

Year 5 Science: The Human Life Cycle and Growth

Learning objective: To demonstrate understanding of the human life cycle, physical development, and the changes that occur from infancy to old age.

Read each question carefully. Use your scientific knowledge to provide detailed explanations. Ensure your answers are clear and use accurate terminology.

Nova the owl has been observing humans through the seasons. She has noticed that humans, unlike her, do not have feathers and take a very long time to grow from tiny infants into independent adults. Nova is fascinated by the physical and emotional changes that occur throughout a human's journey from birth to old age.

Word bank: puberty · infancy · adolescence · gestation · hormones · development · independence · lifespan

1. Identify the two main stages of the human life cycle that occur before adulthood. (2 marks)

2. Explain why humans require a long period of dependency on their parents or guardians compared to many other animals. (3 marks)

3. Define the term 'puberty' and describe one physical change that typically occurs during this stage of development. (3 marks)

4. Compare the physical abilities of a human in infancy with those of a human in early adulthood. What factors enable these differences? (4 marks)

5. Justify why it is important for humans to continue learning and developing new skills even after they have reached physical maturity. (4 marks)

6. Discuss the impact of healthy lifestyle choices, such as diet and exercise, on the human body as it transitions from middle age into old age. In your answer, consider how these choices might influence long-term physical health. (5 marks)

7. What might happen to the human life cycle if the period of adolescence were to be significantly shortened? Provide a reasoned argument for your answer. (4 marks)

Draw: Draw a timeline representing the human life cycle. Label the following stages clearly: Infancy, Childhood, Adolescence, Adulthood, and Old Age. Beneath each stage, draw one small icon that represents a key development or milestone for that period.



Extension challenge: Total: /25. Extension Task: Write a short, empathetic diary entry from the perspective of an elderly person reflecting on the changes they have experienced in their body and mind throughout their life journey.