



Year 3

Topic: Animals including Humans
Strand: Biology

What I should already know.

- The parts of the human body and what they do.
- Vertebrates are animals that have a backbone.
- Invertebrates are animals that do not have a backbone.
- All animals need water, air and food to survive.
- The different ways in which humans can be healthy.
- Exercise keeps animal's bodies in good condition and increases survival chances.

What will I know by the end of the unit?

What are the different types of skeletons?

- **Vertebrates** are animals that have a **backbone**. These **skeletons** are called **endoskeletons** - this means that the **skeletons** are on the inside of the bodies. These **skeletons** grow with the bodies.



When the **skeleton** exists outside the body, it is called an **exoskeleton**. An **exoskeleton** is a covering that supports and protects animals. These have to be shed and a new **skeleton** is grown.

What does an endoskeleton do?

- The three most important things a **skeleton** does are:
 - provide **support** and shape to an animal's body
 - allow movement through the **joints** protect organs (e.g. the skull protects the brain)

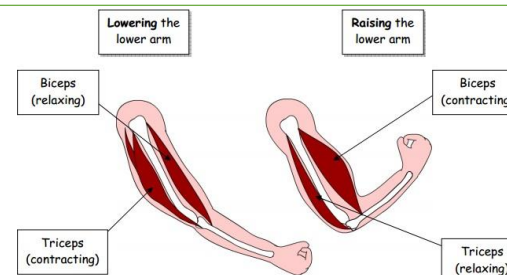
How do we move?

- **Joints** are where **bones** meet - they allow our bodies to move.
 - **Muscles contract** and relax.
 - If you place an **elbow** on a desk and lift your arm up, **muscles** in your upper arm (biceps) **contract** while **muscles** behind the upper arm (triceps) **relax**. The **muscles** work together and in opposition to allow your arm to move.
- Muscles** are connected to **bones** by **tendons**.

Vocabulary

Backbone	The column of small linked bones down the middle of your back . Also known as a spine.
Bones	The hard parts inside your body which form your skeleton .
Contract	To make smaller by drawing together; shrink or make tighter.
Elbow	The bend or joint between the upper arm and the lower arm.
Endoskeleton	The internal skeleton of an animal, especially the bony skeleton of vertebrates .
Exoskeleton	The protective or supporting structure covering the outside of the body of many animals.
Joints	The junction between two or more bones .
Muscles	Something inside your body which connects two bones and which you use when you make a movement.
Organs	A part of your body that has a particular purpose.
Protect	Protecting someone or something means to prevent them from being harmed or damaged.
Relax	When a part of your body relaxes , or when you relax it, it becomes less stiff or firm.
Skeleton	The framework of bones in your body.
Support	To hold something up.
Tendons	A strong cord in a person's or animal's body which joins a muscle to a bone .
Vertebrate	A creature which has a spine.

Muscles



Investigate!

- Identify and group animals with and without **skeletons** and compare the ways in which they move.
- Match animals to their **skeletons** and explain your reasons for this.
- Explore ideas about what would happen if humans did not have **skeletons**.
- Identify which **bones** are used for **support** (e.g. **backbone**), which are used for **protection** (e.g. cranium) and which are used for movement (e.g. joints).

The Human Skeleton

