

# Skeletons and Muscles



## Curriculum Links:

- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

## Key Facts:

- Vertebrates are animals which have a backbone—these are called endoskeletons which means that the skeletons are inside their bodies. The skeletons grow with the body
- An exoskeleton is an animal which has the skeleton outside of the body. These skeletons have to be shed and a new skeleton is grown
- The most important things which a skeleton does are: provide support and shape to an animal's body, allow movement through the joints and protect organs
- The human body has 206 bones, a newborn baby has about 270 as some fuse together. The longest bone in the body is the femur
- Joints are where the bones meet and help us move
- Skeletal muscle help you move, smooth muscles help functions such as digestion and cardiac muscle which keeps your heart beating
- Muscles are connected to the bones by tendons, they contract and relax
- Skeletal muscles are a voluntary movement (we choose when to move); smooth and cardiac muscles are an involuntary movement ( these work without us controlling them)

## Possible experiences:

- Compare vertebrates and invertebrates
- Match animals to their skeletons
- Wildwood visit
- Compare size of arm when it is straight and when it is bent
- Identify which bones are for support and

## We should already know:

- Parts of the body and what they do
- Types of animal: mammal, fish, reptiles, amphibians, birds
- Vertebrates have a backbone; invertebrates do not

## Key Vocabulary

Contract	Make smaller by coming together, make tighter
Endoskeleton	The internal skeleton of vertebrates
Exoskeleton	A rigid external covering for the body in some invertebrate animals
Joints	Where two parts of the skeleton fit together
Muscles	Tissues in the body which contract to produce movement or maintain position
Organs	A part of the body with a specific function
Relax	When a muscle becomes less rigid
Skeleton	A framework of bones which supports the body of an animal
Tendons	A strong, flexible cord which attaches muscle to the bone
Vertebrate	An animal with a spine