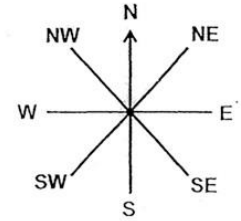
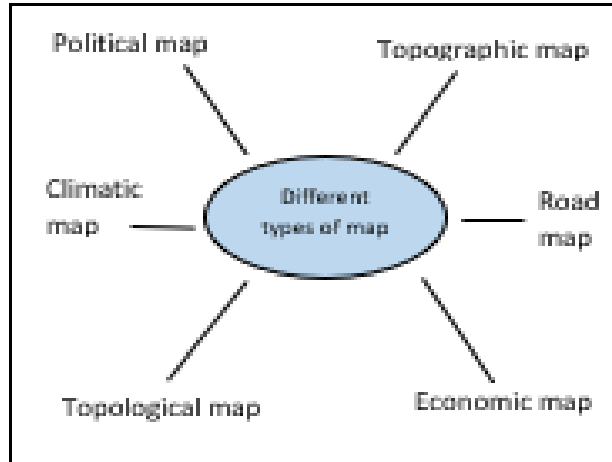




Map Skills

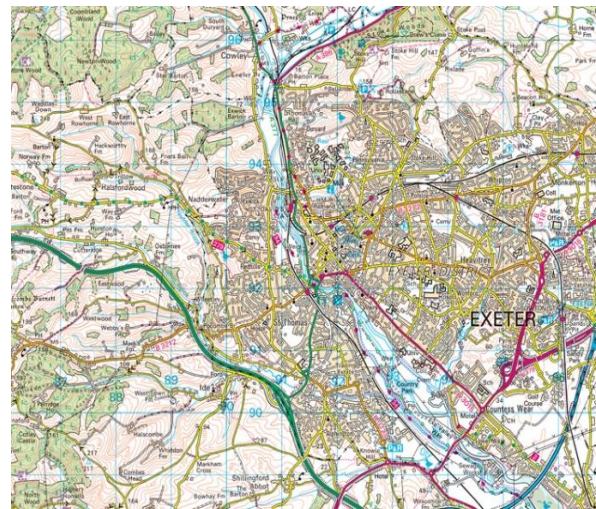


Key Word	Definition
Eastings	The lines that run top to bottom on a map (read from the horizontal axis).
Northing	The lines that run across the map (read from the vertical axis).
Longitude	How far east or west a location is of a given point on earth.
Latitude	How far north or south of the equator a location is.
Equator	An imaginary line around the middle of the earth which is half-way between the North and South Pole.
Prime Meridian	The planets line of zero degrees longitude. It is measured from Greenwich, London.
Scale	The ratio between the distance measured on a map and the actual distance.
Relief	The height and shape of the land.
Topography	The shape and natural features of an area.
Contour	A line that joins points of equal distance on a map.
GIS	Geographic Information System. A way to gathering, manage, display and analyse data.



OS Maps

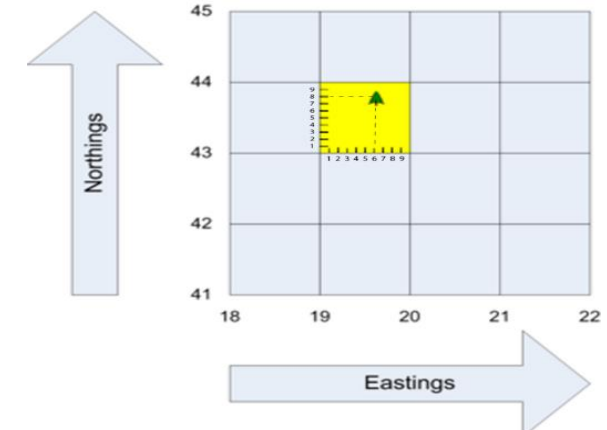
OS stands for **Ordnance Survey**. An OS map is **drawn to scale** showing the real features (roads, paths, hills and buildings) of an area in detail.



