Math & Comp Sci Update

"There are more sources of information in 2019 than there have ever been in human history. If you're going to be a good consumer of information, you need to know how to tell the difference between sources, why they exist, and what they're trying to tell you."

--Dan Chibnall, Drake STEM Librarian & ILA President
(Attend his workshop at the DMACC STEM Fest!)

Contact Information:
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Calendar: Calendar of Events
Hashtag: #STEMinYourWorld

State Training: Computer Science is Elementary

Above: Perry Community School educators model a Bee-Bot lesson. From the left: Katie Hermann, 1st grade; Ned Menke, Principal; Robert Reinhart, TAG; and Kevin Vidergar, Dir. of Teaching and Learning.. Below: Adriana Johnson, Corporate Social Responsibility, shared the importance of computer science to the future workforce. Collins Aerospace is one of the sponsors of Computer Science is Elementary.

Iowa STEM and the Iowa Department of Education partnered to kick-off the Computer Science is Elementary Fall Institute on September 19. Twelve elementary schools from across Iowa gathered to rethink their schools and technology. The program spans two years, with the first dedicated to planning and the second to implementation.

Who could apply?

To receive the $50,000 award, schools had to fall under the State guidelines for high-poverty. The funds will be used to help transform participating schools into innovative state models of rigorous, engaging computer science instruction. A total of 12 schools secured awards, including Perry Elementary School in our region.

"The Institute provided a launchpad for these schools and their plans," said Wren Hoffman, DOE Computer Science

6 Parent Tips:
Tech Use at Home

A recent American Academy of Pediatrics study found kids ages 8-18 spend an average of 6-8 hours looking at screens.

The Waukee schools recently featured Dr. Amy Shriver, an area pediatrician and early childhood expert. She shared some reminders for sensible media use and school-age kids.

1. **Apply the Grandma Rule**:

Consultant, "arming them with ideas, resources, colleagues across the state, and excitement."

Why start so young?
Studies indicate that middle school students have already ruled out certain STEM-related career paths, like computer science. By nurturing skills and background knowledge at a young age, studies show interest and confidence will increase. Since computer science is a growing, high-paying field, keeping those options available is paramount.

"Computer science education prepares students with skills and knowledge that will benefit them no matter what lies ahead for each of them," said Hoffman. "All students need this type of learning and the opportunities it creates."

What's the new comp sci focus?
Getting more kids to code! Educator/author Brian Aspinall served as the day's keynote. "Everyone is at a different point in learning," he said. "It's okay to be a novice, but it's not okay to stay that way."

That's where Computer Science is Elementary can help. Funds can improve technology hardware, software, and room design, giving all kids tools and challenges well beyond an iPad or smart phone.

For a list of pilot schools, visit the **Iowa STEM website**. If you have questions, email **Wren Hoffman**, DOE Computer Science Consultant or **Mary Trent**, Northwest STEM Hub Region Manager.

Brian Aspinall, above, is an elementary teacher in Canada. HIs books, Code Breaker *and* Block Breaker*, are helping schools*

Don't play, share or say it if you wouldn't show your grandma.
2. **Be a creator** (coding) versus a consumer (most games).
3. **Promote healthy balance.** Screen time should not infringe on time spent on exercise (1 hr/day), sleep (8-12 hrs, depending on age).
4. **At home, create a safe, public place to use screens**. (Not a kid's bedroom)
5. Develop, follow, and routinely revisit a **Family Media Use plan** (see plan from the American Academy of Pediatrics)
6. **Engage in selecting and co-viewing media with your child**, through which your child can learn and be creative. Share experiences with family and community.

For more recommendations and information regarding children's media use,

reform computer science curriculum.

check out this **article** by the American Academy of Pediatrics.

