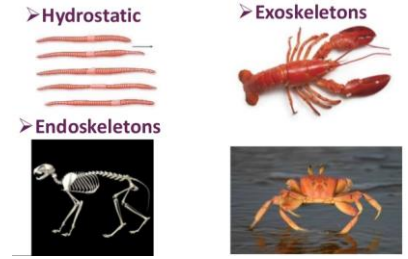
Biology

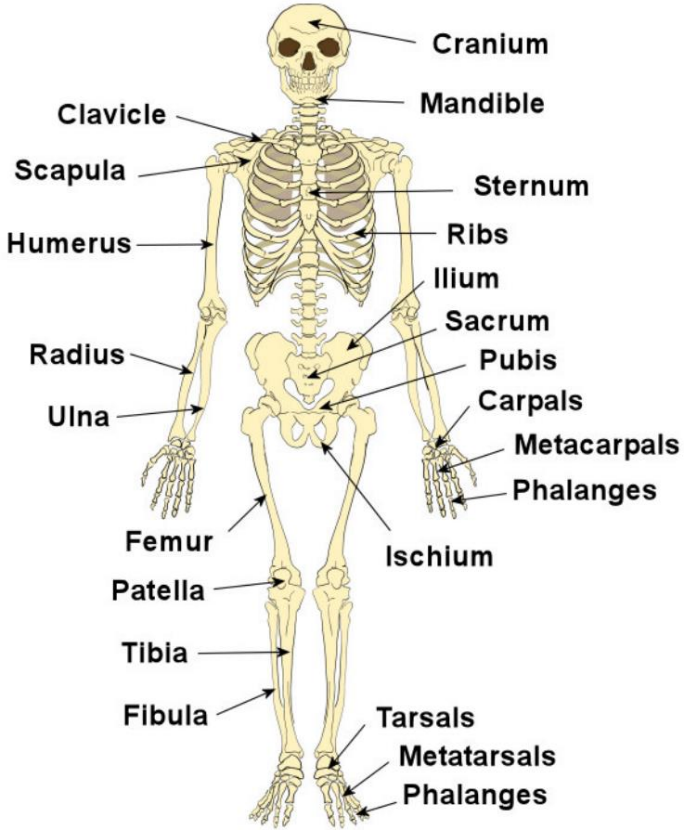
Science Y4: Animals including Humans (Skeletons)

Vocabulary

skeleton an internal framework that supports an organism's body
vertebrate organisms with a backbone
Invertebrate organisms without a backbone
Endoskeleton a skeleton which is on the outside of an organism
Exoskeleton a skeleton which is on the inside of an organism
hydrostatic skeleton a flexible skeleton without bones
skull the large bone protecting the brain
ribcage the bony frame around the ribs protecting the chest
vertebrae series of smaller bones that protect the spinal chord
patella your knee cap



The Human Skeleton



Key knowledge

Humans and some other animals have **an internal skeleton** made of bone. These animals all have a **backbone** (also known as the spine) made up of bones called **vertebr**ae. These animals are therefore called vertebrates. Mammals, fish, birds and reptiles are all vertebrates.

Insects have an external skeleton (a hard outer covering) which is known as an **exoskeleton**. The skeleton has three functions. It provides support (maintains the animal's shape), helps with movement and offers protection.

The human skeleton (and that of most other vertebrates) contains a **skull** to protect the brain, ribs to protect the heart and lungs, and the spine to protect the **spinal chord**.

The bones in the skeleton are joined at **joint**s. There are different types of joints which allow different degrees of movement. These include fixed joints (the bones of the skull allow very little or no movement), sliding joints (between the vertebrae), hinge joints (in the elbow and knee) and the ball and socket joint (the hip).

Links to prior learning and next steps:

Year 1: Animals
Year 2: Growth
Year 3: Living Things

Links to other subjects:

English: write a non-chronological report
Maths: