

Skeletons and Muscles: Nova's Science Challenge

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

Read each question carefully and use your knowledge of the human body to provide clear, scientific answers. Use the word bank to help you complete your sentences.

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

1. Nova the owl is learning about the human body. Explain the two main reasons why our bodies need a skeleton. (2 marks)

2. How do muscles work in pairs to help us move our arms? Use the words 'contract' and 'relax' in your explanation. (3 marks)

3. What is the scientific name for the places where two or more bones meet, allowing us to bend our limbs? (1 mark)

4. Why is it important that our skull and ribcage are made of strong, hard bone? (2 marks)

5. Max the monkey is hanging from a tree branch. Identify one muscle group he is using to pull his body weight up. (1 mark)

Draw: Draw a diagram of a human arm. Label the bicep muscle and the elbow joint. Show how the muscle connects to the bone.



Extension challenge: Research a 'vertebrate' (an animal with a backbone) and an 'invertebrate' (an animal without a backbone). Write two sentences explaining how the movement of these two animals is different.