Announcing Three Special Sessions

DMACC-Ankeny STEM Festival

* Monday, October 28, 6-8pm *
* Free, open to the public *

In addition to over 50 hands-on exhibits, the DMACC-Ankeny STEM Fest will feature three incredible workshop sessions.
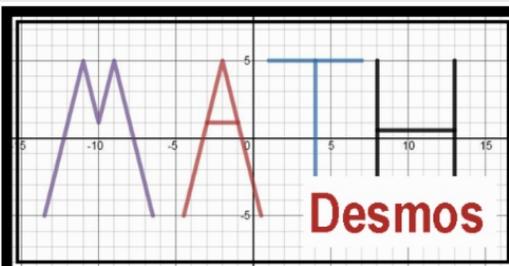
- "The Problem of Fake News: How to Be a Better Information Consumer" by Dan Chibnall, Drake University
- "Eggtastic Failure: Embrace Messy Mistakes to Learn and Grow" by Allie Gardner, The Ray Center
- Coding with Kids (more to come) by Annie Barrows, Innovators Academy

Sign up for theses special sessions upon arrival at the festival. First come, first serve.

All sessions offered twice:
6:30 - 7:00 pm & 7:15 - 7:45 pm

Register HERE!

Fall Scale-Up Applications Due October 1

Three exemplary mathematics programs are open for all informal and formal educators in grades K-12. Receive materials and training. Awards must be implemented throughout Iowa during the 2019-2020 academic year:

Differentiated Math Centers
GRADES: K-5
TARGET: Formal and informal educators
OVERVIEW: hands-on for any learning environment

Desmos Middle School Math
GRADE: 8
TARGET: Formal educators
OVERVIEW: complete online math curriculum

Bootstrap Data Science
GRADES: 8-12
TARGET: Teachers of all subject areas
OVERVIEW: integrate statistics into any classroom

Here's an overview of the timeline.
- Oct. 1 -- Applications due.
- Oct. 31 -- Awardees notified.
- Nov. 1-May 31 -- Implementation period.

If you have questions or need assistance, please email **Dr. Sarah Derry** and put *Math Scale-Up* in the subject line.

Nominate Your Favorite STEM Teacher by October 4

Everyone's got their own superheroes! Meet I.O.W.A. STEM South Central past awardees: Kacia Cain, Holly Showalter, Heather Anderson, Ryan Lentz, and Matt Eddy. (P.S. Those name tags

convert to capes.)

The Iowa STEM Initiative and Kemin Industries award celebrates teachers whose leadership and dedication increases student interest in STEM. Every person nominated will receive a certificate in honor of her/his efforts.

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

Click HERE to nominate a teacher today!

STEM for All!

EDUCATORS

PARENTS

BUSINESS PROFESSIONALS

Apply: Math Scale-Up

Register: IPTV Iowa Science Phenomena Cohort

Inspire: Iowa AgriTech Accelerator Innovations Demo Day & Reception

Visit: DMACC-Ankeny STEM Festival

Nominate: I.O.W.A. STEM Teacher

Explore: DMACC Career Discovery Days

Exhibit: DMACC-Ankney STEM Fest Exhibitor

Exhibit: Lucas County STEM Fest

Host: Iowa STEM Seeks Externships

Calendar of Events

Coming up! Fall Scale-Up PD

Light and Shadow
October 26 -- Light and Shadow, Bondurant

More STEM Deadlines and Opportunities

October 1 -- Scale-Up Mathematics Applications Due

THANK YOU

Volunteers compose the SC STEM Hub's Advisory Board and make our regional STEM world go around!

Look for upcoming articles on our new

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.

board members, designated by an asterisk.*

- Creighton Cox
- Carla Eysink *
- Sherry Ford *
- Breanne Garrett
- Nadilia Gomez
- *Mauree Haage*
- Kari Hanson
- Jonathan Holmen
- Ronda McCarthy
- *Allison Mohr*
- T.J. Myerholz
- Amber Pargmann
- Marshall Payne *
- Laura Williams

Italics = Board Chairs

If you'd like to apply for this or any state board, please click **HERE**.