

Help Support Wisconsin 4-H STEM Programs

Wanted: Community Partnerships

Members of science, technology, engineering and math organizations in Wisconsin can help prepare today's youth to become tomorrow's leaders. Businesses and individuals are invited to join this exciting new 4-H program by sponsoring one or more 4-H STEM activities. For instance, a donation of \$500 will purchase a robotics kit to teach youth the principles of physics and the basics of computer programming. Businesses and individuals can also donate needed supplies, volunteer to work with youth as activity leaders, or help to promote STEM activities in their area.

- To learn more about Wisconsin 4-H STEM programs, visit <http://www.uwex.edu/ces/4h/set/index.cfm>.
- For more information on becoming a Wisconsin 4-H STEM program sponsor, contact the Wisconsin 4-H Foundation at (608) 262-1285 or pat.harrington@uwex.edu.
- To learn about opportunities for involvement with Wisconsin 4-H Gateway Academy summer camps, contact Debra Ivey at (608) 935-0391 or debra.ivey@ces.uwex.edu.

Invest in Wisconsin 4-H STEM

_____ Donation - amount enclosed is \$ _____

_____ I am interested in donating supplies - please contact me

_____ I am interested in volunteering - please contact me

Name: _____

Address: _____

City, State, Zip: _____

Phone Number: _(_____) _____

Email: _____

Your financial gift to the Wisconsin 4-H's STEM program is tax deductible to the extent allowable by law as you have received no goods or services. Please make your check or money order payable to: 4-H Fund, STEM program. You can also donate to the Wisconsin 4-H Foundation on-line at the secure UW-Extension website www.uwex.edu/ces/4h/foundation. Please designate the Wisconsin 4-H Foundation's STEM as the recipient.

4-H Science, Technology, Engineering and Math



New Science and Technology Opportunities from Wisconsin 4-H are Preparing Today's Youth to be Tomorrow's Leaders in Exciting New Careers.

The Future Is NOW...

One Million New Scientists: A National 4-H Initiative

A Matter of National Importance



The National 4-H Council announced its science, technology, engineering and math (STEM) mission in 2008. As employment markets become increasingly science and technology-based, the U.S. is falling behind other nations in its science and math education. 4-H STEM programs aim to change that.

4-H STEM programs give youth in communities across Wisconsin access to the latest technology and research in the University of Wisconsin-Extension system and teach them how to use their new found knowledge for the good of the community. In addition to applying the lessons they learn in

4-H STEM programs to improve their communities through volunteer work, youth who pursue STEM careers bring their expertise home, too.

Opening Doors

Participation in 4-H STEM programs opens countless career doors for youth, but Wisconsin communities and industries also stand to benefit. According to the Wisconsin Department of Workforce Development, the fastest-growing jobs in Wisconsin over the next 10 years will require STEM competencies, and often a post-secondary degree in a STEM field. Involvement in Wisconsin 4-H STEM programs can spark an early interest in STEM careers and encourage youth to pursue an education in STEM fields, creating an intelligent and engaged STEM workforce for Wisconsin. And the Department of Workforce Development thinks that students with strong STEM backgrounds have the potential to create innovative new products or technologies, which would in turn create more STEM-related jobs and opportunities in the state.

“We must act now to prepare the next generation of science, engineering and technology leaders.”

-National 4-H Council

One Million New Ideas: STEM and Wisconsin 4-H

Wisconsin 4-H Launches STEM Programs

Today, Wisconsin 4-H offers youth several opportunities to expand their horizons in the fields of science, technology, engineering and math (STEM) as part of this national 4-H initiative.

The 4-H Gateway Academies are one such opportunity. Academies across the state provide STEM education to middle school students through weeklong day camps meant to foster an interest in technology in Wisconsin youth. The Gateway Academies introduce middle school students to engineering concepts and careers. Students participate in hands-on activities in aeronautics, robotics and computer design, including projects like building wind generators and using computers to program robots.

“Awesome hands-on experience. This seemed like a great way to foster my child’s interest in technology.”
-4-H Gateway Academy Parent

Another opportunity offered by 4-H is 4-H National Youth Science Day, launched in October 2008 to help young scientists apply scientific principles to real-world problems. The 2009 national experiment, *Biofuel Blast*, was designed by Cathy Vrentas at UW-Extension. The experiment teaches about the process behind producing biofuels from common Wisconsin crops like corn.



A third opportunity for 4-H STEM education is unique to Wisconsin. The Wisconsin 4-H Science, Engineering, Technology Lab was created to introduce middle school students to engineering-based projects like rocketry, robotics and scale models. The 4-H Science, Engineering, Technology Lab intends to increase youth interest in STEM education, especially at a post-secondary level.

Also, several Wisconsin counties recently introduced Lego Robotics into their 4-H STEM programs. The Lego Robotics program acquaints youth with the basics of computer programming and software they may not otherwise encounter.