South Central STEM Hub Newsletter

STEM Special Announcement!

2014-15 Scale-Up Programs Announced
Applications Open!

The 10 programs listed below were selected as scale-ups for the 2014-15 school year. If you're an educator, from Scouts to schools, you can apply.

Click on the title below to connect with a 1-PAGE OVERVIEW of each scale-up:

1. A World in Motion
2. The CASE for Agriculture Education in Iowa
3. Defined STEM
4. Engineering is Elementary
5. FIRST Tech Challenge
6. HyperStream
7. KidWind Renewable Energy STEM
8. SCI Pint Size Science
9. Project Lead the Way: Engineering
10. Project Lead the Way: Gateway

For a graphic organizer full of scale-up info, click HERE. Click for an APPLICATION link.

TIMELINE
February 24 thru May 2, 2014
Applications from LEA for STEM programming accepted
May 19, 2014
Sub-award agreements between Service Providers and Hub begins
May 30, 2014 (pending legislation)
LEA programming awards are announced
July 1, 2014 (pending legislation)
Scale Up STEM Programming begins

For more details, click HERE.
Need help? Email Sarah Derry at scstemhub@drake.edu.

Reminder for 2013-20 Scale Up Recipients:
Progress Monitoring due May 16

Q: Why go to such trouble for a report
A: The State needs data to continue funding best practices. By report your school's information, you may be helping all Iowa students gain access to STEM programming.

These 3 Scale-Up Monitoring activities

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https://ui.constantcontact.com/visualeditor/visual_editor_preview.jsp?agent.uid=1116857170236&format=html&print=true
STEM Happens

Members from Ankeny's Hyperstream Team work together on the Gaming competition. "We think we're going to shoot a buffalo out of a cannon, featuring the principles of trajectory and weight," explained Hailey.

Check out Centennial's STEM Champion

Karen O'Loughlin

"I just open my door, and they come," says Karen O'Loughlin, coordinator of Ankeny's Technology Club. She's been opening her door for years, but just last summer, she received a Hyperstream STEM grant.

The student-lead club serves about 60 members in grades 8-12 and is housed in Centennial High School. Once a week, students come together to on a wide range of technology topics, from competitive projects to homework to personal interests.

"I really don't do anything," says the humble O'Loughlin, but, according to the students, that's not the case.

"Ms. O. tells us about all the competitions," says Cassandra, a student on the team. "She's there whenever we need help," adds Jordan, another student.

When O'Loughlin put out a message seeking an adult mentor in the field, Louis Schanus, who happens to be one of her past students, to be completed by each teacher/leader who implements a Scale-Up program in a classroom or organization.

For a link to the 3 activities included, click HERE!

1.) teacher/leader survey,
2.) compiled student participant list
3.) student surveys.

The Scale-Up Monitoring link will take to a dedicated site which hosts all the documents, survey instruments, spreadsheets, and links that implementers will need to complete the 3 STEM Scale-Up Monitoring activities. Instructions for each activity are included in the monitoring packet can be accessed at link as well.

Life comes full circle when you. Volunteer for STEM!

When Louis Schanus(above right) heard Centennial High School's Technology Club needed a volunteer in the field, he was quick to respond. This Ankeny graduate went back to one of his past teacher's classroom with a whole new purpose: to help others find their own STEM success.

Maybe you could do the same...

STEM needs you!
Want to share your skills and story in your community?

Go to the SC STEM Hub website and click "Find a Scale-Up near you!" the list of schools awarded '13-'14 Scale-Up Monitoring.
Louis Schanus volunteers his professional expertise to assist with Cyber Defense.

"I volunteer 1-2 hours a week," says Schanus. In addition, Schanus' employer, SHAZAM, donated laptops, cords and cables.

Last year, Ankeny's Hyperstream earned third at state. When asked if they're out to win this year, Allyssa, another Ankeny student, replied, "We're successful if we learn new things and have fun with friends." Jordan adds to that, "The winning doesn't matter so much."

O'Loughlin's influence reaches well past the final bell. "Even if this is just a place to hangout, it's enough," says O'Loughlin. "If you're looking for a group, this is a welcoming place."

