

November 2019

Fall Festival Overview



In This Issue...

- STEM BEST Mini-Grant Guidelines
- Bondurant-Farrar and West Des Moines Schools Awarded STEM BEST
- 2020-21 STEM BEST Planning Guide
- Math Scale-Ups Awarded
- 2020-21 Scale-Up Timeline
- Register for the STEM Reboot Workshop
- DMACC STEM Fest Thank-Yous!
- STEM Innovation Fund's ICEC Game Jam
- Perry CSI Award & Dec. 9-15 Code Challenge

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Calendar: Calendar of Events

Hashtag: #STEMinYourWorld



New! BEST Mini-Grants Due November 30

[Click for STEM BEST Mini-Grant Form](#)

The Governor's STEM Advisory Council is pleased to offer a mini-grant opportunity to all **previously awarded STEM BEST Program** recipients who are in good standing by the terms of the STEM BEST Program award agreement.

These mini-grant applications must be submitted by Iowa public and non-public school districts and buildings serving students in grades PK-12. Grant funding requests may be made for up to \$10,000 with no cost-share requirement. Proposal narratives must strictly adhere to word count limits stated in components 1 through 5 of the application.

Frequently Asked Questions:

I would like to start a new STEM BEST program. Am I eligible?

- Only previously awarded STEM BEST programs are eligible to apply for this opportunity. Applications for new STEM BEST programs open February 10th and eligible organizations can apply for up to \$25,000. (See the article below to help you plan.)

What are eligible expenses under this grant?

- Curriculum development time, materials, equipment, professional development or other costs that would enrich or expand the existing STEM BEST program.

How do I submit an application?

- Applications must be completed using the **STEM BEST Mini Grant form**. Questions about the application can be sent to info@iowastem.gov prior to November 27, 2019.

Completed applications must be emailed to info@iowaSTEM.gov by 11:59 p.m. on November 30, 2019.

Need help? If you're a past BEST recipient and need assistance, please email Dr. Sarah Derry at scstemhub@drake.edu. Put "BEST Mini-Grants" in the subject line.

Two SC Region Schools Receive BEST Funds



STEM-BEST

The photos above show BEST in action in the following school districts: Waukee, Albia, Des Moines and Ankeny. Past recipients serve as examples and mentors for districts looking to apply. For contact information of all BEST schools, please visit the state's website: <https://iowastem.gov/STEMBEST>

The STEM BEST (Businesses Engaging Students and Teachers) Award was created by the Iowa Governor's STEM Advisory Council to bring together teachers, students and industry professionals. The goal is to enrich education and grow STEM professions across the state.

The program supports school-business partnerships that allow teachers and industry professionals to work side-by-side on curriculum and projects. It strives to give students workplace experience and an understanding of the opportunities and needed skills for careers in STEM fields.

Congratulations to the STEM B.E.S.T. awardees in the South Central Region!

Bondurant-Farrar Community School District

Bondurant-Farrar Community School District will provide students with work-based learning experiences by partnering with local businesses. Students will share projects with business representatives, participate in mock interviews, learn about local career fields and receive mentoring for specific extra-curricular groups.

Contact: Donovan Hill at hilld@bfschools.org

West Des Moines Community School District

West Des Moines Community School District plans to increase the skills required for students to fill the local, well-paying jobs in advanced manufacturing. Expansion of

their manufacturing lab will provide opportunities for students to build industry-specific skills and the purchase of a Haas Mini Mill-EDU will expand the skill capacity of students in the areas of building mechanical systems and machining.

Contact: Jim Martin at martinja@wdmcs.org

A total of 63 STEM B.E.S.T. partnerships have been established since the program launched in 2014. For more information about the STEM B.E.S.T. Program, visit www.iowaSTEM.gov/STEMBEST.

2020-21 STEM BEST Timeline & Planning



Based on recipients feedback, the timing for STEM BEST applications and awards has changed this year. If you would like to begin or expand a current work-based learning program, this application is for you!

For more information, visit:

<https://iowastem.gov/STEMBEST>.

Students from Newton's FLEDGE Innovator's Program pictured above.

December, 2019

- Gather a community-based team
- Teams could include students, educators, parents, business, post-secondary entities, non-profits, etc.

January, 2020

- Ensure district administration and community support.
- Draft plans for a long-term work-based learning experience that's customized for your community.

