Nova’s Skeleton and Muscle Mystery Quiz

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

Join Nova the barn owl on an anatomical adventure! Read each question carefully and circle the best answer. Remember to use your knowledge of anatomy to solve these puzzles.

Answer Key: 1. A (Support), 2. False (The skull protects the brain), 3. True, 4. Joints, 5. Muscles, 6. True, 7. Contract, 8. Femur, 9. Ribcage, 10. To allow the body to bend and move.

Word bank: Skeleton · Skull · Muscles · Joints · Protection · Support · Movement · Contract · Relax · Femur

1. 1. What is the primary function of a skeleton? A) Support* B) Breathing C) Digesting food D) Storing water (1 mark)

2. 2. True or False: The skull is a soft bone that does not protect the brain. (1 mark)

3. 3. True or False: Muscles work by pulling on bones, not pushing them. (1 mark)

4. 4. What do we call the places where two bones meet, allowing for movement? (1 word) (1 mark)

5. 5. Which body part works in pairs to help us move? (1 word) (1 mark)

6. 6. True or False: Humans have an endoskeleton (an internal skeleton). (1 mark)

7. 7. When a muscle gets shorter and tighter to move a bone, it is said to: A) Stretch B) Contract* C) Snap D) Melt (1 mark)

8. 8. What is the name of the longest bone in the human body? (1 word) (1 mark)

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

10. 10. Why are joints essential for our survival? (1 mark)

Draw: Draw a diagram of a human arm. Label the bicep muscle and the elbow joint. Show how the muscle might look when the arm is bent.

Extension challenge: Greater Depth Challenges: 1. Explain why a human would be unable to perform daily tasks if they had no joints. 2. Compare and contrast a human skeleton with the shell of a crab; how do they differ in protection? 3. Justify why it is important for muscles to work in pairs (antagonistic muscles). 4. What might happen if our ribcage were made of muscle instead of bone? 5. If you were designing a robot, how would you mimic the human skeleton using different materials? 6. Evaluate the importance of the skull in human evolution.