Ottumwa's iExplore Festival

Over 20 organizations hosted hands-on STEM activities at the festival. "I'm here to share my enjoyment of science," said Gavin Warnock or Warnock Arts. "And to show that science can be beautiful."

Over 300 presenters and attendees flood
Ottumwa's i-Explore Festival

Where can you learn how to create a microscope out of your iPhone or see germs living on your hands? Ottumwa’s iExplore Festival! Sponsored by the SC STEM Hub of the Iowa Governor’s STEM Advisory Council, Indian Hills Community College hosted the event on March 11 from 5:00-7:00 pm.

Festival attendees came from all over south-central Iowa. Stephanie Lukavsky, a Sigourney teacher, brought a bus load of 6th, 7th and 8th graders. "This event

Apply Now!
2014-15 Scale-Ups

The following programs were selected as scale-ups for the 2014-15 school year. Any educator, from Scout groups to school districts may apply for these grants.

The DEADLINE is MAY 2, 2014!

1. A World in Motion
2. CASE
3. Defined STEM
4. Engineering is Elementary
5. FIRST Tech Challenge
6. HyperStream
7. KidWind Renewable Energy
In this tug-of-war, students learn the properties of rubber.

Presenters included college professors, post-secondary students, and high school groups. Kim Mitchell, Centerville High School’s FBLA adviser, brought their award-winning robotics team to demonstrate some of their HyperStream activities. "My kids get to show off what they’re doing with green screen technology. It’s so good for the program when younger students see older students participating in STEM activities."

Pella’s Central College hosts the next iExplore Festival. Click HERE for more information and registration!

STEM Happens

As part of HyperStream’s service project, the group hosted a metro-area technology conference, complete with keynotes and breakout sessions. Anna Shapiro helped with the event, "A lot of people seemed to really like the conference. It encouraged students to take charge of their own learning."

Waukee High School’s STEM Champion

Michelle Hill

Michelle Hill's secrets to success might be her gift of organization and encouragement of student-leadership. With over 60 participants in Waukee High
Hill presents the challenges of the day before student leaders take over. "This room has become a workplace for anyone looking into their technology interest," says Hill.

School's award-winning Hyperstream program, Hill's door is always open for work time and guidance.

"The students come up with incredible ideas," says Hill. "You just can't do these types of projects in the classroom. To see students produce work that's beneficial and useful is just invaluable to their future."

Each Thursday, students work on multimedia projects, community service, cyber defense and gaming. SC STEM Hub grant money was used to purchase equipment.

Sophomore Hannah Hoth says her favorite part is using her creativity and learning new programs. "I want to be a graphic designer when I grow up, so this is good experience."

Hill also credits much of the team's success to their dedicated community mentor. John Deere's Matt Poush has volunteered for the last seven years and coordinates the cyber defense team. "I started with the pilot project and just kept coming," says Poush.

"Some after school activities feel like another class," says Junior Jacob Paisley, "but Ms. Hill encourages us to solve our own problems."

Sophomore Hannah Hoth says her favorite part is using her creativity and learning new programs. "I want to be a graphic designer when I grow up, so this is good experience."

"It's nice to have Matt around," says John Jago, sophomore. "He's experienced in the field, knows what he's talking about and explains it well." Junior Emma Hester adds, "And he brings us Sour Patch Kids."

Gaming students work almost completely on their own. Lead by two juniors, the team learns by teaching each other, trial-and-error and Googling questions.

Junior Jacob Paisley says, "I like that we're sort of on our own. Ms. Hill has created a great environment. We make our own successes here."

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

Please take a moment to complete these 3 Scale-Up Monitoring activities

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 you 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 that link as well.

Need help? Please email Sarah Derry at scstemhub@drake.edu.

When a moment molds a mind...
Volunteer for STEM!
"This class is challenging sometimes," says Regan, 7th grader. "We run into some problems. We try to figure them out, but sometimes we have to ask Mr. Hill."

Donovan Hill challenges TAG students

In Donovan Hill's classroom, it's cool to be smart. He works with Bondurant-Farrar's 7th/8th grade talented and gifted students. Hill constantly seeks new hands-on challenges for his students.

"I think hands-on projects are awesome," says Jenna, 7th grade. "They're easier to understand, and it's so much better to be active than to just sit and listen."

Some might remember a tv show called MacGyver, in which the hero used everyday science to save the day. Hill has taken that concept and applied it to a term he calls his classroom MacGyver Challenges. "Everyday is a challenge, and that's good," says Joseph, 8th grader.

This year, Hill received an SC STEM Hub grant for a fuel cell car project from A World in Motion. The unit includes discussions on electricity, friction and molecule separation. Hill also brought in a mentor to talk about the engineering process. With a partner, students are given a fuel cell car kit to construct and comprehend.

"I feel like a lot of people could put this together," says 8th grader Cassie, "but I'm not sure

STEM needs you!

Whether you have one evening a year or one hour a week, you can be a STEM volunteer.

Visit STEM's calendar or 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.

Register now!
they could understand the technology that makes it work." That's the connection Hill hopes to make in his classroom.

Hill's influence reaches past the TAG program. "Mr. Hill helps me look through high school classes and make good choices," says 8th grader Carson. "He goes above and beyond for all of us."

A preschool force of nature
Norwalk's Leah Cole

Using a box of K'Nex, A World in Motion's curriculum and directions for a toy swing set, Leah Cole teaches four-year-olds the concept of force.

"All of the kids really enjoy this project," says Cole. "They respond really well, even though they're at different developmental levels."

Cole, a preschool educator at Norwalk's Oviatt Elementary School, received one of this year's SC STEM Hub grants. Cole has a talent for taking complicated scientific terms and presenting them in a way her students understand and model. At the end of the lesson many could define and apply the concept of force to their swing set activity and a past activity they did with a toy slide. In addition, they record results in a simplified lab report.

"They're starting to understand force and some other science concepts," notes Cole. "Others are really doing well with their writing skills by filling out the lab sheet."

Events

Don't miss these spring events:

3rd Annual Iowa Statewide STEM Conference

DATE: March 28, 2014
TIME: 8:45 am-4:30 pm
LOCATION: Community Choice Crec Union Convention Centre
Iowa Events Center complex
ADDRESS: 833 5th Avenue
Des Moines, Iowa

To view the whole agenda, click HERE!

To register, click HERE!

Join the Governor's STEM Advisory Council for the Third Annual Iowa Statewide STEM Conference on March 28 in Des Moines, Iowa.

A profile of the Governor's STEM Advisory Council programs and setting course for the future of STEM in Iowa will be the key components of the day agenda. Iowa's own Ben Milne, founder of Dwolla will keynote.

Educators, business leaders, school administrators, parents, active learning community partners, policy makers and other interested parties are all welcome to join in the conversation about STEM. Registration is free and open to the public. Further information regarding directions, parking, lodging, etc. can be found on the registration site above. Hope to see you there!

Spread the word about STEM EVENTS in your community!
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

Would you like your class or community featured in this newsletter? If so, please email Sarah Derry (pictured above) at scstemhub@drake.edu

Visit the South Central STEM Calendar

To submit your STEM event, click here!

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