

Vertebrate ✓

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Invertebrate ✗

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We are going to look at the skeleton of a variety of different living things?

Task 1: Research

Can you find out what a *vertebrate* and an *invertebrate* is? Write a definition for each.

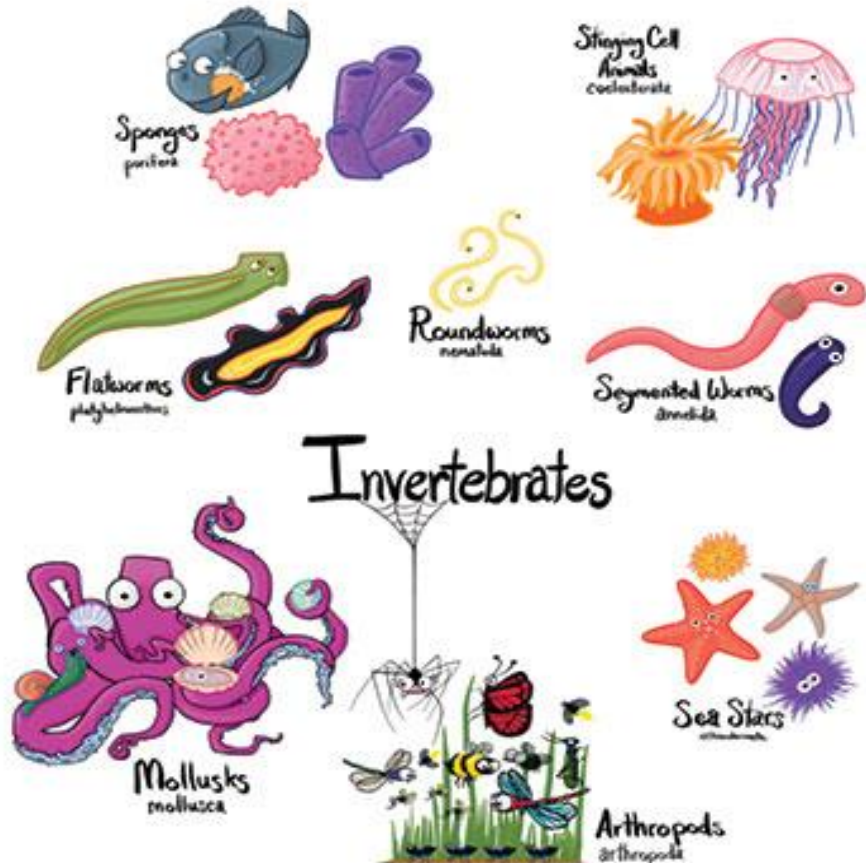
Vertebrate ✓

A vertebrate is an animal with a spinal cord surrounded by cartilage or bone. <https://www.youtube.com/watch?v=R50Xc1EUHwg>

Invertebrate ✗

An invertebrate is a cold-blooded animal with no backbone. [https://www.youtube.com/watch?v=Sr\\_T4skBYNo](https://www.youtube.com/watch?v=Sr_T4skBYNo)

