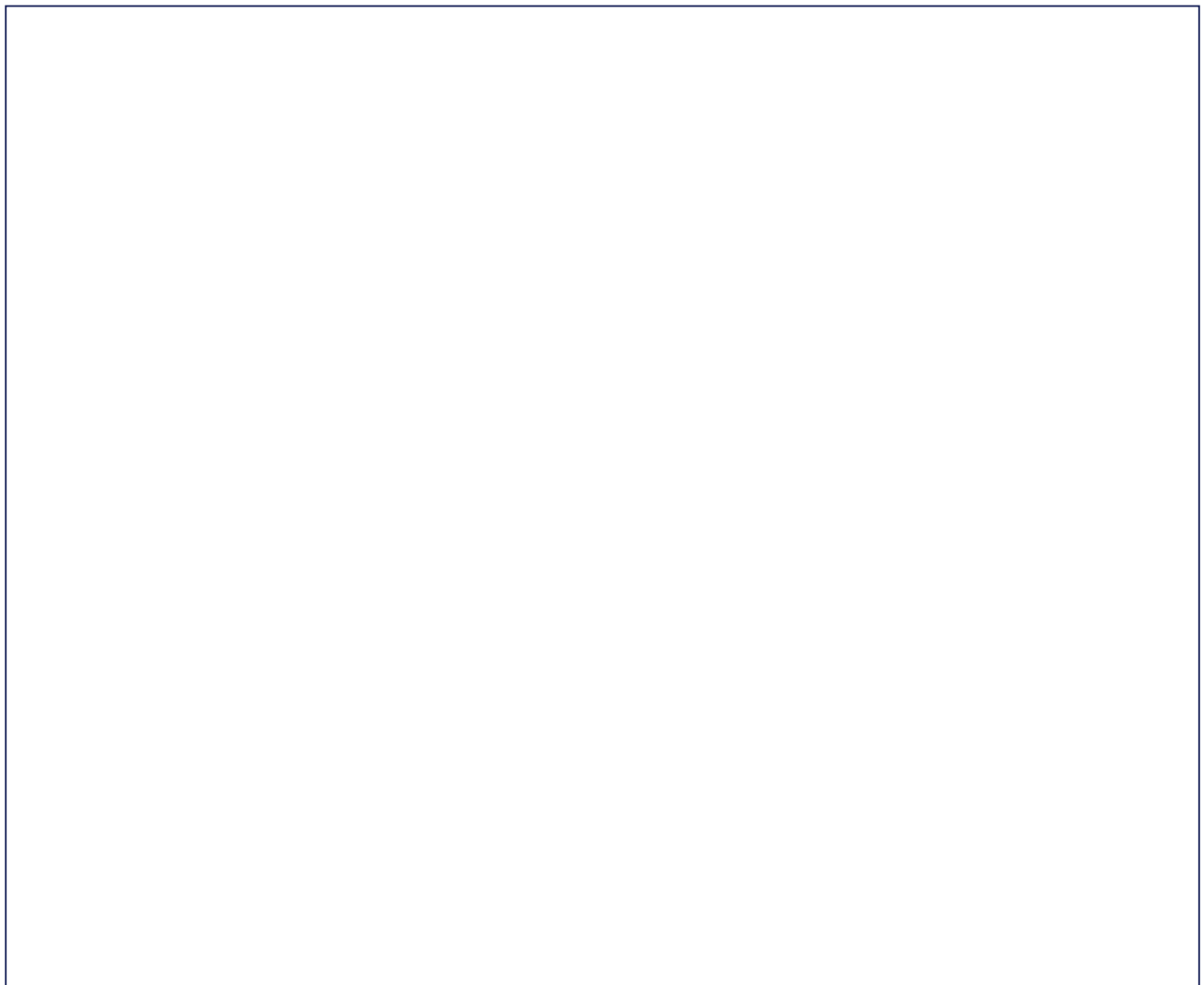


The Lifecycle of a Flowering Plant: A Botanical Study

Learning objective: To identify and explain the processes of reproduction in flowering plants, including pollination, fertilisation, and seed dispersal.

Follow the drawing prompts to create a detailed scientific diagram of a flowering plant's reproductive cycle. Ensure your labels are clear and use a sharp pencil for your botanical illustrations.

Draw: Create a scientific, observational style drawing. Use neat, thin lines to show the internal structure of a flower (the carpel and stamen). Around the central flower, depict a sequence showing a pollinator, the transition to a seed pod, and finally, three distinct methods of seed dispersal (e.g., wind, attachment to fur, or explosion). Use clean labels with straight lines pointing to the relevant parts.



Label words: Stamen · Carpel · Pollen · Pollinator · Fertilisation · Seed dispersal · Germination · Ovary

Steps:

1. Step 1: Draw a large, cross-section of a flower in the centre of your page. Label the stamen and the carpel. Explain why the stamen is essential for reproduction.
2. Step 2: Illustrate a bee (like Bea) visiting the flower. Draw arrows showing the movement of pollen. Label this process.
3. Step 3: Draw a seed pod forming at the base of the flower. Label the ovary. What might happen if the

ovary did not develop after fertilisation?

4. Step 4: Draw a scene showing three different ways seeds might be dispersed away from the parent plant.
5. Step 5: Compare and contrast wind dispersal and animal dispersal. Which method do you think is more efficient for a plant living in a dense forest? Justify your answer.
6. Step 6: Explain why it is important for a seed to land far away from the parent plant. Consider the competition for resources like sunlight and water.