

6 Stories 2 Start Back-to-School

GREATNESS[®]
STEMS
FROM IOWANS

Drake
UNIVERSITY
SOUTH CENTRAL IOWA REGION
GOVERNOR'S STEM ADVISORY COUNCIL



Grace is the name of the game these days. The hub is here to support you, no matter what working and learning looks like in your community right now.

We expect that your Scale-Up award implementation looks different this fall compared to what you expected when you applied early last spring. There will be no negative consequences for modifications or decisions made in efforts to create a safer learning environment.

Thank you to those who have reached out and invited us to be a part of your pandemic pivot. We've partnered with you to move festivals to a virtual format, shared Scale-Up awards with childcare programs for kids of essential workers, and created videos, activities, and book lists to support families with at-home learning.

Please let us know how you're doing. Email, call, tweet, or tag the hub to share your STEM successes or trouble shoot challenges.

Physically distant, but socially connected,
Sarah and Lisa

Contact Information:



SC Regional Manager:

Dr. Sarah Derry

Phone:

515-271-2403

Website:

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

Email:

scstemhub@drake.edu

Address:

SC STEM Hub
Collier-Scripps Hall #314/317
2702 Forest Avenue
Des Moines, IA 50031

Table of Contents



Educators

- Nominate a STEM Teacher
- Scale-Up Training Updates



Parents+Students

- Virtual Resources from State Fair
- Drake Offers New 2-Year College



Industry

- Outreach Pro Shares Fall Tips
- Pella Seeks to Build Business Partners

It Starts with Great Teachers
Nominate One Today



Check out pictures of past awardees: **Kacia Cain** (top left) was the first to be nominated for the SC regional award. She teaches at Winterset High School. **Heather Anderson** (top center) is an outstanding Waukee elementary teacher who was nominated for her emphasis

in engaging elementary STEM. **Dr. Holly Showalter** (top right) coordinates APEX's Medical and Bioscience Research program. **Ronda McCarthy** (lower), last year's winner, celebrates with St. Theresa's learning community. **Matt Eddy** (below) now serves as Iowa's Director of Ag Education.

CLICK HERE to recognize an inspiring STEM teacher!



According to an ING Foundation, 98 percent of those surveyed believe a teacher can **"change the course of a student's life."** In fact, most of us remember a teacher who inspired us in some way. From now until October 9, 2020, you can nominate an outstanding STEM teacher.

For the past seven years, Iowa STEM has partnered with Kemin Industries to present the I.O.W.A. STEM Teacher Awards. One educator in each region will receive \$1500 for their classroom and another \$1500 for personal use. Kemin's generosity makes the monetary award possible, and all nominated educators will be recognized for their passion in motivating students to develop a lifelong interest in science, technology, engineering and mathematics. This is a K-12 award.

"Today's educators plant the seed in preparing young minds for a successful future filled with economic vitality and productive community engagement," said Jeff Weld, executive director of the Iowa Governor's STEM Advisory Council. "We're delighted to highlight some of the best educators in our state."

To nominate a teacher, go to iowastem.gov/teacheraward-application. After being nominated, teachers fill out an application. All information will be forwarded to a panel of judges. Award recipients will be announced in January 2021.

"We are honored to have the opportunity to acknowledge their exceptional work in building an environment where students are passionate about STEM," said Dr. Chris Nelson, president and CEO of Kemin Industries. "Within Kemin, we see firsthand the importance of STEM in today's workforce and appreciate the efforts to further ignite excitement in schools."

This is the perfect year to acknowledge an outstanding teacher for their work in STEM. Please take a moment to **nominate someone today!**

VEX Builds Community with Robotics Training Class



Above: VEX professional development training in virtual training mode. Below: A hands-on programmable VEX IQ Challenge Kit.



There are two new VEX Scale-Up programs with an emphasis on engineering, technology and robotics. Both out-of and in-school educators could apply, and curriculum can be used as part of a classroom or after-school program.

VEX IQ Challenge is designed for grades 4-8. It provides an introduction into programming and engineering via a snap-together robot. Participate in a contest or complete it for a class.

VEX V5 serves grades 9-12. It provides both an introductory and advanced look at programming and engineering--all done with a similar hands-on robotics system.

For more information: <https://www.roboticseducation.org>

Email the Hub if you need STEM resources or have questions about your Scale-Up award.

Pella's CAP Captures STEM

BEST Award



Congratulations to Pella Community School District in the South Central Region for receiving one of the 12 new Iowa STEM BEST Programs. A total of 75 new and expanded STEM BEST Programs have been launched or enhanced since 2014, involving more than 8,500 students across the state.

