

Nova's Life Cycle Expedition: A Reproduction Quiz

Learning objective: To describe the differences in the life cycles of a mammal, an amphibian, an insect, and a bird, and describe the life process of reproduction in some plants and animals.

Welcome, explorers! Nova the owl needs your help to identify how different living things grow and reproduce. Read each question carefully and select the best answer. Good luck!

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

Explanation of concepts: Mammals give birth to live young; birds and insects lay eggs. Plants often reproduce via seeds formed after pollination.

Word bank: Metamorphosis · Pollination · Mammal · Germination · Asexual · Amphibian · Embryo

1. Which of these animals typically gives birth to live young? A) Robin B) Frog C) Elephant* D) Butterfly (1 mark)

2. True or False: Flowering plants can reproduce by producing seeds. (1 mark)

3. True or False: All insects have a life cycle that includes a pupa stage. (1 mark)

4. What is the process called where pollen is transferred to the stigma of a flower to help it produce seeds? (1 mark)

5. Which animal goes through the most dramatic physical change during its life cycle? A) Human B) Frog* C) Cat D) Lion (1 mark)

6. What is the name of the stage in a plant's life cycle where a seed begins to grow into a new plant? A) Germination* B) Pollination C) Photosynthesis D) Fertilisation (1 mark)

7. True or False: A bird protects its eggs until they are ready to hatch. (1 mark)

8. What is the scientific term for the transformation process seen in butterflies and frogs? (1 mark)

9. True or False: All plants reproduce using seeds. (1 mark)

10. 10. Which statement best describes reproduction in most mammals? A) They lay hard-shelled eggs. B) The young develop inside the mother's body.* C) They do not look like their parents at birth. D) They reproduce only in water. (1 mark)

Draw: Draw a circular life cycle diagram for a butterfly or a frog, labelling the distinct stages clearly.



Extension challenge: Greater Depth Challenges: 1. Explain why it is advantageous for some animals to produce a large number of offspring, while others produce very few. 2. Compare and contrast the life cycle of a mammal with that of an insect; what are the primary differences in how they develop? 3. Justify why the process of pollination is essential for human food security. 4. What might happen to a plant population if pollinators like bees were to disappear? 5. Critically evaluate whether all living things require a mate to reproduce. 6. Design a 'perfect' organism adapted to a harsh environment and describe its life cycle: how does it ensure its offspring survive?