

Bea's Botanical Brain-Teasers

Learning objective: To identify and describe the functions of different parts of flowering plants and understand the requirements for life and growth.

Join Bea the honeybee as she zooms through the garden! Read the questions carefully and use your knowledge of plant biology to answer. Good luck, budding botanists!

Answer Key: 1. A (Roots), 2. False, 3. Stem, 4. B (Photosynthesis), 5. True, 6. Petals, 7. C (Water and nutrients), 8. True, 9. D (Seed dispersal), 10. False. Note: Roots anchor the plant and absorb water; stems provide transport; leaves create food; flowers facilitate reproduction.

Word bank: Photosynthesis · Nutrients · Pollination · Germination · Root · Stem · Petals · Xylem

1. 1. Which part of the plant acts like an anchor and absorbs water from the soil? A) Roots* B) Petals C) Leaves D) Stem (1 mark)

2. 2. True or False: Plants need to eat insects to gain energy to grow. (1 mark)

3. 3. What is the name of the plant part that transports water and minerals from the roots to the leaves? (1 mark)

4. 4. What is the process called where plants use sunlight to make their own food? A) Respiration B) Photosynthesis* C) Pollination D) Germination (1 mark)

5. 5. True or False: Flowers are colourful to attract pollinators like bees. (1 mark)

6. 6. Which part of the flower is often brightly coloured to attract insects? (1 mark)

7. 7. What do roots primarily absorb from the soil? A) Sunlight B) Oxygen C) Water and nutrients* D) Carbon dioxide (1 mark)

8. 8. True or False: Water is transported through the plant via the stem. (1 mark)

9. 9. Which of these is NOT a way seeds are dispersed? A) Wind B) Water C) Animals D) Photosynthesis* (1 mark)

10. 10. True or False: Plants can survive perfectly well without any sunlight. (1 mark)

Draw: Draw a fully labelled diagram of a flowering plant. Include the roots, stem, leaves, and flower. Use arrows to show the direction that water travels through the plant.



Extension challenge: 1. Explain why a plant might wilt if it has not been watered for a week. 2. Compare and contrast the role of roots and leaves in a plant's survival. 3. Justify your answer: Does a plant growing in a dark cupboard need the same amount of water as one on a sunny windowsill? Why? 4. What might happen if all the bees in a garden disappeared? 5. Describe the journey of a water molecule from the soil to the leaf. 6. If you were designing a new type of plant, what special adaptation would you give it to survive in a desert?