Nova’s Habitat Expedition: A Science Challenge

Learning objective: To identify and describe the characteristics of different habitats and understand how living things are adapted to their environments.

Join Nova the owl on an adventure through the world's biomes! Read each question carefully and circle the best answer. Remember to think like a scientist when considering how creatures survive in their homes.

Answer Key: 1. A, 2. B, 3. True, 4. False, 5. Camouflage, 6. C, 7. B, 8. True, 9. Nocturnal, 10. D.

Word bank: Adaptation · Biome · Environment · Ecosystem · Camouflage · Nocturnal

1. 1. Which of these is the best definition of a habitat? A) A place where an organism lives*, B) A type of weather, C) A list of animals, D) A museum. (1 mark)

2. 2. Why do polar bears have thick layers of blubber? A) To look big, B) To insulate against freezing temperatures*, C) To store water, D) To help them run faster. (1 mark)

3. 3. True or False: All organisms are perfectly adapted to survive in every habitat on Earth. (1 mark)

4. 4. True or False: Deciduous trees keep their leaves all year round. (1 mark)

5. 5. What term describes an animal’s ability to blend into its environment to avoid predators? (1 mark)

6. 6. Which feature helps a cactus survive in a desert? A) Big leaves, B) Short roots, C) Water-storing stems*, D) Bright flowers. (1 mark)

7. 7. Where would you most likely find a creature with webbed feet and streamlined skin? A) In a forest, B) In a pond*, C) In a desert, D) On a mountain. (1 mark)

8. 8. True or False: An ecosystem includes both living things and the physical environment they interact with. (1 mark)

9. 9. What do we call animals that are active primarily at night? (1 mark)

10. 10. Which of these is an example of a human-made habitat? A) A rainforest, B) A coral reef, C) A desert, D) A garden pond*. (1 mark)

Draw: Draw a brand new, imaginary creature. Label three specific physical adaptations that help your creature survive in a habitat of your choice (e.g., a frozen tundra or a tropical rainforest).

Extension challenge: 1. Explain why a creature evolved to live in a specific habitat might struggle if its environment changed suddenly. 2. Compare and contrast the adaptations of a desert animal with a polar animal. 3. Justify why biodiversity is essential for a healthy ecosystem. 4. What might happen if a non-native species was introduced to a local pond? 5. Design an experiment to test which material provides the best insulation for a small mammal. 6. Propose a solution for how humans can better protect endangered habitats in your local area.