










Key Vocabulary...

Precipitation	Precipitation is the release of water from the sky, it can be liquid or solid, for example, rain, sleet, hail and snow.
Cloud	Clouds are visible accumulations of tiny water droplets or ice crystals in the Earth's atmosphere.
Air Pressure	The air around you has weight, and it presses against everything it touches. That pressure is called atmospheric pressure, or air pressure.
Weather satellites	Weather satellite is a type of satellite that is primarily used to monitor the weather and climate of the Earth
Weather	Weather refers to day-to-day temperature and precipitation activity.
Climate	Climate is the average weather condition over 30 years.

How far have we come?

The first ever daily weather forecasts were published in The Times on **August 1, 1861**, and the first weather maps were produced later in the same year. In 1911, the Met Office began issuing the first marine weather forecasts via radio transmission.

Key Symbols...

 Sunny day	 Sunny intervals	 Cloudy
 Overcast	 Light rain	 Heavy rain
 Light snow	 Heavy snow	 Thunder

The Met Office

The Met Office is the UK's national weather service. It provides weather and climate-related services to the Armed Forces, government departments, the public, civil aviation, shipping, industry, agriculture and commerce.







Met Office

Deeper Learning...

Imagine you asked a friend to stand in the middle of the playground, and then you walked or ran around your friend. If the playground was space, you would be called a satellite.

Picture this...



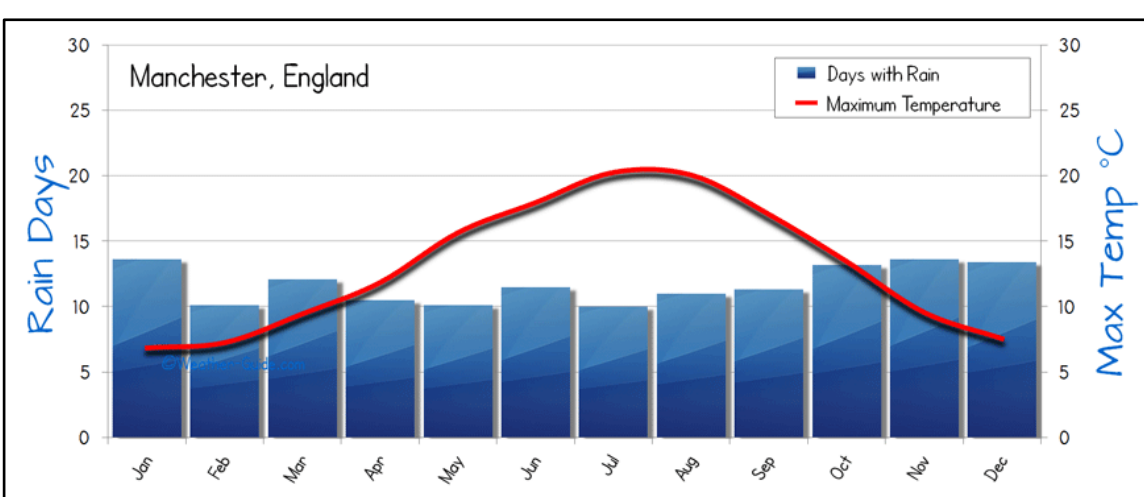
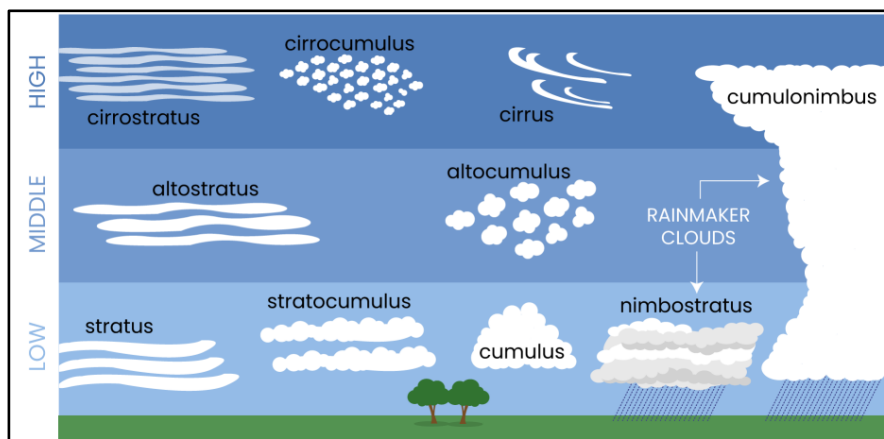
Temperature is measured in Celsius (°C) using a thermometer .	
Precipitation is measured using a rain gauge .	
Wind direction is reported by the direction it is blowing from , according to the compass.	
Wind speed can be measured using an anemometer .	

