

Finn's Climate Expedition: Sorting the Zones

Learning objective: To identify and describe the characteristics of different climate zones and understand how they differ across the globe.

Finn the dolphin has been swimming across the world's oceans and continents. He has collected observations about the weather, plants, and animals he has seen in different climate zones. Your task is to sort these observations into the correct climate zone category: Polar, Temperate, or Tropical. Use your knowledge of latitude and the equator to help you decide.

Word bank: Equator · Arctic · Precipitation · Latitude · Vegetation · Temperature · Humid · Arid · Atmosphere

1. Sort the following observations into the correct category (Polar, Temperate, or Tropical):

1) Thick ice sheets and very little rain; 2) Four distinct seasons with moderate rainfall; 3) High temperatures all year round with heavy rainfall. Explain why the distance from the Equator affects these zones. (3 marks)

2. Compare and contrast the vegetation found in a Polar climate versus a Tropical climate. Justify why plants in these regions have evolved such different physical characteristics. (3 marks)

3. If you were to travel from the Equator towards the North Pole, describe how the temperature and types of vegetation might change. What evidence would you look for to confirm you have moved into a new climate zone? (3 marks)

4. Max the monkey believes that a desert is always hot. Is this true or false? Explain your reasoning using the concept of climate rather than just weather. (2 marks)

5. What might happen to the animals living in a Polar climate if the average temperature rose by 5 degrees over the next decade? Predict the impact on their habitat. (3 marks)

6. Justify why the United Kingdom is classified as having a Temperate climate. Refer to both seasonal changes and rainfall patterns in your answer. (3 marks)

Draw: Draw a map of the world and colour-code the three main climate zones (Polar, Temperate, and Tropical). Include a key that explains one specific feature for each zone, such as an animal or a type of plant.

Extension challenge: Imagine you are an explorer visiting a new, undiscovered island. Write a field journal entry describing its climate zone. You must include details about the daily temperature, the level of precipitation, and two unique plant adaptations that help the island's flora survive in that specific environment.