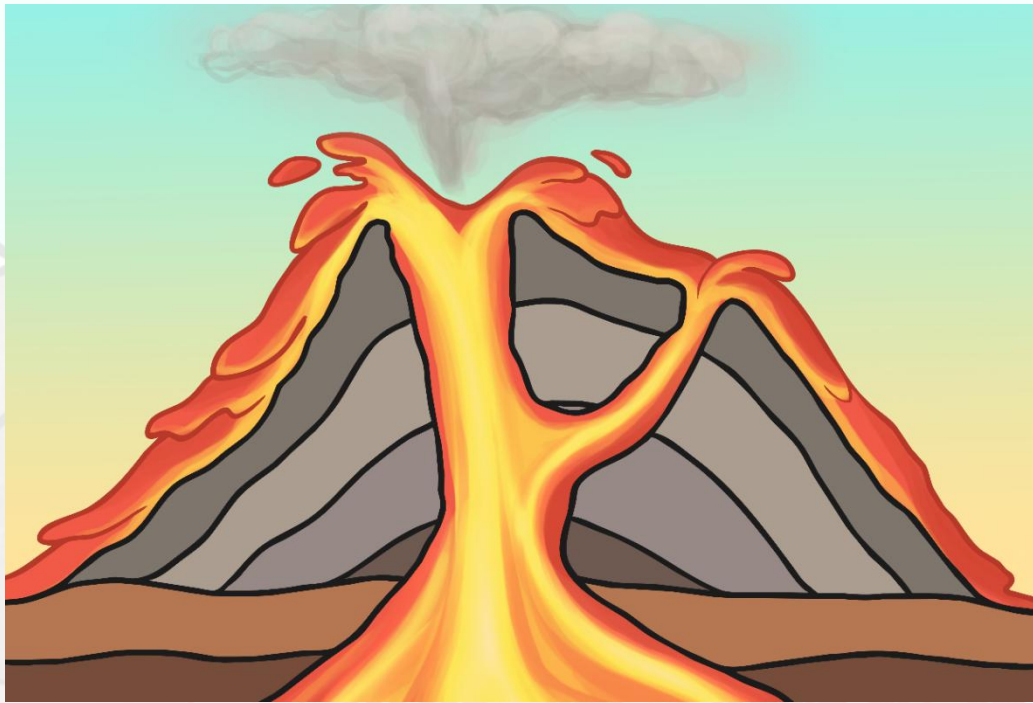
**Towards  
each other**



**Away from  
each other**



# What Have Tectonic Plates Got to Do with Mountains?



What happens when magma escapes through gaps in the Earth's surface?

Volcanoes are one way mountains were formed.

Watch the video to find out another way.



# How Mountains are Made

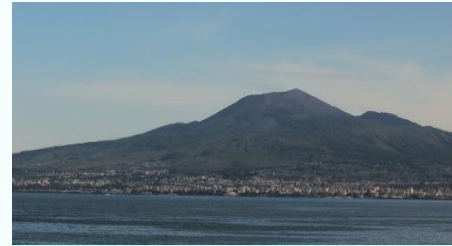
There are 5 main types of mountains:



fold mountains



fault-block mountains



volcanic mountains



dome mountains



plateau mountains

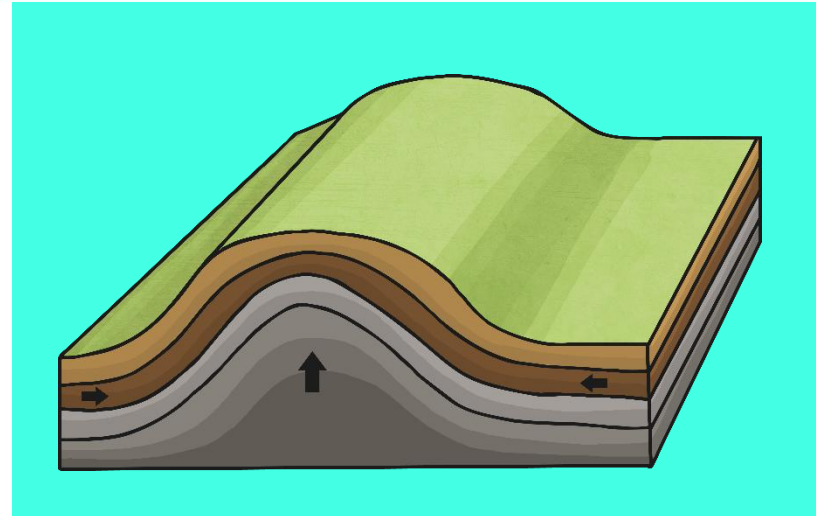
Each one is formed differently.

