

Nova's Nocturnal Nature Quiz: Classification Keys

Learning objective: To identify and classify living things using a branching key based on observable features.

Join Nova the barn owl on a woodland adventure! Read the questions carefully and use your scientific knowledge to identify creatures based on their characteristics. Remember to look for the specific features that make each living thing unique.

Answer Key: 1. A (Classification Key); 2. True; 3. Invertebrate; 4. B (Has a backbone); 5. False (They are invertebrates); 6. Gills; 7. C (Feathers); 8. True; 9. Scales; 10. B (To identify unknown organisms).

Word bank: Vertebrate · Invertebrate · Classification · Branching · Habitat · Characteristic · Species · Key

1. 1. What do scientists call the diagram used to identify living things by answering a series of 'yes' or 'no' questions? A) Classification Key*, B) Treasure Map, C) Food Chain, D) Weather Chart (1 mark)

2. 2. True or False: A branching key is a type of classification key. (1 mark)

3. 3. If an animal does not have a backbone, is it classified as a vertebrate or an invertebrate? (1 mark)

4. 4. Which feature is used to classify an animal as a vertebrate? A) It has six legs, B) It has a backbone*, C) It lays eggs, D) It lives in water (1 mark)

5. 5. True or False: Insects, such as beetles and ants, are classified as vertebrates. (1 mark)

6. 6. In a classification key for water animals, what specific feature might you look for to distinguish a fish from a mammal like a dolphin? (1 mark)

7. 7. Which characteristic would most likely appear on a key to identify a bird? A) Fur, B) Wet skin, C) Feathers*, D) No legs (1 mark)

8. 8. True or False: A classification key relies on observing the physical characteristics of an organism. (1 mark)

9. 9. What type of skin covering would you look for to help classify a reptile in a key? (1 mark)

10. 10. Why do scientists use classification keys? A) To decorate their lab, B) To identify unknown organisms*, C) To measure temperature, D) To count stars (1 mark)

Draw: Draw a simple branching key that helps someone identify three different garden animals (e.g., a spider, a worm, and a butterfly). Label the 'yes/no' questions clearly at each branch.



Extension challenge: 1. Explain why it is important for scientists to use a standard classification system when discovering new species. 2. Compare and contrast the physical characteristics of an amphibian and a reptile. 3. Justify your answer: If you found a creature with six legs and an exoskeleton, how would you classify it using a key? 4. What might happen if two different animals shared exactly the same characteristics on a key? 5. Create a new branch for your key that differentiates between two types of plants. 6. Design a 'Greater Depth' key that classifies five different household pets based on at least four different observable features.