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## In other news

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April 1, 2014



### **New Mexico girls gain hands-on STEM experience, meet role models**

On March 6, nearly 200 female New Mexico students grades 5 to 10 and 22 teachers participated in workshops and met with female Science, Technology, Engineering, and Mathematics (STEM) professionals during the 2014 Expanding Your Horizons conference at the Santa Fe Convention Center. For the students the workshop topics ranged from “This isn’t Rocket Science...Wait, it is!” to “Video Games for Scientific Problems,” while teachers learned about subjects like grant writing and a software program that makes it easy to create stories, games, and animations.

“I loved this workshop,” a sixth-grader from Jemez Day School said about Los Alamos National Laboratory scientist Cindy Welch’s “Ooey, Gooley Polymers” workshop. “I think this is what I might want to do when I grow up.”

At lunch, participants enjoyed science demonstrations and a scavenger hunt.

“We try to make the Expanding Your Horizons conferences really fun and interesting for everyone,” explained Jan Frigo, also a Lab scientist and chair of the 2014 Santa Fe event. “It’s important for girls to realize that you can do so many wonderful things with a background in science and math.”

The conference was organized and run entirely by volunteers under the sponsorships of the New Mexico Network for Women in Science and Engineering, Los Alamos Women in Science, Los Alamos National Laboratory, and the Lab’s management company, Los Alamos National Security, LLC.

The next Expanding Your Horizons conference in Santa Fe is scheduled for March 2015. The precise dates will be published later this year on the [Expanding Your Horizons](#) website and in the *Community Connections* newsletter. Meanwhile you can enjoy a brief [YouTube](#) video of the 2013 Santa Fe conference.

## **New Mexico small businesses recognized for innovation**

During the 13th annual Innovation Celebration scheduled for early April, 10 small businesses that benefitted from technical expertise and assistance from the New Mexico Small Business Assistance (NMSBA) program will be recognized. The NMSBA program, created in 2000 by the state legislature to bring national laboratory technology and expertise to small businesses in New Mexico and promote economic development with an emphasis on rural areas, is a collaboration of Los Alamos and Sandia national laboratories. This year’s awardees are:

- Data Center Transitions (Corrales)
- McFarland Instrumentation Services (Española)
- Real Green Building Systems Leveraged Project (Farmington)
- Retriever Technology (Santa Fe)
- Skyndex Leveraged Project (Albuquerque)
- SportXast (Santa Fe)
- Customizabooks (Rio Rancho)
- Enchanted Woodworks (Las Cruces)
- Enchanted Woodworks (Santa Fe)
- Sigma Labs, Inc. (Socorro)
- Solaro Energy (Socorro)

For more information on the awards and how the organization might be of benefit to your business, visit the [NMSBA website](#).

## **Los Alamos student advances to national MathCounts competition**

Do Vo, of Los Alamos Middle School, will travel to Florida in early May to compete in the national MathCounts competition. Vo’s team won the regional competition and, since Vo came in second place at the state event, he and the three other top winners from New Mexico will receive an all-expense-paid trip to Orlando.

The Lab sponsors MathCounts at the regional and state level and congratulates all the participants. For more information, contact Janelle Vigil-Maestas with the Lab's Community Programs Office at (505) 665-4329 or [vigil-m@lanl.gov](mailto:vigil-m@lanl.gov).

## Steinhaus shares vision in TEDxABQ talk

In his TEDx talk on February 28 in Albuquerque, Community Programs Director Kurt Steinhaus compared the high school math instruction in three countries by way of specific examples: Two foreign exchange students, who had lived in Steinhaus' home for a year at a time—one from South Korea, the other from Germany—and one of Steinhaus' own children, who had attended Santa Fe High School.

Steinhaus correlated his personal examples with data from the Program for International Student Achievement (PISA), which tracks how students from different countries apply their math as well as reading knowledge. Since PISA began collecting data in 2000, the math results for the United States have remained at 26<sup>th</sup> place out of 34 countries.

Steinhaus ended his talk by offering one action all of us can take right now: simply changing the definition of “teacher.” Rather than thinking of a teacher as the person standing in front of the classroom, Steinhaus suggested thinking of a teacher as anyone who interacts with learners. Because learning occurs everywhere and all the time, inside and outside of school, everyone is a teacher and can look for “teachable moments.”

If, for instance, you are in the kitchen with a child, you might use this teachable moment to explain fractions—a concept that is often difficult to grasp—by way of the kitchen's square floor tiles. Here are four tiles, cover one tile and it becomes three fourths of the previous whole. When the child later comes across the symbol  $\frac{3}{4}$  in a math book and thinks of the tiles in the kitchen, we have a success. To watch a YouTube video of Steinhaus' presentation, go to [Seizing Our Teachable Moments](#).

## New Lab trails website available

Hikers have accessed trails on Lab property for many years and now a new website helps them figure out the trails' locations and the “rules of the road” while they're being used. For instance, some of the trails allow dogs and horses, while others do not.

It's also important that users understand all the limitations (for instance, Lab trails are open from dawn to dusk and alcohol is never allowed) and know that Bandelier National Forest actively patrols trails in the White Rock area, while other of its trails are monitored by the Lab's Protective Force.

Information on the [new website](#) includes things like the trails' length, terrain type and potential hazards. The detailed maps can be accessed on Google Maps and downloaded for use with Google Earth, according to Dan Pava of the Lab's Environmental Stewardship Services and chair of its Trails Working Group.

The underlying concern of the group is to allow public access to some areas while remaining good stewards of the federal lands in its charge, said Pava. Other partners in the Trails Working Group include Los Alamos County, the U.S. Forest and Park Services, the Los Alamos Site Office of the NNSA, representatives of local equestrian groups, canine search and rescue, and various Lab subject matter experts. Questions? Contact Pava at (505) 667-7360 or [trails@lanl.gov](mailto:trails@lanl.gov).

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