- Skills:**
- Be able to recognise commonly used symbols on a map
 - Give and find 4 and 6-figure grid references
 - Describe a route from one destination to another
 - Use numerical skills to work out distances

Grid References

Maps are divided into numbered squares, which can then give a place a 4 or 6-figure grid reference



- Read along the bottom first and then up the side. You always read the number at the start of the box.
- For example, the yellow square on the grid shown would be 1943
- For 6-figure grid references, you need to imagine the square is divided into 100 tiny squares, with 10 squares along each side. You then work out how many points it is along the square
- For example, the blue triangle would be found at 196438

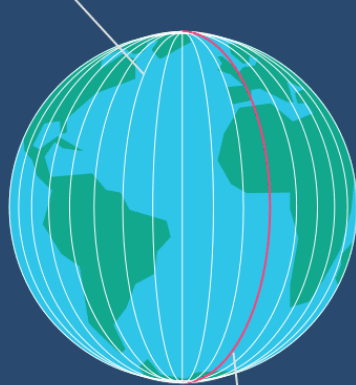
Lines of Longitude and Latitude

Line of latitude



Equator

Line of longitude



Prime meridian

- Lines of latitude are imaginary lines drawn around the earth from east to west.
- The equator is at 0°.
- Latitude is measured in degrees north or south of the equator.
- The north pole is 90°N and the south pole is 90°S.
- Lines of latitude are imaginary lines drawn from north to south.
- The 0° longitude passes through Greenwich in London.
- The other lines are measured east and west, up to 180°
- The world is divided into 24 time zones based on longitude – for every 15° there is a difference of – or + an hour.

Revision Websites

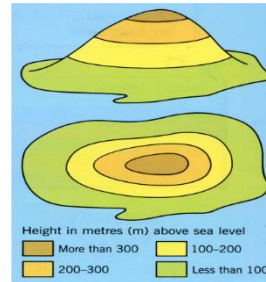


Ordnance Survey



BBC Bitesize

Showing height on a map

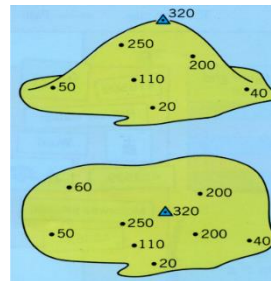


Layer colouring:

Areas of height are shown using different colours

A key is used to show which colour = which height

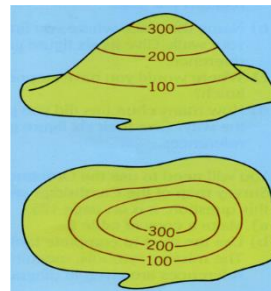
Brown shows the highest point, green shows the lowest



Spot heights:

The exact height of the land is measured and written onto a map

It is shown by a black dot with the number written next to it



Contour lines:

Lines drawn on a map which join up points that are the same height

They are normally brown or orange in colour

If they are close together the slope is steep. If they are far apart the slope is gentle

Scale

The scale of a map shows you how much you would have to enlarge your map to get the actual size of the area you are looking at.

OS maps always use the scale 4cm:1km. This means that every 4cm on the map is 1km in real life. To work this out, the easiest way is to multiply what you have measured by 0.25.

Distance

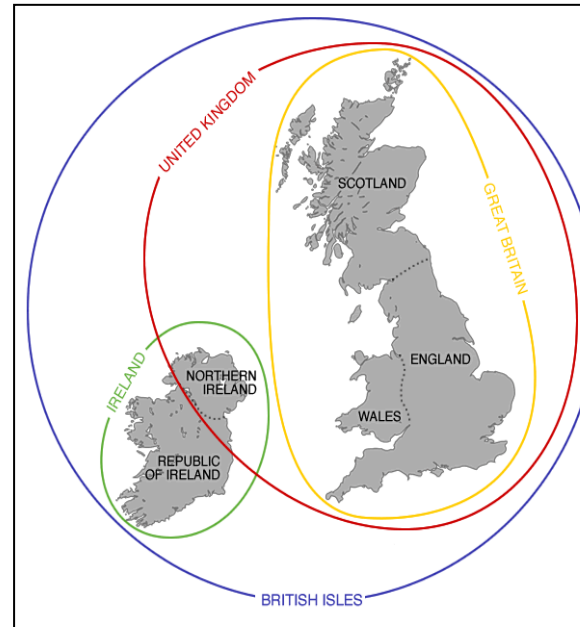
You can measure distance either in a straight line ("as the crow flies") or following a winding route (via roads or paths etc.)

You could do this by placing a piece of string between the 2 points you want to go to. Mark the start and end point on the piece of string and then stretch it out and measure it in cm on a ruler. Now work out the actual distance by multiplying it by the scale given on the map.



