

Greater Number of Connecticut Students Interested in STEM

According to the ACT report, *The Condition of STEM 2014*, the interest in STEM by Connecticut students rose 5 percent in 2014 as compared with 2013. Nearly 46 percent of the students who took the ACT assessment were interested in STEM. Besides measuring overall STEM interest, the ACT assessment also measures interest in majors/occupations within STEM fields.



Thirty percent of Connecticut's students had an interest in Science. While the 30 percent is significantly greater than the national average, it is a 2 percent drop since 2010. General Biology was the number one science field that students interested in science chose. In Computer Science and Mathematics, 10 percent of Connecticut students have an interest, which is equal to the national average. Computer Science and programming is where the greatest interest is found.

Thirty-five percent of Connecticut students are interested in the Medical and Health fields. The national average is 43 percent. Medicine holds the greatest interest for Connecticut's students. Connecticut students share an equal amount of interest in Engineering and Technology as with their national counterparts at 25 percent. Mechanical Engineering is where the most interest is shown in this area. To see the complete report go to: <http://www.act.org/stemcondition/14/pdf/Connecticut.pdf>.

Five Hundred Educators Attend 2014 Associated Teachers of Mathematics in Connecticut (ATOMIC) Annual Meeting and Conference

"Bringing the Fun Back to the Math Classroom!" was held on December 2. Patrick Vennebush, educator and author of *Math Jokes 4 Mathy Folks*, delivered a laughter-filled keynote address. During the day-long conference, there were workshops and interactive sessions for mathematics educators at every level, K-16.

The following outstanding mathematics educators were recognized during the meeting:

- *Douglas Kiss* from Cromwell and *Nicole Gilson* from Orange are the 2014 elementary mathematics Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) state finalists; and
- *Susan Palma* from Education Connection received the 2014 Mari Muri Award for perpetuating Mari's enthusiasm and support for excellence in mathematics education in Connecticut.
- Ann Marie Spinelli from Central Connecticut State University received the 2014 Robert A. Rosenbaum Award for outstanding commitment and successful service to the entire mathematics community in Connecticut.

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STEM Unit Members Accompany Commissioner Pryor to the Annual Submarine Force Museum

STEM Teacher Fellowship Program

Story and photos by MC2(AW/SW) Kristina Young

Leadership from Naval Submarine Base New London (SUBASE) and the Submarine Force Library and Museum (SFLM) hosted the State of Connecticut's Commissioner of Education Stefan Pryor in a visit to the museum's second annual Science, Technology, Engineering, Mathematics and History (STEM-H) Teacher Fellowship program, July 22.



State of Connecticut Commissioner of Education Stefan Pryor, his staff, and STEM Unit members Harold Mackin and Ron Michaels pose for a group photo on the brow of the USS Virginia (SSN 774), prior to a guided tour of the submarine, July 22., 2014

Commissioner Pryor and Education Consultants Ron Michaels and Harold Mackin, as well as other STEM-oriented members of the department joined SUBASE Commanding Officer Captain Carl Lahti, and Historic Ship Nautilus (HSN) and SFLM Officer-in-Charge Lieutenant Commander Ben Amdur in learning about the two-week fellowship program and meeting the six southeastern Connecticut and Rhode Island teachers selected as fellows.

"It's very clear that the hands-on approach that has been taking place is going to lead to enhanced learning for our youngsters," said Pryor. "The work that's done here is inherently fascinating and it's overflowing with opportunities for the development of instructional tools and other kinds of resources for the teachers."

Commissioner Pryor and his staff were able to join the teachers for the rare opportunity of visiting a fast attack submarine on the base's waterfront, the namesake of the Virginia Class, USS Virginia (SSN 774).

"This confirms what we already know about the technology education required of students," said Harold Mackin, CSDE Technology Education and Agricultural Science Consultant. "It's not simply getting a high school diploma. Students have to be focused; they have to take courses that correspond; and, they have to know why

they're taking math and science, and applying it with the technology. That's the promise of STEM education. It's being able to see the final result. Just like we saw on the ship, every sailor has to do multiple jobs and combine all this knowledge. I believe anytime you can get real examples for students to see how it applies, it's fantastic."

