



Be part of a worldwide experiment and encourage your students to get creative – with the **Royal Society of Chemistry**

Water: a global experiment with hydrogels

For several years we have run mass-participation global experiments which see children from all over the world running an experiment and uploading their data and photos for others to analyse and learn from.

This year's global experiment will be ready for British Science Week (13–22 March) and has been written with Key Stage 2 in mind. 2015's experiment is focussed on the water cycle and hydrogels – which are extremely hydrophilic (water-loving) long-chained polymers. Hydrogels are an important, water absorbent man-made material used in nappies and in the gel crystals used to keep plants 'watered'.

The global experiment has three distinct experiments, all of which have been designed so they can be run without specialist equipment and on a small budget:

- Experiment 1: How much water can a hydrogel hold?
- Experiment 2: How quickly can hydrogels absorb water? Does this ever change?
- Experiment 3: An open investigation into how water can be retrieved from a hydrogel

These experiments all support pupils in exploring the question: are we wasting water by using hydrogels?

All the data collected from the above experiments can be uploaded onto the global experiment website. Once uploaded, all the collated data will be available for examination and analysis. This creates the option of discussing the importance of repeating experiments, as well as the power, and flaws of gathering and making conclusions based on a significant amount of data.

Once you or your pupils have submitted data you'll receive a certificate to mark your achievement.

There is scope to extend the global experiment into other areas of the curriculum as its main question is relevant to exploring the impact humans have on the environment. You could; write letters to organisations and individuals telling them about your findings, blog about human impact on the environment and how your findings support or undermine key arguments, produce a piece of art using hydrogels, or anything else you can think of.

This British Science Week, join a global community in investigating hydrogels. Find out more at <http://rsc.li/ge-water>