February 10, 2020 -- BEST Application Opens

- Districts may apply for funds for an exploratory year, implementation plan, or expansion idea.
- Reach out to past BEST schools and your Hub Manager.
- Write to the rubric.

May 15, 2020 -- BEST Application Closes

- Look for informational webinars and in-person gatherings before this deadline.
- 11:59 PM deadline.

July, 2020 -- BEST Awardees Announced

- Schools awarded the \$25,000 in funds will need to commit equal in matching funds.
- Matching funds may be defined in several ways. Please check out this **PDF** for examples of Cost-Share ideas.

SC Region Awards Math Scale-Ups Awarded



Educators throughout Iowa had an opportunity to apply for three Math Scale-Up Programs in September. The programs included Bootstrap:Data Science, Desmos Middle School Math and Differentiated Math Centers.

On October 31, the South Central Hub awarded 68 regional educators a Math Scale-Up Program. Awards will impact nearly 2,446 students.

Educators will take part in training for the awarded programs, followed by implementation during the remainder of the 2019-2020 academic year.

Odds of receiving an award are good, especially for first-time applicants and schools that fall into state-determined categories of high-need.

Scale-Up Timeline

January 21, 2020

- Application Opens

February 11, 2020

- "Reboot" Workshop

March 2, 2020

- Application Closes

April 7, 2020

- Awards Announced

July 1, 2020 - Fall

- Training Begins

Save the Date: STEM Reboot Workshop

Whether you're new to STEM, a regular Scale-Up applicant, or someone seeking a jump start in curriculum, the STEM Reboot Workshop is for you.

WHEN: February 11, 2020

WHERE: Greater Prairie AEA, Ottumwa, IA

TIME: 8:30-4:30

WHO: Formal and informal educators

CREDIT: TBA

MEALS: Morning pastries & lunch provided

REGISTRATION: Coming in December

With details to be determined after Scale-Ups are announced, you'll not want to miss this engaging workshop. The format includes:

- a large-group overview
- guest speakers
- ideas for integration by teacher and community experts
- hands-on breakouts
- district and classroom reflection
- work time for an action plan
- networking and discussions
- assistance with the Scale-Up application
- opportunity to take a second day of training
- and more!

You'll leave inspired, connected to a network of other STEM educators and ready to apply for Scale-Up. Registration opens soon!

DMACC STEM Fest Heats Up Snowy Night



The Numbers

Thank you to everyone who attended, exhibited and volunteered at the DMACC-Ankeny STEM Festival on October 28. The festival was a great success! Even with the first snow of the season, we had an amazing turnout, with a total of 691 people in

attendance! That breaks down to 204 exhibitors/presenters, 10+ volunteers, 476 Attendees and one DMACC Bear.

Why Festivals Matter

Research shows that kids who have informal, out-of-school STEM experiences starting at an early age are more interested in STEM, more likely to enter a STEM field (which means a good-paying job), and have more academic success. So you never know when the time spent at such an event might spark in a child's curiosity.

Future Events

We hope to see you often in 2020! Visit our website to sign up or read more about each one. <https://scstemhub.drake.edu/festivals/>

January TBA -- IMMAW in Iowa's Educator Day, Iowa Event Center

February 29, 2-4 pm -- STEM Fest @ Iowa Braille Challenge, IA Dept of the Blind

March 26, 5-7 pm -- Lucas County's STEM Festival in Chariton

STEM Innovation Funds Seed ICEC's Game Jam



Besides being an Innovation Fund recipient, ICEC supports Iowa STEM's Externship Program, with a panel of externs and hosts at last year's Winter Workshop pictured above.

A STEM Hub Innovation Grant helped Iowa Conservation Education Coalition (ICEC) put on a Water Quality Game Jam in Spring 2019. Now it's time for Fall 2019's Game Jam!

What is Game Jam?

The goal of Game Jam is to come together and rapidly prototype game designs (online, pervasive, tabletop, or other formats). Games inspire curiosity, creativity, collaboration, optimism, and problem-solving skills. Serious games address real-world challenges, compress time and space, encourage systems thinking, and promote active engagement, making them particularly well suited to conservation education.

How do you play?

Educators form student teams, register and develop a game, then submit a video

overview. A panel of game and science experts will score analog and digital games in two age categories (Grades 3-5 and 6-8).