## Invertebrates



## Vertebrates



Fish



Birds



Reptile

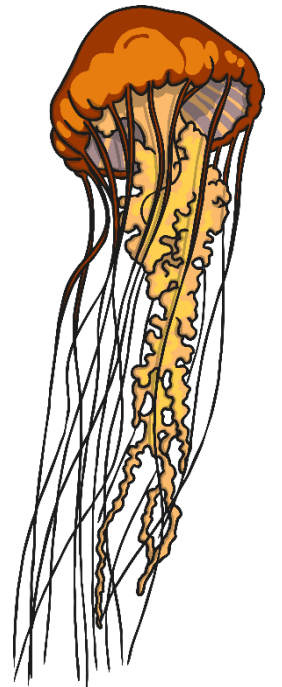
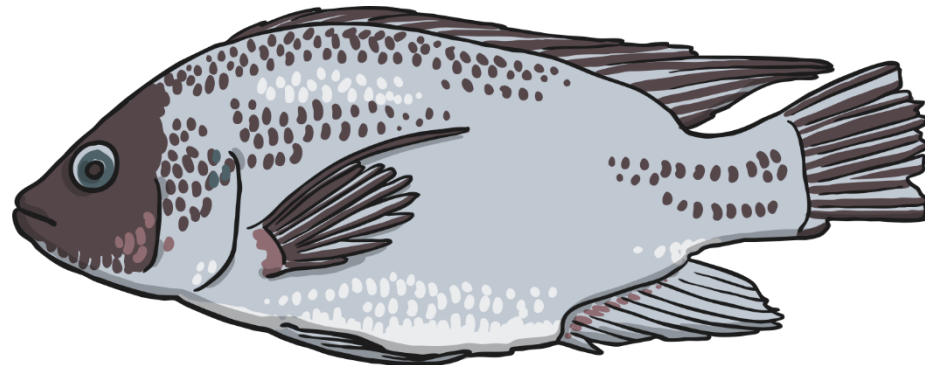
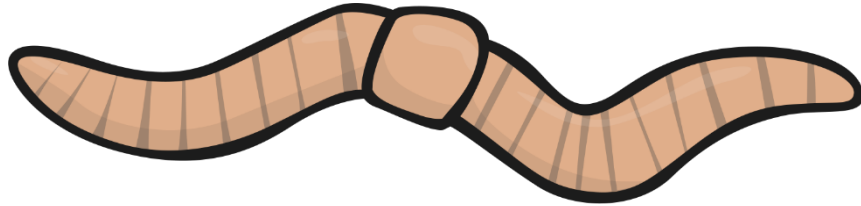
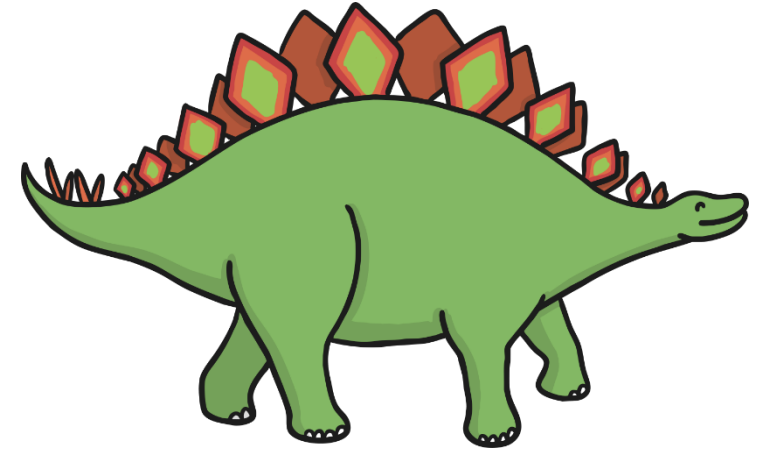
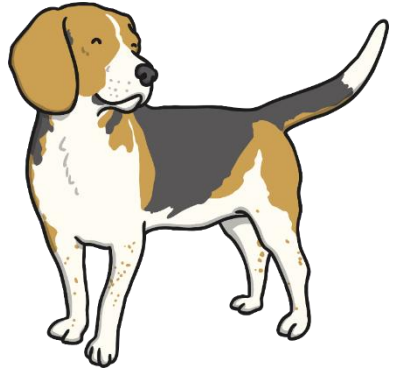


Mammals



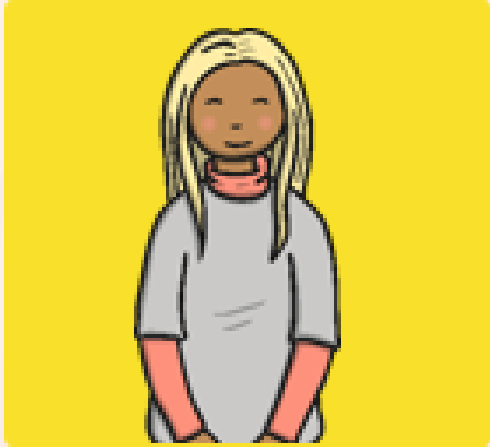
Amphibians

Task 2: Sort the animals into 'vertebrate' or 'invertebrate'.



## Types of skeleton:

vertebrate  
↓  
endoskeleton



- Animals with *endoskeletons* have skeletons on the *inside* of their bodies.
- As the animal *grows* so does their skeleton.
- *Endoskeletons* are *lighter* than *exoskeletons*.

exoskeleton



- Animals with *exoskeletons* have their skeletons on the *outside!*
- Exoskeletons *do not grow* with the animal. Therefore the animal has to *shed* its skeleton and produce a new one!

