

Year 3 Science Biology: Skeletons and Movement

What we already know

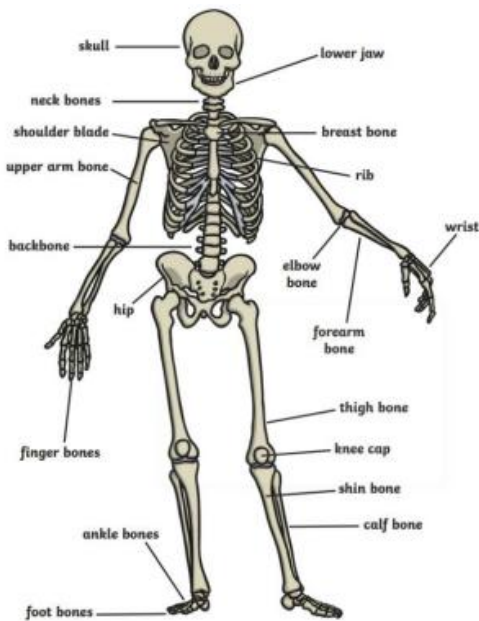
In year 1 we looked at parts of the human body and how they connect to one another. We also looked at how we look after our body in year 2. We also looked at different groups of animals in KS1. We have looked at the skeleton and the three functions.

Vocabulary

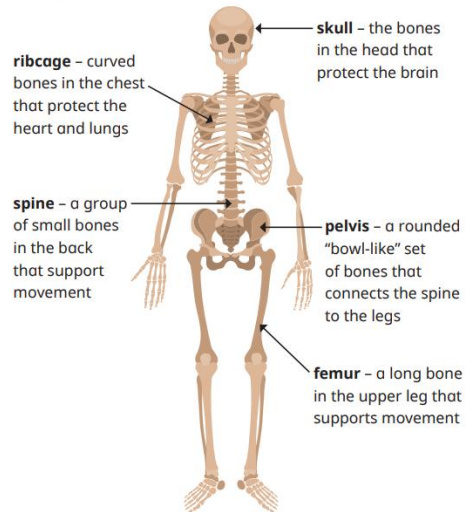
Tier 1	Tier 2	Tier 3
Skeleton, joints and muscles allow movement.	Knee and elbow are an example of a hinge joint, Shoulder and hip are an example of ball and socket, humerus, femur	Bicep, triceps, contract, relax, humerus, radius, ulna

Bones in the Human Body	Functions of the Skeleton
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- The human skeleton is made up of lots of different bones.
- An adult human typically has 206 bones that make up the skeleton.
- The skull, spine (backbone), ribcage, pelvis and femur are bones within the skeleton.



- Bones have specific functions.
- A human skeleton has three functions - to enable movement, to provide support and to protect.
- The skull protects the brain.
- The femur helps humans to stand and move.
- The pelvis helps to support the spine.
- The spine helps humans to twist and stay upright.
- The ribcage protects the heart and lungs.



Animals	Movement
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- Animals have different skeletons.
- Mammals, birds, fish, amphibians and reptiles have a skeleton and a spine.
- Animal skeletons are made up of lots of different bones.
- Some animals do not have a spine.
- Some animals have an exoskeleton.
- An exoskeleton provides support and protection.
- Skeletons provide support and protection and allow movement.



- A joint is where two or more bones connect.
- There are different joints in the human body.
- The knees and elbows are hinge joints.
- The shoulders and hips are ball-and-socket joints.
- Muscles are attached to bones.
- Muscles can only pull-on bones and cannot push.
- Muscles work in pairs by contracting and relaxing.
- Bones, muscles and joints work together to allow movement.

● **Joints** – A point where two or more bones meet.



● **Hinge joint** – A joint that only allows bending and straightening.



● **Ball and socket joint** – A joint with a round head of bone that fits inside the cup of another bone to allow movement in all directions.



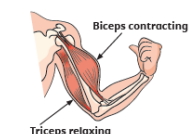
● **Muscle** – Works with joints and bones to allow movement.



● **Bicep and tricep** – Muscles in the upper arm.

● **Contracting** – A tightening and shortening motion.

● **Relaxing** – A relaxing and lengthening motion.



What next?

In Y4 we will look at the human body further when we explore the digestive system as well as looking at human and animal's teeth.