

South Central STEM Hub Newsletter

GREATNESS
STEMS
FROM IOWANS

Drake
UNIVERSITY

SOUTH CENTRAL IOWA REGION GOVERNOR'S STEM ADVISORY COUNCIL

STEM Happens

Click to [Apply Now](#) for Iowa STEM Initiative
2017-18 Scale-Ups



CASE has been a Scale-Up provider for the past five years.

Iowa's educators who want to continue inspiring their students toward STEM passions now have an opportunity! The 2017-18 STEM Scale-Up Program application is officially open.

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Last year in the South Central Region, more than 225 educators have received an award through the STEM Scale-Up Program that has impacted over 15,000 youth. Take that times six for our STEM regions, and the math illustrates a tremendous statewide effect over the last five years of the program.

This month, the 2017-18 STEM Scale-Up Program menu debuted. All nine selected programs underwent a competitive review process, proving an appeal to diverse youth, a demonstrated success in improving academic performance, evidence of integrating STEM concepts, fostering business-education-community partnerships and tracking records of sustainability.

**Apply until March 3, 2017 at
www.iowaSTEM.gov/2017-18-Scale-Up.**

2017-2018 STEM Scale-Up Program Menu



Curriculum for Agricultural Science Education (CASE) - Agricultural Power and Technology

Description: Students are immersed in inquiry-based exercises that tie in the math and science of agricultural mechanics & engineering. Throughout the course, students apply technical skill while becoming competent in the process used to operate, repair, engineer and design agricultural tools and equipment.

Grade Level: 9-12

Contact: Joshua Remington, Iowa FFA Foundation,
joshua.remington@iowaffafoundation.org

For more information: <http://www.case4learning.org/>



Engineering is Elementary (EiE)

Description: Engineering is Elementary is a research-based, standards-driven, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics.

Des Moines, IA 50031



Email: scstemhub@drake.edu



Facebook: [South Central Region](#)



Twitter: [@SC_Iowa_STEM](#)



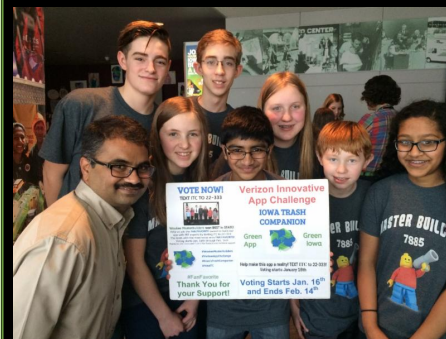
Instagram: [sc_iowa_stem](#)

Event Calendar:

Visit the [SC STEM Hub's calendar!](#)

The South Central STEM Region is part of the Iowa STEM Council. Click [HERE](#) to learn more about the state-wide program.

Text to Help Robotics Team!



Text ITC to 22333 by February 14!

MasterBuilders of Waukee Schools just won Best in State in the Verizon Innovative Learning app challenge! Their app concept is the

Grade Level: 1-6

Contact: Christopher Soldat, Grant Wood AEA Van Allen Science Teaching Center, csoldat@gwaea.org

For more information: <http://www.eie.org/>

**Engineering the Future (EtF)***

Description: Engineering the Future (EtF) is a modular, full-year, 8-12th grade curriculum of introductory engineering and technological literacy for all students, including women and minorities and any career aspiration. The specific module being offered, "Project 1.0: Design the Best Organizer in the World," provides students the opportunity to design, build and test prototypes while empowering them to apply math, science and engineering practices, work creatively and collaboratively, communicate and experience the engineering design cycle in real-world design and physics applications.

Grade Level: 9-12

Contact: Liz Pabon, It's About Time, lpabon@iat.com

For more information:

<https://www.iat.com/courses/engineering/engineering-the-future/>

**FIRST Robotics Competition**

Description: High school students call it "the hardest fun you'll ever have." Under strict rules, limited resources and an intense, six-week time limit, teams of 10 or more students are challenged to raise funds, design a team "brand," hone teamwork skills and build and program industrial-size robots to play a difficult field game against like-minded competitors.

Grade Level: 9-12

Contact: Marcy Seavey, University of Northern Iowa, seavey@uni.edu

For more information: www.firstinspires.org/robotics/frc

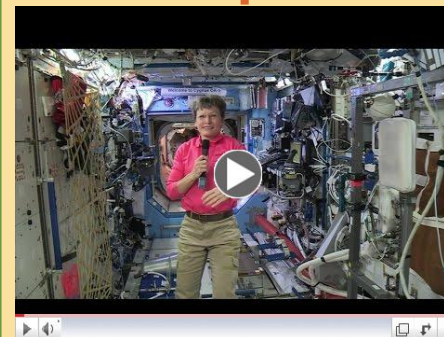
**Making STEM Connections**

best among all the middle school entries in Iowa.

They won \$5,000 and tablets for every team member! And it gets better—they are in the running for the Verizon app challenge Fan Favorite award. If they win, mentors from MIT will work with the team to develop the app for consumers. Here is how you can help:

To win, their concept needs to obtain the most votes. Help by texting ITC to 22333 by February 14!