UK and World Geography

Key Word	Definition
Physical Geography	Natural features on the earth's surface.
Human Geography	Changes to the earth's surface made by people.
Urban	Large settlements like towns and cities.
Rural	Small settlements like villages or open countryside.
Population Density	The average number of people in an area, expressed as people per KM ² .
Population Distribution	The pattern of where people live. This could be even or uneven.
Densely Populated	Lots of people living in one area.
Sparsely Populated	Few people living in one area.



Nations of the UK
<ul style="list-style-type: none"> UK = England, Scotland, Wales, Northern Ireland Great Britain – England, Scotland, Wales British Isles = England, Scotland, Wales, Northern Ireland, Republic of Ireland

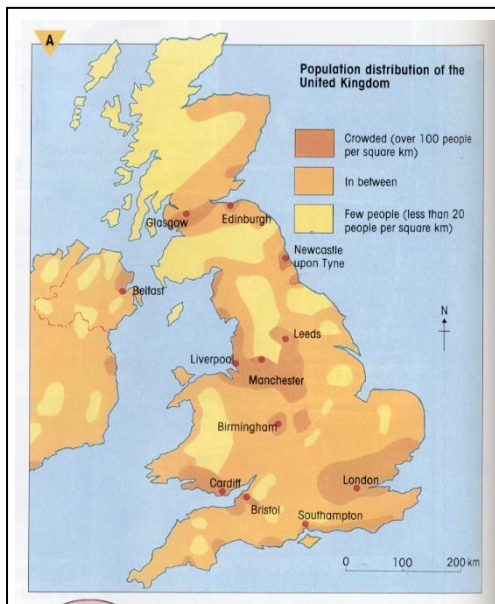
Revision Websites:




BBC Bitesize



Seterra



UK Population
<ul style="list-style-type: none"> Over 80% of the UK's population lives in urban areas. The most densely populated areas of the UK are major cities such as London and Birmingham. The most sparsely populated areas of the UK are remote rural areas such as the North of Scotland and North West England. The UK's population is unevenly spread. London and The South East is the most densely populated region as it is close to the capital, has the highest paying jobs and easy transport links to the centre of London. Places like the Scottish Highlands are sparsely populated as the land is not easy to build on and the climate is poor.

Key Information	
Latitude	55°N
Hemisphere	Northern
Continent	Europe
Capital	London
Highest peak	Ben Nevis
Longest river	River Thames
Population	66 million
Flag	

The Continents of the World



Continents in order of size:

1. **Asia:** 44.58 million KM²
2. **Africa:** 30.37 million KM²
3. **North America:** 24.71 million KM²
4. **South America:** 17.84 million KM²
5. **Antarctica:** 14 million KM²
6. **Europe:** 10.18 million KM²
7. **Australia (Oceania):** 8.6 million KM²

Skills:

Have strong locational knowledge of major countries across the globe.

Have strong location knowledge of nations, regions, cities and physical features of the UK.

To be able to describe and analyse choropleth maps.

To be able to describe, analyse and construct graphs and charts relating to population.

To be able confident in the use of geographical terminology.