The BIG questions..

1. Explain what factor influence the climate of Europe.
2. Document the journey of a water droplet. How does it rain?

A weather satellite is a man-made satellite that orbits the Earth and gives us information about the weather. Powerful rockets take these satellites into orbit.

Activity: Describe today's weather... You are a BBC weather reporter tells us the forecast today.



WEATHER

WHAT YOU GET

CONDITIONS OF THE ATMOSPHERE OVER A SHORT PERIOD OF TIME

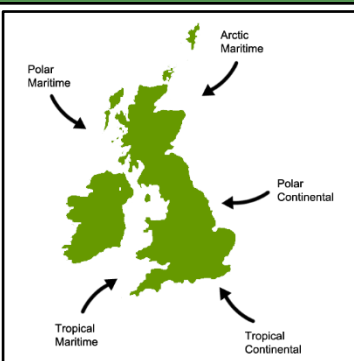
CAN CHANGE WITHIN MINUTES OR HOURS

CLIMATE

WHAT YOU EXPECT

HOW THE ATMOSPHERE BEHAVES OVER A LONG PERIOD OF TIME AND SPACE

AVERAGE REGIONAL WEATHER PATTERN OVER DECADES



- R A G P
1. What is the difference between weather and climate?
 2. What does the Beaufort scale show?
 3. Describe what the climate is like in the UK.
 4. Explain how rain forms.
 5. Explain how we measure the weather.
 6. How is climate change affecting the UK's weather?

LOW PRESSURE is caused when...

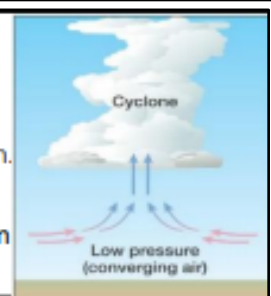
Common weather is...

Where does it occur?

Warm air rises. When the air rises, there are less molecules in the lower atmosphere = low pressure.

Clouds, rain and winds. As the warm air rises, it cools and condenses and forms clouds. Eventually the clouds become saturated (full of water) & rain. Strong winds are common.

The equator - the sun's energy is concentrated over a smaller area. The average temperature is 26°C. The warm air rises, cools, condenses to form clouds = precipitation. There is a lot of rain at the equator. This is where you find tropical rainforests.



HIGH PRESSURE is caused when...

Common weather is...

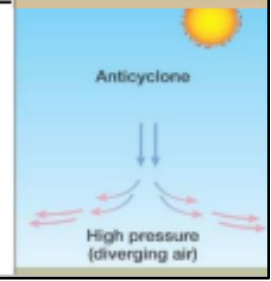
Where does it occur?

Cooler air sinks. When air sinks, there are more molecules in the lower atmosphere = high pressure.

Sinking air = no water vapour condenses = clear skies, dry conditions

- Summer: hot days, no clouds, dry, droughts.
- Winter: cold days, frost and ice common.

Air sinks at 30° N&S of the equator and at 90° N&S of the equator. This is where we find hot and cold deserts.



Extended Write: Explain the climate in the UK and describe the weather this causes.