

Cool it

This resource accompanies the article **Cooling in a warming climate** in *Education in Chemistry* which can be viewed at: rsc.li/3YHZRTq.

Equipment

Please supply each group of learners with the following equipment and chemicals:

- Polystyrene cup and lid
- -10 to +100 °C thermometer
- Stirring rod
- Stop watch
- Spatula
- Two 50 cm³ measuring cylinders
- Safety glasses
- Deionised or distilled water
- 10 g citric acid
- 10 g sodium hydrogencarbonate

Preparation

No additional preparation is required for this experiment. However, depending on the group, you may wish to pre-measure the samples of citric acid and sodium hydrogencarbonate.

Health and Safety guidance

[Read our standard health and safety guidance](#) and carry out a risk assessment before running any live practical.

- Wear eye protection throughout the activity.
- Citric acid is an irritant. Eye protection must be worn.

WARNING: causes serious eye and skin irritation and may cause respiratory irritation.

- Sodium hydrogencarbonate is currently not classified as hazardous.