

Grade 4 Science Assessment: Skeletons and Muscles

Learning objective: To identify, label, and explain the functions of the human skeletal and muscular systems.

Read each question carefully. Use your scientific knowledge to provide clear and accurate answers. Ensure you use correct biological terminology.

Nova the owl is observing how animals move. She notices that humans rely on a complex system of bones and muscles working together. Without this framework, we would be unable to stand, walk, or even blink. Understanding how these parts interact is the key to unlocking the secrets of human movement.

Word bank: skeleton · muscles · joints · femur · cranium · contract · relax · support · protection · movement

1. Identify two main functions of the human skeleton. Explain why these are important for our survival. (2 marks)

2. Nova wants to know what happens to the bicep and tricep muscles when you bend your arm at the elbow. Describe the movement of these muscles. (2 marks)

3. Name the scientific term for the place where two bones meet, and explain why we need them. (2 marks)

4. Max the monkey is jumping between branches. Why is it important that his skeleton is made of bone rather than being soft like a jellyfish? (3 marks)

5. Compare and contrast the function of the cranium and the ribcage. How does each protect a specific internal organ? (4 marks)

6. Explain the process of how muscles create movement. In your answer, include the roles of bones, joints, and tendons. (7 marks)

7. If a human had no muscles, what would happen to their ability to interact with the world? Use your knowledge of the skeletal system to support your answer. (5 marks)

Draw: Draw a diagram of a human arm. Label the bicep, the tricep, and the elbow joint. Use arrows to show the direction of movement when the arm bends.



Extension challenge: Total: /25