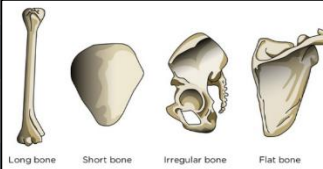


Vocabulary		
1	Skeleton	A framework of bones supporting the body
2	Bone	A rigid body tissue consisting of cells embedded in a hard material.
3	Joint	Area where two bones meet.
4	Tendon	A tendon is a connective tissue which attaches muscle to bone.
5	Muscle	A soft tissue in the body that contracts and relaxes to cause movement of the skeleton
6	Muscle contraction	When a muscle becomes shorter.
7	Invertebrate	An animal which does not have a back bone/spine
8	Vertebrate	An animal which has a back bone/spine.
9	Exoskeleton	A skeletal system on the outside of an animal.

Skeleton

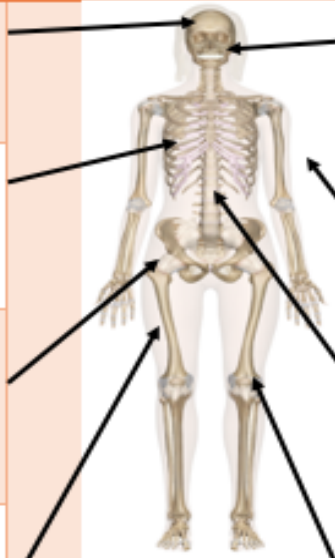
Babies are born with 300 bones. As they develop, the bones fuse to create the 206 bones that adults have.

The skeleton protects the vital organs; it provides a framework to support weight and stand upright; it provides attachment points for muscles.



Long bone Short bone Irregular bone Flat bone

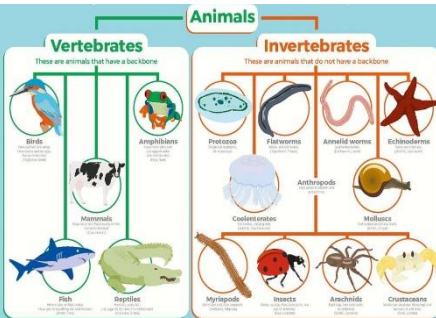
The Skeletal System and The Muscular System

Cranium The cranium is commonly known as the skull.	The cranium is a set of 22 bones - 8 of them protect the brain, and the other 14 shape your face!		The jawbone is hinged to the skull, allowing you to open and close your mouth.	Mandible The mandible is commonly known as the jawbone.
Rib Cage Made up of 12 pairs of ribs.	The rib cage helps to protect vital organs such as your heart and lungs. You have 12 pairs of ribs, making 24 in total.		The humerus is the longest bone in the arm. It is linked by a ball and socket joint to the shoulder.	Humerus The humerus is your upper arm bone.
Pelvis The pelvis is made up by lots of different bones	The pelvis is bowl-shaped and supports the spine. It protects the digestive and reproductive systems.		The spine is made of 33 bones split into 5 sections: cervical, thoracic, lumbar, sacrum and coccyx.	Spine The spine is also known as the backbone.
Femur The femur is sometimes known as the thigh bone	The femur is the longest, largest, and hardest bone in the human body. It makes up 1/4 of your height!		The radius runs from the thumb side of the wrist, and is slightly shorter & smaller than the ulna.	Radius and Ulna The long bones in your lower arm.

Do all animals have skeletons?

Invertebrates are any animals that lack a vertebral column or backbone- they do not have a skeleton. There are many more invertebrates than vertebrates.

Vertebrates are often larger animals and have more complex bodies than invertebrates.

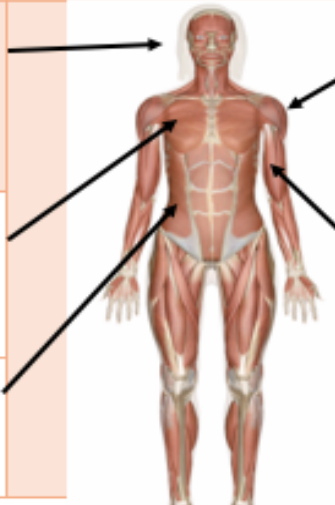


Muscles

Our muscular system covers our bodies.

There are skeletal muscles, which help you to move, smooth muscles, which do lots of jobs (e.g. digest food) and a cardiac muscle, which keeps your heart beating!

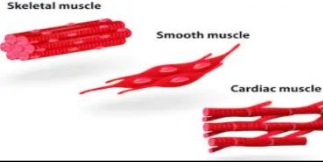
There are around 700 skeletal muscles. The strongest muscle is in the jaw, used for chewing.

Tibia and Fibula The long bones in your lower leg	The tibia is the larger bone (on the inside), and the fibula is the smaller bone.		The patella allows your leg to bend, so you can walk, run and jump!	Patella Also known as the kneecap.
Face Muscles There are many muscles in the face	It is claimed that it takes 17 muscles to smile and 43 to frown. The tongue is also a muscle, although only attached at one end!		This is the rounded section of your shoulder. It is the main muscle in lifting the whole arm.	Deltoid The shoulder muscle
Pectorals The chest muscles	The pectorals are large muscles that span from the shoulders to the breastbone. They help to move the arms.		The biceps work to bend the arm at the elbow. The triceps muscle straightens the elbow.	Biceps and Triceps The long muscles in your upper arm
Abdominals The stomach muscles	The abdominals support and move the trunk of the body. They also hold the organs in place.		The latissimus dorsi and trapezius muscles are the largest in the back.	Back Muscles There are many large muscles in the back.

What is an exoskeleton?

An exoskeleton is literally an 'outside skeleton'.

In the absence of an inner skeleton to give them stability, some invertebrates like ants, spiders and crustaceans have hard casings outside their bodies.

Skeletal muscle Smooth muscle Cardiac muscle