Past South Central STEM BEST recipients serve as models and mentors for schools seeking to create their own program. Each district has a contact person who is available for questions. Regional awardees include:

- Albia
- Ankeny
- Bondurant-Farrar
- Chariton
- Des Moines Hoover
- Newton
- Ottumwa
- Pella
- St. Theresa's in Des Moines
- Waukee APEX
- West Des Moines

Bring STEM BEST to Your District

If you have a great idea that expands your school's curriculum to offer community-based learning opportunities, then BEST is for you. Iowa STEM can provide you with funding, state-wide models, industry and education experts, one-on-one planning help, and more!

Where should you start:

1. Check out Iowa STEM BEST's landing page. It features programming ideas, school contact information, and industry advice.
<https://iowastem.gov/STEMBEST>
2. If you have specific questions, please email **Dr. Sarah Derry**.

STEM Words of Wisdom: Pargmann Offers Optimism



Amber Pargmann often volunteers for regional and state-wide events. She's pictured above hosting a John Deere Ottumwa Works table at the 2019 Centerville STEM Festival.

Working mom, professional engineer, community outreach volunteer...

Like so many STEM enthusiasts, Amber Pargmann juggles many roles each day. We caught up with her to ask how she's handling work, the pandemic, virtual learning, and life in general. Her perspective combines several lenses, which is why we asked her for a few words of wisdom.

ON OUTREACH:

Pargmann: "Keeping things short and snazzy seem to work the best. It keeps kids engaged without boring them. (My own attention span for online videos is not very long these days!) Break content into smaller chunks for more effective learning."

FOR TEACHERS:

Pargmann: "Feel free to lean on industry to help with curriculum needs. If you need someone to virtually stop in and share how something is used in the real-world, or even lead some exercises, please reach out. It should always be a team effort, but in these times especially!"

IN THE VIRTUAL WORLD:

Pargmann: "Allow for short breaks and build those into the day, especially if it is all virtual learning. This will help with concentration/focus, plus keeps the kids active. As I'm 100% virtual for work, I can tell you that I do NOT do that enough – sometimes I'm in meetings straight from 7:00 – 5:00. It definitely catches up with a person and will be 100x worse for children!"

AS A PARENT:

Pargmann: "Ask what your child is learning/learned that day and find ways to incorporate it into the day or demonstrate how it's used in everyday life."

LIFE-LONG LEARNING:

Pargmann: "Look at the bright side: This is preparing your child for later in life – my job consists of many virtual meetings with a global team (even prior to COVID), and students will be well-prepared for such things after this!":

ALL-CALL:

The Hub is seeking tips and stories related to Iowa STEM education and the virtual format. If you have ideas on how to learn, work, teach, host a Scale-Up, or do outreach in this realm, please **email the Hub**. We'd love to hear from you!

Amber Pargmann is an Engineer and Global Program Manager at John Deere Ottumwa Works. She's also a South Central Regional Board Member and all-around optimist. If you're an educator with a STEM question, she can be reached at pargmannamberr@johndeere.com.

STEM @ the Fair Creates At-Home, Anytime Resources



Above: Several South Central Regional STEM enthusiasts created videos used during STEM Day @ the Fair. Thank you to NASA Ambassador Dan Hoy, John Deere Engineer Amber Pargmann, and STEM Teacher Award Winner Ronda McCarthy.

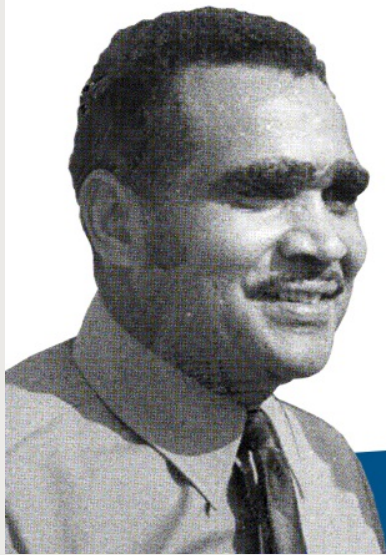
To protect the million-plus people who attend, this year's Iowa State Fair went virtual. Each day featured a theme with sponsors, activities, photos, videos or contests. Officials declared August 23 STEM Day @ the Fair.

While we missed seeing you, there is one major benefit to this virtual event-- anyone can participate at any time. Whether you're a teacher seeking content ideas or a parent-student combo looking for a challenge, there's something for everyone. Topics include:

- Pancake engineering
- Surface tension
- Space farming
- Growth experiments
- Straw-powered rocket/rocket racer
- Outerspace crater impact

A list of materials needed for each activity is available. All videos and materials for STEM activities can be found on the STEM Council website at <https://iowastem.gov/STEM-Day-Fair>.

