# Spring Science with Bea the Honeybee

*Learning objective: To understand the life cycles of flowering plants and the environmental changes that occur during the spring season.*

Read each question carefully and provide scientific explanations based on your knowledge of plant biology and seasonal changes.

Bea the honeybee is waking up from her winter slumber! As the days grow longer and the temperature rises, nature begins a busy cycle of growth and reproduction. In the UK, spring brings the perfect conditions for plants to emerge from dormancy and begin their life cycles once again.

*Word bank: germination · pollination · photosynthesis · stamen · carpel · sepal · nectar · dormancy*

**1. Bea travels from flower to flower collecting nectar. Explain the process of pollination and why it is essential for the survival of flowering plants. (3 marks)**

**2. List the three main conditions that a seed typically requires to break its dormancy and begin the process of germination. (3 marks)**

**3. Max the monkey notices that plants grow faster in the spring than in the winter. Explain how the change in daylight hours affects the rate of photosynthesis. (2 marks)**

**4. Draw a line to match the plant part to its function:**
**1. Stamen - A) Protects the flower bud.**
**2. Sepal - B) The female reproductive part.**
**3. Carpel - C) The male reproductive part. (3 marks)**

**5. If a farmer sells 15 packets of wildflower seeds at £2.40 each, what is the total revenue? How might these seeds help the local ecosystem once spring arrives? (3 marks)**

**Draw: Draw a labelled diagram of a flowering plant, clearly identifying the stamen, carpel, and petals. Include Bea the honeybee hovering near the flower.**

*Extension challenge: Research a specific UK wildflower that blooms in April. Write a short paragraph explaining how its specific structure is adapted to attract pollinators like Bea.*