

Grade 4 Science Assessment: Classification Keys

Learning objective: To identify, name, and classify living things using branching keys and systematic observations.

Read each question carefully. Use your scientific knowledge to complete the tasks. Ensure your handwriting is clear and you use the correct terminology.

Nova the barn owl has been busy observing the creatures in the woodland behind the library. She has noticed that different animals have unique features, such as feathers, fur, or scales. To help her younger friends learn, Nova has decided to create a classification key to sort the animals she sees into groups based on their observable characteristics.

Word bank: Invertebrate · Vertebrate · Characteristic · Classification · Branching key · Amphibian · Reptile · Mammal · Organism

1. Define the term 'classification' and explain why scientists use it to study living things. (2 marks)

2. Nova finds a creature with a backbone. Is this creature a vertebrate or an invertebrate? Give one example of an animal in this group. (2 marks)

3. Look at these four animals: Frog, Sparrow, Goldfish, and Rabbit. Create a simple branching key using 'Yes' or 'No' questions to help identify them. (4 marks)

4. Explain the difference between a mammal and a reptile. Use at least two scientific characteristics in your comparison. (4 marks)

5. If you discovered a brand new species of insect in your garden, what steps would you take to decide where it fits into a classification key? (4 marks)

6. Extended Writing: Nova wants to teach other animals about the importance of biodiversity. Write a short paragraph explaining how a classification key helps us understand the relationship between different living things and why it is important to protect their habitats. (5 marks)

7. Why do we use 'Yes/No' questions in a branching key rather than questions with many possible answers? (4 marks)

Draw: Draw a sketch of an imaginary creature. Beneath your drawing, list three physical characteristics (e.g., 'has scales', 'lays eggs') that you would use to include your creature in a classification key.

Extension challenge: Total: /25