

Nova's Naturalist Classification Key: Sorting Our Living World

Learning objective: To create a branching classification key to identify and group living things based on specific observable characteristics.

Nova the Owl has been exploring the woodland! Your task is to design a classification key to help her identify different creatures. Think about simple 'Yes' or 'No' questions that divide your group of animals into smaller categories. Ensure your questions are precise so that each living thing ends up in its own unique box.

Word bank: Classification · Characteristic · Invertebrate · Vertebrate · Branching · Habitat · Features · Organism · Species · Identify

1. Initial Sorting Question: Write your first 'Yes/No' question that splits your chosen group of living things into two distinct sections. (2 marks)

2. Branching Logic: Explain why it is important to choose characteristics that are clearly visible, rather than features that are hidden, when creating a key. (3 marks)

3. Refining the Key: If you were sorting a bird, a fish, and a spider, what specific question would you use to separate the spider from the other two? (2 marks)

4. Justification: Justify why your classification key is effective. How does it ensure that a user can successfully identify an unknown animal? (4 marks)

5. Comparative Analysis: Compare and contrast using a branching key versus a simple list. Why might a scientist prefer the key? (3 marks)

6. Predictive Thinking: What might happen if you included an animal in your key that had features belonging to two different branches? How would you solve this dilemma? (4 marks)

Extension challenge: Design a 'Greater Depth' classification key that sorts living things into three distinct groups (e.g., Mammals, Reptiles, Insects) using at least four branching steps. Once finished, write a short paragraph explaining how you would adapt your key if you discovered a new, unknown species in the forest.