World Population

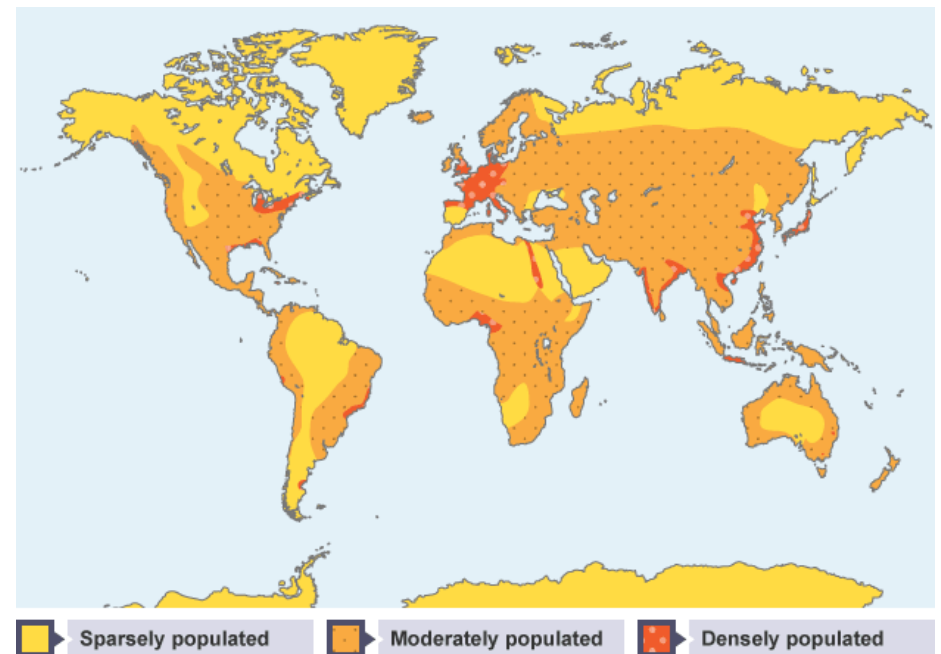
Total Population = 7.79 billion

The population distribution is unevenly spread across the globe.

The majority of places with high population densities are found in the Northern Hemisphere.

Factors affecting population density:

- Climate
- Fertility of land
- Supplies of natural resources
- War and Corruption





Country Case Study - Brazil

Key Word	Definition
Altitude	The height of an object or place in relation to sea level
Birth Rate	The number of births per 1000 of the population per year
Climate	The average temperature and precipitation recorded over a period of time
Death rate	The number of deaths per 1000 of the population per year
Deforestation	The deliberate removal of trees/ forest
Development	Development is a measure of the wealth and quality of people's lives in different countries/areas
Ecosystem	A large community of living organisms in a particular area.
Favela	A slum or shantytown in Brazil.
Fertility Rate	The average number of births per woman
GDP	Gross Domestic Product. The total value of goods and services produced by a country in a year.
Indigenous People	The original or native people of an area
Infant Mortality Rate	The number of children who die before their first birthday
Latitude	The distance of a location north or south relative to the equator
Life Expectancy	The average age to which somebody lives
Literacy Rate	The percentage of the population who can read and write
Natural resources	Raw materials which are obtained from the environment e.g. water, coal, soil etc.
Physical Geography	The branch of geography that deals with physical features such as rivers and mountains.
TNC	Trans National Corporation. A company that operates in multiple countries
Topography	The shape and physical features of an area

Location

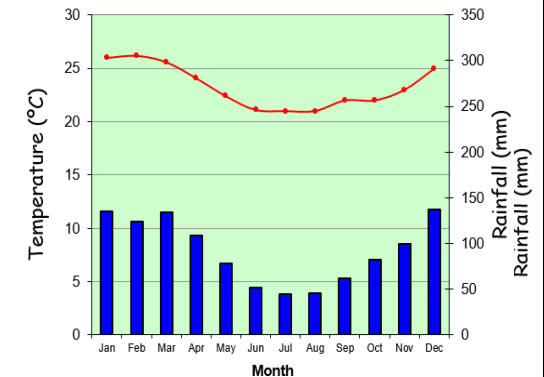
- Continent = South America
- Hemisphere = Southern
- Ocean(s) = Atlantic to the East
- Neighbouring countries = 10 countries including Argentina, Bolivia, Colombia and Venezuela



Climate

- Brazil is a huge country and so has many different climate zones.
- Most of Brazil lies in the Tropics so it is hot all year round, with an average temperature of 25°C.
- Rainfall varies due to many factors such as the height of the land, the distance from the coast and the prevailing winds.
- Central Brazil has a dry season, Southern Brazil is milder and wet and the North is hot and wet.
- We display data about climate on a **Climate Graph**.

A climate graph for Rio de Janeiro, Brazil



Climate graphs show average temperature and precipitation over a year. Temperature is shown as a line graph, and precipitation as a bar graph.

Revision Websites



Oddizzi



National Geographic Kids



Britannica

Natural Resources

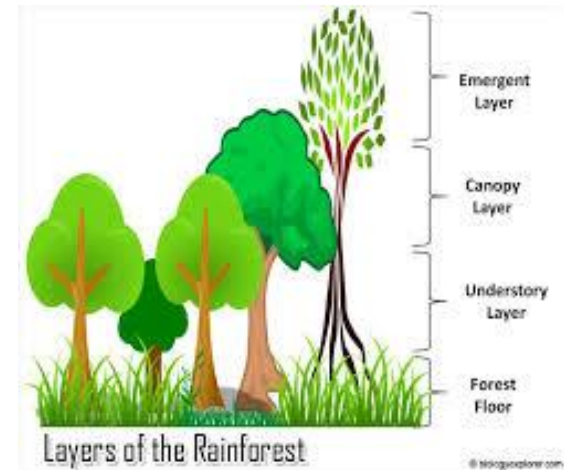
Brazil is rich in natural resources such as:

- Sugar Cane
- Iron ore
- Aluminium
- Tin
- Diamonds
- Coffee Beans
- Soya Beans
- Bananas
- Cotton
- Beef

Brazil's natural resources are helping to make it wealthier – it is the world's biggest exporter of coffee, sugar, soya beans, beef, and oranges, and the second largest of iron ore.

