

## It's Coming!! 2010 4-H National Science Experiment Day: 4-H<sub>2</sub>O

By Kathleen Jablonski, Extension Educator, 4-H Youth Development

The theme line, “One Million New Scientists. One Million New Ideas.<sup>TM</sup>” resounds as we prepare for the 2010 4-H National Science Experiment Day. Want to be part of a nation wide movement to create one million new scientists by the year 2013? Have your Afterschool program, 4-H Club, Girl Scout troop, Boy Scout or Cub Scout troop, Homeschool group or class participate on Wednesday, October 6.

This is the third annual 4-H National Youth Science Day, where youth across the nation examine one of the most important issues facing our nation today—water quality. These young scientists will discover and explore the powerful effects of carbon dioxide on our natural water sources in 4-H<sub>2</sub>O, the 2010 National Science Experiment.



Developed in conjunction with North Carolina Cooperative Extension and North Carolina A&T State University, the experiment is designed to spark an early youth interest in science—all part of 4-H's bold goal to engage a million new young people in science, engineering, technology and applied math programs by 2013.

Water quality is a term used to describe the chemical, physical, and biological characteristics of water. Today, as our population evolves, we face a growing concern that our sources of clean water are becoming contaminated by warming temperatures, carbon dioxide emissions and dangerous run off. These changes in the water quality affect not only our drinking water supply, but also the natural habitats of aquatic plants, animals and organisms.

This year's National Science Experiment – 4-H<sub>2</sub>O – is designed to engage youth around the country in asking the question: *Why is water quality important and why is it important to understand it now?*

According to information released by National 4-H Council, the experiment will help youth take the activities in the experiment and connect back to their lives by measuring their own carbon footprint, their family's footprint, and estimate energy savings by looking at gas and electric bills. By the end of the activity, students will learn through experimentation, the effect of CO<sub>2</sub> levels on water quality, calculate the amount of CO<sub>2</sub> a family contributes to the atmosphere to better understand the human impact of the carbon footprint, understand the key characteristics used to observe water quality, such as color, odor, and the presence of aquatic plants and animals, understand the impacts of CO<sub>2</sub> and nutrient runoff on the over-growth of algae in lakes, leading to changes in water quality and engage in a discussion about water quality and global climate change.

You can find everything you need to participate in 4-H National Youth Science Day online at [www.4-H.org/NYSD](http://www.4-H.org/NYSD). The site provides all the tools you will need to begin a comprehensive scientific exploration and plan an exciting science event in your community. You may also receive information by contacting Kathy Jablonski at the UNH Cooperative Extension office in Grafton County.

Not available in October to do the experiment? UNHCE Grafton County is participating in the NPASS2 grant program in collaboration with the Educational Design Center and the National Science Foundation. Trainings in the Explore It Design It curriculums will be available, free of charge, for after school group providers and home schoolers. The requirement for the curriculum and materials is for adults to attend a three hour training in delivery techniques, to stage the curriculum with a group of 12-15 youth and to report back to the Grafton County UNHCE 4-H Educator.

For information about local support and other 4-H Science, Engineering and Technology initiatives offered by Grafton County, UNHCE 4-H Youth Development, contact our local office at 3855 Dartmouth College Highway, Box 5, North Haverhill, NH 03774 or call 787-6944. All programs sponsored by UNHCE are consistent with pertinent Federal and State laws and regulations on non-discrimination regarding age, color, handicap, national origin, race, religion, sex, sexual orientation, or veteran's status.