

The Human Life Cycle: A Biological Journey

Learning objective: To describe the changes as humans develop to old age, focusing on the stages of the human life cycle.

Nova the barn owl has been observing the growth of humans from her high perch in the oak tree. Your task is to sequence the stages of human development and provide scientific justification for the physiological changes observed at each milestone. Match the description to the life stage and then answer the higher-order thinking questions below.

Word bank: Infancy · Childhood · Adolescence · Adulthood · Old Age · Puberty · Independence · Physical maturity

1. Arrange these stages in chronological order: Adolescence, Infancy, Old Age, Adulthood, Childhood. Why is the stage of 'Adolescence' considered a time of significant transition? (2 marks)

2. Compare and contrast the physical requirements of an infant versus an adult. Justify your answer using examples of bodily development. (3 marks)

3. Explain why humans require a significantly longer period of 'childhood' compared to other mammals in the animal kingdom. (2 marks)

4. What might happen to a human's mobility and sensory abilities as they reach the stage of 'Old Age'? Provide a scientific reason for your answer. (2 marks)

5. If a human were to skip the 'Adolescence' stage entirely, how might this impact their ability to function as an independent adult? Explain your reasoning. (3 marks)

6. Justify the statement: 'Growth is not just about getting taller; it is about the maturation of complex biological systems.' Use an example to support your point. (3 marks)

Draw: Draw a timeline across your page. At each of the five life stages, sketch a symbol that represents a major change (e.g., a crawling icon for infancy, a book for childhood, a gear for adulthood). Label each stage clearly.



Extension challenge: Design a 'Life Stage Information Leaflet' for a younger student. Include a section explaining the importance of nutrition and exercise at every stage of the life cycle. Use persuasive language to explain why healthy habits formed in childhood are vital for the later stages of life.