

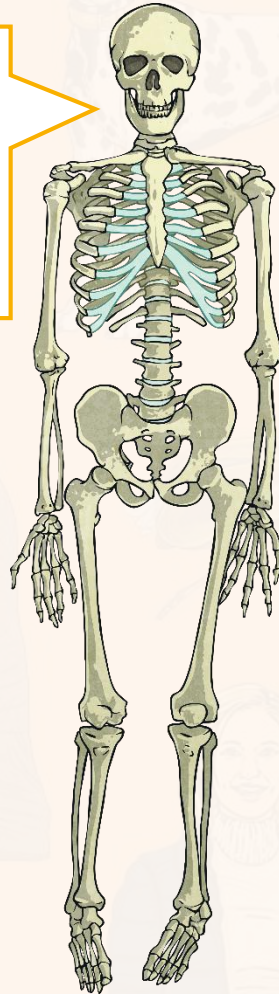
Types of Skeletons



Skeleton



What do you
associate with
the word
skeleton?



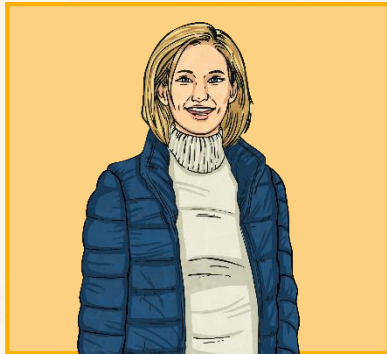
Types of Skeletons



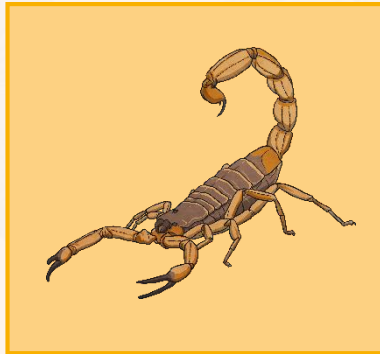
A further classification of skeletons comes from if an animal has a skeleton and where it is.

All vertebrates have an endoskeleton. However invertebrates can be divided again between those with an exoskeleton and those with a hydrostatic skeleton.

endoskeleton



exoskeleton



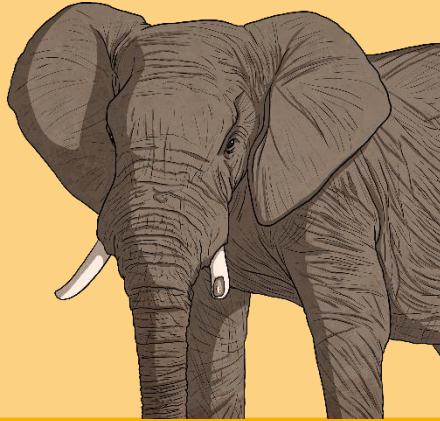
hydrostatic skeleton



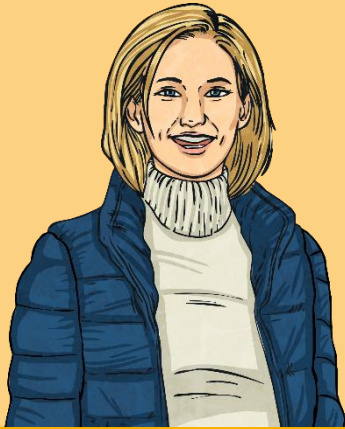
What do you think the words endoskeleton, exoskeleton and hydrostatic skeleton mean?

Endoskeletons

Animals with endoskeletons have skeletons on the inside of their bodies.



Endoskeletons are lighter than exoskeletons and have strong weight bearing properties. This means animals can grow much larger than those with exoskeletons.



As the animal grows so does their skeleton. These skeletons allow for faster movement than an exoskeleton but the muscles are less flexible.



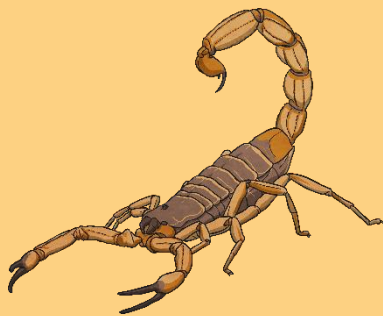
Exoskeletons

Animals with exoskeletons have their skeletons on the outside!

