

August 2019

# SC STEM Hub Newsletter

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STEMS  
FROM IOWANS

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



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Calendar: Calendar of Events

Hashtag: #STEMinYourWorld



## Apply for Special Math Scale-Up Materials & Training



*Above: Photos feature students engaged in hands-on STEM experiences.*

To support work in bringing quality STEM learning opportunities to Iowa youth, we offer the STEM Scale-Up Program of the Iowa Governor's STEM Advisory Council. For fiscal year 2020 (July 1, 2019 to June 30, 2020) a pool of funds are available specifically to scale mathematics education program(s) proven to increase interest and achievement among K-12 students across Iowa.

Thanks to the additional investment during the last legislative session, three exemplary mathematics programs are available to be implemented throughout Iowa

during the 2019-2020 academic year. *The Scale-Up Mathematics application is now open.*

## PROGRAMMING:

Three STEM Scale-Up Programs were selected after completing a rigorous review process, including:

### Bootstrap: Data Science

**Description:** Integrates math and computer science through asking questions of data. Students develop questions that interest them and learn how to analyze data critically to make meaning from the data. The curriculum is flexibly designed for inclusion within courses such as math, computer science, business, and social studies.

**Grade Level:** 8-12

**For Settings:** In school

### Desmos Middle School Math

**Description:** A digital upgrade of the widely-adopted and highly-rated middle school math curriculum authored by Illustrative Mathematics. Desmos has added to IM's curriculum a) engaging game-like feedback, b) a powerful activity dashboard that helps teachers respond to student learning, c) and a continuous professional development model supporting teachers throughout the year.

**Grade Level:** 8

**For Settings:** In school

**Contact:** Dan Meyer, [dan@desmos.com](mailto:dan@desmos.com)

**For more information:** [bit.ly/desmos-iowa-sample](http://bit.ly/desmos-iowa-sample)

### Differentiated Math Centers

**Description:** An easy-to-manage resource that provides 3 levels of instruction tied to the same Standard of Learning. Each game or activity is standards-aligned, hands-on and complete with formative assessment writing prompt and skills practice.

**Grade Level:** K-5

**For Settings:** In school

**For More Information:** <https://www.hand2mind.com/Brands/Differentiated-Math-Centers>

## DEADLINE:

The application period for the STEM Scale-Up Program mathematics menu closes on **October 1, 2019** and award recipients will be announced in November. Training for each of the programs will be held after awardees are notified.

## WEBINAR:

Join us for an Informational Webinar: Tuesday, Sept. 10, 2019, 04:00 PM

Join URL: <https://uni.zoom.us/j/667085773>

## COMMON QUESTIONS:

Who can apply?

Educators from in-school and out-of-school settings are encouraged to apply.

***What will I receive through the Math Scale-Up award?***

Each program provides professional development and materials needed to implement the provided curriculum.

***What are the expectations of awarded educators?***

All awarded educators are expected to complete the professional development requirements for the programs. Once the program has been implemented, all awarded educators will be required to complete an educator survey and student participant list.

For information regarding the application process or the programs, contact the NC STEM Regional Manager Kelly Bergman, [kbergman@iastate.edu](mailto:kbergman@iastate.edu) or 515-294-0645.

**APPLICATIONS ACCEPTED until October 1, 2019**

*For additional information about STEM Scale-Up Program mathematics menu and to apply, please visit [www.iowastem.gov/scale-up-application](http://www.iowastem.gov/scale-up-application).*

## Taylor-Frazier + UPS Bring Multicultural Resources to Hub



*Above: Michelle Taylor-Frazier, holding the check, delivers multicultural STEM programming around the world. Below: Taylor-Frazier accepts a check from the UPS Foundation via Human Resources Manager Mike Arndt.*

Congratulations

Click to Reserve



to Michelle Taylor-Frazier, Founder & Executive Director of Multicultural Educational Programs, Inc. in Des Moines. On August 29, the UPS Foundation awarded her a check for \$10,000 to be used for Multicultural STEM Education.

Iowa educators will directly benefit from Taylor-Frazier's efforts and UPS's generosity, as part of the grant allows for the SC STEM Hub's check-out library to lend materials through Iowa's STEM Initiative. Additional curriculum kits will be awarded to schools in Arizona, St. Louis, Atlanta, and Liberia. Each kit contains hands-on activities and demonstrations that highlight diversity in all areas of STEM. "It's a wonderful way to engage students in learning," said Taylor-Frazier. "And it's free to those educators."

Taylor-Frazier's partnership with UPS goes much deeper than this donation. "We got involved with Michelle six or seven years ago through volunteering," said Mike Arndt, Human Resources Manager for the Des Moines-area UPS. "We were working with 11 year-olds. Now, a few years later, some of those kids work here at UPS."

That's exactly what Taylor-Frazier hoped would happen through her community partnerships. "The children we work with wouldn't have a chance to experience all of these STEM opportunities without volunteers and donations," said Taylor-Frazier. For the past 20 years, her non-profit organization has specialized in multicultural STEM education. She has a space in Park Fair Mall where students come for year-round programming.

Thanks to non-profit, industry, and state efforts, we hope all of Iowa's students benefit in the area of STEM, equity, and beyond. "It's pretty easy to convince people to volunteer," added Arndt, "especially when they know it will benefit kids."

or Learn More  
about the Hub  
Check-out

The SC STEM Region has a variety of resources materials available for checkout to formal and informal organizations.

