HOUGHTON - First, the class of Washington Middle School seventh-graders heard a presentation about underwater gliders from Michigan Technological University graduate students who design and build them to help research the depths of Lake Superior.

Then they got down to engineering a few of their own, constructing gliders from popsicle sticks and paper clips and competing to see which team’s prototype would glide the farthest across a fish tank. One of the best results came from Scott Loukus’ team, whose balanced craft almost made it to the far wall of the tank.

After a few experiments, "We put a little bit more weight on the back than on the front," Loukus said. "We had to see which weight would work, help it stay in the water a little bit longer."
"It takes awhile to find 30 to 40 presenters, but in 48 hours, 40 classes signed up," Chadde said. "We have a nice variety of activities to appeal to kids with lots of interests."

Most of the presenters were Tech staff and graduate students, she said. Others included Evan McDonald of the Keweenaw Land Trust, who talked about environmental stewardship; a U.S. Coast Guard crew that brought a cutter to Tech's docks to talk about water safety; and Dollar Bay High School students who brought both underwater remotely operated vehicles and a 3-D printer to the festival.

"Everybody's volunteering their time," Chadde noted.

 Presenter Karena Schmidt of Tech's forestry department, who taught students about native plants they could use to survive in the U.P. wilderness, said working with the students was time well spent.

"It just engages them in place-based learning, which is so significant because their communities are important to them," she said, adding that understanding local ecology leads to stewardship.

"They're more motivated to protect it if they know about it," she said.

At the GLRC docks, Dollar Bay aquatic robotics team members supervised students as they drove the high school's ROVs, which had been used on Isle Royale National Park last summer to help the Park Service investigate invasive zebra mussels in the park.

"It's fun showing them how it works," said Jacob Iacono.

Baraga fifth-grader Lily Messer said she enjoyed an activity led by Tech's Mind Trekkers, to construct a model of an aqueduct out of cardboard and other cheap materials, using a marble to simulate flowing water.

"I learned you can take things laying around and make a project out of them," Messer said.

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