



Powering the Nation's Future

As the nation looks to address important issues on sustainability, youth are at the forefront of the discussion. In 4-H, young people are taught the skills they need to become the nation's future leaders. Consequently, it is important for youth to understand the challenges faced by the global community, and the opportunities for a more sustainable tomorrow.

For the fourth annual *4-H National Youth Science Day*, the University of Nebraska – Lincoln Extension has designed *Wired for Wind*: the 2011 National Science Experiment. The experiment will introduce young people all around the nation to the possibilities of using wind as a clean, widely available, and low-cost source of renewable energy.

4-H Youth Take the Lead on Renewable Energy

On October 5, 2011, young people across the nation will become scientists for the day during *4-H National Youth Science Day*. In this year's experiment, *Wired for Wind*, youth will enhance their engineering skills by designing, building and testing two different wind turbine models. In one activity, for example, youth will experiment with three different blade pitch angles to determine the effect of pitch on rotor speed. This year's National Science Experiment will also help youth relate their scientific experiences back to their own lives by determining the best location for a wind farm in their state or local area by calculating wind power and studying wind data and maps.



Throughout the year, 4-H Science programming – researched and developed by the 109 land-grant colleges and universities across the nation that oversee 4-H youth development programs in every state – provides youth with an opportunity to take on science challenges and understand the impact of the top issues that face their region.

4-H Works!

Participation in 4-H makes a positive difference in the lives of young people. Youth development scholar, Dr. Richard Lerner, works with researchers at the Institute for Applied Research in Youth Development at Tufts University to conduct the *4-H Study of Positive Youth Development*. The longitudinal study has found that, when compared to their peers, young people involved in 4-H are:

- Nearly two times more likely to get better grades in school
- Nearly two times more likely to plan to go to college
- Nearly three times more likely to participate in science, engineering, or computer technology programs.

By connecting important scientific lessons to civic engagement, 4-H youth become a living, breathing, culture-changing movement for doing the right thing, breaking through obstacles and pushing the country forward to successfully face the challenges of the future.

One Million New Scientists. One Million New Ideas.

For more than 100 years, 4-H has been at the forefront of teaching youth about science, engineering and technology. *4-H National Youth Science Day* is an important annual part of 4-H's *One Million New Scientists*, with a bold goal of attracting one million new youth to science, engineering and technology programs by the year 2013.

Now entering its fourth year, *4-H National Youth Science Day* seeks to spark an early youth interest and leadership in science. Currently, more than five million young people across the nation participate in 4-H science, engineering and technology programming in topics as varied as robotics, rocketry, wind power, GPS mapping, agricultural science, water quality and biofuels. **For more information about 4-H National Youth Science Day, visit www.4-H.org/NYSD.**