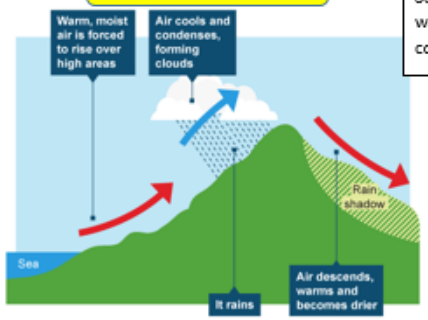
Weather and Climate Key Words

Key Word	Definition
Thermometer	Used to measure temperature
Weather	What the conditions in the air are like on 1 day
Climate	The average weather conditions measured over 30 years
Barometer	Used to measure air pressure in millibars
Visibility	How far you can see in metres
Oktas	The units used to measure cloud cover. It gives a score out of 8 with 0/8 being no cloud at all and 8/8 being complete cloud cover
Anemometer	Cups that spin around and measure the wind speed
Wind direction	Where the wind is coming from
Humidity	The amount of moisture in the air
Wind speed	How fast the air is moving
Air pressure	The weight of the air on the ground
Relief rainfall	Rainfall caused by mountains
Rain shadow	An area of low rainfall on one side of a mountain where air is descending
Convectional rainfall	Rainfall caused by the sun heating the ground
North Atlantic Drift	An ocean current that brings warm water to the west of the UK
Frontal Rainfall	Rainfall caused by cold air meeting warm air
Evaporation	Where water turns from a liquid to a gas due to warming
Prevailing wind	The most common wind direction
Condensation	Where water turns from a gas to a liquid due to cooling
Jet Stream	A narrow band of winds that separate cold polar air from warm tropical air
Isobar	A line on a weather map showing air pressure
Latitude	Distance from the equator
Altitude	Height above sea level
Equator	A line of latitude around the middle of the Earth
Atlantic	The ocean to the west of the UK
Atmosphere	The gases surrounding the Earth

Relief Rainfall

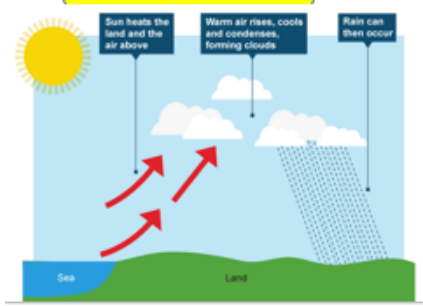


Relief rainfall happens when the moisture evaporated from the North Sea is blown onshore by the prevailing (most common) westerly winds. As the moisture rises over the mountains it cools and condenses into water droplets forming clouds.

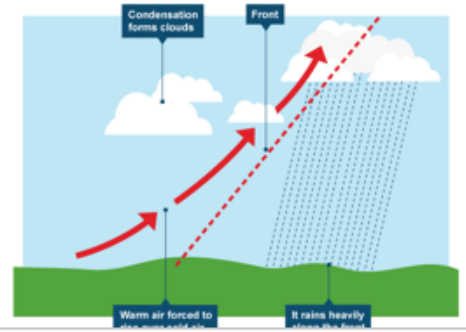
Revision Activity

Can you draw this diagram with labels after looking at it for 30 seconds? Have a go and see how close you can get!

Convectional Rainfall



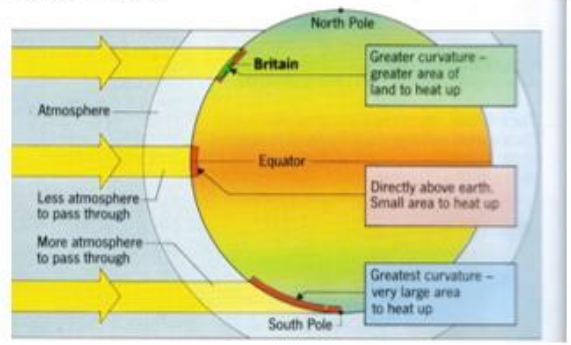
Frontal Rainfall

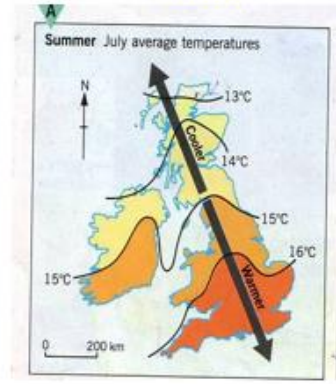


Temperature Patterns in the UK

Latitude-Distance to the equator

The south of the UK has a lower latitude (closer to the equator) where the sun's rays are more concentrated due to the higher angle in the sky meaning the climate is warmer. In addition, the sun's rays have less atmosphere to pass through nearer the equator meaning temperatures are higher. In addition, the UK's mountainous areas have a colder climate as temperatures decrease by 1 degree every 100m altitude. These are found in the north and west of the UK.

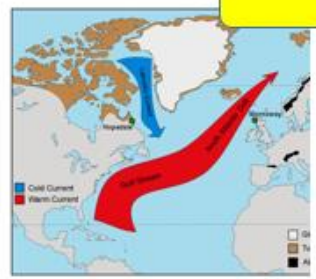




Ocean Currents-The North Atlantic Drift

The North Atlantic Drift is an ocean current that brings warm water from places near the equator such as the Caribbean to the west of Britain. The warm ocean current keeps temperatures higher in the west of Britain in the winter. The east of Britain is not effected the current and so has a colder climate.

Warmer in the south west of the UK in winter



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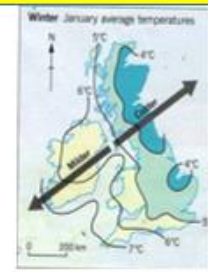

The Greenhouse Effect and Global Warming