

TOMORROW STEMS FROM IOWA

GOVERNOR'S STEM ADVISORY COUNCIL

IOWA GOVERNOR'S STEM ADVISORY COUNCIL MEETING

STEM Showcase

Tanya Hunt, STEM BEST Program Coordinator

Tracy Ferguson, Van Meter CSD

Jill Craighton, CAL CSD

The background is a vibrant blue watercolor wash with white speckles and larger white areas, creating a textured, artistic effect. The text is centered and reads:

CAL ELEMENTARY

LATIMER,
IOWA

Reflections on and Horizons for Iowa STEM

Cindy Dietz, State Government Relations, Raytheon

STEM Council Program Updates

STEM for All

Dr. Sara Nelson, Committee Co-Chair

Charge

Develop recommended actions for the Governor's STEM Advisory Council to promote equity in STEM, especially increasing diversity of students in current STEM programs.

Update

- ▶ After input/review, begin implementation of a STEM signing day
 - ▶ Subcommittee has been formed: Pat Barnes and Tom Dodds, Key Leads
 - ▶ Initial goal of one occurring in each STEM region with end goal of one occurring in all 99 Iowa counties
- ▶ Feature STEM for All experts at a series of “mini-summits”
 - ▶ Subcommittee has been formed: Carly Harper and Sarah Derry, Key Leads
 - ▶ Create a “run of show” and list of potential speakers/experts
- ▶ Gather research around and examples of ways to increase accessibility of programming
 - ▶ Subcommittee has been formed: Sara Coleman and Sara Nelson, Key Leads
- ▶ Continue to research best practices and advocate for expanded access to STEM

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dedicated to building a strong STEM education foundation for all Iowans



"I had never seen a scientist like me before."

A young person at a recent STEM event after interactions with a STEM role model.

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STEM For ALL

Working Group Members

Anderson Sainci
Pat Barnes
Sara Nelson
Camille Sloan-Schroeder
Carly Harper
April Pforts
Sarah Derry
Mary Jackson
Bridgette Andrews
Sara Coleman
Leah Rodenberg
Tom Dodds
Jennifer Meier

Thank you for your work!

Please join us!

sdnelson@iastate.edu and/or
carly.harper@ijag.org

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Youth Advisory Board

Casey Wenstrand, SW Regional STEM Manager

Update

- ▶ Virtual Conference
 - ▶ Great event and speakers, although not as well attended as we had hoped.
 - ▶ Fantastic Engagement by participants and presenters
 - ▶ Excellent Feedback was provided to help improve future events
- ▶ Social media: Instagram @iowayouthstem
- ▶ Working to partner with underserved/underrepresented organizations
 - ▶ Members attended the African Youth Summit to see how we can better be involved moving forward, feedback will be provided at the next meeting
 - ▶ We are open to suggestions of those we should reach out to, please send them our way!

Update

► Busy Youth Members-

- The current effort to maintain engagement is holding two meetings a month for 30 minutes each
- Still Working to increase the number of highly engaged youth Board members

► Youth Advisory Board Member numbers have fluctuated but remained steady

South Central	9
Southeast	7
Northeast	4
North Central	3
Northwest	1
Southwest	1

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STEM Scale-Up Program

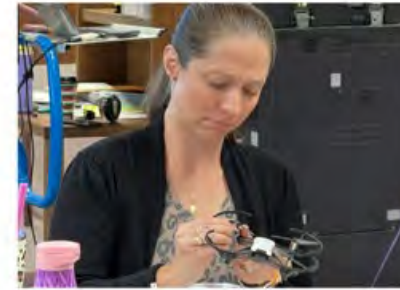
Dr. Sarah Derry, SC Regional STEM Manager

STEM Scale-Up Programs

- ▶ Exemplary STEM programs demonstrating success in increasing student interest and achievement in STEM
- ▶ Available to schools, after school programs and other settings for grades pre-K through 12
- ▶ Professional development required
- ▶ Selection Process:

Individual Review→Team Meetings→Portfolio Review

<https://iowastem.gov/ScaleUp>



2024-2025 STEM Scale-Up Program Menu

By the numbers:

- ▶ 14 Programs
 - ▶ 3 early childhood
 - ▶ 9 elementary
 - ▶ 9 middle school
 - ▶ 7 high school
- ▶ 4 Iowa providers
- ▶ 8 New/6 Returning providers

By domain:

- ▶ Agriculture
- ▶ Computer Science (plugged and unplugged)
- ▶ Career and Technology Education
- ▶ Early Childhood STEM
- ▶ Making
- ▶ Math
- ▶ Phenomena
- ▶ Robotics
- ▶ STEM + Literacy

2024-2025 STEM Scale-Up Program Menu

Program	Grade	Domain
All About Balance (an Iowa program)	PK-2	Early childhood physics
Artificial Intelligence for K-12 Educators (an Iowa program)	K-12	Artificial Intelligence (AI) and Machine Learning (ML).
Blackbird Code	6-12	Coding embedded in math and science.
Derivita Math Program	6-12	Mathematics applications to careers.
Exploring and connecting to Iowa's agriculture – Teacher professional development	2-8	Agriculture connections in school.
FUSE Studio - Innovate	4-12	Maker space blended environment (virtual and actual).
Investigating Everyday Phenomena	K-5	Elementary science hands-on discovery.
Making Innovative STEM Connections (MISC)	Pk-8	Problem solving skills via Making.
Positive Physics, Chemistry, Physical Science, Biology, Environmental Science & Engineering	6-12	Science class enhancement tool.
Robo Wunderkind STEM Program	K-5	Elementary coding and robotics
Spatial Vis: The First Step in Design for Engineering and Technology	6-12	Spatial visualization for Computer Aided Design (CAD) and mathematics.
Storytime STEM-packs	Pk-2	Literacy + STEM
Teachley Math	K-5	Mathematics foundations.
Turing Tumble	3-12	Fundamentals of computing.

