Nova’s Botanical Brain-Teaser

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

Join Nova the barn owl in the garden! Read each question carefully and select the best answer or write your response in the space provided.

Answer Key: 1. A, 2. True, 3. True, 4. B, 5. Roots, 6. False, 7. C, 8. Water, 9. B, 10. True.

Word bank: Photosynthesis · Pollination · Germination · Stamen · Xylem · Carbon dioxide

1. 1. Which part of the plant is responsible for absorbing water and minerals from the soil? A) Leaves B) Roots* C) Petals D) Stem (1 mark)

2. 2. True or False: Plants need sunlight to create their own food through a process called photosynthesis. (1 mark)

3. 3. True or False: The stamen is the male reproductive part of a flowering plant. (1 mark)

4. 4. What do plants take in from the air to help them make food? A) Oxygen B) Carbon dioxide* C) Nitrogen D) Helium (1 mark)

5. 5. What is the name for the process where a seed begins to grow into a new plant? (One word answer) (1 mark)

6. 6. True or False: All plants require soil to grow; they cannot grow in just water or air. (1 mark)

7. 7. Which of these is NOT a method of seed dispersal? A) Wind B) Animals C) Electricity* D) Water (1 mark)

8. 8. Besides light and warmth, what is the most important liquid a plant needs to survive? (One word answer) (1 mark)

9. 9. What is the primary function of a flower? A) To store water B) To attract pollinators* C) To provide shade D) To anchor the plant (1 mark)

10. 10. True or False: Plants produce oxygen as a byproduct of photosynthesis, which is helpful for humans. (1 mark)

Draw: Draw a diagram of a flowering plant and label the following parts: roots, stem, leaves, and flower. Add a small illustration of a bee visiting the flower for pollination.

Extension challenge: Nova wants to know: If you were a scientist, how would you set up an experiment to prove that plants need light to grow? Write three steps for your experiment.