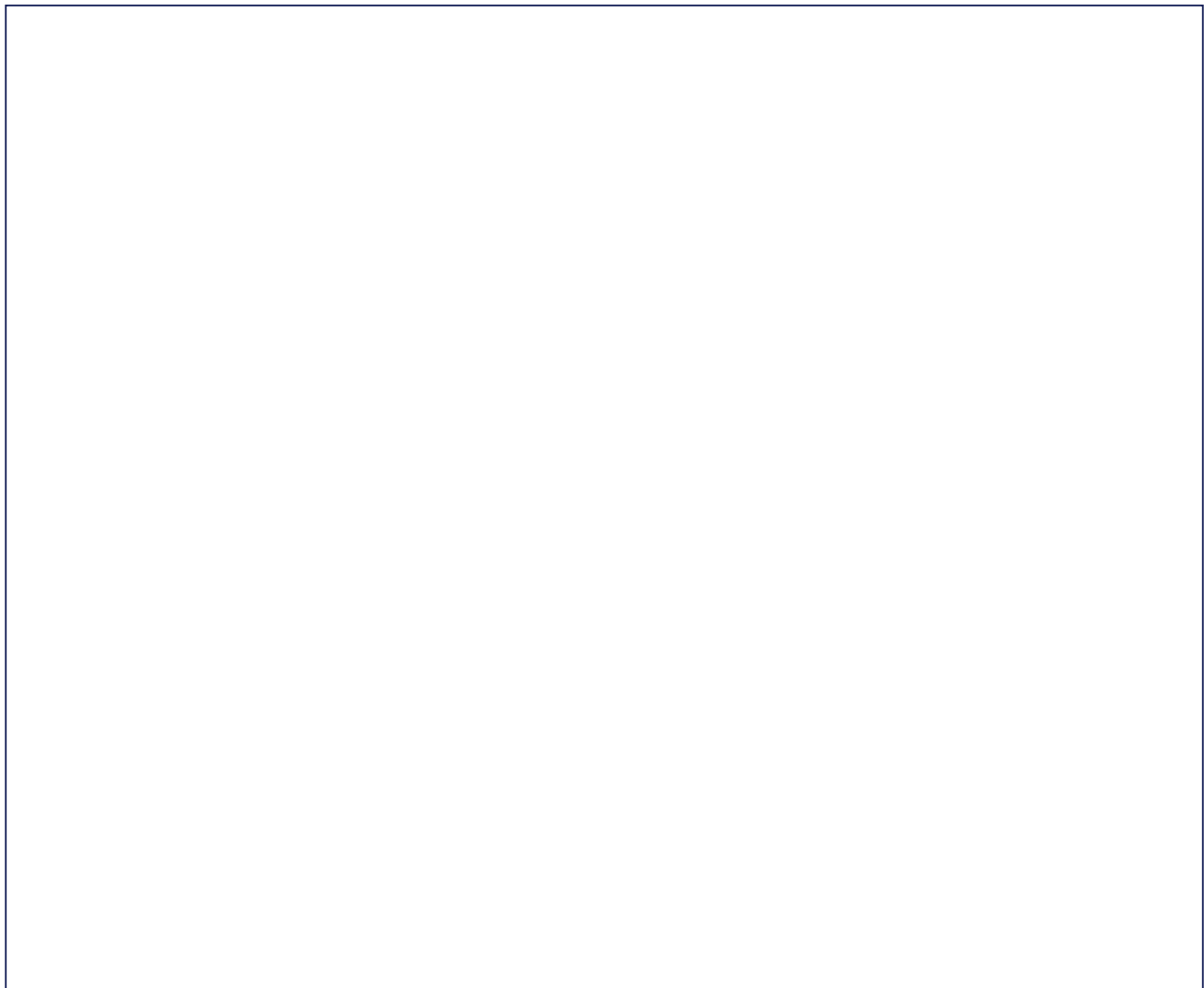


Nova's Anatomy Adventure: Skeletons and Muscles

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

Follow the steps below to complete your biological diagram. Use your best scientific drawing skills to ensure your labels are clear and your anatomical features are accurate.

Draw: Draw a scientific diagram of a human arm. On the left side of the page, show the arm 'flexed' (bent at the elbow) and clearly shade the biceps muscle to show it is bunched up. On the right side, show the arm 'extended' (straight). Use neat, straight lines to point from your labels to the specific parts of the arm, ensuring the drawing is clean and informative.



Label words: Skull · Ribcage · Femur · Spine · Biceps · Triceps · Joint · Tendon

Steps:

1. Step 1: Draw a human arm with the hand touching the shoulder. Label the biceps muscle when it is contracted.
2. Step 2: Draw a second arm that is straightened out. Label the triceps muscle.
3. Explain why muscles must work in pairs to move a limb. What happens to one muscle when the other contracts?
4. Compare and contrast the function of the ribcage with the function of the skull. Why are these specific

bones vital for survival?

5. Justify your answer: If a human did not have any joints in their fingers, how would their daily life change?

6. What might happen if a tendon were to snap? Research or hypothesise the effect this would have on the movement of the bone.