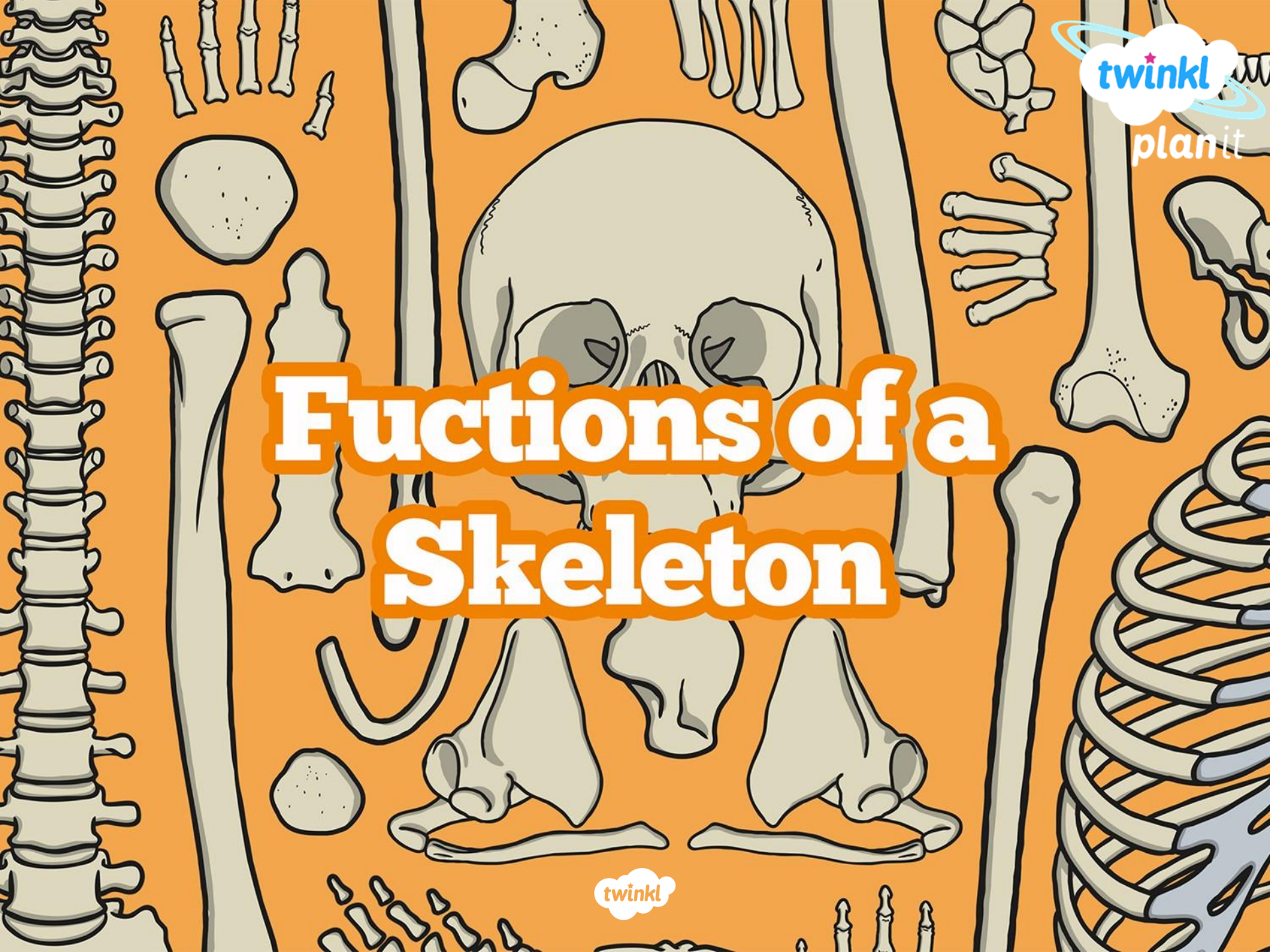
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Fuctions of a Skeleton
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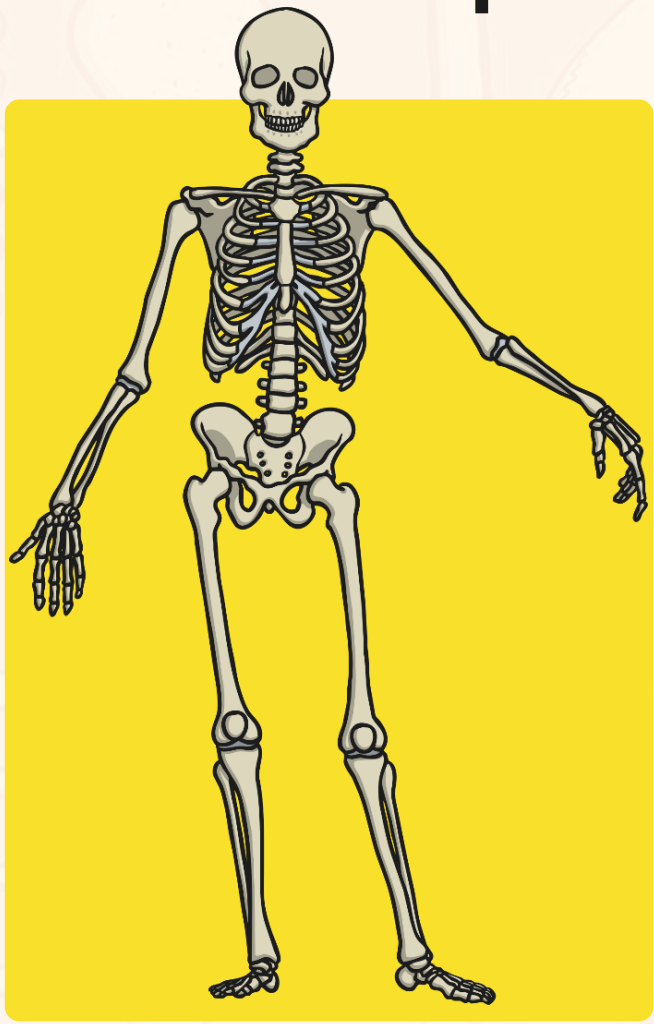
Aim

