

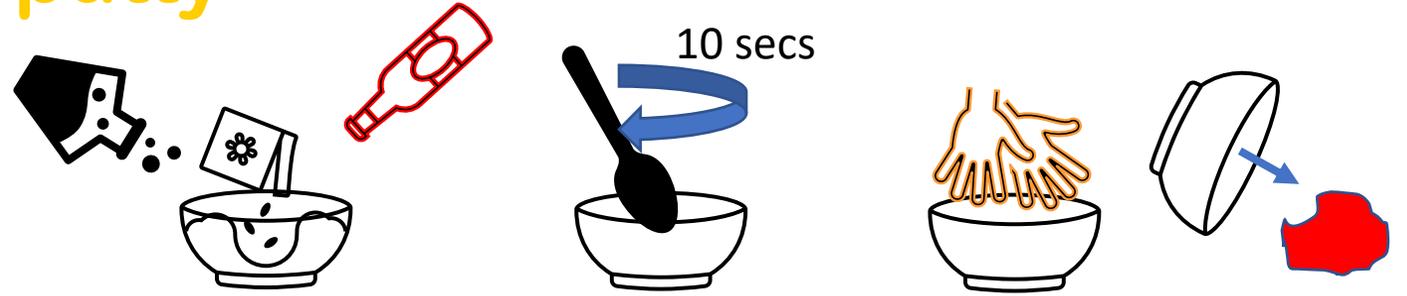
# Homemade silly putty

## What you need:

- 120ml washing up liquid
- Bowl
- 100g cornflour
- Spoon
- Food colouring

## What you do:

- Put the cornflour in a bowl, add a couple of drops food colouring and all the washing up liquid.
- Mix the washing up liquid and cornflour together with the spoon, stir in one direction only, for about 10 seconds.
- Once it becomes difficult to stir, it's time to get your hands working. Work the ingredients in the bowl with your hands. At first it will be a very crumbly mix but the more you work it the softer and gooier it will get. The ball should be 'tacky'.
- Pull at the ball and meld it together to combine all the putty ingredients.
- Washing up liquids vary so you might need to add a little more if the putty is too dry. If the putty is too loose, add a bit more cornflour.



## The Science

**Silly putty is a non-Newtonian fluid, made from a polymer called polydimethylsiloxane (PDMS). There are two types of chemical bonds in the polymer: covalent bonds and hydrogen bonds. Hydrogen bonds can be readily broken. When small amounts of stress are slowly applied to the putty, only a few of the bonds are broken, so the putty can bend and flow easily. When more pressure is applied many bonds are broken so the putty become 'harder' and tears.**

