

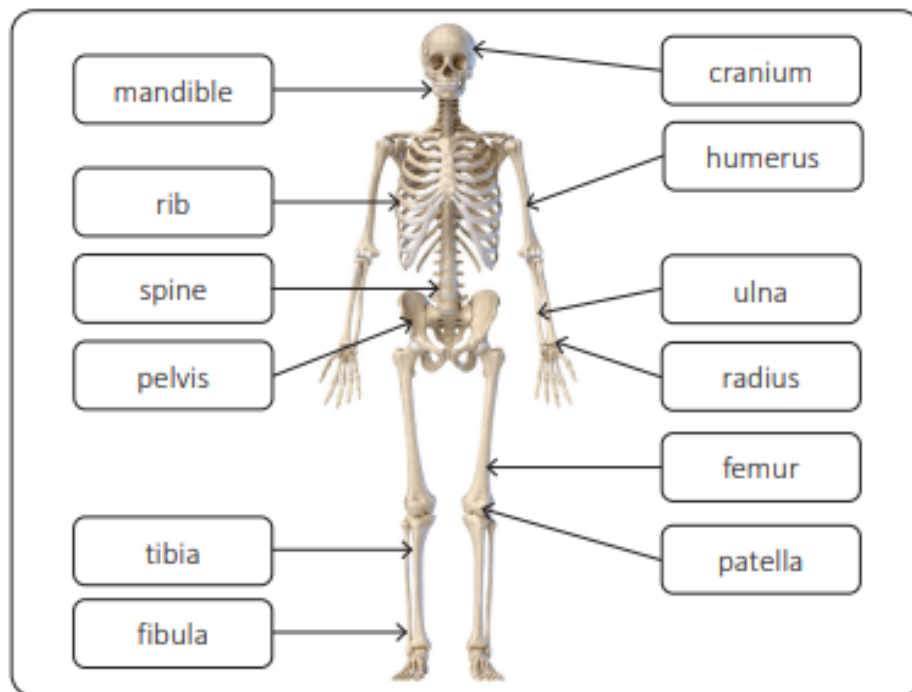


Skeletal System

Y3 Science

The Human Skeleton

The adult human skeleton is a frame of 206 bones that supports the body and gives it shape. It allows the body to move and protects, soft internal organs like the brain, heart and lungs.



major bones in the human skeleton

Skeleton Types

An **endoskeleton** is found inside all invertebrates. It grows with the body and offers support but no protection to outside of the body.



A human has an endoskeleton.

An **exoskeleton** is found outside the body of invertebrates. It offers protection for soft body parts but does not grow with the animal and does not support a large body size. Some invertebrates have no skeleton. They can squeeze into small spaces, but have no protection from injury.



A scorpion has an exoskeleton.



An octopus has no skeleton.

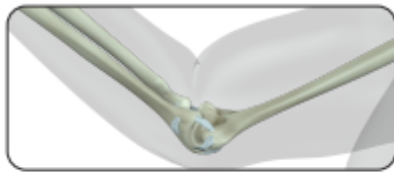
Joints

A joint is a place where two or more bones meet and connect. They move and bend body parts in different directions. Three types of joints in the human body are:

Hinge joint: opens and closes in one direction only e.g. knee and elbow.

Ball and socket joint: allows movement in all directions e.g. the shoulder.

Pivot joint: allows limited rotating movements e.g. top two spinal vertebrae.



elbow joint



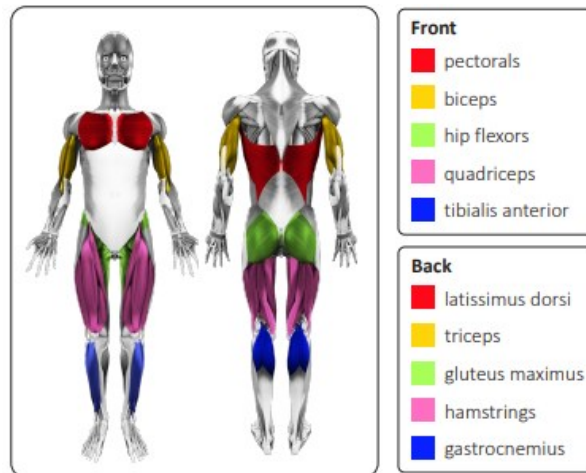
shoulder joint



top two spinal vertebrae

Muscles

Muscles are soft tissues made up of lots of stretchy fibres. They allow the body to move, breathe and digest food. Skeletal muscles are attached to the skeleton by flexible cords called tendons and work together in pairs, one contracting and one relaxing, to create specific movements.



muscle pairs in the human body

Glossary

bones: the adult skeleton is made up of 206 bones.

cranium: the part that surrounds and protects the brain; also known as the skull.

fibula: a bone in the lower leg.

flexible: ability to bend or be bent easily without breaking.

joint: a place where two or more bones meet and connect.

humerus: a bone in the upper arm.

mandible: the lower jaw bone.

patella: a small round bone that protects the knee joint; also known as the kneecap.

radius: a bone in the lower arm.

relax: to cause a part of your body to become less stiff.

rib: one of many curved bones that form the ribcage.

skeleton: a frame of bones that supports the body, giving it shape and protecting its organs.

spine: a column of vertebrae that supports the body, keeping it upright and connects parts of the skeleton. Also known as the backbone.

tibia: a bone in the lower leg.

tense: part of your body stretched tight and stiff

ulna: a bone in the lower arm.