

TOMORROW STEMS FROM IOWA

GOVERNOR'S STEM ADVISORY COUNCIL

NORTH CENTRAL IOWA STEM REGION

North Central STEM Region November 2024

Summer Externs Head Back to the Classroom

This summer, 7 teachers took part in the Iowa STEM Teacher Externships Program in the North Central STEM region. Their experiences ranged from woods and wetlands to labs and offices, helping to find answers to the age-old student question: "When am I ever going to use this?"

Each month, we will highlight one of those externs. For more information on how you could become a teacher extern or host an extern, please visit:

<https://educate.iowa.gov/iowa-stem/stem-teacher-externships>

Stephanie Hervol

Zoetis

Charles City, IA

Stephanie evaluated some of the training programs and provide feedback on possible refinements to improve training from a teaching and engagement perspective. She also reflected on various ways to increase the school and corporate partnerships and improve community knowledge of Zoetis.

"As high school educator, sharing this and connecting graduating students with this information to guide them in their future is definitely something to help them connect to the real world in their own community."

-Stephanie Hervol, science teacher at Charles City High School



STEM BEST Application Now Open!



Application
Open
October 7 -
December 11!

**TOMORROW
STEMS
FROM IOWA**
GOVERNOR'S STEM ADVISORY COUNCIL

STEM BEST
P R O G R A M



The STEM BEST (Businesses Engaging Students and Teachers) program focuses on teachers and industry professionals working side-by-side to craft curriculum and projects that prepare students for exciting STEM careers in manufacturing, information technology, bioscience (agriculture and medicine), finance and more.

- **Who Can Apply**

- Applications to become a STEM BEST program open on October 7, via the IowaGrants.gov portal. All accredited Iowa public and non-public school districts and buildings serving students in grades K-12, or clusters of schools/districts, are invited.

- **Type of Funding Opportunities**

- School districts and buildings may apply as either a New STEM BEST program or Returning STEM BEST program.
 - The New STEM BEST Program supports school districts that have never previously received STEM BEST funding.
 - The Returning STEM BEST Program supports school districts that have previously been awarded STEM BEST and are proposing significant growth and/or implementation following a planning award.



- **Requirements**

- An applicant is required to provide a 2:1 match. If seeking the full \$40,000, your required cost-share would be \$20,000. The match may be either cash and/or in-kind support and the match may be contributed by the applicant or a community partner. To be eligible as a match, the cash and/or in-kind contribution must be provided during the funding period of the STEM BEST program award.

- **Examples of Fund Use**

- Since 2014, 121 STEM BEST programs have been awarded an opportunity to grow a series of community collaborations involving school+business partnerships.
- Ideas include:
 - Facility upgrades
 - Purchase of industry grade equipment
 - Acquiring additional space
 - Time for program planning with partners
 - Travel needs for exploration
 - Integrating curriculum into existing courses
- **Application and Program Timeline**
 - Starting today, consider programs you'd like to build or expand in your community. Take note of what you hope to accomplish, and make a list of potential community partners. Here are some important dates:
 - **October 7, 2024: Application opens in IowaGrants.gov**
 - December 11, 2024: Application due by 4:59pm
 - December 2024 - January, 2025: Application Review
 - February 2025: Awards Announced
 - February 2025 - May 2026: STEM BEST program planning and implementation

Iowa's Environmental Resources Workshop for Teachers



UNI / University of Northern Iowa
Online & Distance Education

**Iowa's
Environmental
Resources
Workshop**
for Teachers

Spring and Summer 2025

Earn two units of graduate credit and learn about Iowa's environmental resources through an activity-based short course (EARTHSCI 6233 Iowa's Environmental Resources for Teachers) through the University of Northern Iowa. This year's focus: Environmental geology, geochemistry and their importance to Iowa's limestone industry.

The course begins with online content development in the Spring to prepare you for the hands-on workshop visiting various environmental sites and preparing curricular materials in June.

- Develop environmental to geological collections while obtaining a basic proficiency in their identification.
- Focus on the significance of these items in understanding and interpreting Earth's history and the geology of Iowa.
- Learn of the various economic and environmental aspects of Iowa geology.

Network with fellow geology educators

Participate in several exciting, hands-on activities in the field, and meet other Earth Science teachers from across the state. Discuss what's working and what's not in your classrooms and share your tried-and-true methods for teaching about the geology of Iowa.

