

Teaching and Learning Science at SU



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What do students launching Coke bottle rockets, testing helicopter flight times and battling robots have in common with children's authors and illustrators who promote environmental stewardship in their books? The efforts of both are showcased during events at Salisbury University this spring.

On Saturday, March 12, some 80 middle and high school students participate in the Maryland Science Olympiad's first regional tournament on the Eastern Shore. SU hosts the 14-part competition.

On Tuesday-Wednesday, April 5-6, recipients of the 2011 Green Earth Book Awards are saluted during SU's annual literature festival. The Newton Marasco Foundation prize is the nation's first to recognize environmental stewardship in books for children and young adults.

Maryland Science Olympiad participants include teams of 10-15 students from James M. Bennett and Worcester Technical high schools, and a Chesapeake City home school group. Four teams from Kent County Middle School also attend.

Throughout the day, the high school students will be asked to identify forensic evidence in crime scenarios, model proteins, design complex Rube Goldberg-like devices, and build wind and percussion instruments. They also demonstrate astronomy and chemistry skills.

Middle school students will try to characterize substances, create devices from "junkyard" materials, gather quantitative data, and answer questions about microbes, optics and the solar system. Both groups must classify fossils, conduct an experiment, and take tests on anatomy and ornithology. All activities require problem solving and teamwork, critical skills for students interested in engineering and other science-related fields.

"We are thankful that SU has enthusiastically taken a leadership role for the Eastern Shore," said Al Causey, the Olympiad's state director. "The partnership with the University is valuable because it gets kids on a college campus and thinking about science and math as a career."

More than 20 SU students and faculty are serving as judges for the event, and Northrop Grumman has provided support for team coaches. Other local businesses are invited to get involved as volunteers or sponsors.

"Volunteering gives our state's scientists and engineers a chance to get back into the education system, providing all kinds of benefits for them and students," Causey said. Winners of the regional tournament will advance to a state competition on Saturday, April 2, at Johns Hopkins University.

Events like the Maryland Science Olympiad are important because they help spark students' interest in learning science. The whole purpose of the four-year-old program is to improve science education, which will in turn enhance the state's workforce.

As the third largest producer of teachers in Maryland, SU is also committed to these ideals. The Henson and Seidel schools have modified curriculum to support K-12 science education, adding a secondary education track to the earth science major in 2009 and launching a middle school science education minor in fall 2010.

Hosting the Olympiad is just one of many ways that SU is supporting its own students and prospective applicants who are interested in Science, Technology, Engineering and Math (STEM) fields. In 2009, the University was awarded \$996,303 from the National Science Foundation to help recruit and engage STEM majors, and ultimately increase the number of SU graduates entering STEM fields.

The largest NSF grant in University history, the funds have already supported outreach and mentoring for high school juniors and seniors, including eight free Science Nights at SU. Science Camp@SU, a one-week summer program to be held July 17-21, will also feature lab experiments, workshops, team challenges and seminars with professional scientists.

Anyone with an interest in environmental science, as well as art and writing, should plan to attend a reception with the Green Earth Book Award winners on Tuesday, April 5, in the Holloway Hall Social Room. This year's honorees are:

- *The Earth Book* by Todd Parr (picture book)
- *Not Your Typical Book About the Environment* by Elin Kelsy and illustrator Clayton Hammer (nonfiction)
- *Mallory Goes Green* by Laurie B. Friedman and illustrator Jennifer Kalis (children's fiction)
- *Boys, Bears and a Serious Pair of Hiking Boots* by Abby McDonald (young adult fiction)

"We're also excited about a keynote talk by Henry Cole, who illustrated the popular *Katy Duck* series," said Dr. Ernie Bond, co-chair of SU's Teacher Education Department. Cole speaks before the reception in Holloway Hall Auditorium. The next day, many of the award-winners and other authors and illustrators will offer a series of talks and book signings in the Teacher Education and Technology Center. All times are to be announced.

To volunteer at the Eastern Shore tournament of the Maryland Science Olympiad, call 410-543-6489. For details about the book awards, call 410-543-6030.

Olmstead is a member of the MSO Board of Directors. Pataniczek served on the Governor's STEM Task Force.

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