

PROFESSOR PETE'S MESSY SCIENCE

GRUESOME GOO



What you need:

- Cornflour
- Water
- Mixing bowl and spoon
- Food colouring (optional)

What to do:

1. Put a few large spoons of cornflour into the bowl.
2. Add a few drops of food colouring to the water if you have some.
3. Slowly add the water to the cornflour, a splash at a time, and stir until you have a thick, gooey paste.

What happens?

Scoop the goo up in your hands and try squeezing it. You should find that the goo turns solid. If you stop squeezing it, it will return to its liquid form.

Hit the goo firmly with a spoon while it's in the bowl; the spoon should bounce off as if it's hit a solid. Try it with a bowl of water to compare – you'll make a splash!

Why does this happen?

The goo is an example of a **colloid**, or a **non-Newtonian fluid**. When the cornflour is mixed with water the particles don't dissolve, they are just suspended in the liquid. When you squeeze it, the water moves out of the way and the cornflour particles form a solid.

Custard is also a non-Newtonian fluid. If you filled a swimming pool with custard, it would be possible to run across it. If you tried to walk, the pressure wouldn't be enough to make the custard firm so you'd fall in – and would have to swim very slowly to the edge!