

Exploring Global Climates with Finn the Dolphin

Learning objective: To understand, identify, and compare different climate zones and the factors that influence global weather patterns.

Use these flashcards to test your knowledge of global climates. Read the term or question on the left, then flip to check your understanding of the answer on the right.

What is the difference between weather and climate?

Weather refers to short-term conditions in the atmosphere, whereas climate is the average weather pattern of a region over a long period, usually 30 years or more.

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

The Equator.

Explain why the regions near the Equator are generally warmer than those near the poles.

Because the Earth is curved, sunlight hits the Equator directly, concentrating energy in a smaller area, while sunlight hits the poles at a slant, spreading the energy over a much larger area.

What are the three main climate zones of the Earth?

The Tropical zone (near the Equator), the Temperate zone (between the tropics and the polar circles), and the Polar zone (near the poles).

What is an 'arid' climate?

A climate characterised by a severe lack of available water, often called a desert climate, where precipitation is very low.

Define 'Latitude' and explain its impact on climate.

Latitude is the distance north or south of the Equator. Generally, as latitude increases (moving away from the Equator), temperatures tend to decrease.

Describe the characteristics of a Temperate climate.

A climate with moderate rainfall throughout the year, mild summers, and cool winters, typical of regions like the United Kingdom.

What is a Tundra climate?

A cold, dry climate found near the poles where the subsoil is often permanently frozen, known as permafrost, and few trees can grow.

How does the distance from the sea affect a region's climate?

Oceans heat up and cool down more slowly than land. Coastal areas often have more moderate temperatures, while inland areas may have hotter summers and colder winters.

What is 'precipitation'?

Any product of the condensation of atmospheric water vapour that falls under gravity, including rain, snow, sleet, and hail.

Why do mountain ranges often create 'rain shadows'?

As air is forced over a mountain, it cools and releases moisture (rain) on the windward side. By the time the air reaches the other side, it is dry, creating a dry region called a rain shadow.

Compare and contrast the climate of a tropical rainforest with a polar ice cap.

Tropical rainforests are hot and humid with high annual rainfall and constant growth. Polar ice caps are extremely cold, dry with very little precipitation, and have very limited vegetation.