

How does what's outside impact on our lives now and in the future?

Key concepts:

What is weather?

Weather is the temporary conditions of the atmosphere - it is what happens in the sky around us every day. It can be sunny, rainy, cloudy, windy, or snowy. Weather can change depending on where you live and what time of year it is. It can change hour by hour and day by day.

What instruments do we use to measure weather?

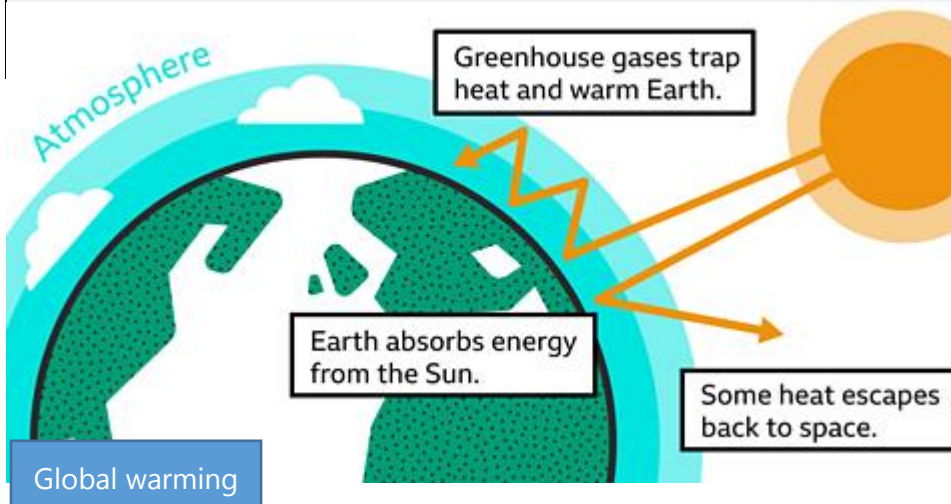
An anemometer is used to measure wind speed, while a wind vane is used to measure wind direction. We use a thermometer to measure how hot or how cold it is.

What is extreme weather?

Extreme weather is when a weather event is significantly different from the average or usual weather pattern. This may take place over one day or a period of time. The impact of some extreme weathers might have devastating effects on people's lives.



Examples of extreme weather



Extreme Weather

The Beaufort Scale

The Beaufort Scale is a scale for measuring wind speeds based on the effect the wind has on the land or sea. The scale ranges from force 0 (calm), to force 12 (hurricane).

1	calm
2	light air
3	light breeze
4	gentle breeze
5	moderate breeze
6	fresh breeze
7	strong breeze
8	near gale
9	strong gale
10	storm
11	violent storm
12	hurricane force

What is wind?

Wind is moving air.
The air around us is always moving — sometimes gently (a breeze), sometimes strongly (a gale).

How is wind formed?

Wind is caused by the Sun heating the Earth unevenly.
The Sun heats different parts of the Earth at different rates. Land warms up faster than water. The equator (near the middle of the Earth) gets more heat than the poles. Warm air rises. When air gets warm, it becomes lighter and rises up. Cool air moves in to take its place. Cooler, heavier air from nearby areas moves in to fill the space left by the rising warm air. This movement of air is wind!

Global Warming

Global warming means that the Earth's temperature is slowly getting hotter. It's happening because too many greenhouse gases are going into the air. These gases trap heat from the Sun in Earth's atmosphere, like a big blanket around the planet. That's called the greenhouse effect — and when there are too many gases, too much heat gets trapped.

What can we do to help?

Plant more trees 🌳
Use less electricity 💡
Walk, cycle, or take the bus 🚲
Recycle and waste less ♻️

Climate is
What We
Expect

Weather is
What We
Get



Language of a Geographer

Weather	The day-to-day conditions of the atmosphere. Weather can change quickly. One day it can be dry and the next it may rain.
Climate	Average weather conditions over longer periods and over larger areas. It would take a long time for the typical climate of an area to change.
Temperature	How hot or cold something is, measured in Celsius or Fahrenheit.
Weather Forecast	A prediction of what the weather will be like in the future. This is done by looking at weather patterns.
Meteorologist	A scientists who observes, studies or forecasts the weather
Seasons	The year is divided into four seasons; spring, summer, autumn and winter.
Observations	What you notice when you look carefully at something
Record	Keeping information about something that has happened such as a measure of how much rain has fallen.
Extreme	Beyond what is expected as normal
Drought	When there is little or no rain over a long period of time.
Flooding	When usually dry land is covered with a large amount of water.
Blizzard	A very heavy snowstorm with high winds.
Heatwave	Unusually hot weather over a long period.
Hurricane	A storm with extremely high winds
Polar	Weather relating to the North and South pole (polar regions)
Tropical climate	Very hot and humid.
Mediterranean	A type of climate which is characterised by dry summers and mild, wet winters.
Mountains	The temperature on mountains becomes colder the higher the altitude.