

Weather and Climate

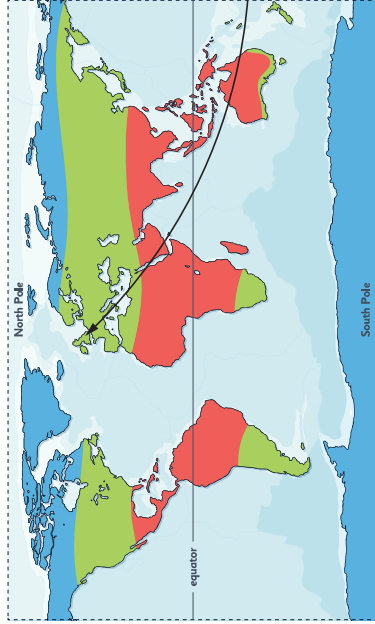
Year 2

Knowledge Organiser

Climate zones

This map shows the **different climate zones** around the world.

Climate key: ● **hot** ● **temperate** ● **cold**



Places in the **northern and southern hemispheres** can have a **similar climate** if they are the **same distance** from the **equator**.

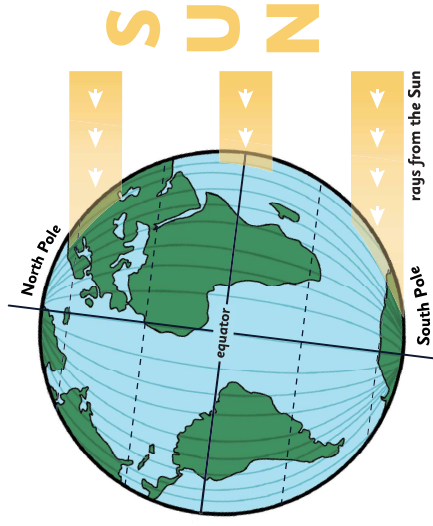
The United Kingdom

The **UK** has a **temperate climate**.

Why are there different climate zones?

The Earth is round and **tilted at an angle**, so the Sun's rays **don't fall evenly on the land and oceans**. Places on the equator are the **hottest places** on Earth. They are the **closest to the Sun** and get the most **direct sunshine**.

The Sun shines less directly on the **North and South Poles** because they are **further from the Sun**, so they are the **coldest places on Earth**.



How does climate affect weather?



Hot

Hot weather can mean there is **little or no rain all year**. These hot, dry places are called **deserts**.

Hot weather can also be **damp**. Another word for this type of weather is **humid**. It can **rain a lot** in some hot places. These places are called **tropical**, and **rainforests** are often in these areas.

Places near the **equator** tend to have the **same or similar weather all year round**.



Temperate

These areas lie **between the equator and the poles**. Places in temperate areas do not tend to have **'extreme'** climates.

The temperatures in these areas are described as **mild**. They are not extremely hot or extremely cold.

They have a **moderate amount of rainfall** all year round.

Places in temperate areas have **four seasons**.



Cold

These areas are **close to the poles**. The **closer** a place is to a **pole**, the **colder** it is.

The poles have **extremely low temperatures** – less than freezing for most of the year, so there is a lot of **ice and snow**.

Places near the **poles** tend to have the **same or similar weather all year round**.

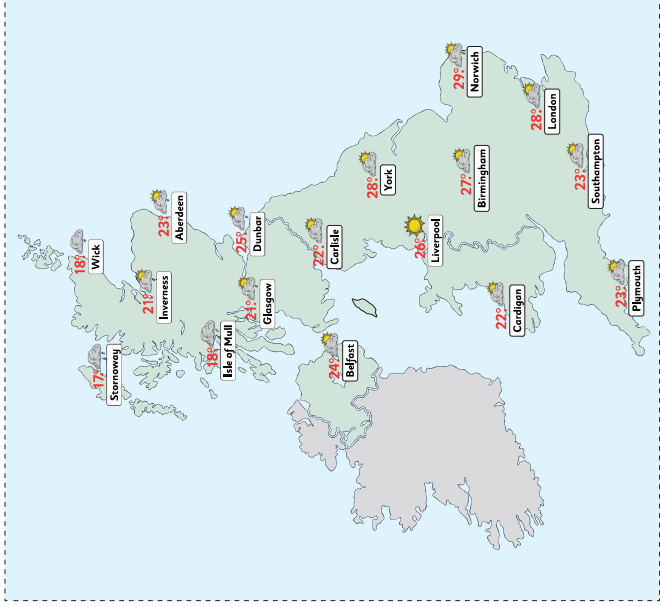
Weather words

Rain	Snow	Temperature
drizzle showers rain downpour	hail sleet snow snowflake	hot warm cool cold freezing
Clouds	Wind	Other vocabulary
cloudy gloomy foggy overcast clear	breeze blustery windy gale	forecast drought lightning thunder rainbow

Forecasting the weather

A **weather forecast** is an **informed prediction** about what the **weather** will be like **today, tomorrow, this week or next**.

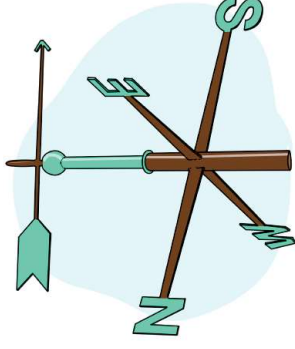
A meteorologist may **record the forecast** using a weather map.



Measuring the weather



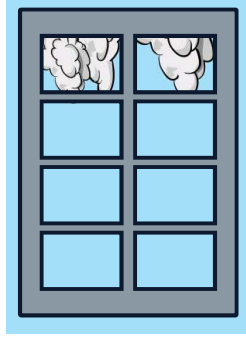
A **thermometer** measures **temperature**.



A **weather vane** measures **wind direction**.



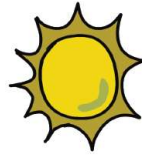
A **rain gauge** measures **precipitation**.



An **okta card** measures **cloud cover**.

Weather map symbols

Symbols are used to show the **type of weather** expected. Symbols give people a clear and simple understanding of **what weather is on the way**.



sunny



partially sunny



light rain



heavy rain



hailstones



cloudy



thunderclouds



sunny with showers



heavy snow



lightning

Fieldwork

Fieldwork is when you go outside and discover things about a place. Fieldwork includes investigating both **human and physical features**.

When conducting fieldwork, we must **ask the following questions before we carry it out**:

- What is the fieldwork you will carry out?
- Where and how will you carry it out?
- Why will you be doing it?

