Animals including humans (Skeletons and Muscles)

We will learn…

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)

Key vocabulary:

vertebrate	A creature which has a spine.
invertebrate	A creature which has no spine.
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.
contract	To make smaller by drawing together; shrink or make tighter.
relax	When a part of your body relaxes, or when you relax it, it becomes less stiff or firm.
joint	The junction between two or more bones.
tendons	A strong cord in a person's or animal's body which joins a muscle to a bone.

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

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.
- Create a presentation to show how muscles contract and relax.

Inspirational Scientist

Basant Kumar Misra- surgeon who fixes the brain and skeleton

Working scientifically

In science this term we will learn the following practical skills:

- ✓ gathering, recording, classifying and presenting data in a variety of ways
- ✓ recording findings using simple scientific language, drawings and labelled diagrams