

The Wonder of Life: Reproduction in Plants and Animals

Learning objective: To understand the basic life cycles and reproduction processes in mammals and flowering plants.

Read the passage carefully and answer the questions using evidence from the text. For the Greater Depth section, provide full sentences to justify your reasoning.

Nova the owl is fascinated by how life continues on Earth through the process of reproduction. In the animal kingdom, mammals like lions give birth to live young. These offspring share traits with their parents, ensuring the survival of the species. The journey begins when a male and female parent contribute genetic information, leading to the growth of a new individual.

Plants, however, have a different strategy. Many flowering plants rely on pollination to begin their life cycle. A bee, like our friend Bea, visits a flower to collect nectar. While she moves from bloom to bloom, she transfers pollen from the stamen to the carpel. This act of pollination often leads to fertilisation. Once fertilised, the plant produces seeds. These seeds are dispersed by wind, water, or animals. When a seed finds favourable conditions, such as the right temperature and moisture, germination occurs, and a new plant begins to grow. Whether through the live birth of a cub or the careful planting of a seed, reproduction is the vital bridge that connects one generation to the next, allowing life to flourish across our planet.

Word bank: reproduction · offspring · mammals · pollination · germination · fertilisation · stamen · carpel

1. According to the text, what are two ways that seeds can be dispersed? (2 marks) (2 marks)

2. Identify the two specific parts of a flower mentioned that are involved in the transfer of pollen. (2 marks) (2 marks)

3. Why is the role of pollinators like Bea the honeybee essential for the life cycle of flowering plants? (2 marks) (2 marks)

4. Explain why it is beneficial for offspring to share traits with their parents. (3 marks) (3 marks)

5. Compare and contrast the reproductive start of a lion cub and a seedling. Justify which you think faces more challenges to survive. (4 marks) (4 marks)

Draw: Draw a diagram showing the life cycle of a flowering plant, labelling the stamen, the carpel, the seed, and the new plant.



Extension challenge: Research the term 'asexual reproduction' and write a short paragraph explaining how a strawberry plant can produce new offspring without seeds. What might happen to a plant population if they relied solely on this method?