

Nova's Habitat Survival Challenge

Learning objective: To identify how animals and plants are adapted to suit their environment, and to justify how these adaptations aid survival.

Nova the owl has been observing different ecosystems. Below is a list of 'Survival Traits'. Your task is to match each trait to the correct habitat and explain the scientific reason why that adaptation is necessary for survival.

Word bank: Arctic Tundra · Tropical Rainforest · Hot Desert · Camouflage · Blubber · Broad leaves · Nocturnal · Water storage · Insulation

1. A creature in the Arctic Tundra has a thick layer of blubber and white fur. Explain why these two features are essential for survival in this specific climate. (2 marks)

2. Plants in the Tropical Rainforest often have very broad, waxy leaves. Justify why this adaptation is more effective than having tiny, needle-like leaves. (2 marks)

3. In a Hot Desert, many animals are nocturnal. Compare and contrast this behaviour with animals that are active during the day. Why is being nocturnal a successful survival strategy here? (2 marks)

4. What might happen to a polar bear if its habitat temperature rose significantly? Use your knowledge of adaptations to predict the outcome. (2 marks)

5. If you were to design a new creature for a deep-sea ocean habitat, which two adaptations would it need to survive the high pressure and darkness? Explain your choices. (2 marks)

6. Evaluate this statement: 'All animals can survive in any habitat if they try hard enough.' Justify your answer using scientific evidence about physical adaptations. (2 marks)

Draw: Draw a creature of your own invention that is perfectly adapted to a 'Floating Sky Island' habitat. Label three specific features that help it survive in this environment.



Extension challenge: Research a real-life endangered species. Write a short paragraph explaining how a change in its habitat is currently affecting its ability to use its natural adaptations to survive.