Monroe Students Master the Pinball Project

Gina Laidlaw's second grade class comes in from recess and immediately gets to work. Why? It's day four of their project: to build the ultimate pinball machine.

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!

Girls in Science Festival
A Recap in Photos

Drake University's Professional Pharmacy Organization, Phi Delta Chi, hosted a booth where kids learned the importance of counting medicine by practicing with Skittles.

SC STEM Hub's Sarah Derry and SW STEM Hub director, Deb Frazee, hosted a booth.
Students build the game based on test results. "You have to try to get the ball into the spot where you want it," explains Ross.

Second-grader Mikea says, "I thought science was only about planets and plants and stuff. I didn't know you could learn it through games."

With the help of a STEM grant, Laidlaw incorporates hands-on learning opportunities and principles of science. The combination pulls in all students. "Some kids who may otherwise struggle really gain a lot from this project," says Laidlaw. "They also benefit by learning from each other when they work in teams."

Laidlaw's well-planned class structure maximizes her results. Students meet in a circle, and Laidlaw demonstrates the day's goal. Next, the class breaks into teams to carry out instructions and record progress. Finally, students cross teams and meet in pairs to talk about their individual results.

Laidlaw's efforts and enthusiasm are paying off. Second-grader Ross says, "It makes me think science can be challenging and fun and a little bit easy."

Who's Who in STEM?

Science and Literature Collide with STEM's Rod Henshaw

Rod Henshaw spends his days as the Dean of Cowles Library at Drake University. He has created a top-notch research library that serves the campus and well beyond. And above all of that, Henshaw professes "a lifelong interest in all things science." This interest makes him a valuable member of the SC STEM Hub Advisory Council.

His interest in science threads together practical application and inspiring literature. It all began with his dad, an aeronautics engineer in the US Air Force. "I garnered a strong interest in technology and systems thinking from..."
“Information resources in the sciences are complex and challenging, but they are an essential part of sustaining education and research,” states Henshaw.

A second influence came from reading science fiction. "My school librarian, probably in the second grade, got me into reading Ray Bradbury--his visions of the future engaged me in the intersection of science, culture, and the implications for the future of humankind."

During his library career, Henshaw built collections for instructional and research programs, including the engineering college at Penn State, the development of the Physical Science Library at Emory University, and an exceptionally strong science collection for Drake’s Pharmacy and Health Science programs.

In a world where knowledge doubles every 1-2 years, an ever increasing importance falls upon libraries--the gatekeepers of information.

Henshaw offers this insight, "I continue to tap the literature of science fiction as a source of perspective on where science and engineering have and will take us. As Captain Pecard from Star Trek says on the Bridge of the Enterprise 'Engage!'"

Events

Don't miss these spring events:

- Mar 11 iExplore Festival, Ottumwa
- Mar 19-21 Professional Grant Writing Workshop, U of I
- Mar 28 Statewide STEM Conference, Des Moines
- April 1 iExplore Festival, Pella
- April 12 SCI Girls Coffee and Careers, Des Moines
- April 18-19 Blank Park Zoo--Water Wonders, Des Moines
- April 22 America’s Top Scientist--Grades 5-8, Online
- April 24-25 Impact After School Conference, Johnston
- April 24-25 Environmental Issues Instruction, Mt. Vernon
- May 2 Deadline for LEA Scale-Up Applications, Online

Spread the word about STEM EVENTS in your community!
Would you like your class or community featured in this newsletter? If so, please email Sarah Derry at scstemhub@drake.edu

Visit the South Central STEM Calendar

To submit your STEM event, click here!

Register now!

Professional Grant Writing Workshop

DATE: March 19-21, 2014
TIME: 8:30 am-4:30 pm
LOCATION: University of Iowa
           Iowa City, Iowa

This intensive three-day grant proposal workshop is geared for:
1) those who wish to strengthen their grant writing skills and
2) beginners who wish to acquire master the techniques of preparing, writing and winning proposals from various funding agencies.

To learn more, click HERE!