Nova’s Anatomy Adventure: Skeletons and Muscles

Learning objective: To identify and label the key bones of the human skeleton and understand how antagonistic muscle pairs allow movement.

Follow the drawing prompts to complete your anatomical diagram. Use your best scientific labelling skills to identify the parts of the body that help us move.

Draw: In the centre of your page, draw a clear, scientific sketch of a human arm bent at the elbow. Show the biceps muscle contracted and the triceps muscle relaxed. Around the arm, draw a simplified skeleton outline. Use a sharp pencil to draw the bones, ensuring the cranium, rib cage, pelvis, and femur are clearly visible. Keep the style clean and educational, like a diagram found in a biology textbook.

Label words: Cranium · Rib cage · Pelvis · Femur · Biceps · Triceps · Joint · Tendon

Steps:

1. Label the two muscles in the arm that work together to allow the elbow to bend and straighten. What are these muscles called?
2. Which bone acts as a protective shield for the heart and lungs?
3. Explain why we need joints in our skeleton. What would happen if we had no joints?
4. Draw a small arrow on your diagram to show where a tendon attaches a muscle to a bone.

5. If a doctor found a fracture in the longest bone in the human body, which bone would they be looking at?