

## Knowledge Organiser

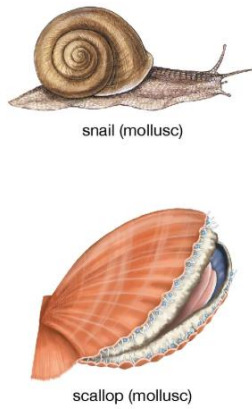
Year Group	Subject	Topic
3	Science	Skeletons

The Big Picture	
We are learning about skeletons in humans and animals. Skeletons support our bodies, protect important organs, and help us move. Some animals do not have skeletons inside their body, and some have skeletons on the outside.	
Enquiry Question	
How can animals be sorted and grouped based on their skeletons?	
Key Vocabulary	What You Will Learn
<b>Skeleton</b> – a collection of bones that supports movement and protects organs.	The human skeleton is made up of <b>206 bones</b> .  Key bones: <b>skull, spine, ribcage, pelvis, femur</b> .  Skeleton functions: <ul style="list-style-type: none"><li>○ <b>Support</b> – holds the body upright.</li><li>○ <b>Protection</b> – skull protects brain, ribcage protects heart and lungs.</li><li>○ <b>Movement</b> – bones and joints help us move.</li></ul> <b>Animal skeletons:</b> mammals, birds, fish, amphibians and reptiles all have skeletons inside their bodies.  Some animals have <b>no spine</b> (e.g. slugs, snails).  Some animals have an <b>exoskeleton</b> – a hard skeleton on the outside (e.g. insects, crabs).  Skeletons are not all the same – different animals have different bone structures.
<b>Skull</b> – protects the brain.	
<b>Spine</b> – bones in the back that support movement.	
<b>Ribcage</b> – curved bones in the chest protecting the heart and lungs.	
<b>Pelvis</b> – bowl-shaped bones connecting the spine to the legs.	
<b>Femur</b> – long bone in the upper leg.	
<b>Exoskeleton</b> – skeleton on the outside of an animal’s body.	
<b>Mammal, bird, fish, amphibian, reptile</b> – groups of animals with skeletons.	
<b>Insect</b> – small animal with 6 legs and an exoskeleton.	
<h3>Key Questions</h3> <ul style="list-style-type: none"><li>▪ How many bones are in the human skeleton?</li><li>▪ What are the 3 main functions of the skeleton?</li><li>▪ Where is the skull, femur, pelvis, ribcage, and spine?</li><li>▪ Which animals have skeletons inside their bodies?</li><li>▪ What is an exoskeleton?</li><li>▪ Are all skeletons the same?</li></ul>	
Insect exoskeleton.	Human skeleton

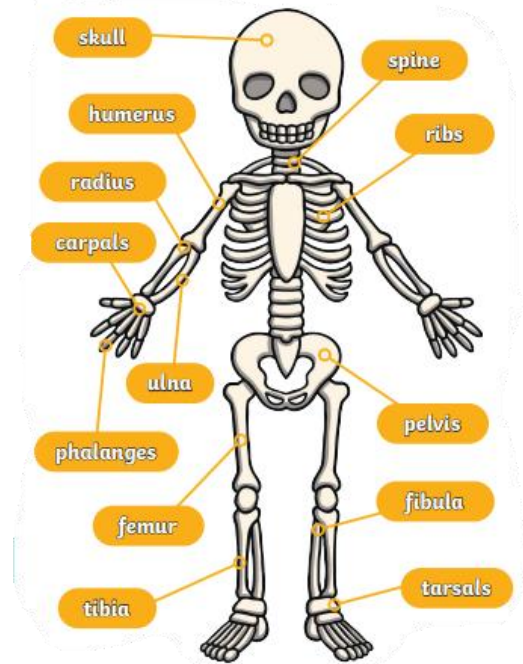
chitin exoskeleton



calcium carbonate exoskeleton (shell)



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Animal skeletons (bird, fish, mammal, reptile)

