

Nova's Science Lab: Skeleton and Muscle Explorer

Learning objective: To identify and describe the functions of the human skeleton and the role of muscles in movement.

Welcome to Nova's lab! Use this fact-file to show off your knowledge about how the human body stays upright and moves. Read each section carefully and fill in the boxes with your own descriptions. Remember to use scientific terms to explain your ideas clearly.

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

1. The Skeleton's Purpose: Explain why humans need a skeleton. What are the two main jobs it does for our bodies? (2 marks)

2. Vital Protection: Pick two parts of the skeleton (like the skull or ribcage) and describe which delicate organs they protect. (2 marks)

3. How We Move: Describe what happens to our muscles when we want to bend our arm at the elbow. (3 marks)

4. Joints and Movement: Why are joints important for our skeleton? What would happen if our bones were all one solid piece? (2 marks)

5. Comparing Skeletons: Max the monkey says all animals have the same bones. Is he right? Explain your answer using an example. (2 marks)

Extension challenge: Research a specific bone in the human body, such as the femur or the humerus. Write a short paragraph explaining its function and why it is important for human movement.