# Fold Mountains

Fold mountains occur when tectonic plates collide.

The edges of the plates crumple as they are pushed together.

The rock of the Earth's surface is pushed up to create mountains.



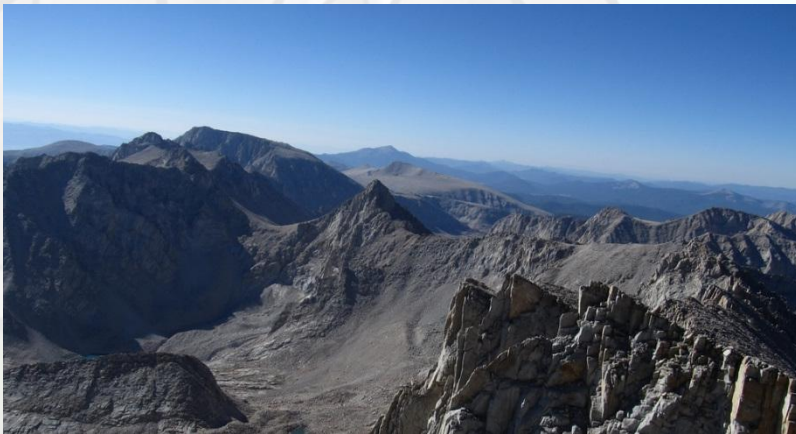
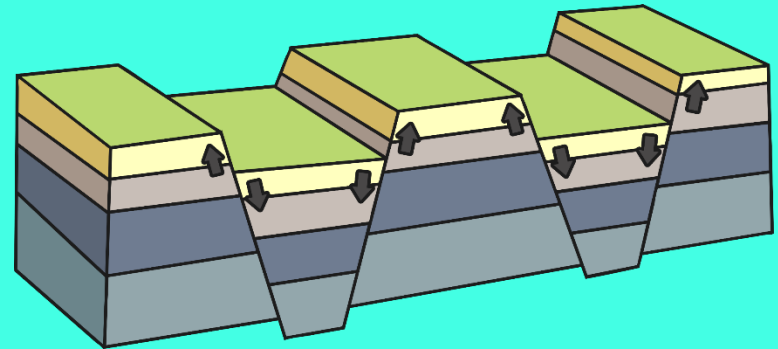
**The Alps are fold mountains.**



# Fault-block Mountains

When cracks in the Earth's surface open up, large chunks of rock can be pushed up while others are pushed down.

This creates mountains with a long slope on one side, and a sharp drop on the other.



