

Finn's Polar Expedition Fact-File

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

Join Finn the dolphin on his chilly voyage of discovery! Use your research skills to complete this fact-file. Compare the Northern and Southern polar regions by analysing their climates, wildlife, and unique geographical features. Be sure to use precise vocabulary and provide detailed justifications for your findings.

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

1. Location and Geography: Define the geographical boundaries of the Arctic and the Antarctic. Explain why these regions are considered 'polar'. (3 marks)

2. Climate Comparison: Compare and contrast the temperatures and seasonal patterns of the Arctic and the Antarctic. Why is the South Pole generally colder than the North Pole? (4 marks)

3. Flora and Fauna: Describe the types of life found in each region. Justify how certain species have adapted to survive in such extreme, sub-zero conditions. (4 marks)

4. Human Presence: Contrast the human activity in the Arctic versus the Antarctic. Why do people live in the Arctic, but there are no permanent settlements in Antarctica? (3 marks)

5. Environmental Impact: Explain why the polar regions are particularly sensitive to global climate change. What might happen to global sea levels if the ice caps continue to melt? (4 marks)

6. Critical Analysis: If you were tasked with leading a scientific expedition, which region would you choose to study and why? Justify your choice based on the geographical features you have researched. (4 marks)

Extension challenge: Imagine you are an explorer living in a research station. Write a formal proposal for a new piece of technology that would help scientists monitor the health of the polar ice. Consider the extreme cold, the wind, and the isolation when designing your solution.