Cool it

This resource accompanies the article **Cooling in a warming climate** in *Education in Chemistry* which can be viewed at: [rsc.li/3YHZRTq](https://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](https://edu.rsc.org/resources/explaining-our-health-and-safety-guidance/1752.article) 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.