

Finn's Polar Expedition: Understanding the Arctic and Antarctic

Learning objective: To identify and compare the physical and human geographical features of the Arctic and the Antarctic regions.

Finn the dolphin has travelled from the North Pole to the South Pole! Sort the following features into the correct category: 'Arctic', 'Antarctic', or 'Both'. Then, use your knowledge of these regions to answer the deeper thinking questions below.

Word bank: Arctic · Antarctic · Both · Ocean surrounded by land · Land surrounded by ocean · Polar bears · Penguins · Indigenous populations · No permanent human residents · Extreme cold

1. Sort the following features into the correct column: Arctic, Antarctic, or Both. 1. Polar bears. 2. Penguins. 3. Ocean surrounded by land. 4. Land surrounded by ocean. 5. Extreme cold. (5 marks)

2. Explain why polar bears and penguins do not live in the same natural habitat in the wild. (3 marks)

3. Compare and contrast the human geography of the Arctic and the Antarctic. Why is there a difference in how people live in these two regions? (4 marks)

4. Justify your answer: If the global climate continues to warm, which region do you think will see the most significant change to its physical geography? Explain your reasoning. (4 marks)

5. What might happen to the global sea levels if the Antarctic ice sheet were to melt completely? (3 marks)

6. If a research team wanted to study climate change, why is the Antarctic considered a more 'pristine' environment than the Arctic? (3 marks)

Draw: Draw a cross-section diagram of an iceberg. Label the 'ice shelf', the 'sea level', and the part of the iceberg hidden underwater to show how much mass is beneath the surface.



Extension challenge: Design a 'Polar Research Station' that is sustainable. List three pieces of technology you would include to ensure the station has a minimal impact on the local environment and explain how they work.