

Exploring Weather and Climate with Finn the Dolphin

Learning objective: To understand the differences between weather and climate, identify climate zones, and analyse the impact of global weather patterns.

Test your knowledge of meteorological terms! Use these flashcards to revise for your geography assessment. Read the term or question on the front, then check the answer on the back.

Weather

The short-term state of the atmosphere at a specific place and time, including conditions like rain, wind, or sunshine.

Climate

The average weather patterns in a specific area observed over a long period, typically 30 years or more.

What is the primary difference between weather and climate?

Weather changes from hour to hour or day to day, whereas climate is the long-term trend of weather in a region.

Equator

An imaginary line circling the Earth halfway between the North and South Poles, where the climate is generally hot all year round.

Precipitation

Any form of water, liquid or solid, that falls from the atmosphere to the Earth's surface, such as rain, snow, sleet, or hail.

Latitude

The distance north or south of the Equator, measured in degrees, which heavily influences the climate of a region.

Polar Zone

The cold climate regions located near the North and South Poles, characterised by freezing temperatures and limited vegetation.

Tropical Zone

The region near the Equator that experiences high temperatures and significant rainfall throughout the year.

Explain why the climate near the Equator is hotter than near the Poles.

Because the Earth is curved, sunlight hits the Equator directly, concentrating heat, whereas sunlight hits the Poles at an angle, spreading the heat over a larger area.

What might happen to coastal geography if global temperatures continue to rise?

Rising temperatures may cause polar ice to melt, leading to a rise in sea levels, which could flood low-lying coastal areas and change shorelines.

Justify why it is important for scientists to collect climate data over several decades rather than just one year.

A single year can be an anomaly (unusually hot or cold), long-term data is required to identify genuine trends and separate them from short-term weather fluctuations.

Compare and contrast a Temperate climate with a Tropical climate.

Temperate climates have four distinct seasons and moderate temperatures, while Tropical climates are consistently warm with little seasonal variation in temperature.