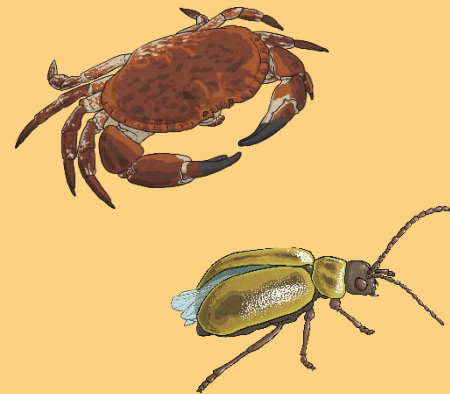
They protect the animals organs and it's a bit like a waterproof coat as it stops the animal getting wet or drying out



Having an external skeleton is a great defence against predators.



Exoskeletons do not grow with the animal. Therefore the animal has to shed its skeleton and produce a new one! Watch the following clip to see how they shed their skeletons (click the crab).



Hydrostatic Skeletons

Animals with hydrostatic skeletons don't actually have any bones!

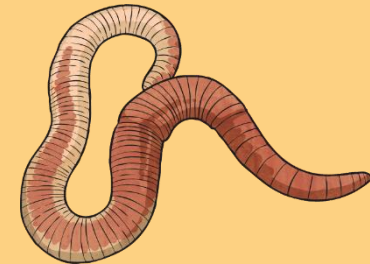


All animals with hydrostatic skeletons are invertebrates – this means they don't have a backbone.

What do you think could be the disadvantage of this type of skeleton?



A hydrostatic skeleton allows animals to move very flexibly. Muscles help the animal to move.



Sorting Skeleton Types

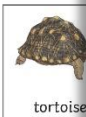


Remember:

- Endoskeleton means the skeleton is inside the body.
- Exoskeleton means the skeleton is outside the body.
- Hydrostatic skeleton means the skeleton is made of fluid.



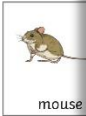
elephant



tortoise



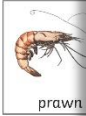
jellyfish



mouse



ant



prawn

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Sorting Skeleton Types

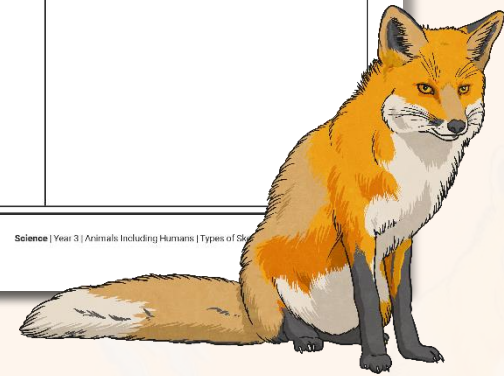
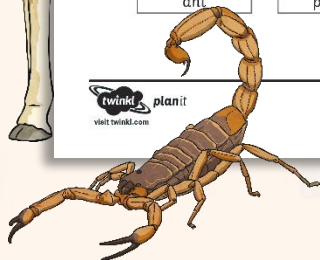
I can sort animals based on their skeletons.

Cut out and stick the animals based on the type of skeleton they have.
















Endoskeleton	Exoskeleton	Hydrostatic Skeleton

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Science | Year 3 | Animals Including Humans | Types of Skeleton






Answers

Endoskeleton		Exoskeleton		Hydrostatic Skeleton	
					
elephant	human	lobster	prawn	jellyfish	worm
					
mouse	killer whale	tortoise	ant	beetle	slug
					
goldfish	fox		butterfly		

Pros and Cons of Different Skeleton Types



Type of Skeleton	Pro	Con
Endoskeleton 		
Exoskeleton 		
Hydrostatic Skeleton 		

Grows with the body
More protection for
the body

Does not grow with
the body
Body is more flexible

Cannot lift objects
Muscles are less
flexible

Answers

Types of Skeleton	Pro	Con
endoskeleton	grows with the body	muscles are less flexible
exoskeleton	more protection for the body	does not grow with the body
hydrostaic skeleton	body is more flexible	can not lift objects