

South Central STEM Hub Newsletter

**GREATNESS
STEMS
FROM IOWANS**

Drake
UNIVERSITY

SOUTH CENTRAL IOWA REGION GOVERNOR'S STEM ADVISORY COUNCIL

Scale-Up Update

Educator PD Schedule



The Hub spent much of July meeting regional teachers during Scale-Up professional development training classes. It's always a joy to experience the expertise and enthusiasm they bring to the workshops.

And there are still a few South Central dates left! If you need to attend a training out of this region or still have questions regarding these workshops, please email Dr. Sarah Derry at scstemhub@drake.edu.

To learn more about the Scale-Up program, please visit the state website at <http://www.iowastem.gov/Scale-Up>.

Still on the 2016-17 South Central training calendar:

July 24 - August 5 -- PLTW: Biomedical Science -- Coralville

August 1-3 -- August 8 -- Making STEM Connections -- SCI, Des Moines

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Call for Exhibitors...

Centerville STEM Festival

DATE: Saturday, October 22, 2016

TIME: 10:00am-2:00 pm

SET-UP: 9:00am

WHERE: IHCC-Centerville Campus
(721 N. First Street
Centerville, IA)

EXHIBITORS:

Register [HERE](#) to exhibit or volunteer.

(Attendee registration opening soon!)

**August 21--STEM Day
at the Iowa State Fair!**

August 12 – EiE – Cowles Library, Des Moines
 September 26 – Making STEM Connections – SCI, Des Moines
 October 2 – Making STEM Connections – SCI, Des Moines
 October 12 – Making STEM Connections – SCI, Des Moines

Invite us to your school!

This school year, invite us to watch your Scale-Up in action. We'd love to visit and are always looking for newsletter stories. Not only does it show funding at work, but it also helps others teachers decide if programming might work in their classrooms.



STEM BEST RFPs Due September 23



Click the image to watch a short video about Iowa STEM BEST.

The STEM Council invites school+business partnerships across Iowa to submit their proposal to establish a STEM BEST model.

Click for INSTRUCTIONS.



Ignite a passion for learning! Come out and celebrate STEM at the Iowa State Fair. For the price of last-day admission, meet STEM professionals, participate in hands-on activities and learn what Iowa STEM can do for you!

[Click HERE for more info!](#)

Or contact Dr. Sarah Derry, SC STEM Hub Manager, as directed below.



Manager:
 Dr. Sarah Derry (at right)

Call:
 515-271-2403

Email:
scstemhub@drake.edu

Find us at:
 SC STEM Hub
 Drake University School of Ed
 3206 University Avenue
 Des Moines, IA 50311

Website:
<https://scstemhub.drake.edu/>

All Iowa private and public schools and school districts serving students in any of grades K-12 are eligible to apply. Each of the six awarded applicants will receive \$25,000 each to be matched with local cost-share and will be designated as an Iowa STEM BEST model. The application window will close on Friday, September 23, 2016.

To learn more about Iowa STEM BEST, please click [HERE](#).

STEM Happens

Lt. Governor Reynolds visits Jewels Academy hosted at Drake



Thumbs up with Jewels Academy! Found Kim Wayne and Lt. Governor Kim Reynolds seated in center.

Kim Wayne, founder of Jewels Academy and member of the SC Hub's Advisory Board, has a passion for educating girls about

Like us on Facebook

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Check out our calendar!

Remember to send us your STEM events and news! We can help you promote your event.

Bubble Science at the Clarke County Fair STEM Festival



#1. The perfect bubble starts with a well-designed wand.



Reynolds and her granddaughter spent the morning with Jewels Academy.

STEM possibilities. She targets diverse populations, grades 4-12, with the older girls serving as role models for the younger ones. This summer, Jewels Academy hosted their Young Emerging Scientist kickoff at Drake University.

On July 2, Lt. Governor Kim Reynolds joined the Young Emerging Scientist workshop. Put these two Kims in one room, and their passion for STEM is contagious!

Reynolds spoke to the group, encouraging students across the state to take advantage of programs like Jewels Academy.

"Sometimes, we as girls, think we have to be perfect," said Reynolds. "Taking part in STEM teaches you don't have to get it right the first time. Keep your options open and get out there and experiment. Keep trying. Think big. Dream big."

Wayne dreams big, herself. She hopes the weekend workshops blossom into an after-school program. In addition, she works full-time as an engineer at Siegwark and is enrolled in a doctoral degree in education at Drake.

"Serving on the SC STEM Hub's Board, we always talk about how to help the under-served groups," said Wayne. "We know our region has a learning gap, and we want to share that information with our leaders."

The learning gap Wayne is talking about is included in the Iowa STEM Monitoring Report: "Overall, there are disparities in proficiency. The proportions of minority students, those of low socioeconomic status, and students with disabilities that exhibit proficiency are consistently lower than the overall rates. This is true in all biennium periods, all grade levels, and in both mathematics and science."



#2. Then you need a carefully concocted bubble solution and a lot of tries.

