

Finn's Global Climate Expedition

Learning objective: To understand the key characteristics of different climate zones and the factors that influence them.

Read the front of each flashcard to test your knowledge about the Earth's climates. Flip to the answer to check your understanding. Pay close attention to how Finn the Dolphin describes the patterns he sees across the globe!

What is the difference between weather and climate?

Weather is what is happening outside right now, whereas climate is the average weather pattern in a place over a very long period of time.

Which imaginary line circles the middle of the Earth and receives the most direct sunlight?

The Equator.

Describe the characteristics of a Tropical climate zone.

Tropical climates are found near the Equator; they are generally hot all year round and experience high levels of rainfall.

What is an 'Arid' climate?

An Arid climate is a dry region, such as a desert, which receives very little precipitation throughout the year.

Why are Polar regions so much colder than other parts of the world?

They are located far from the Equator at high latitudes, meaning they receive less direct sunlight throughout the year.

What type of climate does the United Kingdom have?

A Temperate climate, which means it has moderate temperatures and distinct seasons without extreme heat or cold.

How does altitude affect the climate of a mountain range?

As you gain altitude (height), the air becomes thinner and the temperature generally drops, making mountain peaks colder than the land below.

Define 'Precipitation' in the context of climate studies.

Precipitation is any form of water, liquid or solid, that falls from the atmosphere to the Earth's surface, including rain, snow, sleet, or hail.

Explain why the climate near the Equator remains stable throughout the year.

Because the Equator receives a consistent amount of direct sunlight, the temperatures do not fluctuate as dramatically as they do in regions further north or south.

What is the role of the atmosphere in regulating Earth's climate?

The atmosphere traps heat from the sun and helps to distribute it around the planet, keeping the Earth at a temperature that supports life.

Compare and contrast a Polar climate with a Tropical climate.

A Polar climate is characterised by freezing temperatures and ice, while a Tropical climate is characterised by warmth and high humidity; both are extreme but in opposite ways.

Justify why scientists study climate patterns over many decades rather than just a few years.

Climate is a long-term trend. Studying many decades of data allows scientists to identify genuine shifts in patterns and distinguish them from unusual, short-term weather events.