



EPA's STEM Outreach Program in Research Triangle Park

Educating local students & the community about the environment & STEM – Science, Technology, Engineering & Math

Matching Employee Expertise with School and Community Needs

Annually, more than 200 employees from EPA's Research Triangle Park (RTP) campus serve as guest speakers at local schools and in the community. We use hands-on activities and interactive discussions to supplement classroom instruction and promote environmental awareness and STEM education by connecting our employees with the public. Presenters choose from a toolbox of hands-on activities and lessons or develop their own activities based on their work at EPA. Most outreach programs take place at schools with at least 50% of students on free-and-reduced-lunch, and we strive to inspire all students to consider environmental and STEM careers.

Our employees typically participate in school and community events within a 50-mile radius of our Research Triangle Park campus. While we do not develop lesson plans for educators, have a formal intern program, or provide grants, EPA's Office of Environmental Education provides resources for educators on our Environmental Education page (www2.epa.gov/education).

"The EPA's dedication to our students has opened up new doors to our students in the science field, exposing them to careers and concepts in science that they may have never thought of before. The EPA is helping us reach our mission of taking learning beyond the walls of the traditional classroom."

- Tracy Gilbert, Campus Director, Citizen Schools at Lowes Grove Middle School, Durham

Engaging Employees in Outreach

EPA-RTP employees engage in a variety of outreach. For example, we

- Provide guest speakers in K-12 classrooms, universities, and the community through our Speakers Bureau website (www.epa.gov/rtpspeak);
- Sponsor a weeklong Climate Change Workshop for high school students on our campus each summer;
- Support community programs such as [Citizen Schools](#), [East Durham Children's Initiative](#), and [Student U](#);



- Staff booths at schools and community events such as career days, festivals, and museum science days;
- Serve as career role models through formal and informal mentoring;
- Judge science competitions;
- Partner with schools, districts, as well as local and state organizations such as [NC New Schools](#) and [NC Science Festival](#), to provide leadership in environmental and STEM education;
- Participate in local, state, and national education and training conferences;
- Host students, teachers, and the community on our RTP campus to promote STEM education; and
- Develop hands-on activities for employees to use to help students learn about EPA research.



Fiscal Year 2012 Program Highlights

More than 10% of employees on EPA's RTP campus participated in outreach during fiscal year 2012 which runs from October 1-September 30. We reached more than 31,000 people in eight counties and participated in 170+ school events, with 100 events at low-income schools. Highlights include,

- Hosting EPA's 8th annual Science Day at YE Smith Elementary (95% of students on free/reduced lunch) and our 2nd EPA Science Day at Bethesda Elementary (80%+ of students on free/reduced lunch) reaching nearly 1,000 students through hands-on learning;
- Training 25 high school students during EPA's 2nd annual weeklong Climate Change Workshop, bringing together national and international experts from EPA, the National Institutes of Health, and universities to teach students through hands-on learning and to inspire them to take action on climate change;

"This is part of our philosophical goal at our school to get the students outside and become future stewards of our environment."

- Marylu Flowers-Schoen, Forest View Elementary School, Durham

- Leading EPA's 12th Citizen Schools Apprenticeship, a 10-week after school program. Four employees were recognized for significant contributions and received one silver and three bronze awards. One of the EPA Apprenticeships was the highest rated apprenticeship at the school and is being developed into a national curriculum;

- Promoting EPA's mission of protecting human health and the environment through active school and community engagement. We gave 90 presentations in K-12 schools, universities, and in the community; staffed EPA booths at 50 school and community events, including career days and Earth Day festivals; and judged 20 Science Competitions;

Doing a Citizen Schools apprenticeship has given us the opportunity to combine our interest in science and the environment with our interest in reaching students who have limited exposure to STEM careers, particularly girls, in a fun and active way. It has been especially rewarding to see the apprenticeship we developed be turned into a national curriculum for Citizen Schools, giving us the opportunity to reach so many more future scientists and engineers."

- Carol Shay Lenox, Environmental Scientist, EPA

- Providing community leadership as co-chair of the Durham Public Schools Superintendent's Business Advisory Council and advancing STEM education through participation on the N.C. New School's Energy and Sustainability Council; and
- Presenting two papers at the North American Association for Environmental Education annual conference to share best practices for public and private sector engagement in STEM and environmental education.

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