The Global Chemistry Experiment
"Water: A Chemical Solution"

Press Release

United Nations Educational, Scientific and Cultural Organization

International Union of Pure and Applied Chemistry

Partners for the International Year of Chemistry 2011

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Developed by IUPAC and UNESCO, the Global Experiment is a set of activities to entice students around the world to learn about how chemistry contributes to one of the most important resources in their daily lives, water. This central activity of the International Year of Chemistry <chemistry2011.org>, "Water: A Chemical Solution", explores the chemistry of water and the importance of water in the environment. The experimental protocols have been downloaded 46,000 times. As of the end of October, over 24,000 students and 1174 teachers from 63 countries on 5 continents have shared their results on the central website. We anticipate that many more people will be registering their data in the coming weeks and months. It is believed that even more students and teachers have completed the global experiment on their own, for instance as in Brazil, where the Global Experiment was highlighted in the National Science and Technology week during October and integrated into the schools science curriculum.

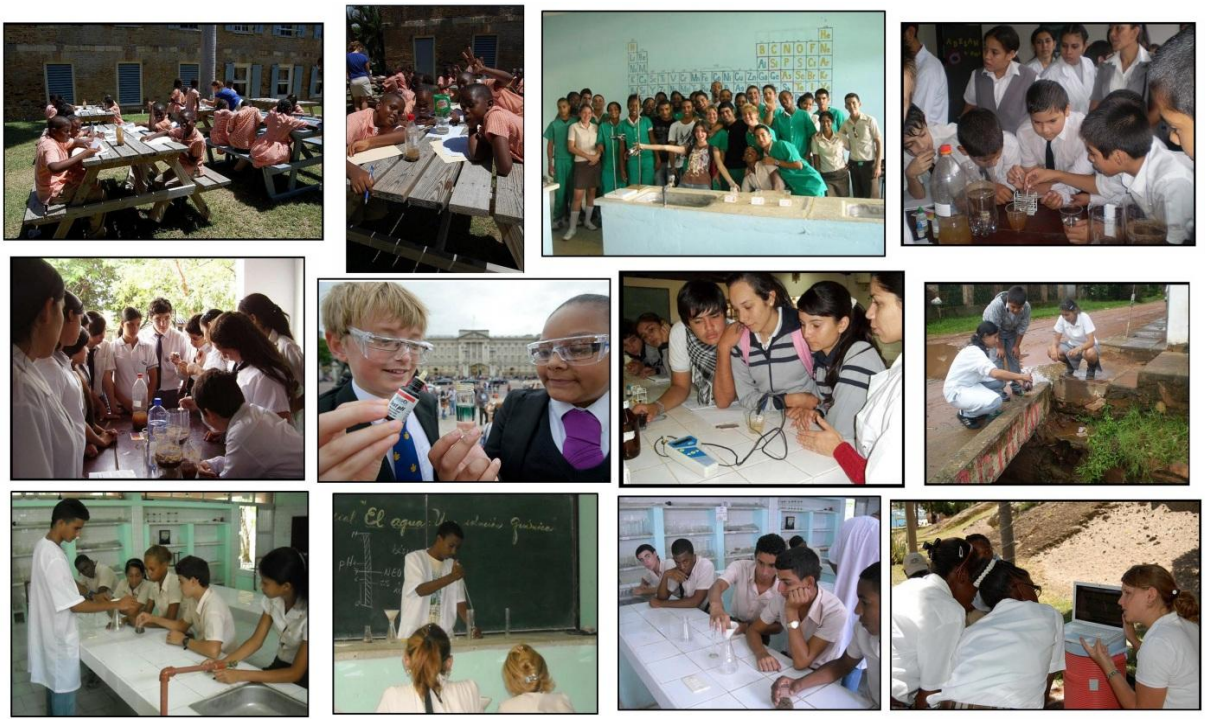
The experiment consists of four component activities, each of which can be carried out by children of all ages in schools around the world. The activities are adaptable to the skills and interests of students of various ages and use equipment that is widely available. The results are available at <water.chemistry2011.org> as an interactive global data map—demonstrating the value of international cooperation in science.

The activities have been carefully selected in order to provide students, especially in developing countries, with an appreciation of chemical investigation and data collection and validation. The Global Experiment has been extensively featured on TV and radio shows, in news articles, and on blogs.

One of the main objectives of the Global Experiment is to allow educators and students from all around the world to interact using social media and share experiences, news, and pictures. The most popular social tools like Twitter and Facebook are integrated into the website, as are several YouTube videos about the experiment. The website, <water.chemistry2011.org> is available in five languages: English, French, Spanish, Chinese, and Russian. It includes state-of-the-art interactive tools, 2D and 3D maps showing the data, and pictures, videos, and news on the Global Experiment. The four activities of the Global Experiment are currently available in 11 languages: English, French, Spanish, Russian, Hebrew, Portuguese, Arabic, Catalan, Slovak, Polish, and Chinese.

After more than a year of dedicated planning and implementation, the project was launched at the UN World Water Day, 20–22 March in Cape Town, South Africa. Hundreds of students from Cape Town townships carried out experiments to test water quality, measure salinity and acidity, and learn how water is filtered and distilled. During the "Big Splash," which coincided with the South African National Water Week, students were exposed to different activities that emphasized the importance of water in their region. From the very beginning it was clear that if the Global Experiment was to be truly global it needed to be made available to any school, even to those without the most basic materials. In order to encourage the participation of low-income communities, 150 schoolpacks containing 10 Global Water Kits and a School Resource Kit were sent free to over 30 countries: Senegal, Mali, Tajikistan, Ghana, The Gambia, West bank, Gaza, Nauru, Burkina Faso, Indonesia, Jordan, Sri Lanka, Saint Lucia, Haiti, Maldives, Grenada, Syria, Lebanon, Bhutan, Democratic Republic of Congo, Madagascar, Armenia, Tanzania, Morocco, Namibia, Oman, Pakistan, Ethiopia, Nigeria, Kenya, Botswana, and Malaysia.

This is probably the largest "crowd sourcing" chemistry experiment, but is certainly a great activity that aims to educate and engage young people in the key role of science in the future of this planet.



Some of the pictures received from all around the World of students performing the Global Experiment and available at *water.chemistry2011.org*

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