- I can identify and explain the three main functions of a skeleton.

Success Criteria

- I can identify parts of the skeleton that protect the body.
- I can identify parts of the skeleton that support the body and help it move.
- I can explain how different parts of the skeleton work.

Purpose of a Skeleton



Think about the following questions, then watch the BBC Bitesize video clips.

1

Why do we have skeletons?

2

What would happen if we did not have a skeleton?

BBC Bitesize Video 1 / Video 2

Skeleton Functions

Our skeleton has 3 main functions:

1. To protect our internal organs like our heart and lungs.

2. To support us and help us keep our shape.

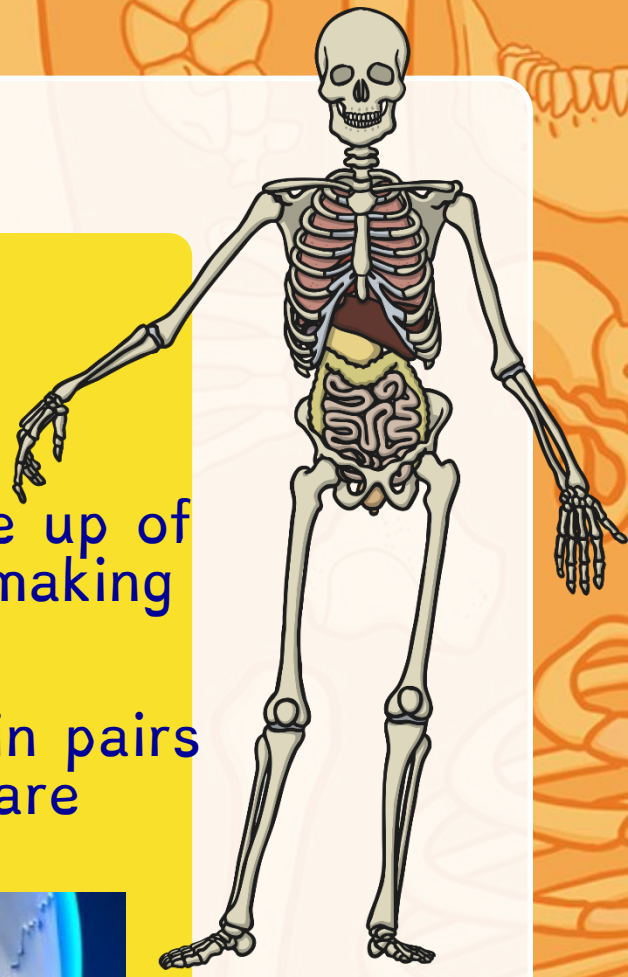
3. To enable us to move, with the help of our muscles.