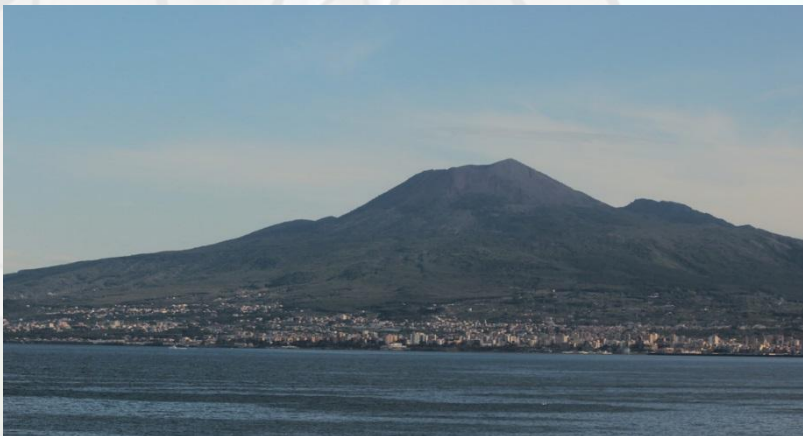
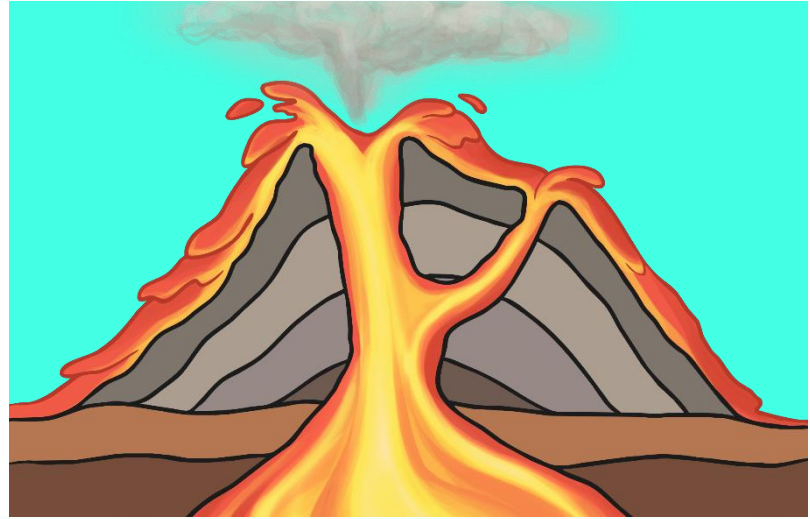
**The Sierra Nevada mountains in California, USA are fault-block mountains.**



# Volcanic Mountains

Volcanic mountains are formed around volcanoes.

Volcanic mountains are made of layers of ash and cooled lava.



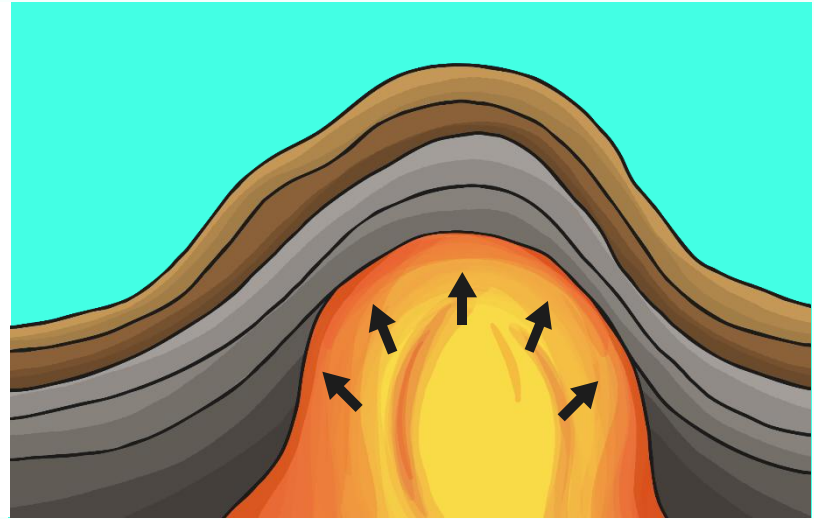
**Mount Vesuvius, Italy is a volcanic mountain.**

# Dome Mountains

Dome mountains are smooth and round-looking.

They are formed when magma is forced up between the crust and the mantle, but doesn't ever flow out.

The magma makes the land bubble up like a balloon.



