



# Make

# natural food dye

Turn your food blue with just some red cabbage and a little bit of science.

### What you need

- Red cabbage
- Knife and chopping board
- Saucepan
- Water
- Sieve and bowl
- ¼ tsp bicarbonate of soda

### How does it work?

Blue pigments (colour-producing chemicals) are rare in nature, so blue food dyes are usually made with artificial colours. However, scientists recently found a new blue natural food dye – using red cabbage. What you are

doing here is harnessing the magical-morphing powers of chemicals called anthocyanins. When mixed with acids they turn red, but go blue when mixed with a base (the chemical “opposite” of an acid), such as bicarbonate of soda.

**TOP TIP**  
Make blue icing by mixing icing sugar with water. Add your dye a few drops at a time until it is the colour you want.



**1** Ask an adult to help you slice a red cabbage. Put it in the pan and half cover with water. Place the pan on a high heat until the water boils. Turn down and simmer for 15 minutes.



**2** Sieve the cabbage into a bowl and simmer the juice for a further 15 minutes until it goes syrupy. The cabbage can be used in other recipes.



**3** Mix the syrup and bicarbonate of soda slowly until it turns blue.

Food colouring is used in baking.

# YOUR LABS

Send us your comments, pictures and wacky ideas, and see them in the magazine. Email [hello@science-nature.co.uk](mailto:hello@science-nature.co.uk)

ALAMY - REKSHUTTERSTOCK

ISSUE 34



Arlo used a parachute and loo rolls to protect his egg, Captain Crack.

ISSUE 34

Edward showed his scientist skills by testing the egg-drop experiment to its limit. He said, “You don’t need to protect eggs. As long as they land on grass, you can throw them out of the window!”  
**Wow!**



ISSUE 31



Priyanka had fun excavating a Lego figurine fossil from a block of ice.