The theme for this game jam is **Aquatic Ecosystems in Iowa**. We have provided several online resources to provide some background information on Iowa's aquatic ecosystems. Teachers and students have a host of options, so long as the game helps promote understanding of aquatic ecosystems in Iowa.

- Open to students in grades 3-8 (two groups: grades 3-5 and grades 6-8)
- Games can be analog (card games, board games, role playing games) or digital
- Teams will be made up of a maximum of 5 students
- Games should help people better understand aquatic ecosystems in Iowa.
- Register your classroom or afterschool program at <https://bit.ly/2pICwG1>
- **NOTE:** First 20 registrants can receive up to \$50 reimbursement for game-making supplies (receipts for allowable expenses must be submitted by 12/15/19)
- Submit your video (maximum 4 minutes) and game description for judging no later than midnight, February 7, 2020. Registered classrooms will receive a link via email to submit.
- Winning teams will be notified by February 28, 2020.
- 12 teams will be selected to showcase their games in March 2020

Learn more and register at <https://educatorgamejam.org/>

Thanks to Linette Bernard, Project Coordinator for Iowa Conservation Education Coalition, for sharing this article via their newsletter.

Hour of Code Challenge: Week of December 9-15

#CSforIA

Take Iowa's Computer Science Ed Week Challenge!

#CSEdWeek is December 9-15

CAN YOU CODE AT LEAST ONE HOUR?

Across the globe, schools are encouraged to provide students with one hour of code during Computer Science Education Week.

The Iowa Computer Science Leadership Team **CHALLENGES YOU** to provide students and staff with at least **one hour of code** during CSEdWeek!



Invite **Business Partners** to join your classroom

Explore **Resources** at <http://bit.ly/CSEdWeek19>



Accept the challenge and share on social media with #CSforIA & #CSEdWeek!

The Governor's STEM Advisory Council and the Iowa Department of Education are partnering with business and industry to elevate computer science education in Iowa through Computer Science is Elementary. Computer Science in Education Week is December 9-15, 2019.

Formal and informal educators are asked to challenge their students by spending one hour during that week working on code. Resources can be found on the Computer Science Education Week website:
<https://csedweek.org/educate>.

Besides Week of Code support, Iowa STEM and the Iowa DOE created a project to transform six high-poverty elementary schools into models of innovative computer science instruction. The goal is to maximize opportunities for students and a statewide network of computer science expertise.

Perry Elementary in the Perry Community School District is the South Central Region's awardee. The school will receive \$50,000 in a planning grant that will be implemented no later than the 2020-21 school year. For a complete list of awarded school, please visit the Iowa STEM website:
<https://iowastem.gov/cselementary>.

Thanks to the following industries for their generous support that raised \$350,000 to pilot this program: Collins Aerospace as the lead sponsor, Principal Financial Group, MidAmerican Energy, Kemin Industries, Microsoft, Google, ITC Midwest, Alliant Energy, Technology Association of Iowa, Verizon, Paragon IT, AT&T, School Administrators of Iowa, Workiva, Pella Rolscreen Foundation, Merchant Bonding and Bankers Trust.

STEM for All!



EDUCATORS



PARENTS



BUSINESS PROFESSIONALS

**Enrich Your Curriculum:
Professional
Development at the
Science Center of Iowa**

**Find Inspiration at the
Blank Park Zoo:
Conservation Speaker
Series**

**Share Your Profession
and Open the Door for
Others: Exhibit at a
STEM Fest**

Calendar of Events

We'd love to share your STEM-related events here! Email lisa.morlock@drake.edu to have your event included in one or more of our calendars.

February 11

Scale-Up Boot Camp (Registration open soon!)

February 19

STEM Day at the Capitol

February 26

Iowa Braille Challenge STEM Fest

March 26

Lucas County STEAM Fest

For more events and details, please visit our **website calendar**.

If you're hosting STEM events, please send the details our way. We can add them to our calendar and social media. Email **Dr. Sarah Derry** with specifics.



We're seeking exhibitors, volunteers, and attendees for the Lucas County STEAM Festival on March 26.

Click **HERE** to learn more about this exciting opportunity.

Got questions?
Email **Ronda Morrett** at rmorrett@iastate.edu or the **Hub** at lisa.morlock@drake.edu

