

Rainforest Explorers: Geography Mastery

Learning objective: To identify the geographical location of tropical rainforests and analyse the structural layers and environmental significance of these biomes.

Use your geographical knowledge and the vocabulary provided to answer the questions below. Think critically about how the rainforest ecosystem functions as a vital part of our planet's climate.

N/A

Word bank: Equator · Canopy · Emergent · Biodiversity · Understory · Deforestation · Photosynthesis · Precipitation

1. Finn the dolphin has been mapping the world's climate zones. Explain why the majority of the world's tropical rainforests are located near the Equator. (2 marks)

2. Compare and contrast the 'Emergent layer' and the 'Understory layer'. How do the environmental conditions differ for the plants living in these two distinct zones? (3 marks)

3. Justify why rainforests are often referred to as the 'lungs of the Earth'. How does this relate to the process of photosynthesis? (2 marks)

4. What might happen to the global climate if large areas of the Amazon rainforest were removed through deforestation? Consider the impact on the water cycle. (3 marks)

5. Identify one way in which the high levels of precipitation in a rainforest influence the types of vegetation that can survive there. (2 marks)

6. Nova the owl is observing the incredible biodiversity of the rainforest. Explain why a 'monoculture' (growing only one type of crop) is less sustainable than the natural rainforest ecosystem. (3 marks)

Draw: Draw a cross-section of a tropical rainforest, clearly labelling the four main layers: Forest Floor, Understory, Canopy, and Emergent layer. Add small illustrations of animals that might inhabit each specific level.



Extension challenge: Design a 'Rainforest Protection Campaign'. Write a persuasive paragraph justifying why international governments should invest money (e.g., £5 million per year) into protecting these biomes, and suggest one creative initiative that could help local communities earn an income without cutting down trees.