1. Expert Vocab

Climate
Weather
Microclimate
Relief / Frontal / Convectional
Condensation
Evaporation
Precipitation
Prevailing wind

2. Weather vs Climate

Weather - the day-to day average Climate - average long-term weather.

Causes of different weather patterns: Mid-latitude location means it sits where cold polar air meets warm tropical air, creating changeable conditions.

Prevailing south-westerly winds bring moist air from the Atlantic Ocean.

North Atlantic Drift (a warm ocean current) keeps winters milder than other places at similar latitudes.

Air masses (large bodies of air with specific temperature and moisture) arriving from different directions significantly influence whether the weather is wet, dry, cold, or warm.

3. Measuring weather

We are investigating the methods of measuring weather and how effectively these are.

Rain gauge Collects Rainfall within 24 hours

Barometer
Measures the wind pressure



Anamamatan

Thermometer

records in Oc



Anemometer measures the wind speed

4. Clouds types and rain types

Clouds are basically huge groups of tiny water droplets or ice crystals floating in the air. They form when warm, moist air rises, cools down, and the invisible water vapour in it turns back into visible liquid water droplets or ice.

Types of rain:

Frontal: occurs when a warm front meets a cold front. The heavier cold air sinks to the ground and the warm air rises above it.

Convectional: usually occurs during the summer in the UK, when the sun heats the land.

Relief: occurs when warm moist air from the

Atlantic Ocean rises up over mountains.

5. Microclimate investigation

The climate of a small area which is different to the surrounding area.

tale cox 18% 19th

Hypothesis:

The weather on the school field is better than on the tennis courts.

Equipment: Thermometer, anemometer

Data presentation:

Bar graphs

6. Beast from the East

The short-term impacts were severe: heavy snowfall, reaching up to 50 cm in some areas, and plummeting temperatures as low as $-12^{\circ}C$ in rural regions. Tragically, two fatalities were reported.

Response: red weather warnings were issued across affected areas. Emergency services and the military were mobilised to assist. The Royal Air Force provided relief efforts in snow-hit Lincolnshire, while soldiers were deployed in Edinburgh to transport approximately 200 NHS staff to and from the hospitals such as the Edinburgh Royal Infirmary, ensuring essential healthcare services could continue