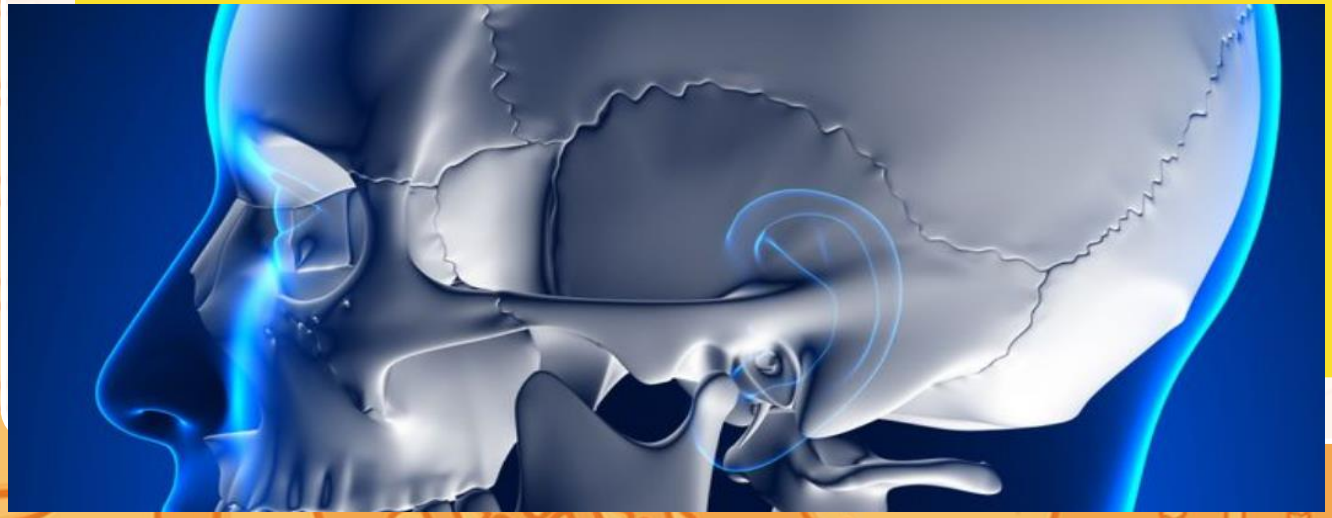
Protection

Skulls come in all shapes and sizes and protects our brain.

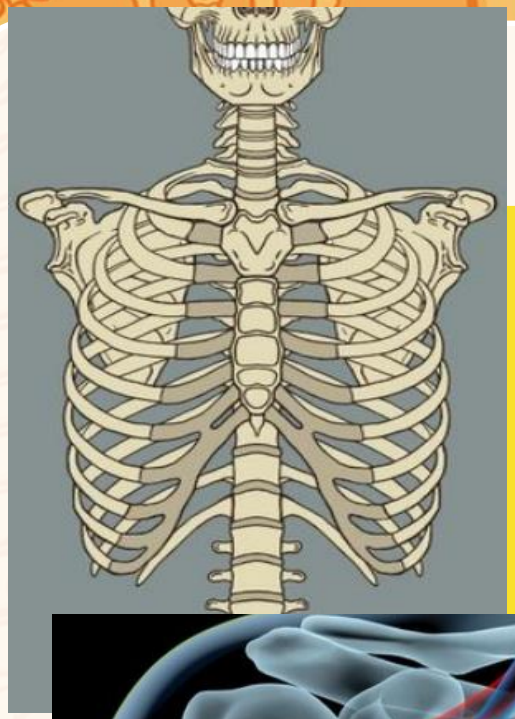
The human skull is made up of 22 bones with 14 more making up the facial structure.

