

Springtime Science with Bea the Bee

Learning objective: To identify and describe the seasonal changes associated with spring and the life cycle of plants.

Read the text carefully and answer the questions below. Use full sentences where appropriate.

As the days lengthen following the spring equinox, the natural world begins a spectacular transformation. Bea the Bee emerges from her hive, sensing the subtle rise in temperature. During the cold winter months, many plants remain dormant, conserving their energy underground. However, as the soil warms and rainfall increases, the process of germination begins, and tiny green shoots push through the earth. Bea plays a vital role in this cycle. She travels from flower to flower, collecting nectar for her colony. As she visits each blossom, pollen grains stick to her fuzzy legs and are transferred to the next bloom. This essential process of pollination allows plants to produce seeds and fruit, ensuring the survival of the next generation. Meanwhile, trees that shed their leaves in autumn begin to develop new buds. With more hours of sunlight available, these plants can increase their rate of photosynthesis, creating the energy required to grow vibrant, new leaves. Spring is not just a change in weather; it is a complex, biological wake-up call for the entire ecosystem.

Word bank: pollination · germination · dormant · nectar · photosynthesis · equinox

1. According to the text, what two environmental changes help plants to begin germination? (2 marks)

2. What is the primary role of Bea the Bee during the spring season? (2 marks)

3. Why do plants wait until spring to start growing new leaves instead of growing during the winter? (3 marks)

4. Explain why the process of pollination is described as 'essential' for the ecosystem. (3 marks)

5. Do you think spring is the most important season for the survival of plants? Justify your answer using evidence from the text. (4 marks)

Draw: Draw a diagram showing the life cycle of a flowering plant, including the role of a bee in the pollination process.



Extension challenge: Research and explain why some plants are 'evergreen' and do not follow the same cycle of losing leaves as the deciduous trees mentioned in the text. Compare and contrast their survival strategies in winter.