

Exploring the Frozen Frontiers: Polar Regions

Learning objective: To identify, describe, and compare the key physical and geographical characteristics of the Arctic and the Antarctic.

Use your geographical knowledge and the word bank to answer the questions below. Finn the dolphin is waiting to see your brilliant insights into these icy habitats!

N/A

Word bank: Arctic Circle · Antarctic Circle · Tundra · Glacier · Ice shelf · Permafrost · Latitude · Biodiversity

1. Finn the dolphin has noticed that the Arctic is an ocean surrounded by land, while the Antarctic is a continent surrounded by ocean. Explain why this difference in geography influences the climate and sea ice formation in each region. (3 marks)

2. Define the term 'permafrost' and explain how it restricts the variety of vegetation that can grow in the Arctic tundra. (2 marks)

3. Compare and contrast the wildlife found in the Arctic with the wildlife found in the Antarctic. Why do these species not live in both locations? (3 marks)

4. Justify your answer: If global temperatures continue to rise, what might happen to the indigenous communities and scientific research stations located in the Arctic Circle? (3 marks)

5. Explain the significance of the Arctic Circle and the Antarctic Circle in terms of their latitude and the amount of sunlight received during the summer and winter solstices. (2 marks)

Draw: Draw a cross-section of an iceberg. Label the parts above and below the water line, and include one animal native to the region you have chosen to illustrate.



Extension challenge: Imagine you are a lead scientist at a research base. Write a persuasive diary entry justifying why we must protect the Antarctic Treaty System to ensure the continent remains a place for peace and scientific discovery, rather than commercial exploitation.