Science and math come to life with SMILE

Middle school kids get hands-on building wind turbines at URI

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KINGSTON—Kids, no matter what the age, seem to love experiments and this weekend at the University of Rhode Island, 90 middle school students got to put their love to practice.

Students from five Rhode Island school districts traveled to the URI on Friday to take part in the Science and Math Investigative Learning Experiences (SMILE) Program’s Middle School Engineering Challenge Weekend.

The SMILE Program, currently in six school districts in elementary schools, middle schools and high schools, and is a “pre-college science, technology, engineering, and math (STEM) academic after-school program for underrepresented students in grades four to 12.”

Assistant Director Gus Gomes was on hand Friday testing wind turbines the students designed and were building. He said the SMILE Program is in its 19th year at URI.

Split into groups, the students’ challenge for the weekend was to build a wind turbine all while learning about renewable energy and its potential impacts on the environment.

All five of SMILE’s middle school districts were at URI for the weekend. Central Falls, Pawtucket, South Kingstown and West Warwick and Woonsocket. SMILE is also in North Kingstown’s elementary district.

John Martinelli, who teaches in a technology lab at Samuel Slater Junior High School in Pawtucket was there with Slater math teachers Michael Gavin and Karen Brochu and 16 of their seventh and eight grade SMILE students.

Martinelli said the after-school program is entirely funded by URI and other donors and there is no cost to the district or the students’ parents. The URI SMILE staff provides the lessons and materials, he said, making it easier and saving time for the teachers.

They even have funds to provide a snack for the students at each after-school SMILE meeting. Gavin said.

The program provides professional development to the SMILE teachers of each school throughout the year and in the summer, Martinelli said.

Gavin said they open their school’s SMILE Program up to all students at the beginning of the year, but then choose who...
will be a good fit, after looking at their New England Common Assessment Program (NECAP) scores, report cards and speaking with the students' advisors.

Brochu said what the students are learning in the after-school program is reinforcing what she is teaching them in class.

She also talked about their Family Science Night, where SMILE students prepared PowerPoint presentations about program and also got to work on their presentation skills, she said.

Martellini said they are even provided with funds for a meal at the Family Science Night and they "get to eat together as a SMILE family."

The field trips to URI and other locations are also paid for and students got to stay overnight in a hotel during this weekend event—the first time for many of them.

Talking to the students, "the hotel," was what had gotten them the most excited about this weekend. Others said they had applied for SMILE because they had heard from other students that it was "fun."

On Saturday, the students were set to return from their stay at the Holiday Inn and have their own tour of the URI campus.

Gavin and Martellini explained how once a student is in SMILE, URI has all their information, they have SMILE on their transcript and they are eligible for grants from URI depending on what they plan to study and how many years they have been in the SMILE Program.

Brochu said the students are in a way "pre-scouted."

URI also helps them as they prepare to choose classes for high school, to help make sure they are college ready.

Asistant Director of the SMILE Program at URI, Gus Gomes, helps a group of students from South Kingstown test their wind turbine at this weekend's SMILE Middle School Engineering Challenge.

SMILE's page on the URI website lists some of the program's impacts, such as their college enrollment being two to one compared to Rhode Island's low income college participation and statistics that show if a student was in SMILE for three or more years, those who attend versus those who do not is four to one.

To learn more about SMILE or to donate visit www.uri.edu/smile.