Nova’s Adaptation Expedition

Learning objective: To identify how animals and plants have adapted to suit their environment in different ways.

Nova the barn owl has travelled across the globe to observe how different living things have adapted to survive. Look at the animal and plant adaptations listed in the word bank and match them to the correct environment. Write the correct adaptation for each habitat described in the questions.

Word bank: Thick layer of blubber · Large, thin ears to release heat · Long, sticky tongue for catching insects · Deep roots to reach underground water · Webbed feet for efficient swimming · White fur for camouflage in the snow

1. The Arctic Tundra: An environment with freezing temperatures and vast stretches of snow. Which two adaptations would help an animal survive here? (2 marks)

2. The Arid Desert: An environment with very little rainfall and high daytime temperatures. Which adaptation would help a plant survive here, and which would help an animal release excess heat? (2 marks)

3. The Tropical Rainforest: A dense, humid environment where insects are a primary food source for many creatures. Which adaptation is most useful for a predator here? (1 mark)

4. Explain why a polar bear would struggle to survive if it were moved to the Sahara Desert, using the term 'adaptation' in your answer. (2 marks)

5. If you could design a new creature for a swamp environment, what is one physical adaptation it would need to move through the water effectively? (1 mark)

Draw: Draw your own 'Hybrid Creature' that lives in a fictional environment. Label three specific physical adaptations you have given it to help it survive, such as 'oversized claws for digging' or 'brightly coloured wings to warn off predators'.

Extension challenge: Research a cactus or a succulent. Write a short paragraph explaining how its stem and roots are adapted to store water in a dry climate.