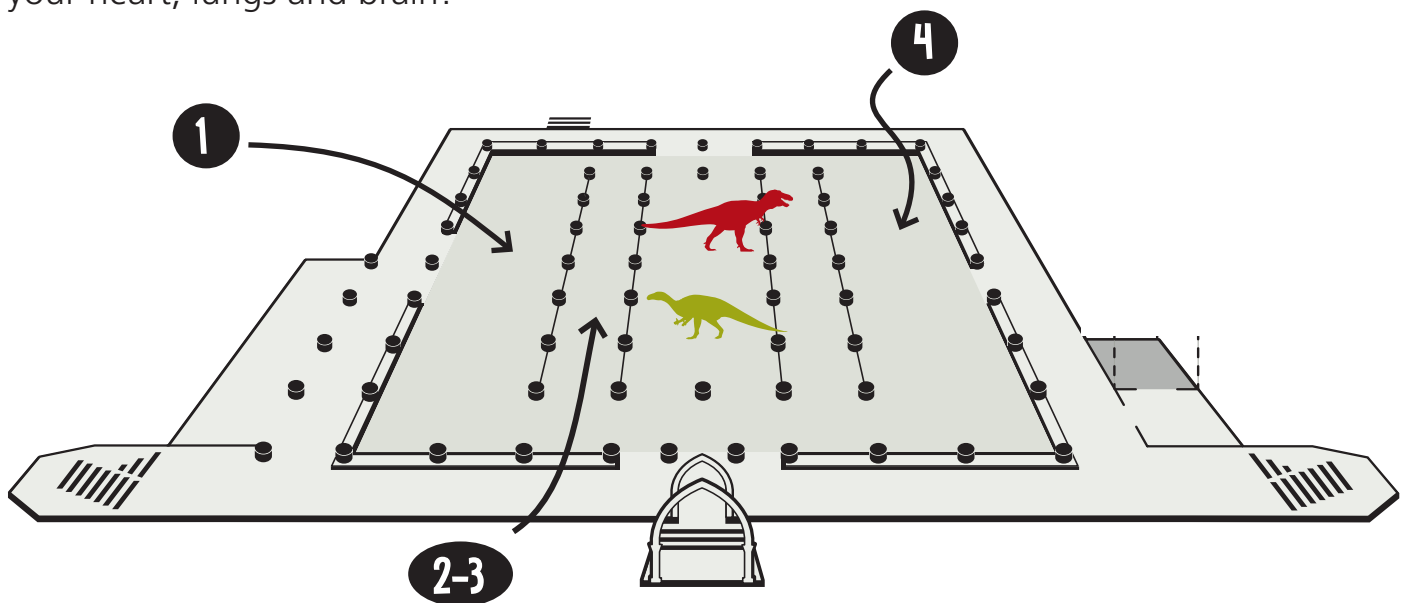


# SKELETON SPOTTERS



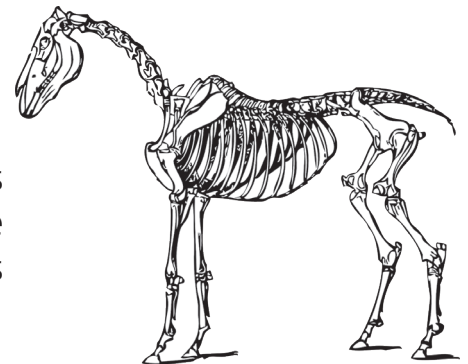
**Skeletons** are the strong part of an animal (or insect) which helps them stay the right shape, move around and protect their softer bits. This trail focuses on **vertebrates** - animals with skeletons inside their bodies.

Your skeleton is made of your bones and skull - it protects your soft **organs**, such as your heart, lungs and brain!



## 1 Super skeletons

Looking closely at skeletons can tell us about the animals that they came from. Most of the skeletons in the parade have four legs, that they use to move around on. This means they are all **quadrupeds** (meaning "four feet" in latin).