Physical Features – the Amazon Rainforest

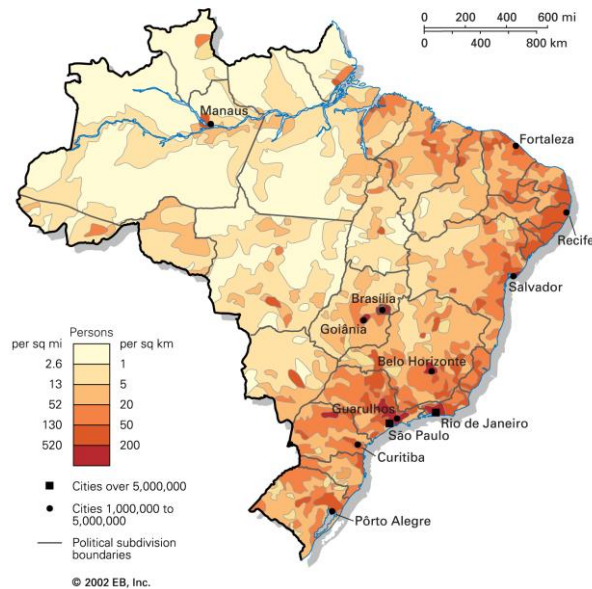
- The Amazon rainforest is the largest rainforest in the world. It is home to over 80,000 species of plants (390 billion individual trees!) and millions of animal species, many of which are insects.
- 2.7 million indigenous people live in the Amazon rainforest, depending on its resources for their survival.
- Unfortunately, the Amazon is under threat from deforestation, with the timber industry receiving over \$500 million in investment from Asian companies.



Population

Brazil's cities are densely populated – people are attracted to them due to a number of things such as jobs, services and healthcare. There are more people living in the south and east due to the milder climates which are better for growing crops and having enough fresh water. We call these factors **Pull Factors**.

The darker the colour the more densely populated the area.



Brazil's Development

If a country is highly developed it has: excellent standard of living, fast transport links, good quality housing, services and healthcare, enough resources for everyone and high paying jobs.

Some areas of Brazil are highly developed, but other areas are not. There is also huge amounts of inequality in Brazil, with many people living in Poverty. This is due to several factors including:

- The climate of different regions
- The accessibility of different regions
- The types and numbers of jobs available
- The level of investment by the Government
- The resources available in different regions

Life in the Favelas

Many of Brazil's poorer people move to the cities to find work. However, housing is expensive so many end up living in shacks built on waste ground:

- Houses are built from any materials found lying around (e.g. wood and sheets of metal)
- Often there is no running water or proper electricity
- There are high crime levels and lots of disease

About 20% of Rio de Janeiro's population live in Favelas

Skills:

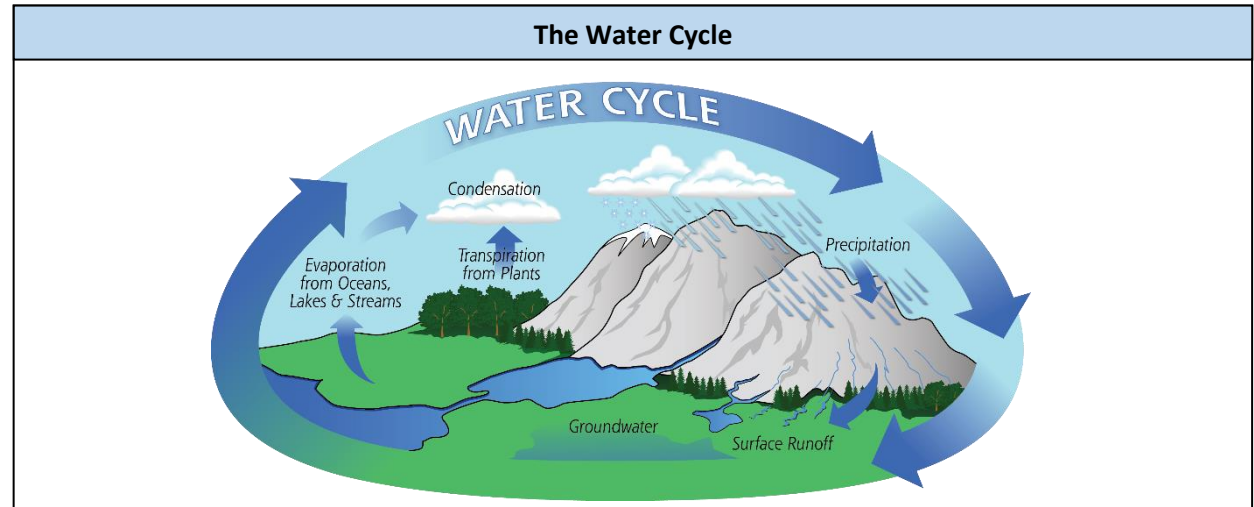
- Be able to describe and interpret a number of different graphs, charts and maps.
- Apply knowledge of issues related to wealth and development
- Analyse the importance of key Physical Features found in Brazil
- Use key terminology confidently across a range of areas related to Brazil