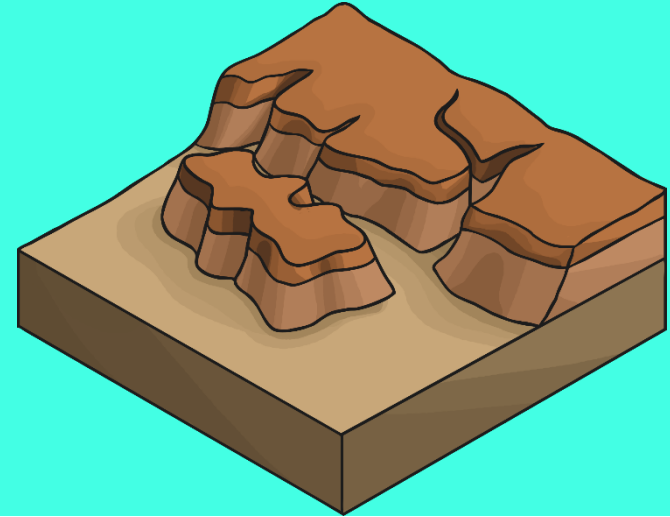
**Devils Tower, USA  
is a dome mountain.**

# Plateau Mountains

Plateau mountains are different from the other mountain types.

They haven't formed because of rock or magma being pushed up.

They form because of materials being taken away through erosion, which has left deep valleys or gorges next to high cliffs.



**The Allegheny Mountains, USA, are an example of this type of mountain.**



# How Were These Mountains Made?



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# How Were These Mountains Made?



"Kukenan Tepuy at Sunset" by Paolo Costa Baldi - Own work. Licensed under CC BY-SA 3.0 via Wikimedia Commons

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# How Were These Mountains Made?



"Badlands National Park Scan 0015" by Stefan Fussen. Licensed under CC BY-SA 3.0 via Wikimedia Commons





# Mountain Climates





# Aim

- I can describe a mountainous climate.

# Success Criteria

- I can tell you what the weather is usually like on a mountain.
- I can tell you the differences between a weather forecast and climate.
- I can find compare mountain climates.
- I can list the risks associated with a mountain climate.

# What Is It like in the Mountains?



X



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# What Did You Find Out?



Is today's weather typical of the climate in the mountain range you were given?

**Climate is the average weather conditions for an area looking at weather patterns for up to 30 years!**

How would you describe the climate of the UK?

**Make a group so that you have data about each of the three mountain ranges – The Rocky Mountains, The Alps and The Himalayas.**

What similarities can you see between the areas?  
What differences are there?





# What Are the Risks of Being in the Mountains?



Why are mountain environments considered to be so dangerous?

What kinds of risks and disadvantages are there for people living in a mountainous environment?

- Low temperatures causing hypothermia
- Bad weather leaving you stranded or causing road accidents
- Bad weather causing power cuts
- Avalanches or landslides
- Altitude sickness
- Wild animals
- Poorer access to medical facilities, schools, etc.

How serious could each situation be?

Is it easy to manage or overcome?



# What Are the Risks of Being in the Mountains?



Altitude sickness

Low temperatures causing hypothermia

Wild animals

Poorer access to medical facilities, schools, etc.

Avalanches or landslides

Bad weather causing power cuts

Bad weather leaving you stranded or causing road accidents

# What Are the Risks of Being in the Mountains?



	<b>Serious Consequences</b>	<b>Less Serious Consequences</b>
<b>Easily Managed</b>	<ul style="list-style-type: none"><li>• Low temperatures causing hypothermia</li><li>• Altitude sickness</li></ul>	<ul style="list-style-type: none"><li>• Bad weather leaving you stranded or causing road accidents</li></ul>
<b>Not Easily Managed</b>	<ul style="list-style-type: none"><li>• Wild animals</li><li>• Avalanches or landslides</li></ul>	<ul style="list-style-type: none"><li>• Bad weather causing power cuts</li><li>• Poorer access to medical facilities, schools, etc.</li></ul>



# Would You like to Live in the Mountains?



Think about what you have learnt about  
mountainous environments so far...



Would you like to live in the mountains?  
Explain your reasons to your partner.