Most of the bones are in pairs which is why our faces are symmetrical.





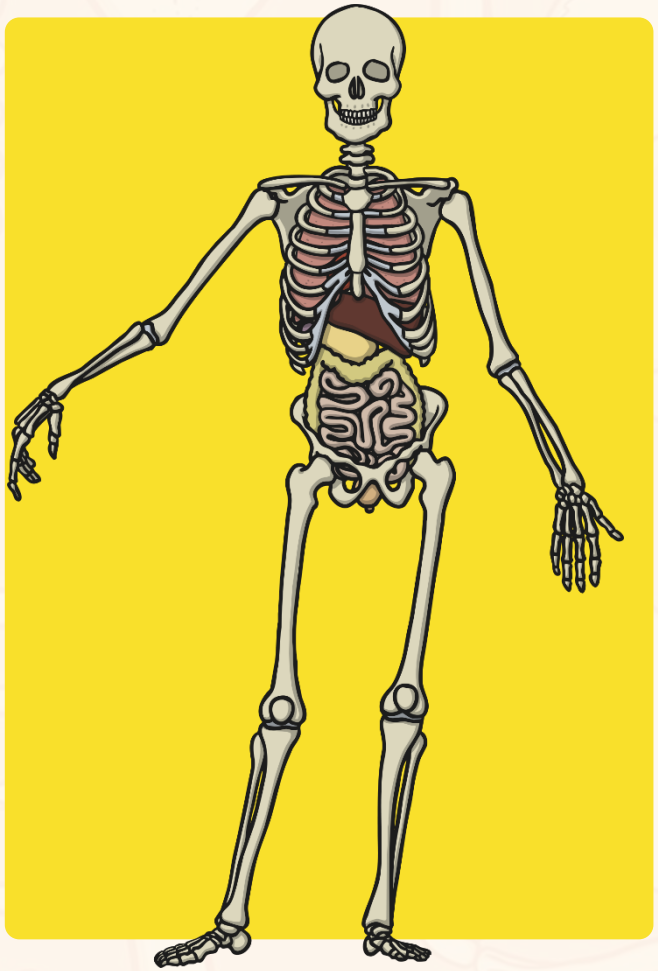
Can you see where bones have fused as the person grew up?



Protection

The rib cage (Thoracic cage) protects the heart and lungs.

All Fall Down!



One of the functions of a skeleton is to support your body.

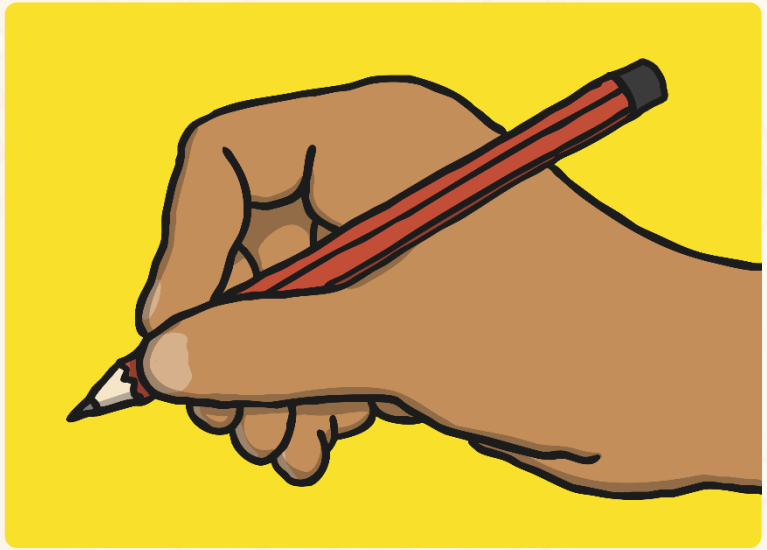
What would happen if you had no bones in your body?