<https://vimeo.com/37438364>

<https://www.youtube.com/watch?v=D1hkGbR0Ubc>

invertebrate

↓  
hydrostatic skeleton

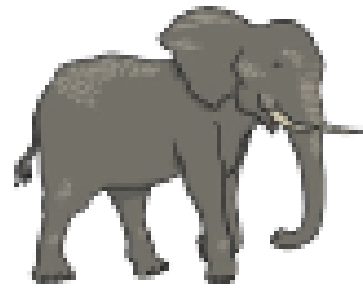


- Animals with *hydrostatic* skeletons don't actually have any bones!
- Instead these animals have a *fluid-filled compartment* in their body called a coelom.
- All animals with hydro-static skeletons are invertebrates.

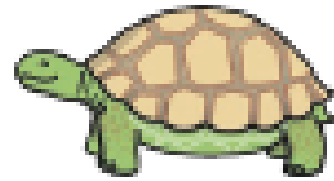
Task 3: Sort the animals

Sort the animals on the next page depending on their skeleton type.

Endoskeleton	Exoskeleton	Hydrostatic Skeleton



elephant



tortoise



slug



butterfly



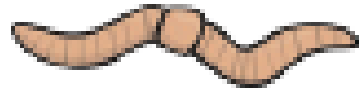
human



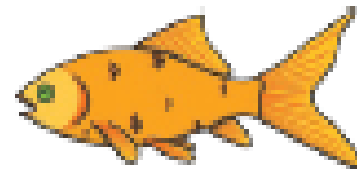
jellyfish



mouse



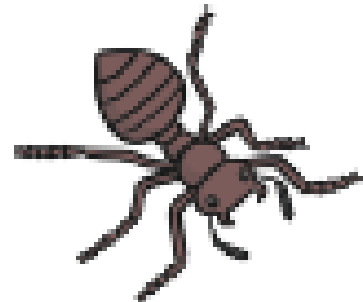
worm



goldfish



lobster



ant



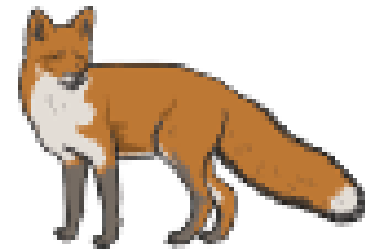
prawn



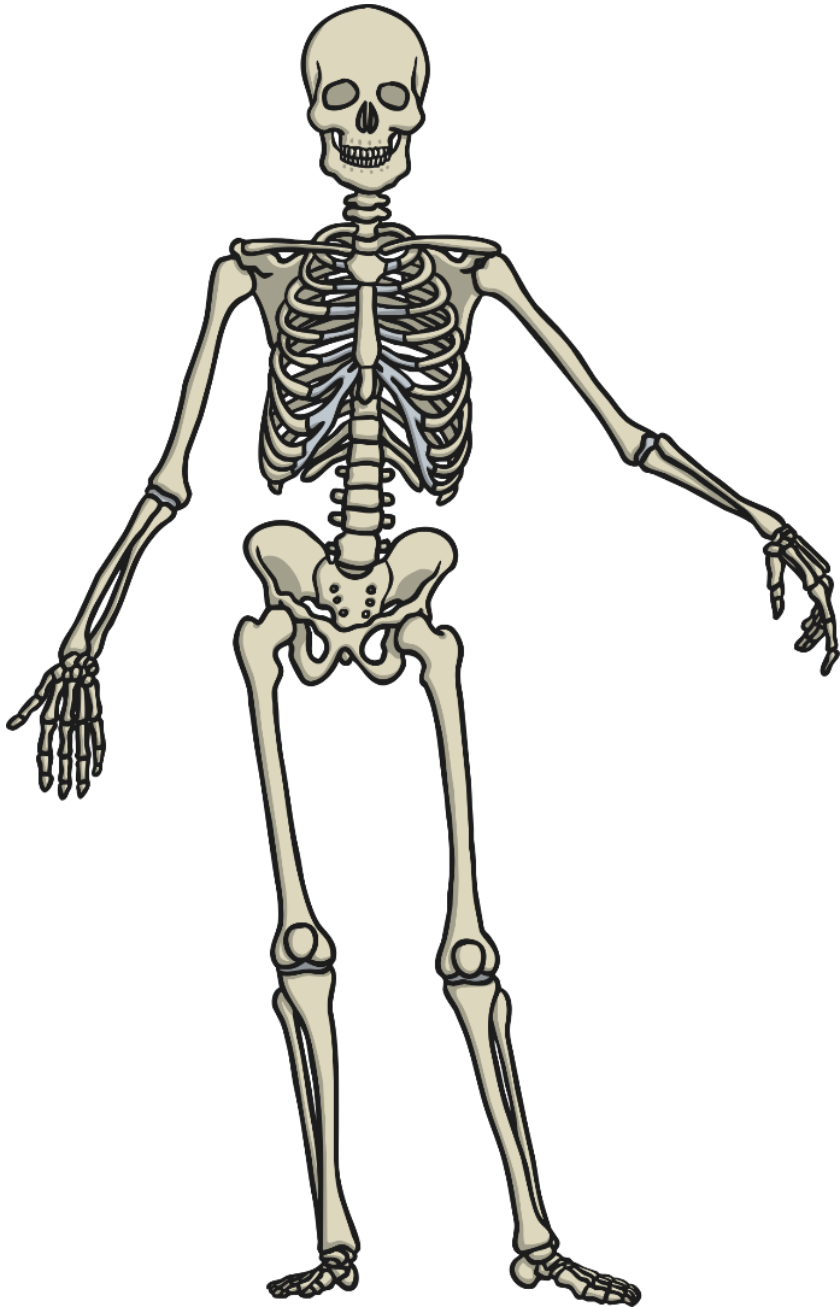
beetle



killer whale



fox



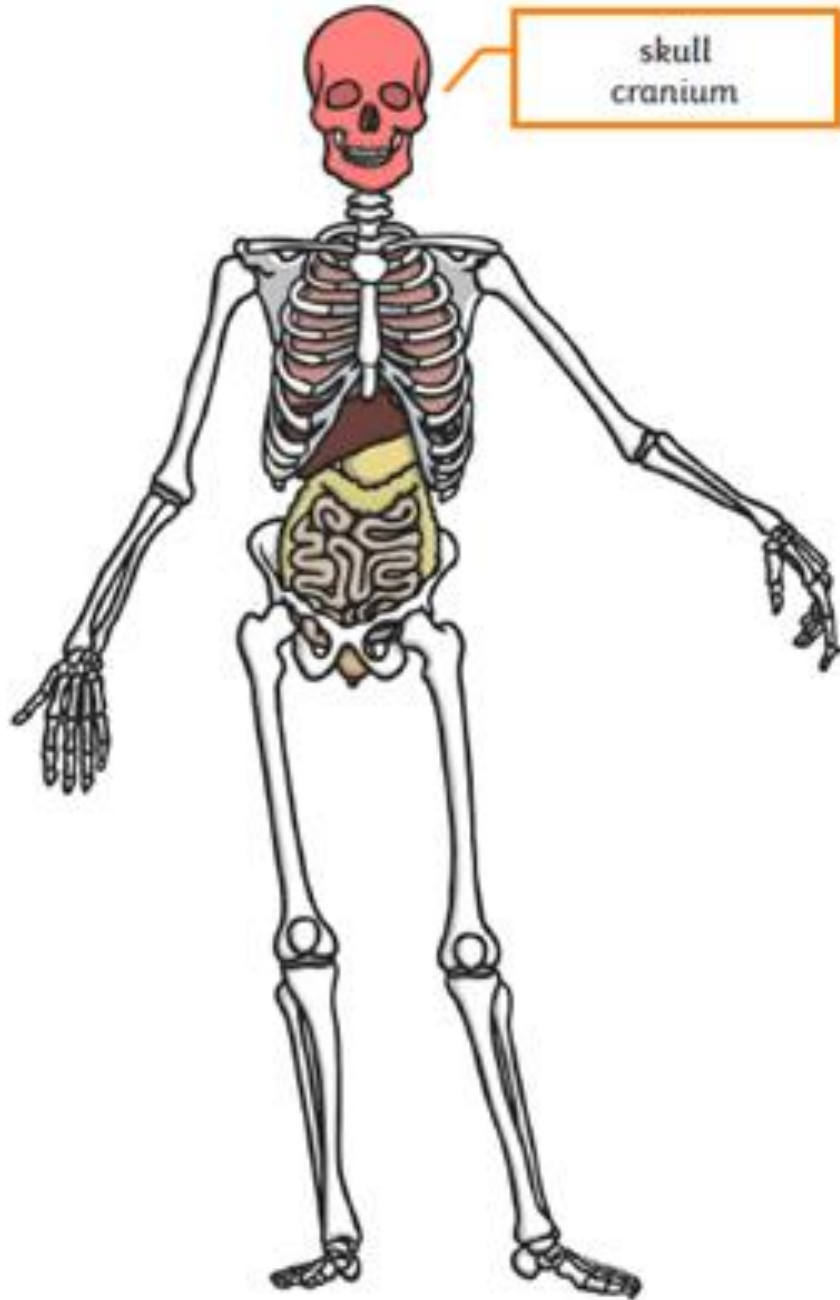
Task 4:

