

Plant Life Cycles and Functions with Bea the Bee

Learning objective: To identify and explain the functions of different parts of a flowering plant, and understand the process of the life cycle including pollination, seed formation, and germination.

Read each question carefully and use your knowledge of botany to provide detailed answers. Use the word bank to help you with scientific terminology.

Bea the bee is busy travelling from flower to flower in the garden. She is vital for the life cycle of plants, helping them reproduce. Meanwhile, back in the soil, roots are hard at work transporting water and nutrients upwards to the leaves to create food.

Word bank: photosynthesis · stamen · carpel · pollination · germination · sepal · stomata · xylem

1. Bea the bee lands on a flower to collect nectar. Explain the process of pollination and why it is essential for the plant's life cycle. (2 marks)

2. Name the two main parts of the plant's reproductive system and describe their specific roles. (2 marks)

3. Plants create their own food using sunlight. Name this process and explain which part of the plant is responsible for absorbing carbon dioxide from the air. (2 marks)

4. Describe the difference between seed dispersal and germination. (2 marks)

5. If a plant was kept in a dark cupboard for two weeks, predict what would happen to its growth and explain your reasoning using scientific vocabulary. (2 marks)

Draw: Draw a diagram of a flowering plant. Clearly label the roots, stem, leaves, petals, stamen, and carpel. Add a small arrow to show the movement of water from the roots to the leaves.



Extension challenge: Research how different plants have adapted their seeds to be dispersed by wind, water, or animals. Create a table comparing three different types of seeds and their dispersal methods.