**Look at the skeletons in the parade.**

**Which skeleton can you see with the most bones, or the longest legs?**



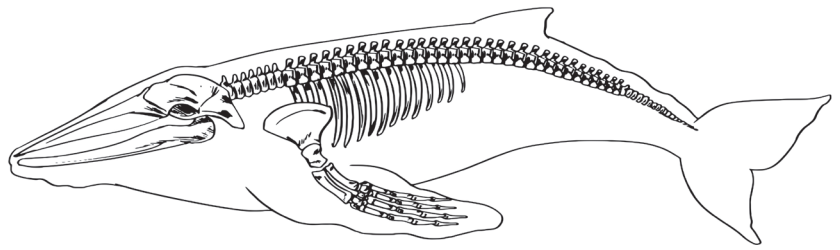
Try to think of a question that has a number for an answer, such as "How many skeletons are there in the parade?" or "How many skeletons can you see with tails?"

**Write your question below, then try it out on a friend or family member!**

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## 2 Marvellous mammals

Look up at the whale skeletons above you!



Although whales live in the sea, they breathe air like you do! Unlike fish, whales **evolved** from four-legged animals similar to the ones you saw in the skeleton parade. **Evolved** means an animal changed slowly over many years from an earlier type of animal.

Humans, whales, elephants and horses are all **mammals**. This means that they have live young (instead of laying eggs like birds and reptiles), and they can feed their young with milk.

All mammals **evolved** from ancient mammals, so they all have similar skeletons. The bones in your hand are related to the bones in a whale fin, or in an elephant or horse foot.



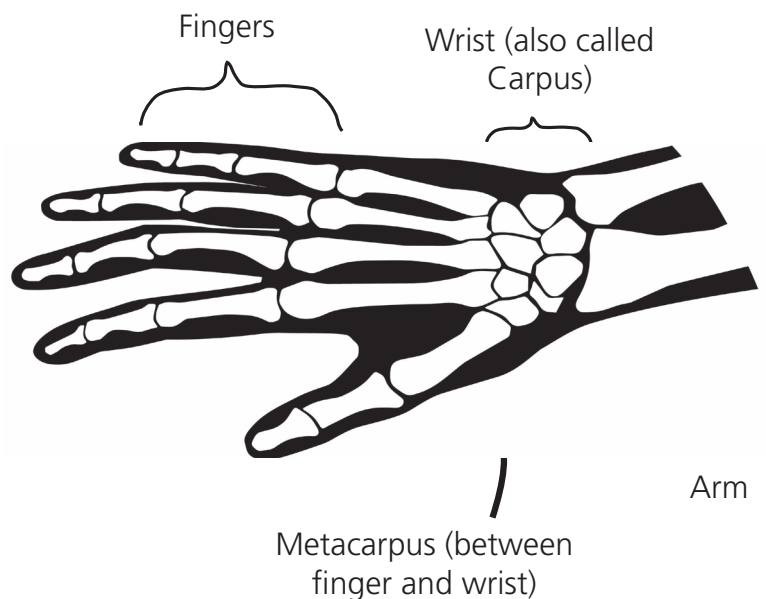
Look at this picture of the bones in your hand.

Can you see where the bones from your hand are in a whale fin?

What about an elephant foot or a horse foot?

(return to location 1)

*Hint: as each animal evolved, the bones may have grown, shrunk or moved around a bit - some may have even joined together!*



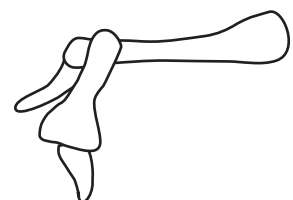
## 3 Wonderous whales

So how did whales 'lose' their legs?

Scientists think that at first, the legs of whale ancestors grew smaller and smaller as they started to spend more time in water. Eventually, the whales lost their legs entirely, there is a strong **pelvis bone** where the back legs once were!

Can you see the pelvis bone?