Why do you think we have a skeleton?

How many reasons can you come up with?

What would happen if we did not have a skeleton?

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There are 4 main functions of the skeleton:

1. Protection
2. Shape
3. Support
4. Movement

<https://www.youtube.com/watch?v=vRuh9aBwUdM>

Task 5: On the skeleton, can you find 3 bones that help to *protect* your organs?

- 1.
- 2.
- 3.



## Task 6:

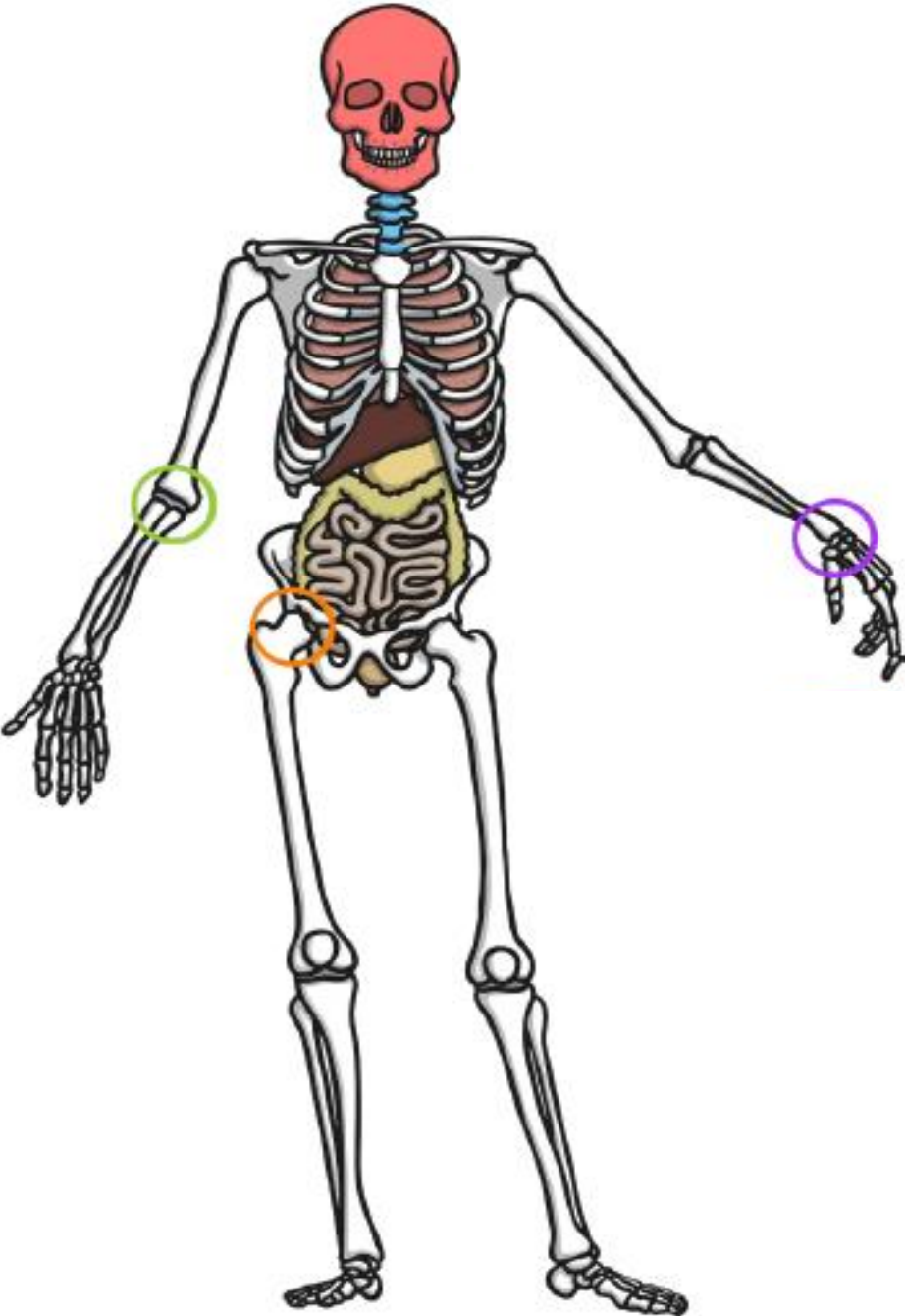
1. What is the bone coloured in blue? Think about what you have learnt earlier on.

