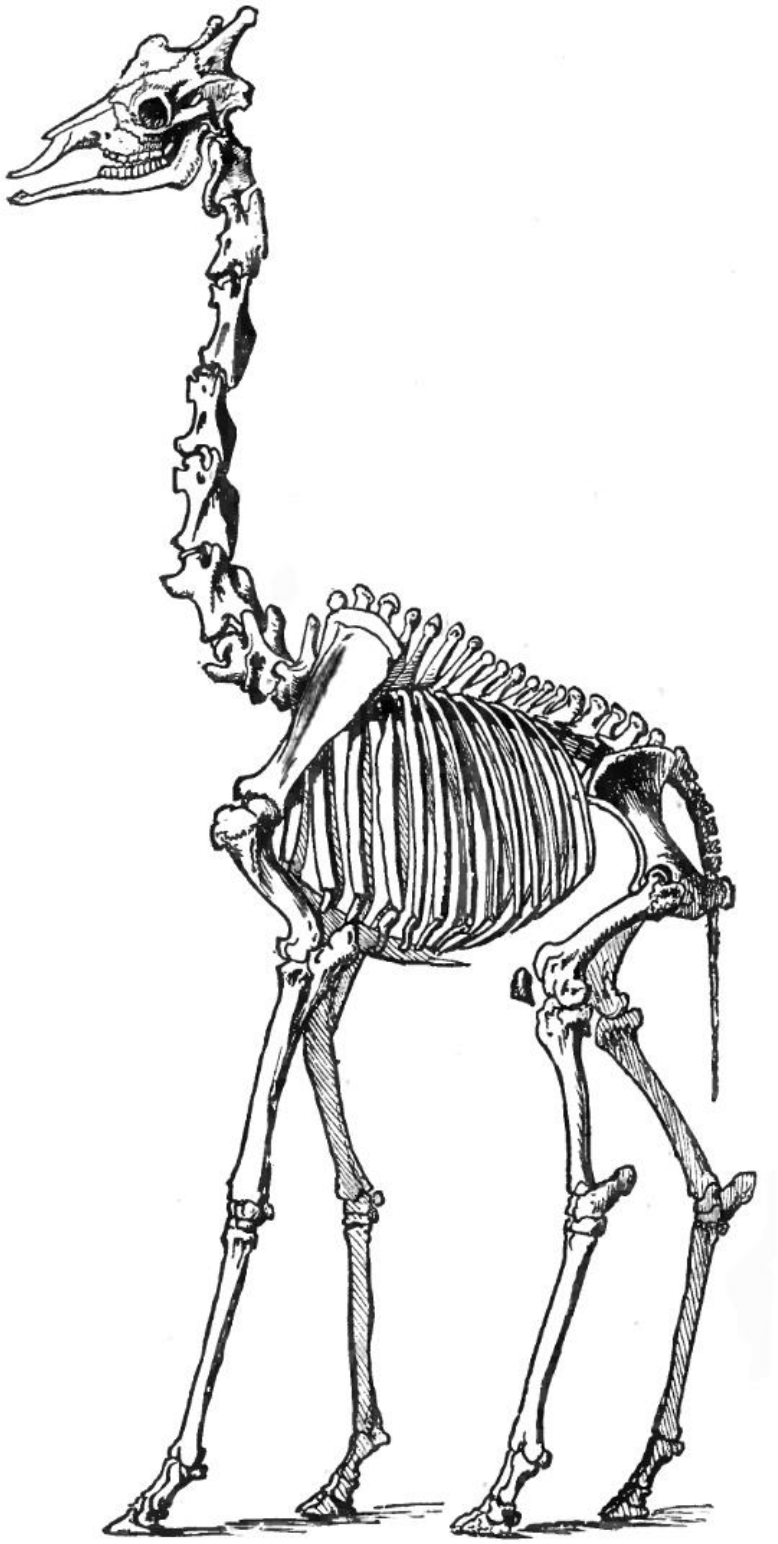
Bones



[Artist: R Lydekker (1849-1915). Public domain.]

This is a skeleton of what animal?

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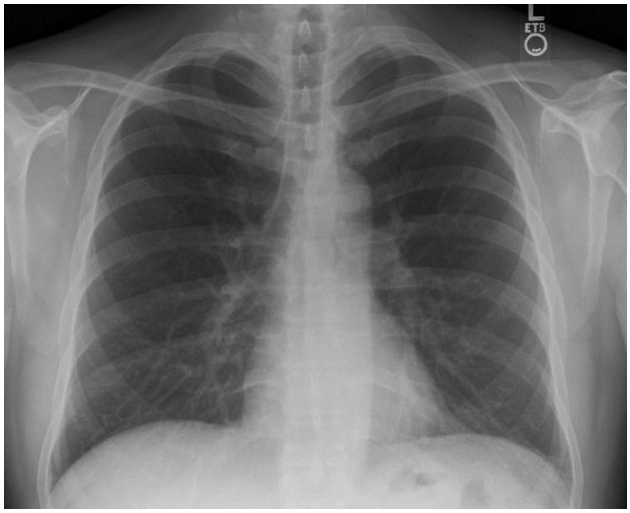
[Creative Commons: Public domain.]

This is an X-ray picture – a way of seeing inside our bodies. This is a picture of the inside of a chest.
We can see white lines going sideways. These are ribs. You can feel your own ribs with your fingers.

The drawing on the first page is of the bones of a giraffe.

So, humans and giraffes and most other animals have bones inside their bodies.

[You need bones so you can move – if you didn't have bones in your legs you wouldn't be able to walk.]

But, do any animals have their bones on the outside?


The answer is yes!! An animal once lived inside this shell – the shell was its bones. It had no bones inside it. It didn't get out and go for a walk.

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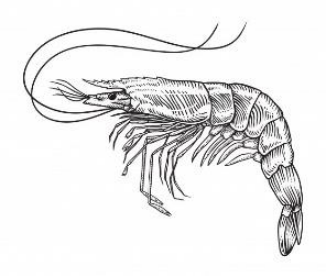

Then there are sea creatures like shrimps which have a hard shell, but they can move around – go swimming and have picnics and stuff. Their shell is made up of lots of small pieces of shell, and so they can move.

When the skeleton is outside the body or an animal or insect it is called an exoskeleton.

Here is an animal we all know, who has its skeleton outside its body. This one is able to move – he or she is going on an adventure.

We won't talk about this creepy spider for too long. But, you can see he/she has a hard shell. When we look at the legs, we can see that they are hard on the outside – spiders have no bones inside.

Q: What do geeky spiders like to do?
A: Make websites.

So, none of these creatures have bones inside – instead, they all have hard shells – which are like bones – so their shells are called **exoskeletons** (‘exo’ means outside – you go through the ‘exit’ to get outside).

So, bones, whether they are outside or inside our bodies, let us walk and swim and dance and go camping. Having your bones outside your body has one other advantage. They give you protection.

Interestingly, a few hundred years ago soldiers wore suits of armour to protect them against sword cuts and sharp arrows. These suits did not help soldiers move (instead they made them slow and clumsy and tired), but they **did** protect them, a bit like the exoskeleton of some animals and insects.


[Public domain: ireland-information.com]

Q: Who is the most famous French skeleton?
A: Napoleon bone-apart...

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Q: Why can’t Cinderella play soccer?
A: Because she’s always running away from the ball.

Did you ever think you should get a T-shirt like this?

[http://clipart-library.com/clipart/fish-clip-art-7.htm]

Nope!