Your notes

KS3 Geography: revision notes

Weather and climate

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Weather and climate

- **Weather** is the day-to-day state of the atmosphere: temperature, **precipitation**, wind, cloud and sunshine. **Climate** is the average weather over a long time, usually 30 years.
- Instruments: thermometer (temperature), rain gauge (rainfall), **anemometer** (wind speed), wind vane (wind direction) and **barometer** (air pressure).
- A **climate** graph shows rainfall as bars and temperature as a line.

Types of rainfall

- **Relief rainfall**: moist air is forced to rise over hills or mountains, where it cools and condenses into cloud and rain. The sheltered side is a drier **rain shadow**.
- **Convectional rainfall**: the sun heats the ground, the warm air rises quickly and cools, forming thunderstorms, especially in summer.
- **Frontal rainfall**: warm air meets cold air and is forced to rise over it.

Air pressure

- High pressure (an **anticyclone**) has sinking air, clear skies and dry **weather**: hot sunny days in summer, and frosty or foggy mornings in winter.
- Low pressure (a **depression**) has rising air, cloud, rain and strong, changeable winds.

The climate of the British Isles

- The UK and the Channel Islands have a temperate maritime **climate**: mild, wet winters and warm summers.
- The North Atlantic Drift, a warm ocean current, keeps them milder than other places at the same latitude.

- The **prevailing winds** come from the south-west, off the Atlantic, so western areas are wetter than eastern areas.
- A **microclimate** is the **climate** of a small area, such as a sheltered playground.

Key terms

Weather	The day-to-day state of the atmosphere.
Climate	The average weather over a long time, usually 30 years.
Precipitation	Water falling from the sky, such as rain, snow or hail.
Anemometer	An instrument that measures wind speed.
Barometer	An instrument that measures air pressure.
Relief rainfall	Rain caused when moist air is forced to rise over high ground.
Convectional rainfall	Rain caused when the sun heats the ground and warm air rises quickly.
Frontal rainfall	Rain caused when warm air rises over cold air.
Rain shadow	A drier area on the sheltered side of hills or mountains.
Anticyclone	An area of high pressure, bringing settled weather.
Depression	An area of low pressure, bringing cloud, rain and wind.
Prevailing wind	The direction the wind blows from most often.
Microclimate	The climate of a small area.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is the difference between weather and climate?
2. Which instrument measures rainfall?
3. What does an anemometer measure?
4. What causes relief rainfall?
5. What is a rain shadow?
6. Which type of rainfall causes summer thunderstorms?
7. What weather does high pressure usually bring?
8. What is the climate of the British Isles?

Answers

1. Weather is day to day; climate is the average over many years
2. A rain gauge
3. Wind speed
4. Moist air forced up over high ground, where it cools and condenses
5. A drier area on the sheltered side of hills or mountains
6. Convectional

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7. Dry, settled weather with clear skies
8. Temperate maritime: mild, wet winters and warm summers

What to do next

Practise 12 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

Free revision for GCSE and KS3 at lycolearn.co.uk. Some notes are for one exam board only, and say so in brackets.

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