

**PULL-OUT
ACTIVITY SECTION**

THE LAB

**Eight pages of things
to make and do**

DID YOU KNOW?

In 1965, US chemist Norman Stingley invented an extremely bouncy ball. It was known as SuperBall.

**BORAX-
FREE
RECIPE!**

Make a bouncy ball

Create your very own bouncing ball using just three ingredients.

What you need

For one ball:

- 3tbsp cornflour
- Microwavable bowl
- 50ml warm water
- 2–3 drops of food colouring (any colour you like)
- Spoon
- Microwave

Instructions

- 1** Put the cornflour into a microwavable bowl. Add 25ml of warm water and mix together.
- 2** Stir a few drops of food colouring into the mixture with a spoon.
- 3** Put the bowl in the microwave and heat for 20 seconds (ask an adult to help you).
- 4** Remove the bowl from the microwave and add another 25ml of warm water.
- 5** Keep stirring the mixture until it begins to stick to the spoon.
- 6** Remove the mixture from the bowl with your hands and roll it into a ball.
- 7** Place the ball back in the bowl and microwave for 15 seconds. Be careful, it may be hot. When it cools, your ball is ready for bouncing.

Stir until the mixture sticks to the spoon.



How does it work?

Cornflour is made up of lots of tiny grains of starch (a substance produced by most green plants). When you mix starch with water, it begins to form long, flexible molecules (the basic building blocks of a substance) called polymers. Heating in the microwave drives off some of the water, making the substance firmer. Polymers are elastic because their long molecules can be squeezed and bent, but then bounce back to their original shape. This cornstarch polymer is different to other plastics; because it's made of natural materials it will decompose.

How high did your ball bounce? Send your photos and videos to scienceandnature@dennis.co.uk

Issue 13 **Science+Nature** 27