

Exploring Global Climates with Finn the Dolphin

Learning objective: To identify, describe, and compare the characteristics of different climate zones across the globe, understanding the impact of latitude.

Read each question carefully. Use your geographical knowledge of climate zones and the vocabulary provided to construct detailed, analytical answers.

Finn the dolphin has travelled from the icy Arctic waters to the warm currents near the Equator. He has observed how the sun's rays hit the Earth differently depending on where you are. Use your knowledge of climate zones—Polar, Temperate, and Tropical—to help Finn map out the world's weather patterns.

Word bank: Equator · Tropics · Temperate · Polar · Latitude · Precipitation · Humidity · Arid

1. Explain why the regions near the Equator experience a tropical climate, whereas regions near the poles experience a polar climate. Mention the role of latitude in your answer. (3 marks)

2. Compare and contrast a Temperate climate with an Arid climate. How do these climates affect the type of vegetation that can grow in each region? (4 marks)

3. Justify why many of the world's major rainforests are located within the Tropics rather than in Temperate zones. (3 marks)

4. What might happen to the local ecosystem if a region previously classified as 'Temperate' experienced a significant, long-term increase in average annual temperature? (3 marks)

5. If you were to design a house suitable for the Arctic Circle (Polar zone), what specific design features would you include to manage the climate? Explain your reasoning. (3 marks)

6. Finn is planning a migration route. If he wants to stay in a climate where the temperature remains between 15°C and 25°C all year round, which latitude band should he stay within? Explain your choice. (2 marks)

Draw: Draw a diagram of the Earth showing the three main climate zones (Polar, Temperate, Tropical). Label the Equator and show how the sun's light hits the Earth at the Equator versus the poles.



Extension challenge: Research a specific country within each of the three climate zones. Create a persuasive travel brochure that explains the climate of one country and predicts how it might change over the next fifty years if global temperatures continue to rise. Use geographical terminology to support your predictions.