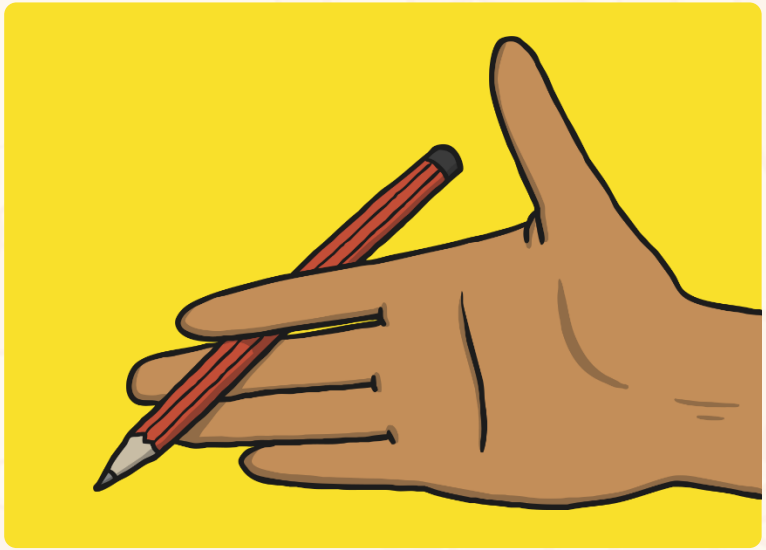
Which part of the skeleton keeps your body upright?

Support and protection

The spine supports our bodies and allows us to bend and twist.
It protects our spinal cord which sends messages to the brain.
It is made up of 24 separate bones called vertebrae.

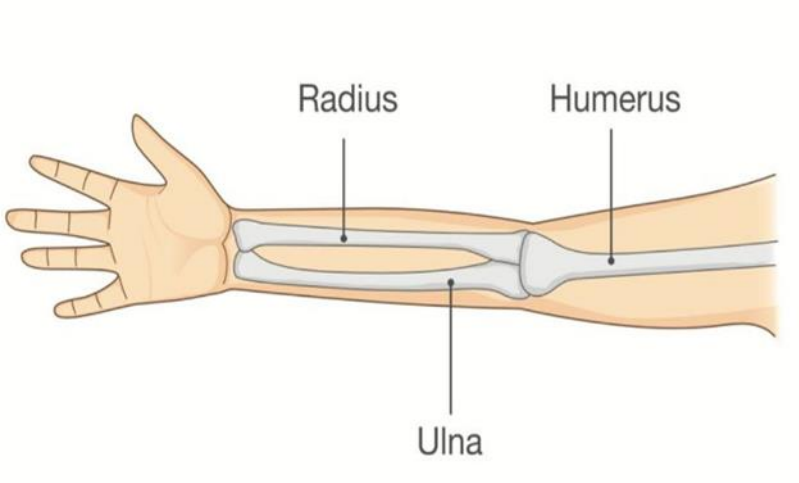
Movement

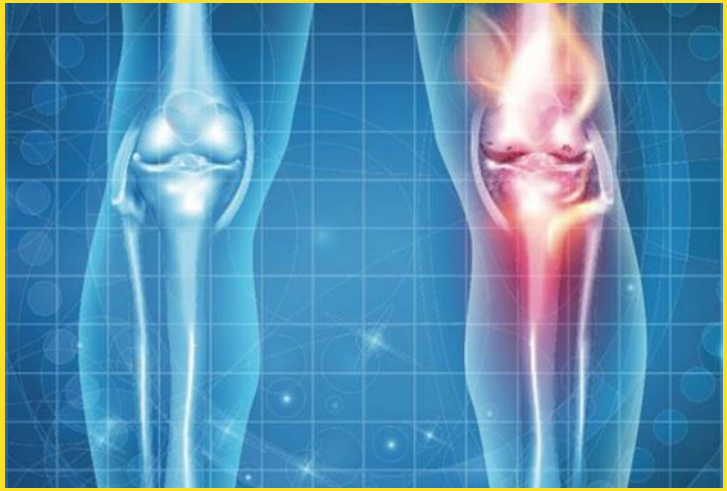




Think - What would happen if I tried to pick up a pencil the first time and then what would happen the second time?

