

Alder Coppice Primary School — Knowledge Organiser

SCIENCE

Year: 3

Unit 3: Skeletons and Muscles

Links to: Y2 Biology

What I Should Already Know:

- The names of basic parts of the body and the locations of these.
- Know parts of the body identified with the senses.
- Know humans have offspring that grow into adults.
- Know the basic needs of humans and other animals.
- Know the importance of exercise, good diet and hygiene.
- Know the parts of their diet necessary for healthy bones and muscles.

Skills & Enquiry:

- How do bones and muscles work together?
- Use card and elastic or rubber bands to create a model which shows pairs of muscles contracting and relaxing.

Unit Specific Vocabulary:

Bone – A hard white material that makes up the skeleton

Cartilage – A flexible material found in parts of the body

Endoskeleton – A hard skeleton found on the inside of the body

Exoskeleton – A hard skeleton found on the outside of the body

Hydrostatic skeleton – A soft skeleton filled with fluid

Invertebrate – an animal without a vertebral column or backbone

Joint – A place where two bones meet and are able to move

Ligament – Straps two bones together and holds them in place

Movement – The act of moving

Muscle – Tissue in the body that is able to contract and relax

Protection – To prevent something from being harmed or damaged

Support – To hold something in place

Skeleton – A framework of bones

Vertebrate – an animal with a vertebral column or backbone

What I should know by the end of the Unit:

- That humans and other animals have skeletons and muscles for support, protection and movement.
- Common and scientific names for parts of the skeleton
- Names of different types of muscles and how they work
- How bones and muscles work together to help us move
- About different kinds of skeletons found in other animals.

Key Facts:

PROTECTION

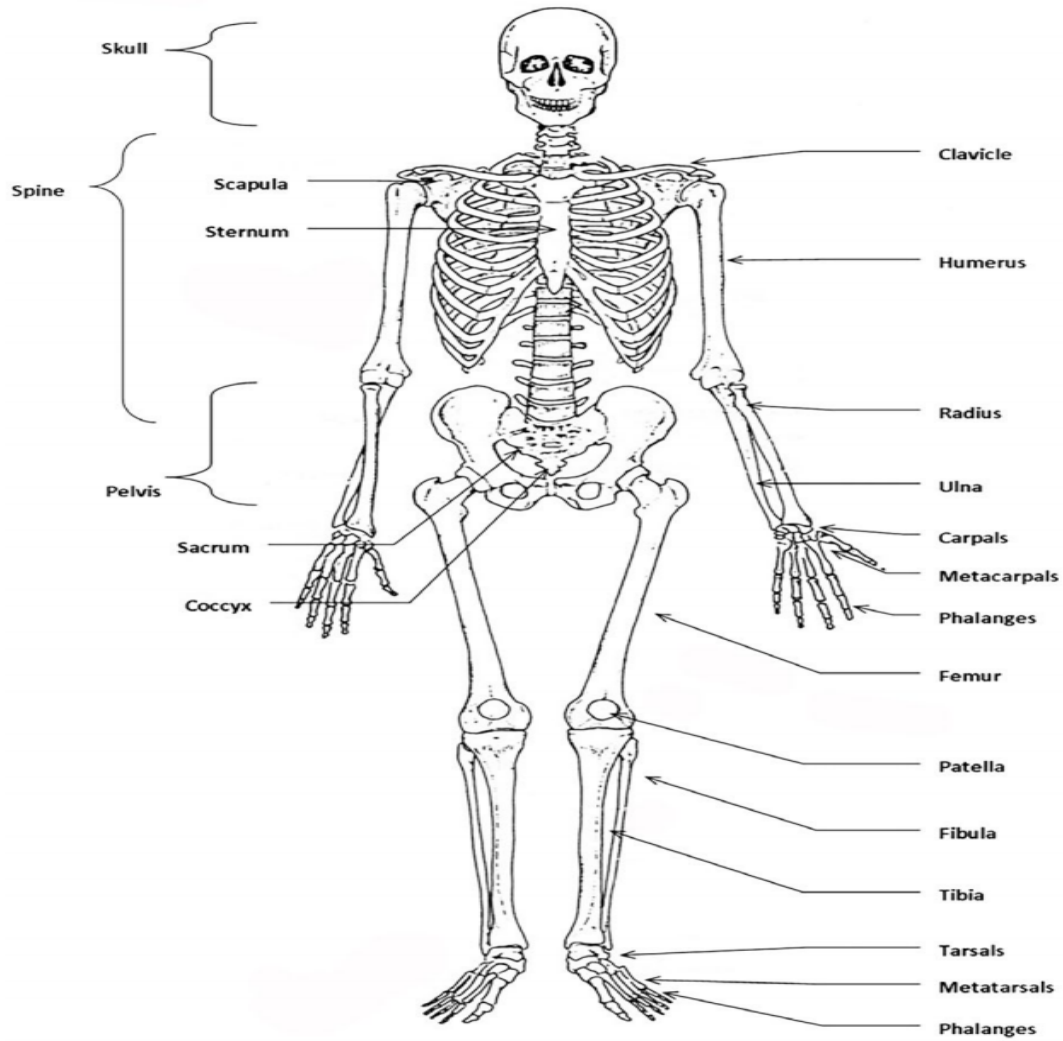
The skeleton protects important **INTERNAL ORGANS**. The skull protects the brain and the pelvis protects the reproductive organs.

SUPPORT

This is the main function of the skeleton - to **SUPPORT OUR BODIES**. Without a skeleton, what do you think we would look like?

MOVEMENT

The skeleton helps our bodies to move by a system of **JOINTS** and by providing a base for **MUSCLES TO ATTACH TO**.



Ball and socket



Pivot



Gliding



Hinge

