

Exploring Global Biomes with Finn the Dolphin

Learning objective: To identify, describe, and compare the characteristics of major world biomes and understand how climate influences the distribution of plant and animal life.

Use your knowledge of geography to answer the following questions. Finn the Dolphin has been mapping the world's climates and needs your expertise to complete his field notes.

Biomes are large-scale environments characterised by their distinct climate, soil, and life forms. From the freezing Arctic tundra to the lush, equatorial tropical rainforests, each region presents unique challenges and opportunities for the species that inhabit them.

Word bank: Equator · Precipitation · Temperate · Tundra · Vegetation · Adaptation · Latitude · Desert

1. Explain why tropical rainforests have high levels of biodiversity compared to the desert biome. Consider the impact of temperature and precipitation in your answer. (3 marks)

2. Compare and contrast the Tundra biome with a Temperate Deciduous forest. What is one major environmental factor that causes these two biomes to look so different? (3 marks)

3. Justify why an animal living in a hot, arid desert would require different physical adaptations than one living in the taiga (coniferous forest). (3 marks)

4. If the Earth's orbit shifted and the average temperature at the Equator dropped significantly, what might happen to the vegetation in the tropical rainforest biome? (2 marks)

5. Identify which biome you would find at high latitudes near the poles and describe one specific feature of the terrain there. (2 marks)

Draw: Draw a cross-section of two different biomes side-by-side. Label the climate, one type of vegetation, and one animal adapted to that specific environment in each section.



Extension challenge: Imagine you are a scientific explorer like Finn. Research a biome of your choice and design an original creature that is perfectly adapted to survive there. Write a short paragraph explaining three physical features of your creature and how these help it survive in its specific biome.