



BRITISH SCIENCE WEEK
THE PERFECT CUP OF TEA

Explore your everyday world through real-life science projects as part of British Science Week, 13–22 March 2015.

We have activity packs, how-to guides and quizzes on our new website, www.britishscienceweek.org

The perfect cup of tea

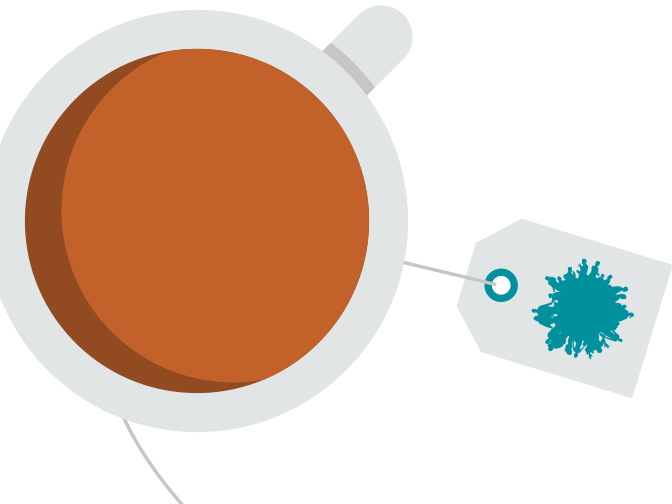
Your challenge:

Imagine that you are starting a flourishing tea company and you want all your customers to experience the same great taste to ensure they buy more in the future. To do so, you'll need to help your employees make the perfect cup of tea every time.

Your task:

Devise and carry out experiments to work out how to make the perfect cup of tea for you. Then, write a standard procedure (a set of really detailed instructions) so that other people can make tea exactly the same way.

Any results will depend on your own personal taste, but you can still carry out some fair tests to decide how best you like your tea.



Method:

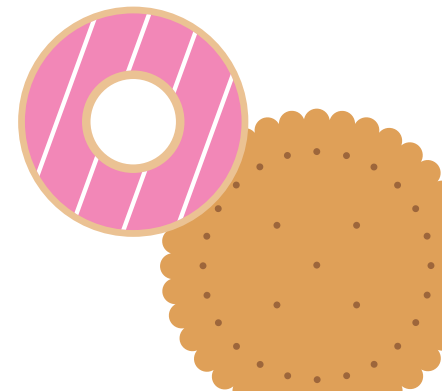
Make three cups of tea, keeping all these things the same:

- The amount of water;
- The type and amount of milk (and whether you put it in before or after the water);
- The same number and type of tea bag(s);
- The length of time you leave the bag in the cup; **but...**
- Use different temperatures of water (for example, one cup with 50°C, one with 75°C and one with 100°C)

By personally tasting each cup after it is cooled to a set temperature, you can decide which temperature of water to use for your perfect cup of tea.

You can repeat the experiment style, **but** change one of the other variables, keeping everything else the same...

Note: Please be careful when pouring, measuring and tasting hot water and tea!



Other variables to test:

- How much water should you use, and how hot should it be?
- How much tea should you use?
- Will you use tea bags or loose tea?
- How much milk will you use, and will you put it in before or after the water?
- What sort of milk will you use: full fat, semi-skimmed or skimmed?
- How long should you leave the tea bag (or tea leaves) in the cup?
- Do you want sugar? If so, how much?

After each experiment, you should write down your preference.

Equipment

You might need some or all of the following to undertake this investigation:

Samples of tea

(you might like to use different shape tea bags, loose leaf tea, or different brands/quality of tea bags)

Milk

Kettle

Thermometer

Stopwatch

Try more projects!

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Project work is a fantastic way for young people to carry out practical science, technology, engineering and maths (STEM) investigations and to learn problem-solving skills in a creative way.

If your school or STEM club would like your students' experience and success in project work to be recognised, why not find out more about the British Science Association's CREST Award scheme?

www.britishscienceassociation.org/crest-awards

Endorsed by UCAS for use in personal statements, CREST Awards may also count towards a 'skills' section in the Duke of Edinburgh's Awards. They enhance students' teamwork, communication and independent learning skills and give you opportunities to enrich the curriculum, as well as encouraging students to enjoy science, be comfortable with science and continue with science subjects.

British Science Week is the perfect opportunity to participate in a science project or event. You might even be inspired to organise your own! To plan, register or attend an event, visit www.britishscienceweek.org