2. What is in the green circle?

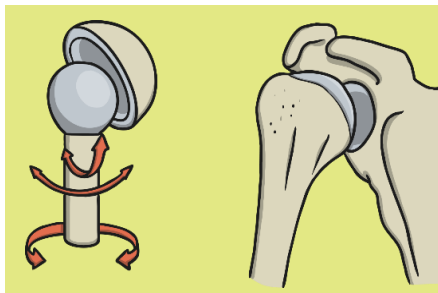
3. What is in the orange circle?

4. What is in the purple circle?

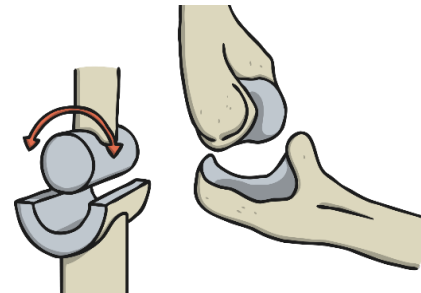
5. In each circle is a joint. Do you think you can guess which type of joint is which? (Use the next page to help)



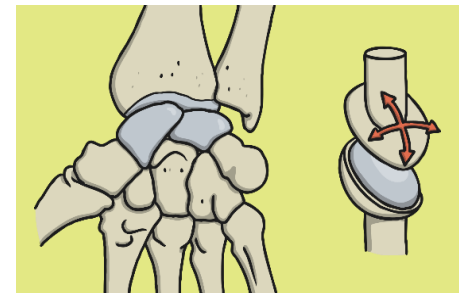
ball and  
socket



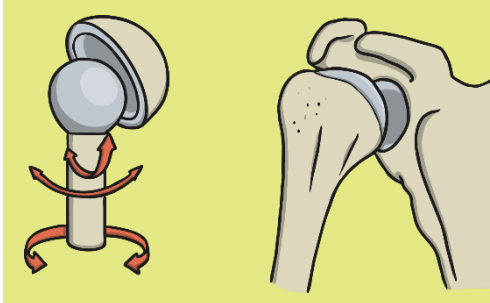
hinge



gliding

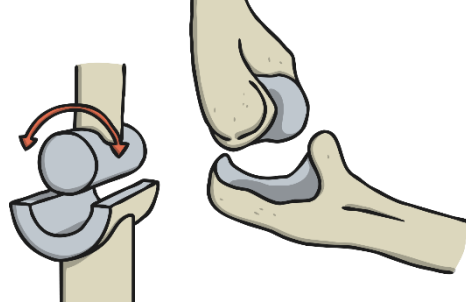


## ball and socket



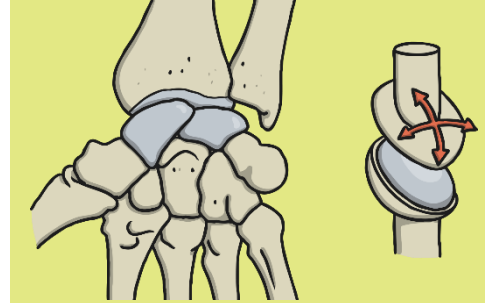
Ball and socket joints allow the most freedom of movement.