Materials include:

- A World in Motion
- Engineering is Elementary
- KidWind
- Math Madness
- Pint Size Science
- Ramps & Pathways
- and More!

Coming soon: Michelle Taylor-Frazier's Multicultural Educational Programs STEM kit!

You can also access kits in the six-Hub network from across the state.

Check-out is first-come, first-serve. You'll receive a confirmation if the kit is available.

To learn how, see a complete list of kits, and request items, please visit our website:

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

# STEM BEST Applications Due



*Left: STEM BEST partners DMU and Central Campus host a neuroscience teacher professional development event. Right: Hoover High School, the first school in the SC region to win a BEST award, connects students to businesses looking for innovative and research opportunities.*

## **APPLICATIONS DUE: September 13, 2019, at 5:00 p.m.**

The goal of STEM BEST® Program is to unite educators and employers to expand the learning continuum from school to careers. The STEM Council has designated a portion of the state legislative funding to support the establishment of Iowa STEM BEST® Program models, preferably evenly distributed across each of **Iowa's six STEM regions**. Successful applicants will become an Iowa STEM BEST® Program model of the Iowa Governor's STEM Advisory Council.

## **SEEKING REVIEWERS:**

We rely on volunteers to review all of our programs. Currently, we're seeking reviewers for the STEM BEST Program. In addition, you can sign-up to review upcoming Scale-Up programs or/or STEM teacher nominations. To volunteer, please visit: <https://tinyurl.com/y4eahfnz>

For more information, please visit: <https://www.iowastem.gov/scale-up-application>

# Recognize Outstanding Iowa STEM Teachers



*SC Region's Outstanding I.O.W.A. STEM Teacher recipients include (above): Kacia Cain, Holly Showalter, Heather Anderson, Ryan Lensing, and Matthew Eddy. Thanks to all of the awesome STEM teachers in our region!*

**Q: Do you know a STEM teacher who goes above and beyond?**

**A: Nominate her or him for a 2020 I.O.W.A. STEM Teacher Award.**

Do you know someone whose passion for science, technology, engineering or math has inspired students in the classroom and potentially to pursue future careers in STEM? It's time to recognize their hard work. Nominations are now open for the 2020 I.O.W.A. STEM Teacher Award sponsored by Kemin Industries. This award celebrates teachers whose leadership and dedication increases student interest in STEM.

One teacher from each of the six STEM regions will receive a \$1,500 award for their classroom, along with an additional \$1,500 for personal use. Deadline for nominations is Friday, October 4. Recipients will be announced January 2020.

Nominate a STEM teacher today at <https://stemaward.smapply.io>.

## Register Now! DMACC- Ankeny/SC Regional STEM Fest

### Register NOW: DMACC- Ankeny/SC STEM Hub Festival!

WHEN: Monday October 28, 2019

TIME: 6-8 pm

SET-UP: 5 pm (organizers onsite from 1 p.m. on)

WHERE: FFA Enrichment Center, DMACC (1055 SW Prairie Trail Pkwy, Ankeny, Iowa 50023)

Click **HERE** to register as an **EXHIBITOR**.

- We're happy to help brainstorm activity ideas.

Click **HERE** to register as an **EVENT VOLUNTEER**.

- High school volunteers are often eligible for Silver Cord hours.
- We do have assigned jobs on the sign-up, but note you may be pulled in lots of fun, busy directions.
- Please bring your slip to the festival for us to sign.

Click **HERE** to register to attend the event as an **ATTENDEE**.

- Share the info with your class or school.
- If you register a scout troop or club, just list the adult and total number who will attend with you.



Visit our website for additional info!

## Drake Partners with Cornell for Online Citizen Science Class

Drake is partnering with Cornell Lab of Ornithology to offer an innovative course called *Inspiring Investigations through Citizen Science*. Lindsay Glasner, K-12 Outreach Coordinator, will serve as the instructor. Students receive one graduate credit upon completion.

### OVERVIEW:

Discover how citizen science and student-driven investigations meet Next Generation Science Standards and support student learning

### OUTCOMES:

After completing this course, students will be able to:

- explain the benefits of teaching with citizen science and inquiry;
- identify the science practices developed through citizen science and inquiry;
- describe the complexity of the science process;
- support students in developing their own investigations;
- create an implementation plan for using citizen science and science investigations with students.

For more information or to register for the course, please visit **Drake's Continuing Education and Professional Development Website**.

## Want more STEM?

### Calendar of Events

#### Fall Scale-Up PD

##### **Light and Shadow**

September 27 -- Light and Shadow, Grinnell

October 26 -- Light and Shadow, Bondurant

##### **Making STEM Connections**

September 17 -- Making STEM Connections, Des Moines

##### **Pint Size Science**

September 10 -- Pint Size Science, Des Moines

#### More STEM Deadlines and Opportunities

September 14 -- STEM BEST Applications Due by 5PM

October 1 -- Scale-Up Mathematics Applications Due by 5PM

October 4 -- Kemin I.O.W.A. STEM Teacher Award Nominations Due

October 19 -- Pursuing Victory with Honor Summit, Drake Ray Center

October 28 -- DMACC-Ankeny STEM Fest

January TBD -- I'll Make Me a World Education Day STEM Fest

February 11 -- Summer Scale-Up in February

February 19 -- STEM Day at the Capitol

March 26 -- Chariton STEM 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.