Weather and Climate

Key Word	Definition
Weather	The day-to-day conditions of the atmosphere. It can change very quickly.
Climate	The average weather conditions over a longer period of time or large area.
Meteorologist	Someone who predicts, forecasts and monitors the weather
Altitude	Height above sea level.
Latitude	Distance north or south of the Equator.
Evaporation	The process of water turning from a liquid into a gas.
Condensation	When a gas turns back into a liquid (forming clouds)
Precipitation	Rain, sleet, snow or hail that falls to the ground.
Surface run-off	When water runs over the earth's surface.
Groundwater flow	When water flows through rocks and soil under the ground.
Transpiration	Evaporation of water from trees and plants.
Microclimate	When a small area has a different climate to those around it.

- Skills:**
- To be able to measure the weather using appropriate instruments
 - To use numeracy skills to work out averages and construct graphs
 - To apply knowledge about weather and climate to case studies.



How do we measure weather?

Humidity: measured as a percentage using a hygrometer.

Wind speed: measured either as MPH or on the Beaufort scale using an anemometer.

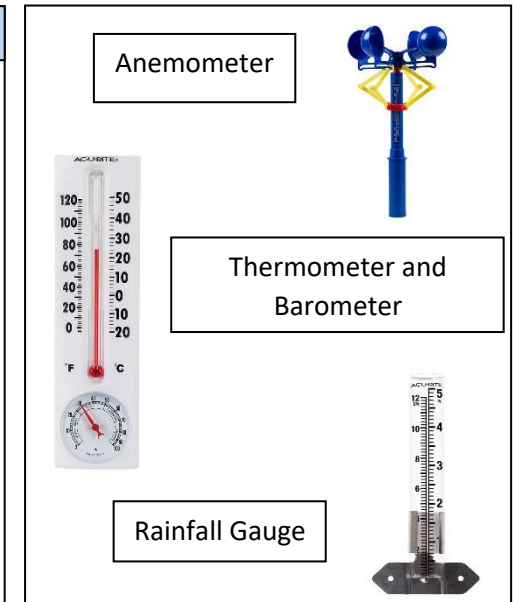
Air pressure: measured in millibars using a barometer.

Precipitation: measured in millimetres using a rainfall gauge.

Cloud Cover: measured in Oktas using an okta frame.

Sunshine Intensity: measured in sunshine hours using a radiometer.

