

Nova's Science Flashcards: Skeletons and Muscles

Learning objective: To identify and describe the functions of the human skeleton and the way muscles work in pairs to create movement.

Read the front of the card to test your knowledge. Flip it over (look at the second half of the text) to check if your answer is correct. Use these cards to study with a partner!

What are the three main functions of the human skeleton?

The three main functions are support (keeping us upright), protection (shielding organs like the brain and heart), and movement (working with muscles).

What is a joint?

A joint is the place where two or more bones meet, which allows the body to move.

What do muscles need to do to make a bone move?

Muscles can only pull, not push. To create movement, muscles must contract (shorten) and relax (lengthen).

Why do muscles work in pairs?

Muscles work in pairs because one muscle pulls the bone in one direction, while the other muscle pulls it back in the opposite direction.

Which organ does the skull protect?

The skull protects the brain.

What is the function of the ribcage?

The ribcage protects vital organs, such as the heart and the lungs.

What is the difference between a tendon and a ligament?

A tendon attaches a muscle to a bone, whereas a ligament attaches a bone to another bone at a joint.

What happens to your bicep when you bend your arm at the elbow?

The bicep muscle contracts (shortens) to pull the forearm upwards.

True or False: All animals have an internal skeleton like humans.

False. Some animals, like insects, have an exoskeleton on the outside, and others have no skeleton at all.

What mineral is essential for keeping bones strong?

Calcium is essential for building and maintaining strong bones.