

The Amazing Human Body: Our Incredible Framework

Learning objective: To identify the functions of the human skeleton and muscles for support, protection, and movement.

Read the passage carefully, then answer the questions below using full sentences where appropriate.

Nova the owl is fascinated by how the human body works. She explains that humans, like many animals, have a skeleton made of bones. This skeleton is the body's framework; it provides support so we can stand tall and move around. Without these strong bones, we would be a wobbly heap! The skeleton also acts like a suit of armour, as it protects our delicate organs. For example, the ribcage acts like a sturdy cage to keep our heart and lungs safe. However, bones cannot move on their own. To move, our skeleton relies on muscles. Muscles are attached to bones by tough cords called tendons. When a muscle tightens, it pulls on the bone, which causes movement at the joints where two bones meet. Think of your arm bending at the elbow; the muscles in your upper arm contract to pull your lower arm upwards. By working together, bones and muscles allow us to run, jump, and climb. It is a brilliant system that stays strong if we eat healthy food and stay active every day.

Word bank: skeleton · protects · muscles · support · joints · framework

1. According to the text, what are the two main purposes of the skeleton? (2 marks)

2. Which part of the skeleton acts like a cage to protect the heart and lungs? (1 mark)

3. Why does the author use the phrase 'wobbly heap' to describe what humans might be like without a skeleton? (2 marks)

4. Based on the description of how muscles work, what must happen for a person to straighten their arm? (2 marks)

5. Nova mentions that a healthy lifestyle keeps our bodies strong. Why do you think it is important for children to look after their bones and muscles? Give a reason for your answer. (2 marks)

Draw: Draw a diagram of a human arm showing how a muscle attaches to the bone and explain what happens when the muscle moves.



Extension challenge: Research one other part of the human skeleton, such as the skull or the spine, and write two sentences about why that specific bone is important for protecting the body.