Movement



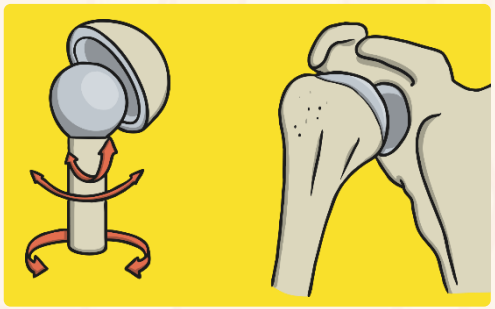


Of course our bones wouldn't be able to move without muscles and tendons.

Joints

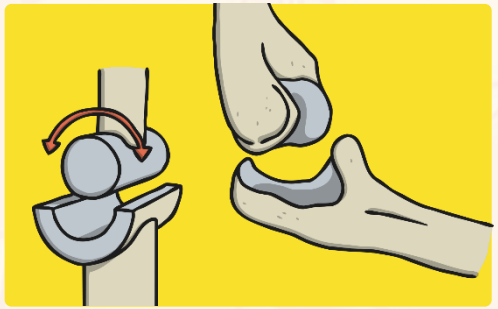
Without joints connecting our bones we would not be able to move the way we do. We would not be able to bend, jump, skip to name a few movements. There are 3 different types of joints in the body. **(Click the pictures to see how they move!)**

ball and socket



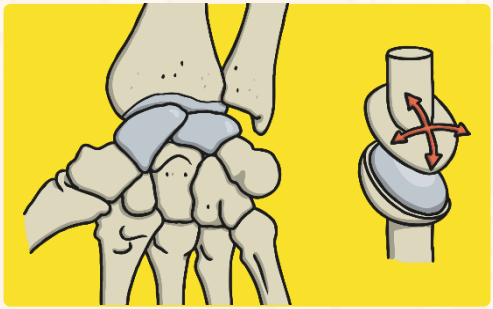
Ball and socket joints allow the most freedom of movement. One example in the human skeleton is the between the pelvis (hip) and femur (upper leg bone).

hinge



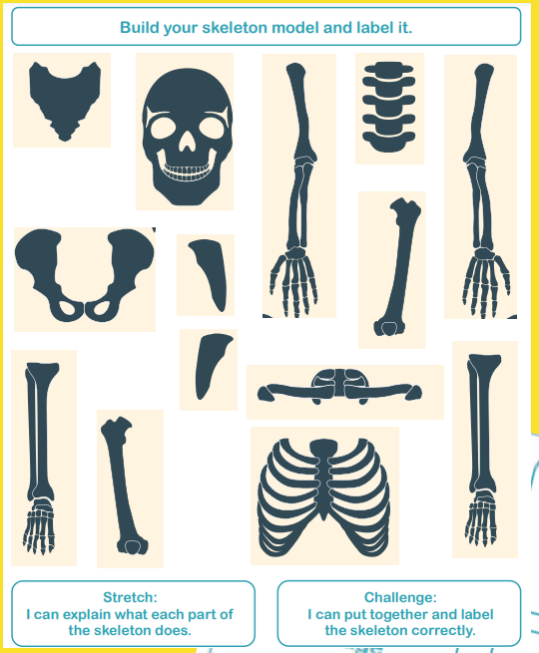
Hinge joints allow flex and extend movements. One example in the human skeleton is between the humerus (upper arm bone) and radius/ulna (lower arm bones).

