

Year 4 Science Assessment: Skeletons and Muscles

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

Read each question carefully. Write your answers clearly in the spaces provided. You have 30 minutes to complete this assessment.

Max the monkey is helping his friends learn how their bodies work. He explains that without a skeleton, we would be like a jelly on the floor! Our bones provide the frame that holds us up, while our muscles act like elastic bands that pull on our bones to help us climb, jump, and run.

Word bank: skeleton · skull · ribcage · muscles · joints · support · protection · movement · tendons

1. Name two important functions of the human skeleton. (2 marks) (2 marks)

2. Look at the human body. Which part of the skeleton acts as a helmet to protect the brain? (1 mark) (1 mark)

3. Nova the owl is teaching us about movement. Explain how muscles and bones work together to help us move our arms. (3 marks) (3 marks)

4. What do we call the places where two bones meet, which allow our bodies to bend? (1 mark) (1 mark)

5. Why is the ribcage an essential part of the skeleton? Describe what it does. (3 marks) (3 marks)

6. Name three different animals that have an internal skeleton (vertebrates). (3 marks) (3 marks)

7. Max says, 'We can jump and run because our muscles pull on our bones.' Is Max correct? Explain why animals need muscles as well as a skeleton to function properly. (5 marks) (5 marks)

8. If a human did not have any joints, how would that affect the way they move? (2 marks) (2 marks)

9. What is the name of the special tissue that attaches muscles to bones? (2 marks) (2 marks)

10. Why do you think the bones in your fingers are smaller than the bones in your legs? (3 marks) (3 marks)

Draw: Draw a simple diagram of an arm. Label the 'bone' and the 'muscle' to show how they connect.



Extension challenge: Total: /25