

Nova's Skeleton and Muscle Challenge

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

Read each question carefully. Use your scientific knowledge to choose the correct answer or write your response clearly.

Answer Key: 1. C (Support, protection, movement), 2. True, 3. False (Muscles work in pairs), 4. Joints, 5. Ribcage, 6. False (They pull, they do not push), 7. Skull, 8. True, 9. Vertebrae, 10. A (To protect the brain).

Word bank: skeleton · muscles · joints · support · protection · skull · ribcage · contract · relax · vertebrae

1. Nova wants to know the three main jobs of a skeleton. Which is correct? A) Eating, sleeping, growing. B) Thinking, breathing, running. C) Support, protection, and movement.* D) Digging, flying, swimming. (1 mark)

2. True or False: Without a skeleton, the human body would be like a soft jelly and could not stand up. (1 mark)

3. True or False: Muscles can push bones away to help us move. (1 mark)

4. What do we call the places where two bones meet, like your knees or elbows, allowing movement? (1 mark)

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

6. True or False: Muscles work by getting shorter, which is called contracting. (1 mark)

7. What is the name of the hard, bony structure that protects your brain? (1 mark)

8. True or False: Insects have an exoskeleton on the outside of their bodies. (1 mark)

9. What is the scientific name for the small bones that make up your spine? (1 mark)

10. Why is the skull important? A) It protects the brain.* B) It helps us chew food. C) It stores calcium. D) It connects to the legs. (1 mark)

Draw: Draw a diagram of a human arm. Label the 'bone' and the 'muscle'. Show the muscle getting shorter as the arm bends.



Extension challenge: Nova is studying how animals move. Research an animal with an exoskeleton (like a crab) and compare it to a human skeleton. How are they different?