Nova’s Nature Expedition: A Living Things Challenge

Learning objective: To identify, classify, and understand the characteristics and habitats of living things according to Year 4 science standards.

Join Nova the owl for a quick quiz about the wonderful world of nature. Read each question carefully and circle the best answer. Good luck!

Answer Key: 1. A (Vertebrate); 2. True; 3. Invertebrate; 4. B (Photosynthesis); 5. False (Some are carnivores); 6. C (To sort living things into groups); 7. Habitat; 8. B (Amphibian); 9. True; 10. D (All of the above).

Word bank: Vertebrate · Invertebrate · Habitat · Classification · Environment · Organism

1. 1. Nova is a barn owl with a backbone. What is the scientific term for an animal with a backbone? A) Vertebrate* B) Invertebrate C) Mammal D) Reptile (1 mark)

2. 2. True or False: All living things need water, air, and nutrients to survive. (1 mark)

3. 3. If a creature does not have a backbone, like a worm or a spider, what do we call it? (1 mark)

4. 4. Plants are living things. How do they get their energy? A) By eating insects B) By using sunlight (photosynthesis)* C) By drinking rain D) By sleeping (1 mark)

5. 5. True or False: All animals are herbivores. (1 mark)

6. 6. Why do scientists use classification keys? A) To draw pictures B) To name planets C) To sort living things into groups* D) To count stars (1 mark)

7. 7. What is the specific natural home where a plant or animal lives called? (1 mark)

8. 8. Which group does a frog belong to? A) Mammal B) Amphibian* C) Fish D) Bird (1 mark)

9. 9. True or False: Humans are classified as mammals. (1 mark)

10. 10. Which of these is a life process? A) Movement B) Respiration C) Sensitivity D) All of the above* (1 mark)

Draw: Draw a fictional habitat for a new species discovered by Nova. Label three features that help the creatures living there survive (e.g., a water source, shelter, or a food supply).

Extension challenge: 1. Explain why a spider is classified as an invertebrate. 2. Compare and contrast the needs of a cactus and a water lily. 3. Justify your answer: Is a robot a living thing? Why or why not? 4. What might happen if all the plants in a local woodland habitat disappeared? 5. Design a classification key that could sort five different classroom objects. 6. How does the environment influence the way an animal evolves over time?