

Classification Key Challenge with Bea the Bee

Learning objective: To construct and interpret a branching classification key to identify living things based on observable physical characteristics.

Use the information from your nature walk to complete the branching key below. Follow the paths by answering 'Yes' or 'No' to reach the correct group for each creature.

Draw: Draw a large, clear branching diagram (a tree-like structure) on the page. At the top, place a box titled 'Living Things'. Draw two branches leading down to two boxes. Below these, draw further branches leading to smaller boxes containing sketches of garden creatures: a bee, a worm, a sparrow, and a frog. Use a neat, scientific style with straight lines and clear, legible labels for each stage of the branching key.



Label words: Invertebrate · Vertebrate · Exoskeleton · Flowering · Non-flowering · Classification · Characteristic

Steps:

1. Explain why scientists use classification keys instead of just guessing the name of a creature. Justify your answer using the term 'characteristic'.
2. Compare and contrast a beetle and a bird. What main physical characteristic would you use as the first question in a key to separate them?

3. If you discovered a new species that has feathers but cannot fly, explain how you would adapt your classification key to include it.
4. What might happen if a key had questions that were too vague, such as 'Is the animal pretty?' instead of 'Does the animal have six legs?'
5. Label the two main branches of your classification key: 'Has a backbone' and 'Does not have a backbone'.
6. Draw a small sketch of a creature that fits into the 'Invertebrate' branch and label two of its observable characteristics.