

Bendy Bones

What are bones made from?

Bone is a composite material, which means it is made up of more than one chemical. Its strength comes from the mineral calcium phosphate, and its flexibility from an organic material, collagen.

You are going to investigate what happens when one of the chemicals that make up bone are removed. You are going to use a chemical reaction to remove the calcium phosphate from the bone.

Task 1 - Initial Observation

- Look at your piece of bone and describe it in words. Record the words you use in your observation table.
- Feel the bone and describe its texture and flexibility.

Task 2 - Removing the calcium phosphate

- Put your bone in a container (it needs to lie flat on the bottom). Label the container so you know which one is yours.
- Carefully pour some vinegar in to the container until the bone is covered.
- Cover your container, with a lid or clingfilm, and leave somewhere safe for two to three days.

Task 3 - Looking at the results

- Have a container of water ready on your table.
- Collect the bone in its container. Carefully remove the bone using tongs and rinse it thoroughly in the water.
- Place your rinsed bone on a paper towel.
- Feel the bone and describe its texture and flexibility. Record the words you use in your observation table. Compare how it is now with your initial observations of the bone.

Observation Table

Before	
What does the bone look like?	What does it feel like?
After	
What does the bone look like?	What does it feel like?