Application deadline Feb. 20, 2025

Online via Panopto and/or Zoom . . . March 11 & 25; April 8 & 22, 2025

On the UNI campus June 23-26, 2025

APPLY @ online.uni.edu/environmental

STEM Checkout Library



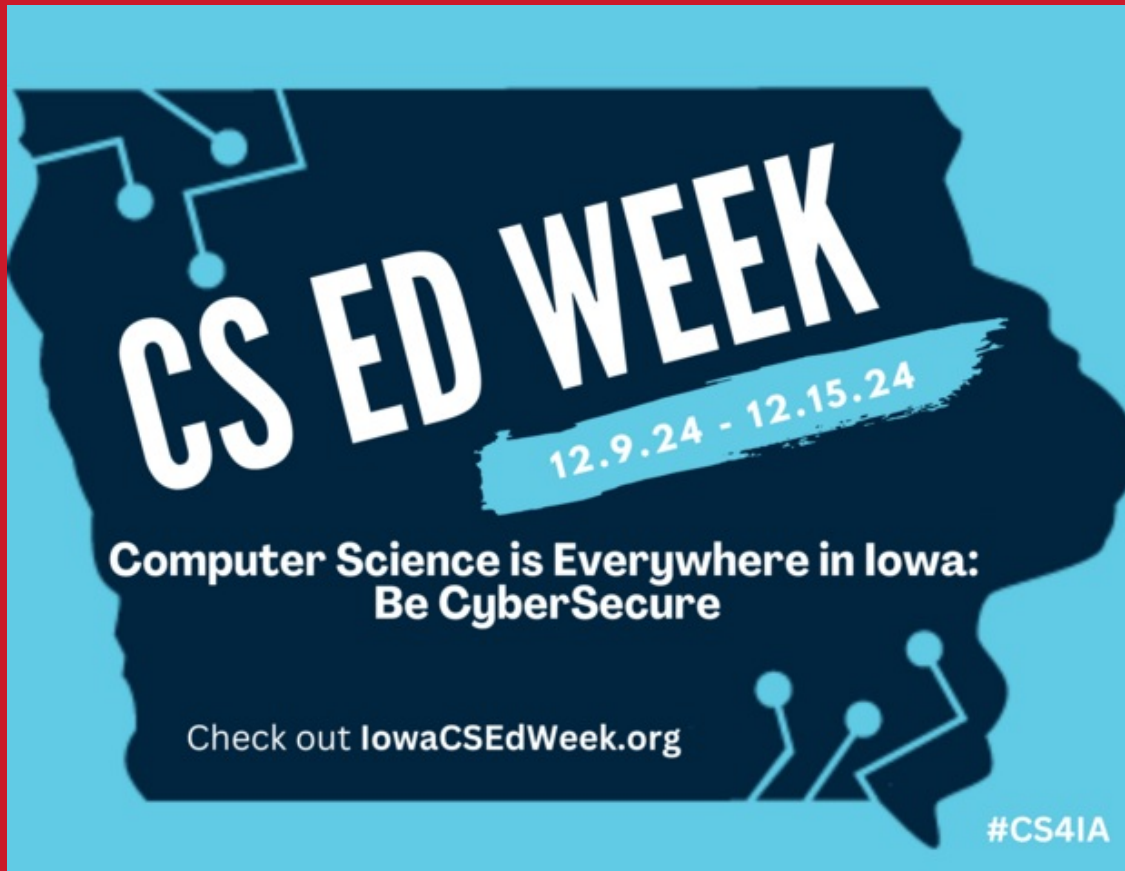
Our STEM checkout library is back up and running for the school year! Make sure to visit the **Check-Out Form** to reserve your STEM kit now. These packs are a great

hands on, creative way for students to learn more about various STEM concepts.

Learn more about available kits here:

Stem Pack Checkout Information

Save the Date for CS ED Week



Computational thinking skills inspire problem solving, innovation and creating – skills that are essential for our future workforce. Computer science opens worlds of opportunity for young Iowans to improve how we work and live. Computer Science Education Week (CSEdWeek) takes place December 9-15, 2024, and is an annual call to action to provide youth with resources to learn more about computer science, explore the opportunities that exist and encourage participation in computer science education. This year's theme is CS is Everywhere in Iowa: Be Cybersecure.

