

South Central STEM Hub Newsletter



science | technology | engineering | mathematics

South Central STEM Region at Drake University

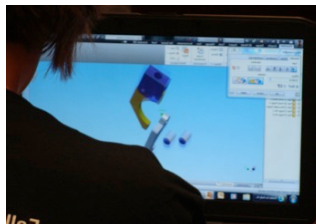
STEM Happens

Project Lead The Way Training - escorting middle school teachers through the technology "gateway"

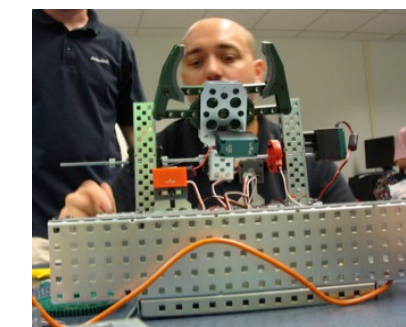
Project Lead The Way - Gateway to Technology (PLTW-GTT) scale-up awardees attended an intensive two-week training this summer. The professional development prepared these middle school teachers to implement the program in their classrooms this fall.

Educators discussed best practices and experienced the design challenges first hand.

In the GTT design and modeling unit, students create and assemble virtual playgrounds using industry standard 3D modeling software.



PLTW students use industry standard 3D modeling software to design and assemble a virtual playground



Educators practice building and programming robotics to solve a problem in PLTW GTT training

The automation and robotics unit provides students opportunities to design, build, and program robots to solve a problem.

In the GTT program, students explore STEM careers and practice problem solving, teamwork, and innovation that encourage student success in future STEM pursuits.

Learn more about Project Lead The Way-Gateway to Technology engineering program [here](#).



Dr. Neil deGrasse Tyson

Drake University to host world-renowned astrophysicist and pop-culture advocate for scientific inquiry, Neil deGrasse Tyson

Tuesday, October 29, 2013, 7 p.m., Drake University Knapp Center. Free and open to the public, no ticket required.

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The entire South Central Iowa Region has been awarded Defined STEM as a scale-up program.

This online resource provides common core standards-aligned performance tasks, literacy tasks, and real-world video to enable students see the relevance of what they are learning.

Defined STEM is available to formal and non-formal educators in South Central Iowa. Contact Brad Furber (brad_furber@definedlearning.com) to obtain your unique login and

Drake University is hosting Dr. Neil deGrasse Tyson this fall for the Martin Bucksbaum Distinguished Lecture Series.

Dr. Neil deGrasse Tyson emerged as a media personality and pop-culture icon as the host of *NOVA ScienceNOW*. He has appeared on *The Daily Show*, *The Colbert Report*, and *Big Bang Theory* (as himself). Tyson engaged professional stand-up comedians to create StarTalk Radio, which targets an audience of people who never thought they could, or would, like science. His work in the media has made science accessible for a broad audience.

Dr. Tyson earned his B.S. in Physics from Harvard and his Ph.D. in astrophysics from Columbia. His professional research interests include exploding stars and dwarf galaxies. Former President George W. Bush appointed Dr. Tyson to serve on commissions to investigate the future of the U.S. aerospace industry and to make space exploration a part of the political agenda.

With his visit to Drake, Dr. Tyson joins the ranks of other distinguished Bucksbaum lecturers, including Dr. Jane Goodall, Dr. Maya Angelou, and Earvin "Magic" Johnson.

Don't miss this exciting event. For more information, visit <http://www.drake.edu/bucksbaum/>

Applications for Redesigned STEM Learning Environments are due August 30, 2013.



The Iowa Governor's STEM Advisory Council has designated a matched portion of the state legislative funding to promote Redesigned STEM Learning Environments. The number of proposals accepted will depend upon available funds and proposal requests.

School districts may apply to receive up to \$50,000.00 in funds which can be used to support furniture, technology and equipment costs associated with a redesigned learning environment, travel expenses for district teams or designees to visit one or more exemplary STEM school model(s), professional development for STEM teachers, or other related costs. School districts will be asked to match the Council's investment through local cost-share for the project proposals.

Community-based partnerships of businesses, higher education institutions and out-of-school organizations will be required of successful applicants. These community partnerships will serve as a mechanism to ensure STEM career and college readiness for all of Iowa's young people.

Businesses will be asked to partner with school districts to offer both financial support and other types of philanthropic outreach including internships, facilitated mentoring programs and off-site learning opportunities. Museums, libraries, science centers, youth agencies and clubs are the non-formal education entities which will play a vital role in supporting underrepresented students for STEM. Powerful partnerships

start using this resource that the SC Hub purchased for you!

CALL FOR PROPOSALS



to provide **Technology Education and Information Technology Certification** to Iowa **High Schools** for the Governor's STEM Advisory Council.

For [application](#) and more information, go to www.iowaSTEM.gov.

Applications are due September 10, 2013.

Spread the word about your STEM Back-to-School EVENTS!

between school districts and higher education will also be a key ingredient in successful STEM school proposals.

Go to www.iowaSTEM.gov for more information and a link to the [application](#).

Events

Don't miss these upcoming STEM events!

- July 29-Aug 2 [IMPACT Summer Institute cont.](#), Cedar Falls
- Aug 1 [Robots 'n Girls](#), Ottumwa
- Aug 7 [Camp in a Can PD](#), Johnston
- Aug 8 [Hyperstream PD](#), West Des Moines
- Sept 6 [Defined STEM PD](#), Des Moines
- Sept 20 [STEM Teacher Educators' Conference](#), Des Moines
- Sept 23 [Carolina STEM PD](#), Johnston
- Sept 24 [Carolina STEM PD](#), Johnston
- Sept 25 [Carolina STEM Pd](#), Ottumwa
- Sept 28-28 [Midwest Environmental Ed. Conference](#), Coralville
- Oct 23 [ICTM-ISTS Fall Conference](#), Des Moines
- Oct 29 [Lecture by Neil deGrasse Tyson](#), Des Moines

Midwest Environmental Education Conference September 25-28, 2013



The Iowa Conservation Education Coalition and Iowa Association of Naturalists invite you to attend the Midwest Environmental Education Conference, September 25-28, 2013 at the Marriott Hotel and Conference Center in Coralville, Iowa. This regional gathering is the largest environmental education conference in the Midwest, hosting nearly 300 teachers, naturalists and others who specialize in: wastewater, environmental health, natural resources, Science, Technology, Engineering and Math (STEM), watershed, energy, solid waste & recycling education and regulation.

Themed "Seasons of Plenty," the conference offers an abundance of educational opportunities including: two workshops, 10 field trips throughout



Add them to the South Central STEM [Calendar](#)!

[Submit your STEM event here!](#)



Be a role model. Share your STEM skills and story in your community.

Want to share your STEM skills and story in your community? Go to the [SC STEM Hub website](#) and click "Find a Scale-Up near you!" for the list of schools awarded '13-'14 Scale-Up programs. Contact a school in your community to see how you can help. You will also find a calendar of STEM events, and other ways to get involved!



the Eastern Iowa Corridor, three award-winning keynote presenters, 64 sessions on a variety of environmental topics, plus exhibits, entertainment and networking.

Scholarships and Iowa teacher renewal credit are available. For more information and registration, visit www.MEEConference.org.

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