Global Experiment for the International Year of Chemistry

Water: a Chemical Solution

Water is beautiful, useful and precious. The Global Experiment unites students around the globe to participate in activities that highlight the role that chemistry plays in issues of water quality and purification. The recognition that clean, fresh water is a limited resource is leading to increased interest in education about water.

The international nature of the experiment will be celebrated by participants contributing data and information to the Experiment's Global Database and displayed through web-based global maps. Students will be able to access data from the database for their school, local area, region and country as well the global map.

The Activities

Acidity - *pH of the Planet*: Students measure the pH of a local water source and explore the acidity of the water sample.

Salinity - *Salty Waters*: The salinity of a salty water sample is measured by evaporation.

Water Treatment – *Water: No Dirt, No Germs* - A dirty water sample is first clarified with a homemade filter and then disinfected.

Distillation – *Solar Still* - Students construct and test a solar still, exploring how it works, and then construct a still to their own design.

Schools are invited to register for the Global Experiment so that their classes can submit the results for the four activities to the database:

Teachers can include the activities as they choose. They may build them into their existing teaching topics during 2011, or use some, or all, of the activities to supplement their curriculum and give their students a chance to participate in the Global Experiment.

Materials for the activities can be found through the IYC 2011 website: **http://www.chemistry2011.org/**.