

South Central STEM Hub Newsletter



science | technology | engineering | mathematics

South Central STEM Region at Drake University

STEM Happens

South Central Iowa stars SHINE at STEM Film Fest Awards

Students from the South Central Region's North Polk Central Elementary and Oskaloosa High School were stars for the evening at the inaugural STEM Film Fest Awards. The event, held at the Science Center of Iowa in Des Moines, honored the talented student-filmmakers from across Iowa who created and produced short films about STEM. The awards ceremony included a film viewing, followed by a question and answer session between the films' creators and a panel of judges, where students got to share the challenges and successes of the production process.



The winners from the South Central Region are....(drum-roll please)...

From North Polk Central Elementary:



Engineering Award: "STEM Building Bridges"
Best Use of Animation: "No Matter Your Age"
Sustainable Energy Award: "Wind Energy in STEM"
Best Demonstration of STEM Award: "The Importance of Flight"

From Oskaloosa High School:

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Students take action on Earth Day at Cowles Elementary



Clearing out the garden

Dozens of community guests gathered at Cowles Elementary to engage students in activities about the environment during their Environmental Day Celebration. The event was organized by teacher, [Heather Anderson, the Izaak Walton League 2013 Teacher of the Year](#).

Students acted out a bee hive, got up-close and personal with compost under a microscope, and worked in the school's garden, as just a few of the activities



Iowa STEM Best in Show: "The Many Branches of STEM"

The Oskaloosa High Iowa STEM Best in Show grand prize winners also received a \$1,000 scholarship from Google to be used by the winners to attend any STEM summer camp of their choice.

Congratulations to all of the STEM Film Fest participants! [Click here to view all of Iowa's fantastic STEM films](#) yourself!



Eighth graders conduct health evaluations

Project HOPE gives Perry students experience in health careers at Drake

Eighth graders from St. Patrick's Catholic School in Perry spent a day at Drake University learning about health careers. This field trip was the culmination of their Project HOPE experience.

Prior to the event at Drake, a Project HOPE ambassador from the University of Iowa visited their classroom at St. Patrick's for six sessions to 1) introduce students to the various health care fields and health community problems, 2) help students identify their specific interests within the different fields, and, 3) learn about community health problems and how careers in health science can help to alleviate these problems. Students also received information about financial aid, social support, and ways to overcome obstacles.

At Drake, students spent the morning learning about the equipment and techniques used to conduct health assessments, then assessing each other. In the afternoon, students participated in an Empathy Lab to help them experience first hand what it is like to complete daily tasks with a disability.

At the end of each task, students wrote a reflection on their experience with each simulated disability.

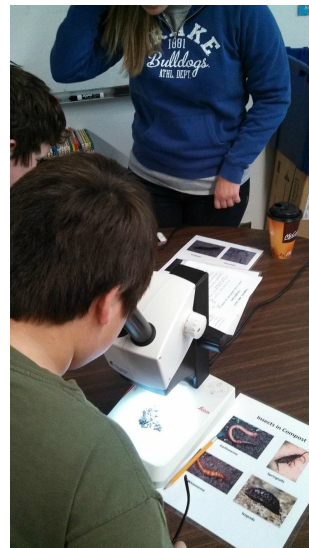


Goggles wrapped in plastic simulate visual impairment as this student tries to pour and measure

in a full day of Earth-friendly events.



Simulating a bee hive



Up-close with compost insects

Spread the word about your SUMMER EVENTS!



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

[Submit your STEM event here!](#)

Hoover educators partner with Dupont Pioneer to develop integrated project-based learning experiences

Math, Science, and Technology teachers from Hoover High School's STEM academy are working with scientists at Dupont Pioneer to create integrated, project-based learning opportunities for students. Together with scientists and engineers from Pioneer, the educators created lessons that integrate required learning objectives in math, science, and technology through projects modeled after practical challenges that Pioneer staff face in their careers. For example: integrating science and mathematics to conduct a risk assessment analysis of the impact a pest-resistant crop introduces to local ecology, or creating an automatic watering system to deliver different amounts of water to plants in an experiment.

As these project-based learning opportunities are implemented, Hoover students will also have an opportunity to connect with the Pioneer role-models. It is an exciting partnership between education and a global business in the community.



Hoover Math, Physics, and Technology teachers discuss project-based learning ideas with a Pioneer engineer.



**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!



Math-Science Partnership Grant at Drake

Drake assistant professor of mathematics, Dr. Maryann Huey, along with co-PI, Dr. Wendy Weber of Central College, were recently awarded a \$125,000 grant from the Iowa Department of Education. They aim to prepare teachers to teach Statistics and Probability in alignment with the Iowa Core Mathematics Standards.



Dr. Maryann Huey
Drake
Mathematics

"With the new emphasis placed on statistics and probability in the national and Iowa mathematics standards, teachers are scrambling to modify their instruction," says Dr. Huey, who

specializes in Statistics Education. "The purpose of this grant is to not only to prepare teachers, but to develop engaging activities for Iowa students that involve real-world situations and solve problems that are important to them. The end goal is to spark students' interest in pursuing STEM-related disciplines and develop the needed self-confidence and competence to be successful in future endeavors."

The immediate impact of the grant will provide professional development for rural secondary mathematics teachers from the Great Prairie Area Education Agency. Teachers utilizing these tools will incorporate what traditionally has been college-level statistics and probability into their curriculum.

Students at the granted institutions will benefit as well. A Drake student researcher will be funded through this project for the bulk of a year, further demonstrating Drake's commitment to developing and supporting future STEM educators. Long term, the activities created for this professional development will be re-purposed to pre-service teachers, providing future Drake and Central undergraduates the benefit of these experiences in their education. Ultimately, high school students throughout Iowa will benefit from teachers who have the tools developed through this grant for engaging, rigorous statistics and probability education.

Events

Don't miss these upcoming STEM events!

May 25 [IMPACT Summer Institute](#), Registration DEADLINE

June 10-14 [Drake Summer App Camp](#), Des Moines

June 17-21 [Drake Summer App Camp](#), Des Moines

June 1-2 [Hack to School](#), Des Moines

June [Bioethics and Biotech Summer Workshops](#), Ames

July 21-26 [IMPACT Summer Institute](#), Cedar Falls

July 29-Aug 2 [IMPACT Summer Institute cont.](#), Cedar Falls

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