



THE LAB

Lots of things to make and do

DID YOU KNOW?
The first known version of lemonade was made in 12th-century Egypt.



Make galaxy lemonade

Whizz up a colour-changing drink to blow your mind.

What you need

- 1 tsp butterfly pea flower tea (loose or in a teabag)
- 1 cup hot water
- 5 tbsp lemon juice
- 1 tsp honey
- Kettle
- Jug
- Tall glass
- Ice

Instructions

- 1** Boil the kettle and pour the hot water over your butterfly pea flower tea. Leave to steep for 5 minutes, or until it turns blue.
- 2** Remove the teabag or sieve the tea leaves out of the water. Leave your blue tea to cool completely.
- 3** Now, in a separate jug, mix the lemon juice and honey together.
- 4** Fill a tall glass with ice, and pour over your sweet lemon juice.
- 5** Now for the magic. Slowly pour the tea over the lemon juice, and watch as the tea changes from blue to purple and then to pink. You can leave your lemonade as it is for a galaxy effect, or stir it all together.



Butterfly pea flower tea.

How does it work?

Although it looks like a magic trick, what you've just created is something called an indicator solution. This is a liquid that can detect the amount of acid in a solution (a liquid mixture) by changing colour. Butterfly pea flower contains a pigment (a chemical that provides colour to things) called anthocyanin, which changes colour if an acid is added to it. Lemon juice is acidic, since it contains a high amount of citric acid. When you add the lemon juice, the tea changes from blue to purple. Adding more lemon juice will turn the lemonade pink.



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