gliding



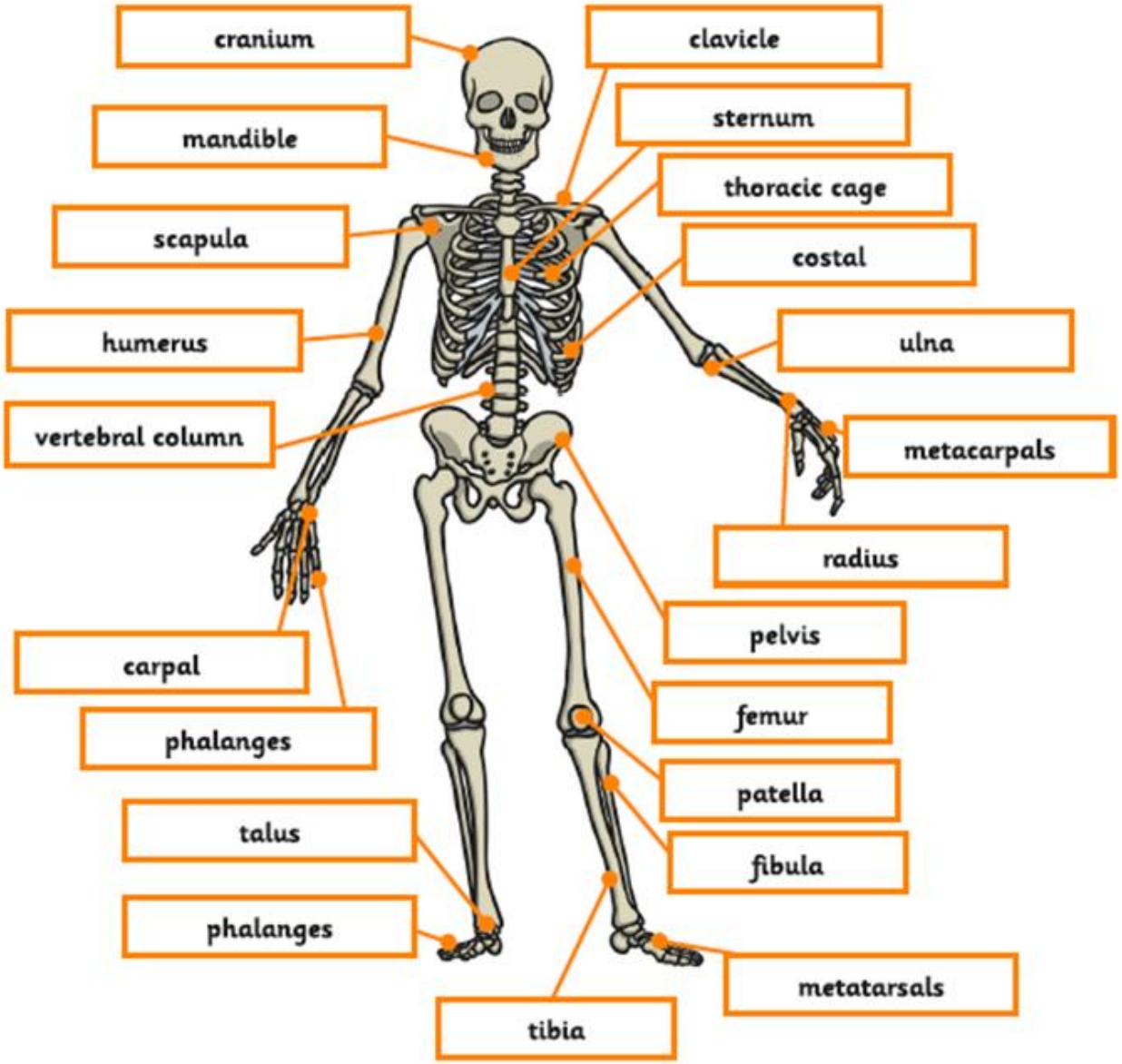
Gliding joints are also known as 'plane' joints. The bones are shaped to glide over one another and allow for small limited movements in different directions. One example in the human skeleton is the wrist bones.

Today's task:



