

Prove that taste is not all on the tongue with this flavour-fooling drink.

Things to make and do

### What you need

- Measuring jug
- 600ml water
- 6tsp sugar
- Spoon
- A squeeze of lemon juice
- 5 glasses
- Red, yellow, blue, green and orange food colouring
- Pen or pencil

# TOP TIP

Make sure your friends don't see you set up the experiment because it may affect the results.



Pour 600ml of cold water into a large measuring jug.



Add 6tsp sugar to the water in the jug. Stir until it has completely dissolved.



Squeeze in some lemon juice and stir. Taste the mixture. Add more sugar or lemon to get a nice balance of sour and sweet.



Pour equal amounts into five glasses. Add 2–3 drops of a different food colouring into each of the glasses so that each one contains a different colour.



Ask a friend to taste each drink and tell you what flavour they think it is. Fill in the chart below (but don't show them this page as it will reveal the trick).



Try out the experiment again with other people and compare the answers. Do different people's answers match?

### How does it work?

Although you taste flavours with your tongue, your brain actually puts together the sensations you experience. Your expectation of what something will taste like can transform your experience of food and drink. It can make you think that identical drinks taste different because they look different.

## WHICH FLAVOURS ARE THE DRINKS?

Match colours to flavours with an X.

		Lemon	Strawberry	Blueberry	Apple	Orange
	Red drink					
	Orange drink					
	Yellow drink					
	Blue drink					
	Green drink					

This tasty trick was adapted from Stefan Gates's book Science You Can Eat. For a chance to get your hands on a copy, send your name and address to scienceandnature@ dennis.co.uk using the subject header YUMMY SCIENCE. The five SCIENCE winners\* will be selected at random after the closing date of midnight on 13 September. Go to

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