



# BENDY BONES

You will need:

- 2 chicken bones (legs are ideal)
- Jar with a lid (large enough to hold one bone with space at the top)
- Vinegar
- Clingfilm

What you do:

1. Remove all the meat from both bones and wash and dry them carefully. Gently try to bend both bones.
2. Place one bone in the jar, cover with vinegar and replace the lid. Wrap the other bone in cling film and leave for three days.
3. For best results, change the vinegar in the jar after three days and then leave the experiment for another two days.



You will find:

The bone that you wrapped in cling film is still hard to bend, but the bone that has been in the vinegar is bendy!

Vinegar contains a weak acid that dissolves the hard calcium in bone, leaving the softer bone tissue behind. Milk contains lots of calcium, which makes your bones nice and strong!



This explains why your backbone consists of shorter bones called vertebrae. Cartilage between the vertebrae prevents them from rubbing, much like the sticky tack stops the sections of straw from rubbing together.



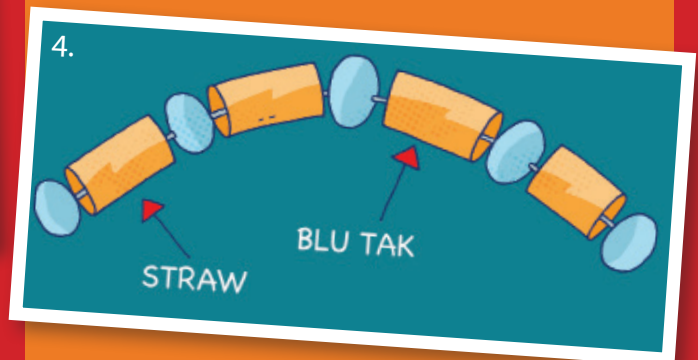
# MAKE A BENDY BACKBONE

You will need:

- A 5 cm paperclip
- A drinking straw
- Scissors
- A ruler
- Sticky tack or Plasticine

What you do:

1. Straighten the paperclip as much as you can.
2. Cut a length of straw 0.5 cm shorter than the straightened paperclip. Thread the paperclip through the straw and try bending it.
3. Remove the straw and cut it into four pieces around 3 cm long.
4. Wrap a small blob of sticky tack or Plasticine around the end of the wire and alternate lengths of straw and sticky tack as shown.
5. Try bending the straw.



You will find:

The 'backbone' is more flexible when you cut the straw into shorter lengths.