

Earth Science Fair excites students' interest in geology

By Gerhard Schneibel

Special Publications correspondent

Attending an Earth Science Fair is a fun way to learn outside the classroom, says William Coe, a Greenway Middle School eighth-grader.

"I learned about lights and lasers and stuff, volcanoes, and natural hazards like landslides and sinkholes," he said at the fair. "I learned that there is oil and natural gas in Tennessee. I didn't know that."

Students like William from middle and high schools across East Tennessee took part in the fair, which gave them the opportunity to learn about earth sciences firsthand.

The fair is hosted by the Department of Earth and Planetary Sciences in the College of Arts and Sciences under the direction of Bill Deane. "This is the seventh year that the department has hosted the Earth Science Fair and the second time that I have coordinated the activities," Deane says.

"By drawing on the expertise of our faculty and students, we can provide a rich and diverse introduction to science. The best part is how much fun it is to interact with the visiting students and teachers."

Mark Young, a science teacher at Greenway Middle School in Knoxville, says his students enjoyed seeing concepts they had studied come to life in the form of experiments and demonstrations.

"The kids really enjoy it," says Young, who adds that the UT Earth and Planetary Sciences faculty members and students provide engaging activities at the fair that promote learning.

But just helping students learn about earth sciences through hands-on activities is not the only goal of the fair. Participants also have a chance to talk with top



Jeremiah Harris

Cory Anderson observes his sample of "water bears" in the astrobiology and extremeophiles lab as Jacob Uphoff looks on.

scientists and graduate students in the field, stimulating their interest in the sciences.

Deane's interim department head, Dr. Harry "Hap" McSween, says that the fair is one of the ways UT makes a real difference in the community. "We're excited about the opportunity to reach students and get them interested in earth and planetary sciences."

Other events at the fair, held in October as part of National Earth Science Week, were designed to demonstrate topics including astrobiology, archeology, impact craters and the physics of magnetism.

This year, nearly 700 students applied to participate, more than could be accommodated.

"We've been hosting the fair for seven years now, but it has really kind of mushroomed in the last few years," McSween says, adding that he hopes more resources will be available in the future, so that everyone who wants to participate in the fair can attend.

Several other departments in the College of Arts and Sciences join the Earth and Planetary Sciences faculty to make the fair a success. Non-university partners

include the American Institute of Professional Geologists, and the East Tennessee Geological Society.

"The fair simply would not be possible without the support of other UT units and a number of individual volunteers and community organizations," Deane says. "They contribute both funding and staff assistance and make the event a success."

Along with piquing students' interest in earth sciences, the fair equips teachers to share knowledge in their classrooms. Earth sciences were only recently added to the state curriculum, so many teachers never studied the topic in school.

"Even if you didn't have it in school, you still have to teach it," explains Andrea Talley, a teacher at Greeneville Middle School in Greeneville, Tenn.

Talley and her colleague, Heather Goegemann, were able to use a teacher's in-service day to attend the fair.

Goegemann says the fair is a great way for teachers to supplement their lesson plans with new activities. "It's a great program to update teachers about the earth sciences."



Leslie Karnowski

Marshall Harkrider works on his alphabet at UT Knoxville's Early Learning Center.

— including Marshall's 1-year-old brother, Travis — now have a brand-new center located on Lake Avenue on the edge of campus. And an innovative new program at South Doyle High School serves up to 15 at-risk 3-year-olds while providing vocational experience to high school students interested in childcare. Unlike other ELC centers, the South Doyle program operates on a half-day schedule and is tuition-free.

"The South Doyle program is very exciting vocational partnership with Knox County Schools," says Durham, who has a doctorate in child development and early childhood education. "High school kids studying child development will observe the teachers working and will work with the kids. We're even talking to [local community colleges] about getting them college credit for their work."

Kids like Marshall may not realize they're in a model of excellence for early childhood education, or that top researchers are unlocking the secrets of learning just by watching them play. But they do know they're learning something new every day — and that school is one of the most interesting places they can be.

To learn more about the ELC or inquire about enrollment, visit <http://elc.utk.edu> or call 865-974-0843.