Iowa STEM works with programs like Jewels Academy to change those statistics. Part of their success is due to an incredible network of volunteers. High school and college students unite with STEM professionals and parents to deliver the curriculum.

Talisa Miller is a parent who has been involved with Jewels for two years. "My daughter learns something new every time she comes here," says Miller. "And she's not going to get this type of learning at school."



Their newest volunteer, Mariama Wilson, arrived from New York earlier this month. She's interning at UTC Aerospace Solutions and joined Jewels as a teacher volunteer.

"I'm trying to uplift women of color into the sciences," she said.

One of their most dedicated volunteers is high school student Jada. She's

attended or helped since 3rd grade. "Miss Kim has inspired me to take more science classes. I'm taking AP Chemistry this year," she said. Eventually, Jada wants to work with battered women as a psychiatrist.

Which just proves another point made by the Lt. Governor: "If you have a background in STEM, you can help the world."

Inspiring STEM

Meet STEM Advocate and Board Member

Amber Pargmann



#3. Finally, you have to know which way the wind blows and predict where your bubble will go.

Using EiE's Engineering Bubble Bonanza materials the Hub hosted a hands-on STEM activity at the Clarke County STEM Festival on July 22. Around 200 people braved the 113 degree heat index to learn more about STEM in the region (and eat free hot dogs and watermelon).

Advisory Board Member Karen Pattison and ISU Extension Officer Jennifer Pollard were among the organizers.

Sharing Best Practices



Amber Pargmann, one of the newest members of the SC STEM Hub's Advisory Board, has been making a positive impact on Ottumwa-area students for a number of years. As a Program Manager at John Deere Ottumwa Works, she spends her days working with groups on new product development.

But, whenever she can find the time, often on evenings or weekends, she travels to schools, festivals and events to talk about STEM opportunities and provide hands-on activities for curious kids.



Photo courtesy of Dr. Kristine Bullock, SE Hub Manager.

On June 23, the SE Region held a dual advisory board meeting with the South Central STEM Region's Advisory Board at John Deere Works in Ottumwa.

The meeting came about through the mutual collaboration of two board members who work for John Deere Works: SC board member Amber Pargmann and SE board member David Bradford.

Best practices discussion included ideas on ways to connect businesses with school, how to market Scale-Up programming, how to better target rural areas and how to engage students through visits and job shadows.

In addition to many discussions about the Iowa Governor's STEM Advisory Council's work in the two regions, this meeting was also an opportunity to learn more about John Deere Works, a 116-year-old factory in Ottumwa.

The next SC STEM Hub Advisory Board meeting is August 22. Email scstemhub@drake.edu if you'd like to attend.

Amber Pargmann is featured this month in Inspiring STEM. Learn more about this incredible STEM leader!

"I love to see kids get excited and have fun with STEM," says Pargmann. "When a child becomes interested and you see the things they create, you realize that the more kids you can reach, the better our future will be!"

With a degree in engineering, her interest in STEM began at a young age. "STEM encompasses so many different areas and varied career paths," she adds, "I want to make sure students and their parents are aware of what's available."



Somehow Pargmann balances family, career and volunteer work, and she says you can, too. As she meets with students in the southeastern part of the Hub's region, she often gives this advice: "I played a lot of sports and was pretty competitive--so if someone said I couldn't do something, like be female and become an engineer, that made me just want to prove them wrong. Don't let anyone discourage you from following your dreams! STEM is for everyone."

That's just good advice for anyone with a goal.

Events

Add these dates to your calendar!

August 1-4 -- FRC Professional Development
 August 8 -- Making STEM Connections PD
 August 12 -- EiE PD
 August 15 -- Making STEM Connections PD
 August 21 -- STEM Day at the Iowa State Fair
 September 5 -- SCI Young Makers Application Due
 September 26 -- Making STEM Connections PD
 September 28 -- EiE PD

Spread the word about STEM EVENTS in your community!

Visit the [South Central STEM Calendar](#) to get details on these events and see LOTS more!

Building Update STEM@Drake



Steel is being erected at the Science Connector building, which will provide the structure to which everything else is affixed.

What does 100,150 square feet get you? A brand new STEM@Drake building! Construction is progressing as planned. The Hub's office will be part of the new building, as will Drake's Science, Technology, Education and Mathematics Departments.

Check out this visual update. A special thank-you to Multivista and PDC Partners for the photos and information. For stats, facts and much more, please click [HERE](#).

Volunteer Today!



Q: Why does Pioneer/DuPont manager **TOM LADE** (center of photo) volunteer to be a mentor?

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

A: "To help students see the benefits of a STEM career. We need more young people in the fields of science and engineering."

How can you help?

- contact your community school
- host a festival exhibit
- help at a STEM festival or event
- start a student-focused STEM committee at your work.
- find a community event (click [HERE](#) for a group who needs help now)

For more ideas, please contact the SC STEM Hub at scstemhub@drake.edu.



SC Iowa STEM, 3206 University Ave, Des Moines, IA 50311

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