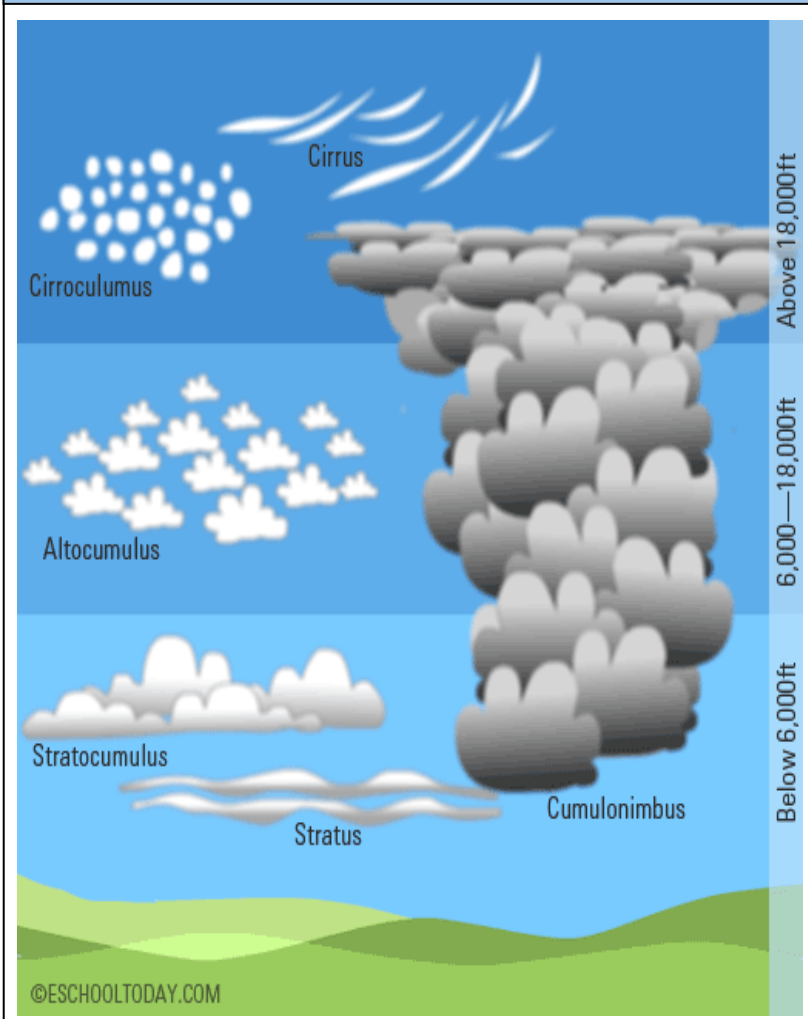
Temperature: Measured in °C or °F using a thermometer.



Factors Affecting Weather and Climate

Altitude	The higher the altitude, the lower the temperature. It changes by about -1°C every 100m.
Latitude	The further away you are from the equator you are, the colder it is as there is lower sunshine intensity.
Oceans and Land	Oceans take longer to heat up than land. They also take longer to cool down. This means that in the summer areas near the coast are generally cooler, but they are warmer in the winter.
Air Pressure	Low pressure brings unsettled weather and rain. High pressure brings fine, dry conditions.
Ocean Currents	Currents transfer heat from warmer areas to colder areas and from colder areas to warmer areas and help to regulate temperatures on earth. For example, the Gulf Stream brings warmth from near the equator the UK.

Types of Cloud



Types of Rainfall

Convictional: The sun warms up the ground and causes the air to rise. This then cools and condenses into clouds and then rains.

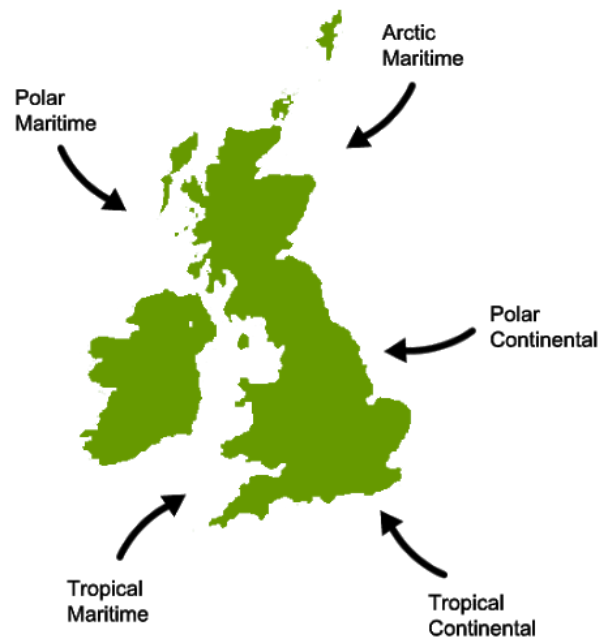
Relief: Air is forced to rise over hills and cools quickly leading to clouds and rain.

Frontal: When a warm air mass meets a cold air mass, the warm air is forced to rise. This condenses to form clouds and rain.

Air masses affecting the UK

- **Polar** = cold air
- **Arctic** = cold air
- **Tropical** = warm air
- **Maritime** = moist air
- **Continental** = dry air

These air masses will affect the UK at different times of the year and can bring with them different weather conditions.



Revision Websites:



Met Office



BBC Bitesize