A variety of resources, webinar opportunities and activities are available for anyone interested in learning more about computer science at IowaCSEdWeek.org. These resources can be utilized to set up unique experiences and events and are customizable for a variety of settings, including classrooms, libraries, businesses, at home, among others.

Throughout the week, schools and other education providers in Iowa and all around the world will offer activities and programs to engage students in computer science education. Scheduled activities for the 2024 Iowa Computer Science Education Week include:

December 9

- 9:30 AM - 10:30 AM - **Iowa CS Ed Week Kickoff with Anthony Kava**. Use the **Careers Panel Registration Link** to sign up for this event. Recorded session will be posted after the event.

December 10

- 11:00 AM -Noon - **“Careers in Cybersecurity” Webinar**. Use the **Careers Panel Registration Link** to sign up for this event. Recorded session will be posted after the event.

December 11

- 11:00 AM -Noon - **“Pathways to Cybersecurity Careers” Webinar**. Use the **Pathways Panel Registration Link** to sign up for this event. Recorded session will be posted after the event.

December 12

- 6:30 PM - 7:30 PM - **Iowa CS Family Night**: Students and families will engage in computer science activities. Please use the **Iowa CS Family Night** to sign up. Also visit our **map** to see any in person locations near you. Recorded session will be posted after the event.

December 13

- Nutcracker Ballet + STEM event - **Nutcracker Overview Flyer**. Please use the **registration** link to sign up or take a look at the **STEM+Arts Challenges**.

The following companies and organizations are collaborating to help build awareness and provide various resources, events and activities to integrate high-quality computer science education throughout Iowa’s educational systems.

- Bio::Neos
- Black Hills Information Security
- Check Point
- Cherokee Public Library
- Computer Science Teacher Association (CSTA) Iowa
- Denison Community Schools
- East Union Community Schools
- Fort Madison Community Schools
- Google
- Iowa Area Education Agency
- Iowa Department of Education
- Iowa Governor’s STEM Advisory Council
- MDC Iowa
- NewBoCo K-12 Education
- ProCircular
- Waterloo Career Center

Learn more about CSEdWeek activities by visiting **IowaCSEdWeek.org**. Follow on social media using the hashtag **#CS4IA** to see Computer Science Education Week events happening throughout Iowa.

STEM Challenge Cards

PLAY DOUGH ANIMAL CHALLENGE

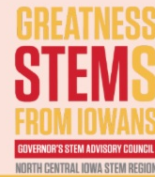
Materials to Gather: Hair conditioner (1/2 cup), Corn Starch(1 cup), Sparkles or food coloring.

Directions:

Place cornstarch in a large bowl. Mix in the hair conditioner with your hands until it becomes smooth and pliable. Add a drop or two of the food coloring, or colored sparkles for variation. Add additional hair conditioner when needed to remain soft.

Animal Challenge: Shape your play dough into various animals. How many can you make? Take a picture or video, and post to the NC STEM Region Facebook page!

***Note - This recipe is not edible! don't eat the play dough!**



In addition to our checkout library, we have STEM Challenge Cards available by request. Each card has an easy to prepare STEM challenge for when you're looking for an activity to either supplement content or for students to do during transitional times in the classroom. In addition to the cards, some materials can be requested as well, though many are found easily at home.

To look at the challenge options and request any, click here:
[STEM Challenge Card Checkout Check-Out Form](#)

Upcoming Events!

- **November 14**
 - NC STEM Advisory Board Meeting
- **December 9**
 - CS Ed Week Kickoff Event
- **December 10**
 - Careers in Cybersecurity Panel
- **December 11**
 - Pathways to Cybersecurity Careers Panel
- **December 12**
 - Iowa's Virtual Family Coding Night

Know of other STEM events in North Central Iowa? Email us at:
ncstem@iastate.edu

Connect with us!

NC Regional Manager:

Mauree Haage

Website: <https://ncstemhub.iastate.edu>

Email: ncstem@iastate.edu

Phone: 515-294-0645

Address:

NC STEM Hub

Extension 4-H Building

1259 Stange Road



North Central STEM Network | Extension 4-H Youth Building Iowa State University 1259
Stange Rd | Ames, IA 50011-1002 US

[Unsubscribe](#) | [Update Profile](#) | [Constant Contact Data Notice](#)



Try email marketing for free today!