

The Earth Is Their Classroom

Students learn about the world around them at Waban's TREE Center

Thursday, October 30, 2014

More than 330 local students were treated to an exciting and close-up look at the geosphere, hydrosphere, biosphere and atmosphere during Earth Science Week this month.

Since October 1998, the American Geosciences Institute has organized this national and international event to help the public gain a better understanding and appreciation for the Earth Sciences and to encourage stewardship of the Earth. This year, the celebration occurred between Oct. 12 and 18.

Waban's TREE Center brought together scientists and professionals in the areas of land, water, fauna, and all of Earth's systems to offer fascinating presentations that bring to life the Earth Science curriculums being mastered by these young students.

Presenters from various organizations offered dynamic demonstrations with hands-on activities and exciting live animals. Emily Calhoun, from the Center for Wildlife, introduced "Savannah" the Kestrel, North America's smallest falcon, and pointed out how she was no longer able to fly properly because her alula was broken in an accident. The alula is the part of a wing like a thumb and critical for maneuvering in flight.

"Our environmental education programs offer participants a unique opportunity to connect with local wildlife by introducing permanently disabled wild animal ambassadors," Calhoun said. "We've seen positive attitudes toward wildlife grow and strengthen, with the help of our ambassadors, and are glad to be able to offer our environmental education programs across the region."

Calhoun said that working with partners like the TREE Center allows the Center for Wildlife to reach more audiences and convey the special message its ambassadors have to share.

Leia Lowery, of the Kennebunkport Conservation Trust, created a way for students to comprehend the amazing amount of water on Earth and just how precious it is. A quick trip to the Internet will tell you there's 326 million-trillion gallons of water in the Earth's water cycle — that's 326 with eighteen zeros! For demonstration purposes, Lowery used a 5-gallon bucket to represent this amount. Students then dipped measuring cups and an eye dropper into the water to understand how much of that water is salt versus fresh, frozen versus liquid, and the tiny drop that represents the water available for everyday use. It was an effective demonstration, for any age, to gain understanding of the hydrosphere.

Some students learned about the geosphere by making maps with Sue Bickford, of the Wells Reserve at Laudholm Farms. Others studied soil and biological growth with Bud Johnston, of the Mousam Way Land Trust, and Jon Stimmell of the TREE Center.

Biosphere activities included tree aging and identification with Ken Canfield, of the Maine Forest Service, and tree growth with Pat Maloney, of Project Learning Tree. Michele Chabot, of the Center for Wildlife, provided a biosphere-related food web activity that was both enlightening and entertaining.

James Lowery, an environmental engineer for Pratt & Whitney, provided a hands-on activity that taught students the process of removing debris from waste water at his company's water treatment facility.

Presenters Ellen and Jack "Captain Jack" McAdam, of McDougal Orchards, talked to the students about how a farmer studies all of Earth's systems in order to produce a healthy crop.

Volunteer Stephanie Shinas, of Lesley University's Master of Science Program in Ecological Teaching and Learning, joined TREE Director Ann Rossignol and Environmental Educator Cynthia Peedin in teaching several "spheres" and tailoring the material to meet the Common Core Standards and Next Generation Science Standards.

"One of our goals for Earth Science Week was to give local students an experiential opportunity to get outside and connect with nature in its truest form," Peedin said. "This year's theme, 'Earth's Connected Systems,' really gave us a great opportunity to do just that and to collaborate with some amazing local organizations. Every day, students were experiencing first-hand how the natural world functions as a connected system. As an educator, I really enjoyed watching students learn and discover their world in this unique way. It was a wonderful week, and I hope to make it an annual event for the TREE Center."

Companies and organizations interested in partnering with the TREE Center to sponsor this event or to sign up and attend can contact Ann Rossignol at 324-7955, ext. 644, or arossignol@waban.org.

The TREE Center is a social enterprise of Waban. For more information, visit online at www.treecenter.org or "like" the center on Facebook at www.facebook.com/TREEctr.



Bud Johnston, of the Mousam Way Land Trust, points out biological activity in a wet soil sample at the TREE Center's Earth Science Week.