

Nova's Skeleton and Muscle Adventure

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

Nova the Owl has been studying how bodies move! Look at the list of functions below. Decide if each one is a job performed by the skeleton, the muscles, or both. Write your answer in the space provided. Then, use the word bank to fill in the missing labels on the skeleton diagram description.

Word bank: skull · ribcage · spine · joints · muscles

1. 1. Which part of the body acts like a hard helmet to protect the brain? (1 mark)

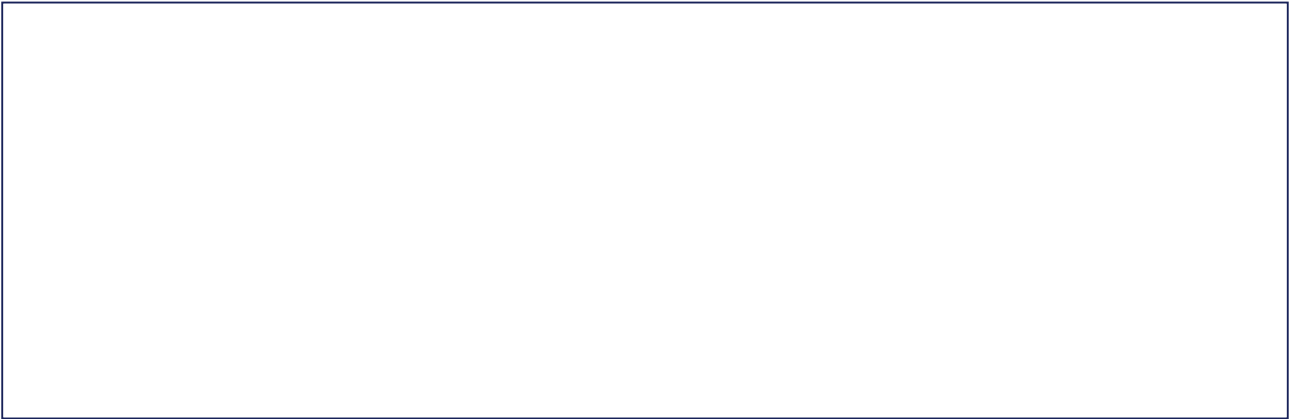
2. 2. Muscles are attached to bones by tendons. When a muscle contracts (shortens), what happens to the bone it is attached to? (2 marks)

3. 3. Why does your body need a ribcage? Explain what it protects. (2 marks)

4. 4. If you didn't have any joints in your arms or legs, how would your movement change? Use your knowledge of skeletons to explain. (3 marks)

5. 5. Sort these into 'Skeleton' or 'Muscles': Supports the body, Allows movement, Protects organs, Contracts to pull bones. (4 marks)

Draw: Draw a simple outline of a human arm. Label where the bicep muscle is and draw an arrow to show where a joint is located.



Extension challenge: Research an animal with an exoskeleton (like a crab or a beetle). How is its skeleton different from yours? Write two sentences comparing the two.