

National Lab Day hits the Hudson Valley

On May 12, 2010, one of the cornerstones of President Obama's "Educate to Innovate" campaign, National Lab Day, will take place at sites all over the country. From elementary school classrooms, to industrial labs opened up to high school students, to in the field projects and science experiments, students will be able to gain hands on experience on what it is like to be a scientist.

The core message of National Lab Day is to demonstrate the importance of the STEM (Science, Technology, Engineering, Mathematics) fields to the United States competitiveness in the Global Marketplace. The innovation in these fields is what will allow US workers to compete effectively with workers from other companies. It will also allow American companies to compete with global competition in fields that are becoming more complex and more competitive every year.

At the same time, the challenges facing our nation and world have never been greater. The STEM fields are important because world issues such as clean water and air, safe food supplies, available energy sources that don't destroy the environment, even combating bioterrorism and providing National Security are all directly related to advancements and research done in those fields. Those companies and nations who excel in these fields will have a strategic advantage in the global economy and world stage over others who lag behind. Not only are future jobs at stake, but also environmental issues and human health issues. Things such as the recent H1N1 incident demonstrate how important it is to be able to respond quickly and efficiently and to get the proper solution the first time.

National Lab Day has been in the works for quite some time by the federal government and many federal agencies such as the National Science Foundation and the National Institutes of Health, and also by many societies such as the American Chemical Society, the National Science Teachers Association, the National Science Education Leadership Association, and over 200 other public and private sector organizations. While May 12 has been designated as National Lab Day, events have been taking place for months and will continue hopefully as an annual event all over the country.

In the Hudson Valley, the Mid Hudson section of the American Chemical Society has been working to show some of the wonders of science to students in colleges and in local schools. It is at the grade school level that students are often first introduced to science topics, and if they are going to develop an interest in the field, that is most likely where it will start. Yearly events such as National Chemistry Week in October allow an opportunity for several of the nine

colleges in the Mid Hudson section to invite students from local elementary schools to come to an actual college laboratory and interact with other students. They are instructed by college students who allow them to perform basic lab experiments such as determining which common foods have starch in them by using an iodine solution, or turning pennies into gold! More complex experiments are performed by the college students for the children and are overseen by the college professor and industry volunteers who coordinate the events. More information can be found at www.acs.org in the Education section.

Events take place during the course of the year through an Earth Day poem contest open to elementary through high school students. There is also the Undergraduate Resource Symposium in April which alternates among the local colleges where the college students present their research done over the course of the year in poster form and are available to talk about it. Lectures of a scientific nature, usually chemistry based but not all of them, take place during the year. Information about events can be found online at www.midhudsonacs.org.

The STEM fields are a very important area that needs funding, well educated students, and a solid commitment from government, industry, academia, and others with a personal interest in the field. Everyone who has the ability should try to take some time to dedicate to this worthy cause. National Lab Day should be celebrated for what it is meant to be, a Call To Action, and the very beginning in what will hopefully be a major effort to reinvigorate the STEM fields for the next generation. I urge local towns, schools, businesses, and professional organizations to observe the day, if not on May 12th, then sometime at your convenience. The need is great, and this will have to be a long term effort to be successful.

Thank you,

George Ruger

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