New Drake College Offers 2-year Degrees



John Dee Bright College



On September 1, Drake University announced the founding of the John Dee Bright College. The program will offer two-year associate's degrees in the integrated arts, sciences, and humanities, as well as in business, organization, and professional studies. Students can enroll in the fall 2021 semester.

"The John Dee Bright College will be a gateway for many more students to access higher education," said Dr. Sue Mattison, Drake Provost and past member of the Governor's STEM Advisory Council. "It will bring a welcome diversity of voices to many of the STEM fields."

Learning Structure

Students who enroll will take classes as part of a learning cohort that will remain together over the two-year span. Instructors will also serve as mentors and advisors to their students.

Financing a Degree

With annual John Dee Bright College tuition at \$18,500, Drake University will work with students and families to leverage state and federal grants along with financial aid. The goal is to make the experience accessible to anyone. Students may continue at Drake or any other four-year school.

Who is John Dee Bright?

A athletic, civic and professional groundbreaker, Bright graduated from Drake University in 1952. After being unfairly targeted with a vicious hit on the field because he was black, conference officials refused to punish Oklahoma A&M, the offending team. Drake University withdrew from the Missouri Valley Conference to show support for Bright. He was later drafted as the first black player for the Philadelphia Eagles. Facing racist threats, he took his talents to the Canadian League.

After an accomplished career in football, Bright settled in Canada and became a school teacher, coach, and principal. Upon his death in 1983, the school where he served in Edmonton was named after him. In 2006, Drake named its football field the Johnny Bright Stadium. Integrity and perserverence have become Bright's legacy.

Need More Info?

For more information, please **contact Dr. Craig Owens**, English Professor and John Dee Bright College Dean.

Seeking STEM Program Providers to Scale for Iowa



Eligible applicants include STEM programs that serve PreK-12 students in or out of school with capacity to deliver professional development/training materials in Iowa.

What is the Iowa STEM Scale-Up Program?

The Iowa Governor's STEM Advisory Council selects some of the state and nation's high-quality programs and offers their professional development/training and materials to Iowa educators through the STEM Scale-Up Program. Each year, the STEM Council equips thousands of educators with STEM programs that inspire nearly **100,000** Iowa youth.

Strategic Priority Topical Fields

Below is a list of strategic priority topical field for scaling in Iowa. Proposals for other topical fields will also be considered.

- Computational thinking (elementary, middle or high school levels)
- Early learning (PreK-3) STEM
- Agricultural science (elementary, middle or high school levels)
- Ecology and energy education (elementary, middle or high school levels)
- Mathematics, especially applied and contextual to students' lives (elementary, middle or high school levels)
- STEM and Arts integration (elementary, middle or high school levels)
- Transdisciplinary (integrated) S-T-E-M (elementary, middle or high school levels)
- STEM careers (especially with local context)
- Digital/virtual delivery modes of all of the above

How to apply to be a STEM Scale-Up Program provider:

If you are interested in providing STEM programming in Iowa as part of the STEM Scale-Up Program, please visit iowastem.gov/scaleup-provider-application.

The Iowa Governor's STEM Advisory Council is Iowa's edu-nomic development initiative to invigorate the PreK-12 talent pipeline toward STEM careers.

LEARN MORE AT www.iowaSTEM.gov/Scale-Up

Program Providers: CLICK HERE to Register for an Informational Webinar

Great STEM Programs = Great Student Foundations

If you are a STEM program provider with a product proven and ready to scale for the state of Iowa, please consider applying to be one of Iowa STEM's K-12 options.

To make the application process smooth and simple, STEM program providers are invited to **REGISTER for an informational webinar**. The webinar will be live Friday, September 11th at 12pm CST. A recording will be posted **here**.

If you have questions or need more information, please **contact Dr. Sarah Derry**.

Calendar of Events

Sept. 8 - South Central Region Board Mtg
Sept. 11 - Provider RFP Webinar
Oct. 5 - Scale-Up Provider Proposals Due

If you have a STEM-related class, celebration, tribute, or event, please **email us** so we can share via social media and/or

Need help?
Our Board is here to serve!

- Bridgette Andrews
- Creighton Cox
- Katrina Cummings
- Carla Eysink
- Sherry Ford
- Nadilia Gomez
- Mauree Haage*
- Jonathan Holmen

our event calendar.

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



- Ronda McCarthy
- Alison Mohr*
- Joe Murphy
- Amber Pargmann
- Laura Williams

** = board co-chairs*