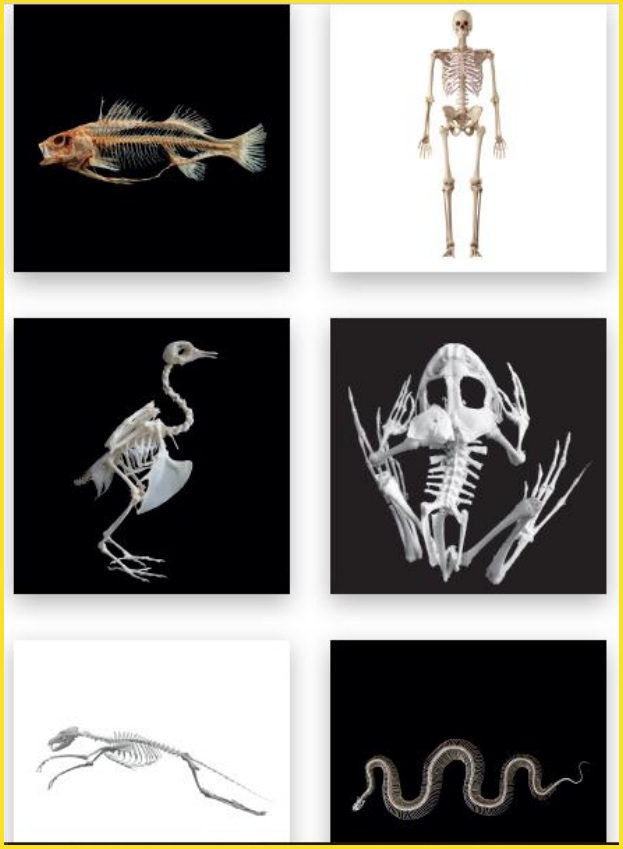
You need to build a skeleton model and label it.

Open up the worksheet for lots of ideas about how you could do it.



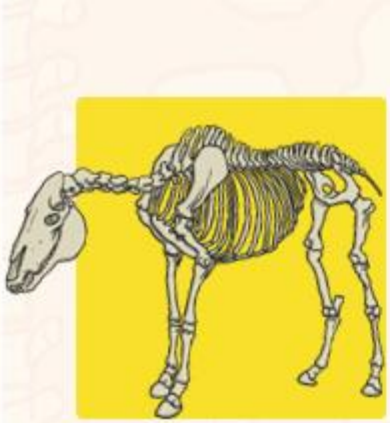
This may help you to complete the main task today.

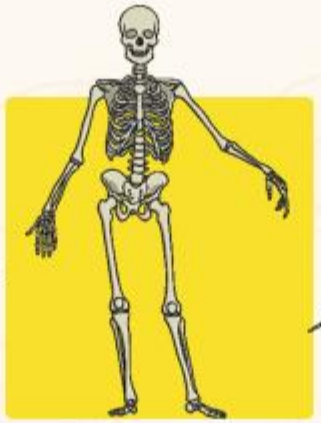
There is also an extension task that you can challenge yourself with…

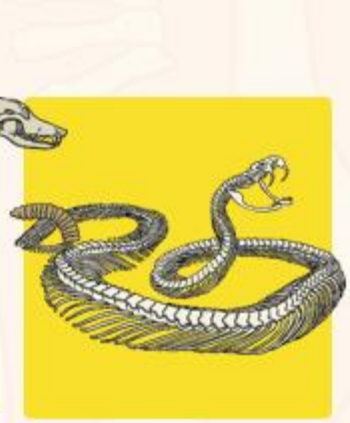


Challenge: compare the human skeleton to some others. How are they the same / different?

Plenary: Whose Skeleton?





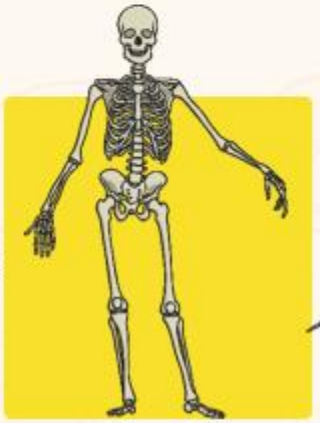


human	dog	horse	snake	fish

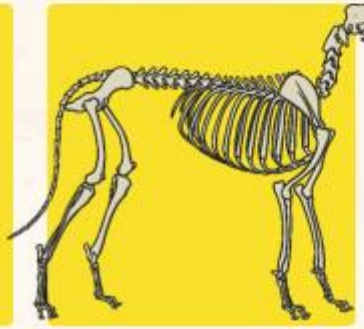
Answers: Whose Skeleton?

horse

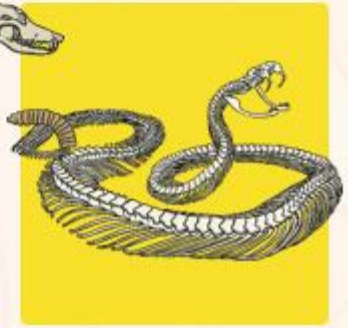
fish



human



dog



snake