Nova’s Skeleton and Muscle Fact-File

Learning objective: Identify that humans and some other animals have skeletons and muscles for support, protection, and movement.

Join Nova the owl to learn about our amazing bodies! Use your science knowledge to complete this fact-file. Write clearly and use your best scientific vocabulary to explain how your body works.

Word bank: skeleton · muscles · support · protection · movement · joints · skull · ribcage · contract

1. The Skeleton's Job: Explain two main reasons why humans need a skeleton. Think about how it helps us stand and how it keeps our organs safe. (2 marks)

2. Naming Parts: Name two specific bones in the human body and describe which part of the body they protect or support. (2 marks)

3. How Muscles Work: Describe what happens to your muscles when you bend your arm to lift something heavy. (2 marks)

4. Joints and Movement: Why are joints important for our skeleton? What would happen if we didn't have any joints? (2 marks)

5. Comparison: Nova is a bird, and you are a human. How are your skeletons similar? How might they be different? (3 marks)

Extension challenge: Imagine you are an inventor. Create a design for a 'robotic suit' that mimics how human muscles and bones work together. Label the parts that act like bones and the parts that act like muscles.