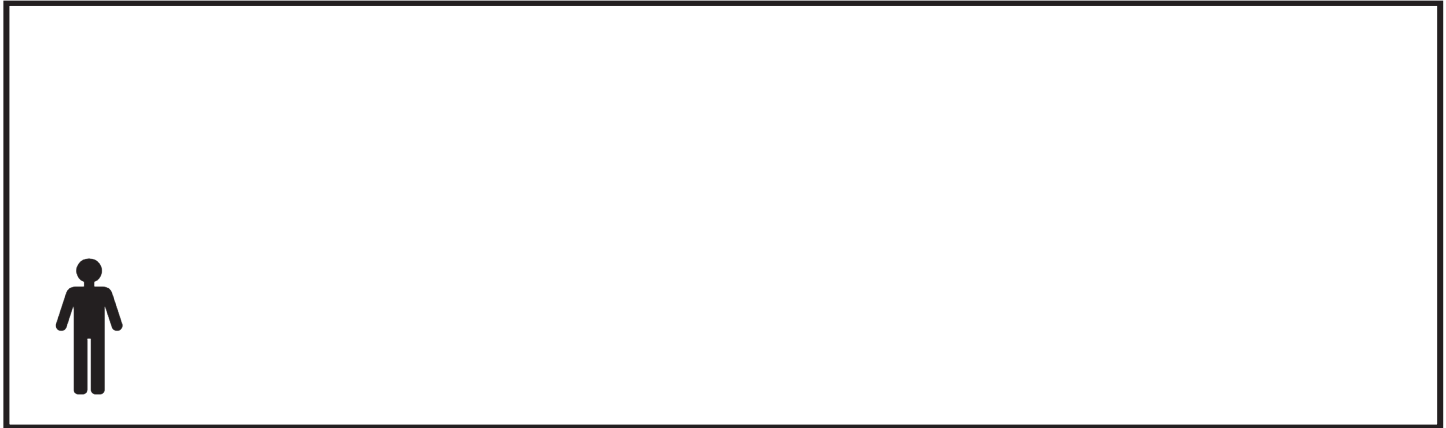
*The whale pelvis bone is very small; it is separate from the rest of the skeleton, underneath the backbone*





**How big is a whale compared to you? Draw one of the whale skeletons in this box.**

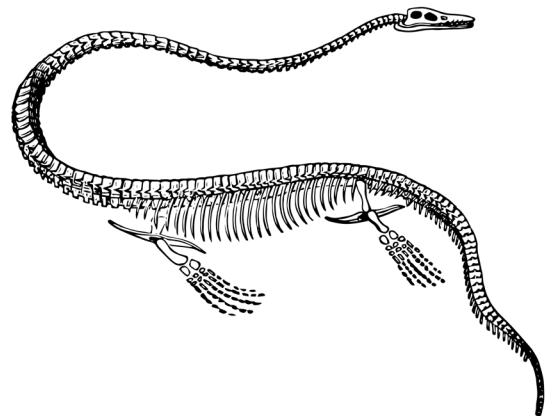
**A human is already drawn in - you should draw the whale to be the right size, compared to you!**



## 4 Ancient animals

**Look for an ancient animal skeleton (choose one you like!).**

If an animal is alive today, we can compare the skeleton to the animal. However, for ancient animals this is much harder!



Skeletons are made of harder materials than other parts of an animal. When an animal dies, the soft parts are quickly broken down, leaving only the skeleton.

The hard skeleton becomes covered in layers of rock. When the skeleton bone is eventually broken down by water, minerals in the water fill in the gaps left by the skeleton. This makes a rock copy of the skeleton - a **fossil**.

Scientists look at fossils of ancient animals and use the shape of their skeleton to work out how the animal might have looked.



**Look closely at the ancient animal skeleton you have chosen...  
...then describe what the animal might have looked like!**

*You can use the prompt questions below to help you*

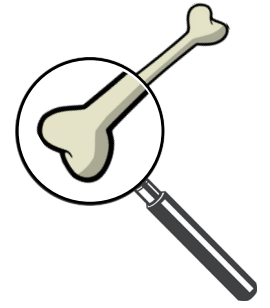
**How big was this animal?**

**How did this animal move?**

**What colour might this animal have been?**

**What did this animal eat?**

# SKELETON SPOTTERS



Now take this trail home and draw skeleton parts of animals you see!

In the two boxes below, **draw an animal you can see near your home** - maybe a pet or a bird that visits your garden?

Look closely at the animals you have drawn on the left - **what do you think their skeletons would look like?**

Try drawing a part of the skeleton in the two boxes below! (e.g. a leg, a paw or a wing).

A large, empty rectangular box with a black border, intended for drawing an animal.A large, empty rectangular box with a black border, intended for drawing a part of the skeleton.A large, empty rectangular box with a black border, intended for drawing an animal.A large, empty rectangular box with a black border, intended for drawing a part of the skeleton.

What did you draw **the same** in both of your skeletons?

What did you draw **differently**?