IPTV Hosts NASA Uplink



What happens when Iowa Public Television teams up with NASA? Magic!

About 100 lucky Iowa students were chosen to participate in a NASA Uplink with Space Station astronaut Peggy Whitson. Click the arrow to watch the interview.

After the Uplink, students participated in a STEM education day, with one of the booths featuring the SC STEM Hub's EiE Parachute Kit. Check out pictures from the event below.

Description: The Science Center of Iowa's Making STEM Connections program provides a kit, including tools, teacher resources and lessons to inspire the "makers mentality" in youth ages 5-14 through highly engaging, interactive and safe experiences. Building upon the natural inclination to tinker, this program empowers participants to explore STEM principles and 21st Century Skills as they design, create and make.

Grade Level: K-8

Contact: Jolie Pelds, Science Center of Iowa, jolie.pelds@sciowa.org

For more information: www.sciowa.org/makingstemconnections



PowerTeaching Math

Description: Developed by Johns Hopkins Researchers, PowerTeaching Math is the leader in cooperative learning mathematics instruction helping teachers transform their classrooms environments to engage ALL students.

Grade Level: 6-8

Contact: Bonnie Darby, Success for All Foundation, bdarby@successforall.org

For more information: www.sfapowerteaching.org/



Project Lead The Way (PLTW) - Launch

Description: The program empowers students to adopt a design-thinking mindset through compelling activities, projects and problems that build upon each other and relate to the world around them. As students engage in hands-on activities in computer science, engineering and biomedical science, they apply and reinforce the knowledge and skills they've acquired in core academic areas.

Grade Level: K-5

Contact: Terry Ausman, Project Lead The Way, tausman@pltw.org

For more information: www.pltw.org



Ramps and Pathways*



Description: Ramps & Pathways (R&P) is an NSF-funded, developmentally-appropriate and classroom-tested approach to integrative STEM that engages young children. R&P is designed to nurture engineering habits of mind as children build their own technology of marble runs; a type of Rube Goldberg machine. In the process, children grapple with the laws of physics, properties of objects, how those properties affect motion and engage in spatial thinking.

Grade Level: PreK-2

Contact: Beth D. VanMeeteren, Regents' Center for Early Developmental Education, UNI, Regents.center@uni.edu

For more information: <http://www.rampsandpathways.org>



ST Math

Spatial-Temporal (ST) Math

Description: ST Math is game-based instructional software designed to boost math comprehension and proficiency through visual learning. Integrating with classroom instruction, ST Math incorporates the latest research in learning and the brain and promotes mastery-based learning and mathematical understanding. The ST Math software games use interactive, graphically-rich animations that visually represent mathematical concepts to improve conceptual understanding and problem-solving skills.

Grade Level: K-6

Contact: Tom Allen, MIND Research Institute, tallen@mindresearch.org

For more information: www.mindresearch.org/

Events

Add these dates to your calendar!

- Jan. 24 -- [Scale-Up Applications Open](#)
- Jan. 27 -- [IMMAW Education Day STEM Fest](#)
- Jan. 28 -- [IMMAW Celebration Day Exhibit](#)
- Feb. 4 -- [Super Qualifier FIRST, Johnston John Deere](#)
- Feb. 11 -- [Girls in Science](#)
- Feb. 20 -- [SC Regional STEM Advisory Board Meeting](#)
- March 3 -- [Scale-Up Applications DUE!](#)
- Mar. 15 -- [SC Regional STEM Advisory Board Meeting](#)



2017 IMMAW



April 4 -- [SCI/SC Regional STEM Fest](#)
 August 12 -- [SCI Perseid Meteor Shower](#)

Spread the word about STEM EVENTS in your community!

Visit the [South Central STEM Calendar](#)

[To submit your STEM event, click here!](#)

I'll Make Me a World

Check out I'll Make Me a World STEM exhibitors on January 27-28. This is Iowa's largest African-American festival, drawing around 10,000 participants, and it's all FREE!

Visit their [website](#) for more details.

SCI/SC Region Fest

Science Center of Iowa / SC Hub hosts the...

Metro-Area STEM Fest

WHEN April 4, 2017
6:00 pm - 8:00 pm

WHERE Science Center of Iowa
401 W. Martin Luther King Jr. Pkwy
Des Moines, IA, 50319
Concessions will be available.

REGISTER Attendees:
<http://tinyurl.com/stemfest2017>
Exhibitors:
<http://tinyurl.com/exhibitors2017>

PreK-8 STUDENTS and their FAMILIES are invited to a festival full of ACTIVITIES and EXHIBITS designed to EXPLORE, CREATE, MAKE, and LEARN more about exciting opportunities in STEM areas.

Calling for exhibitors! We're hosting a spring festival with the Science Center of Iowa.

WHEN: April 4
WHERE: Science Center of Iowa
TIME: 6-8 p.m.
EXHIBITORS: [Click to register!](#)
ATTENDEES: [Click to register!](#)

Contact Dr. Sarah Derry at
scstemhub@drake.edu.





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