Bridging Programs that foster Business+EducationPartnerships



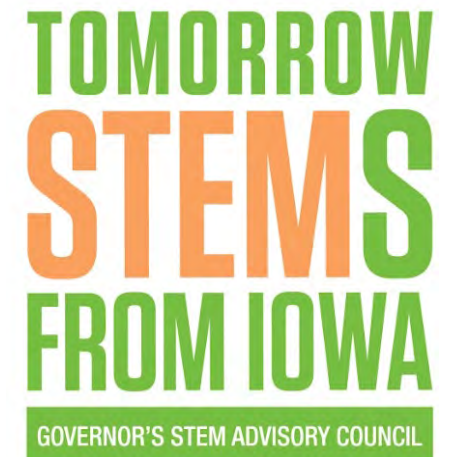
Tanya Hunt
Hunt@IowaSTEM.org



- ▶ CrossPromotion
- ▶ Supports for applicants
- ▶ Connecting educators or administrators with



Ann Gritzner
Gritzner@IowaSTEM.org



STEM BEST Program

Tanya Hunt, STEM BEST Program Coordinator

STEM BEST

(Business Engaging Students and Teachers)

- ▶ 185 STEMBEST® Program Awards since 2014
- ▶ 114 STEMBEST Programs statewide
- ▶ \$40,000 Award with a \$20,000 match with 17-month window for planning and implementation.
- ▶ Platform for intake navigated to [IowaGrants.gov](https://iowastem.org/STEMBEST)

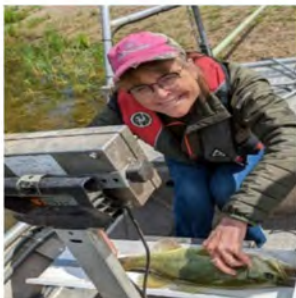
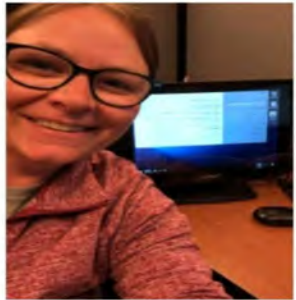
<https://iowastem.org/STEMBEST>



STEM Teacher Externships Program

Ann Gritzner, Externships Program Coordinator

Iowa STEM Teacher Externships



- ▶ Summer experience working side-by-side with knowledgeable and skilled industry employees who help bring the classroom curriculum to life
- ▶ Provide educators with the exposure to answer questions about real-world application
- ▶ Prepare students for careers they may have in the future
- ▶ Summer 2023 82 Externs placed with 67 host
- ▶ Almost 900 experiences since 2009!
- ▶ Recruitment for 2024 is underway.
- ▶ Applications are open for both teachers and hosts.

STEM Festivals

Mary Trent, NW Regional STEM Manager

STEM Festivals

- ▶ Free and open to the public
- ▶ Hands-on STEM challenges
- ▶ Local and state businesses and organizations exhibit
- ▶ Community Colleges and Universities partner
- ▶ Focus on STEM Careers in NW Iowa



Festival Update

► Northwest Region:

- Siouxland Aviation Festival - November 9, 2023
 - Sioux City Mid America Aviation & Transportation Museum & 185th National Guard Air Refueling Wing
 - 200 6-12 Students attended
- Virtual Winter Festival - December 1, 2023
 - Can be used as an in school event or a virtual event for students in grades K-5
 - First 20 Classrooms to register receive Free books and materials
- Planning an E-Sports Festival this Spring for high school students

► South Central Region:

- I'll Make Me A World in Iowa Education Day STEM Festival
 - Friday, February 9th
 - 9a-2p
 - Horizon Event Center, Clive, IA
 - 6-12th graders

Festival Update

► North Central Region:

- ICC STEAMfest - November 2nd - Nearly 30 industry and community partners brought activities for the almost 250 youth who attended.

► Upcoming Festivals:

- November 28th - Ericson Public Library, Boone
- April 6th - Boone Family STEMFestival
- April 17th - North Iowa STEMFestival, Mason City

► Southwest Region:

- AHSTW STEMFestival - October 5th - With 32 industry and community partners brought activities for 225 youth and their families who attended.

► Upcoming Festivals:

- March 21st - Earlham Family STEMFestival- 5:00- 7:00 p.m.
- April 3rd - Graceland STEAMFestival, Lamoni 1:00- 3:00 p.m.

STEM Realignment to Iowa Department of Education

Remarks:

Iowa Department of Education Director McKenzie Snow
and Executive Director Jeff Weld

Announcements & Upcoming Events

Closing Remarks

Council Co-Chairs Governor Reynolds and Diane Young

Thank you!