## hinge

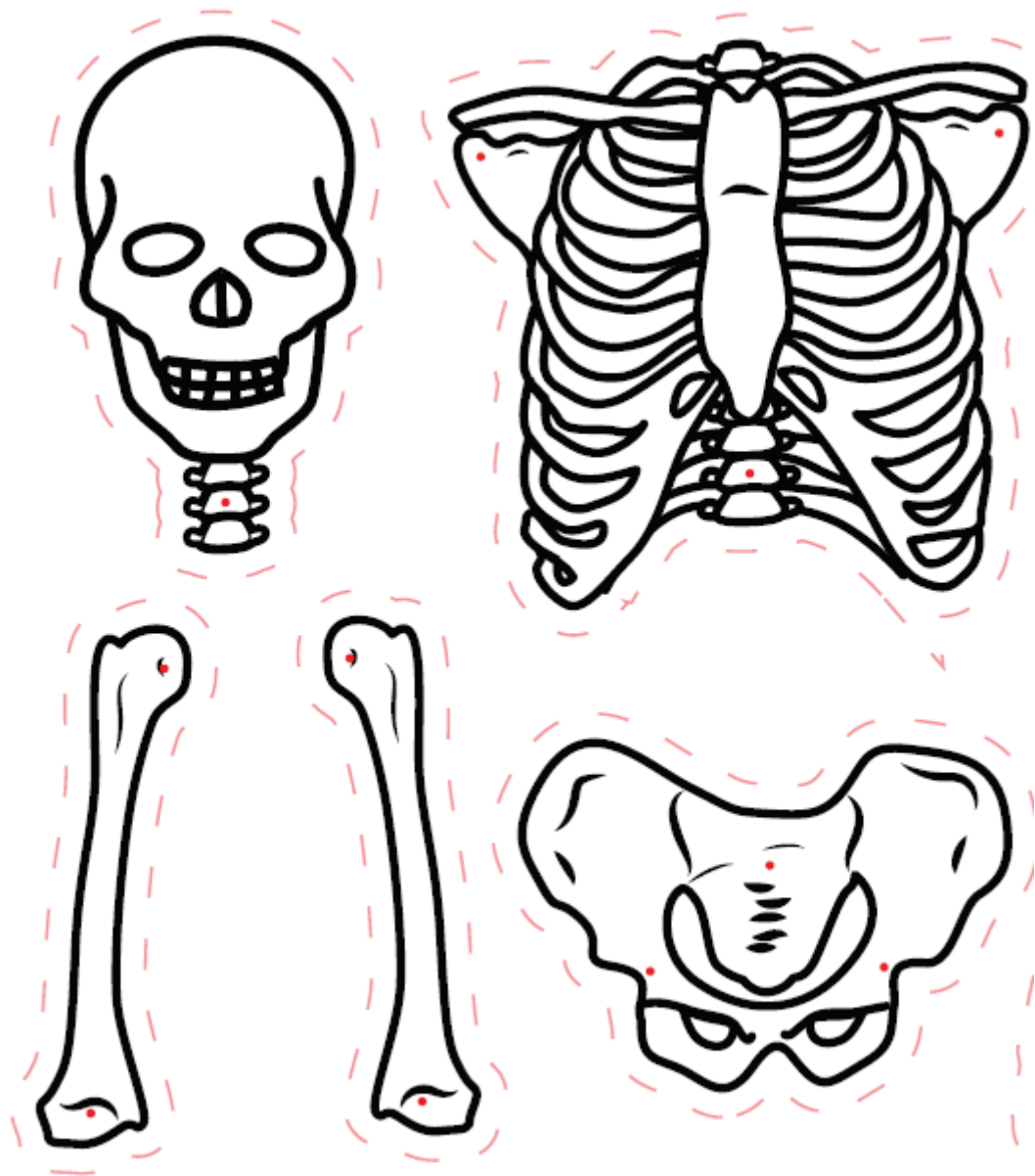


Hinge joints allow flex and extend movements.

## gliding



Gliding joints are also known as 'plane' joints. The bones are shaped to glide over one another and allow for small limited movements in different directions.



### Task 7:

Print off the Cut and Stick skeleton worksheet from the website. (If you can't, then you can copy and draw your own skeleton).

1. Cut up and complete the skeleton.
2. Colour in the joints on your skeleton.
3. Colour in bones that protect internal organs.
4. Name 4 different bones on your skeleton.

## Wider curriculum - PSHE

Please find on our website a *Returning to School - Life After Lockdown* pack.

You do not need to print off the booklet and you don't need to physically complete them if you don't want to.

Instead, you could use a note book to complete some of the task.

It might be nice to talk to people at home and use the questions and tasks as discussion points to chat about coming back to school in September. 😊😊😊