CSDE STEM Consultants Attend GE Foundation's STEM Integration Conference

At the invitation of the GE Foundation, Science Consultant Liz Buttner and Mathematics Consultant Charlene Tate Nichols represented the Connecticut State Department of Education (CSDE) at the "Developing Futures 2014 STEM Integration Conference" in Orlando and Cocoa Beach, Florida from July 6-11, 2014. This was the sixth in a series of summer conferences for educators underwritten by the GE Foundation, the philanthropic arm of General Electric. The Foundation focuses its efforts in the areas of health, education, the environment and disaster relief.

Through its Developing Futures™ in Education project, the Foundation subsidizes programs aimed at improving student achievement, and college and career readiness in the K-12 public education system. Since 2005, the GE Foundation has committed nearly \$200 million to improve student achievement in seven U.S. urban school districts, each located near a significant GE business: Louisville, Ky.; Stamford, Conn.; Cincinnati, OH; Erie, Pa.; Atlanta, Ga.; New York, N.Y.; and Milwaukee, Wis. According to the Foundation since 2005 Stamford Public Schools have cut their achievement gap in math almost in half. With support from a GE Foundation grant, the district is ensuring that all students have access to a high-level, standards-based curriculum. *(Continued on page 3)*

For the annual summer STEM Integration conference, the Foundation partners with the NSTA to design and facilitate STEM education professional development for science, mathematics and technology educators in grant-funded districts and surrounding towns. The 2014 conference was the first one at which the CSDE was represented. Connecticut STEM education was also represented by Janina Johnkoski, director of school and educator programming at the Connecticut Science Center.

The purpose of the six-day conference was to “explore innovative tools, models and strategies to accelerate positive change to STEM education at the state and local levels.” According to GE Foundation Executive Director Kelli Wells, “Renewing U.S. primacy in education is critical to maintaining our competitive position in the global marketplace.” To that end, the following school districts supported by the GE Foundation attended this year’s STEM Integration conference: Jefferson County, Ky.; Cincinnati, OH; Stamford, Conn.; New York, N.Y.; Erie, Pa. and Milwaukee, Wis. Other Connecticut schools and districts invited by GE to send representatives to the 2014 conference included Bridgeport Public Schools, Bridgeport Diocese, Christian Heritage School (Trumbull), Norwalk Public Schools and Weston Middle School.

Over the six days, participants learned about leadership, team building and STEM learning opportunities at Disney World parks; then relocated to NASA Kennedy Space Center to experience engineering design challenges and a host of STEM teaching resources developed by NASA educators. At week’s end, Connecticut district teams engaged in a debriefing conversation with the CSDE consultants during, which suggestions were made for ways the State could advance better understanding of integrated STEM

Smarter Balanced Digital Library

The Smarter Balanced Assessment Consortium is committed to ensuring that all students leave high school prepared for postsecondary success in college or careers. A balanced assessment system, – which includes *summative* and *interim* assessments and *formative* assessment practices – provides tools to improve teaching and learning. The formative assessment process is an essential component of a balanced assessment system.

More than 1,300 educators from 22 states (64 from Connecticut) with diverse areas of expertise have been populating the Smarter Balanced Digital Library with professional learning and instructional resources. All resources are vetted by educators using a quality criteria before being posted in the Digital Library.

The Digital Library is a searchable, interactive online collection of instructional and professional learning resources for all content areas developed by educators for all K-12 educators. Currently there are over 2,500 resources posted in the Digital Library. These resources are aligned with the intent of the Common Core State Standards and will help educators implement the formative assessment process to adjust teaching to improve student learning. Resources include lesson plans, units, rubrics, instructional strategies, videos of educators in action, and professional learning materials. The Digital Library will also include resources to interpret data and reports from the Smarter Balanced summative and interim assessments. This interactive site includes collaborative features that allow educators to rate resources, pose questions, and share expertise through online forums with other educators across Consortium states.

The Digital Library uses state-of-the-art tagging, filtering, and search features to locate, view, download, and rate resources. Users just need to click on one of thousands of resources at any grade level and any content area to read, and then download it for immediate use!

[Information](#) about the Digital Library is located on the CSDE Web site. Additional information including recorded "Live Tours" and "Help Topic" presentations can be found on the [Teacher page](#) of the Smarter Balanced Web site. The “Live Tours” show how to log into the Digital Library, browse for resources, and utilize the Digital Library for collaboration. Access the Smarter Balanced Digital Library to view resources that support teaching and learning.

For access information, contact your District Test Coordinator.