



TOMORROW STEMS FROM IOWA

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

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Waterworks Brings Big Ideas to Little Learners



It's always a great morning when you begin by filling someone's bucket—both literally and metaphorically. This month, the SC Hub hosted regional training sessions for Iowa STEM's Waterworks Scale-Up. Hosts began by filling totes for a day of hands-on learning. For the past six years, UNI has scaled some of the most effective early childhood programs. Past projects include Ramps & Pathways and Light & Shadow.

Why Waterworks?

Tara Condon, pictured left, Des Moines teacher and UNI facilitator, has worked with the Iowa Regents' Center for Early Developmental Education since she graduated from the university and knows what works for



teacher professional development. “We have a great learning format and materials. We divide the experience between two days of training. Teachers also engage online through a closed Facebook group, through which they share ideas, get advice, and post challenges.”

When we asked why water, Condon said most teachers are already doing some activities with it because it’s easily accessible and kids are naturally curious. “This program provides another layer to help teachers go deeper into the science of it by using an investigative approach.”

The day’s training was full at 30 teachers, many from Headstart programs around the central part of the state and some from as far away as Atlantic and Knoxville. They’ spent the day with hands-on experimentation and modeling, ensuring they’re ready to use it in the classroom.



Hands-on

Mary Vaske, site host and Drake Headstart Coordinator, wrote the application that brought these materials to her teachers. They have a high interest in hands-on exploration. “This

program will help teachers build a library of materials,” said Vaske. “Our teachers are already doing water exploration, and this will make that study more intentional and substantive. It’s also full of STEM and social-emotional skill building opportunities.”

Vaske's goal is to ensure her students are ready for public schools. This unit embeds key core curriculum elements, including math, writing, graphing, vocabulary development, and social interaction between adults and peers. “This type of training also helps build teachers’ STEM skills and confidence,” said Vaske. In turn, teachers share their skills and confidence with students.

Pictured above, left to right, Drake Headstart Leadership: Sue Abel, Liz Young, Mary Vaske, Kim Puetz.

Connections

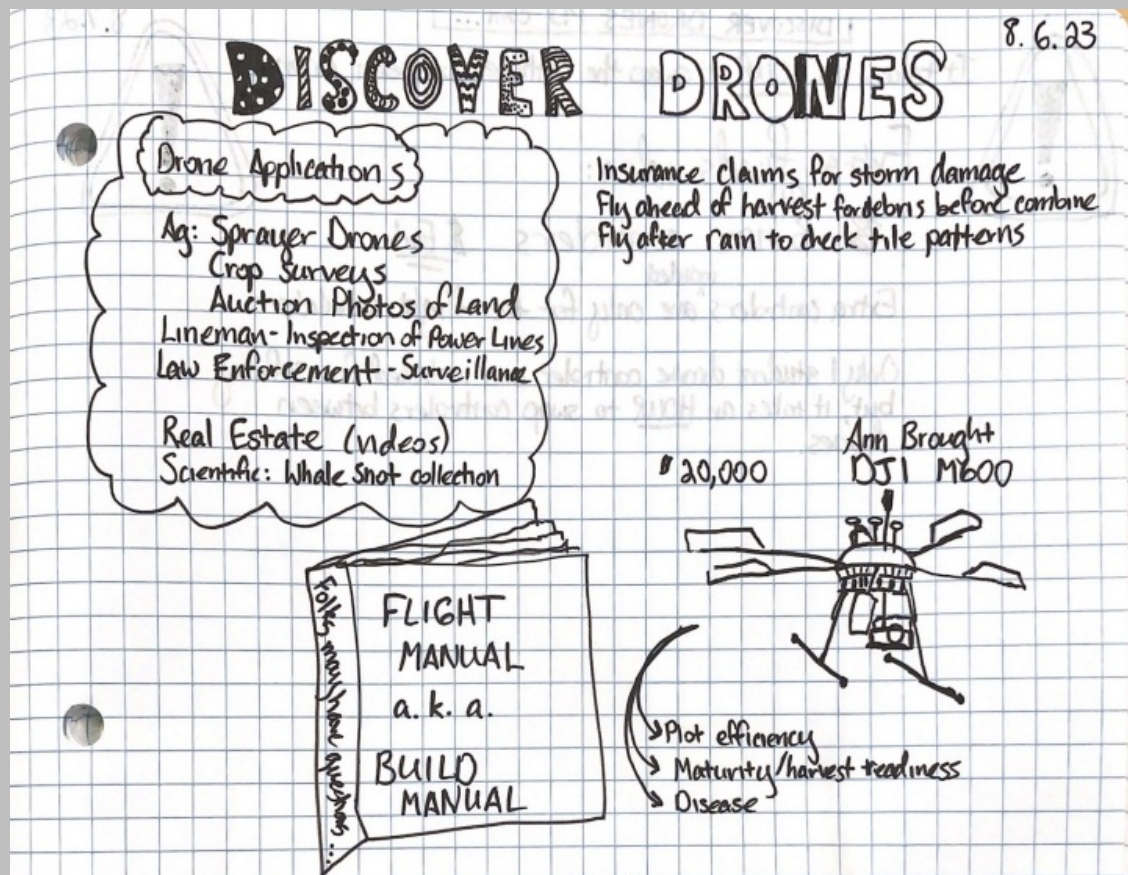
Vaske said **Drake Headstart** serves over 900 students in central Iowa, and they have spots left for fall for those who meet criteria. Visit their website for more information: drakeheadstart.org or call 515-271-1854.

If you’re interested in Waterworks or past Scale-Ups created by UNI’s Early Childhood Development Board of Regent’s Center, visit their website: <https://regentsctr.uni.edu>.

Little Learners = Big Impact

UNI is hard at work, creating the next Scale-Up for young leaders. And, while Condon currently serves as an Instructional Coach for DMPS, she made it clear that she loves this age group: "This is where my heart is." How fortunate the region was to have a room brimming with early childhood educators who all felt the same way.

Region Hosts Discover Drones Training



Above: Dr. Sarah Derry's notes from Ann Keller's talk with teachers at Discover Drones training. A special thank you to SC Regional Board Member Magan Lewis for connecting us with Keller.

4 Take-Aways from Discover Drone Training



4 -- Cooperate

1. Teamwork makes the drone work. Montezuma Jr High educators Ashley Reid and Olivia Smith.



3 -- Persevere

2. Renee McGill from Des Moines Christian School works on drone components during the training.



2 -- Leave a Host Gift

3. Isaiah Kent-Schneider let teachers train in his Carlisle MS classroom. His reward for hosting? Everyone's bubble wrap.



1 -- Model Learning

4. Trainer Colon Falconer demos drone hardware. Teachers work through the same lessons they'll soon be teaching to their students.

Back-to-School STEM 2 Resources/Unlimited Potential

#1 The Hub's Lending Library

The South Central STEM Hub's lending library has a couple of great new additions! **Email** the Hub for more info and a complete list of materials. Any Iowa educator may check out items for up to three weeks.



BeeBot Class Set & Mat



6 MouseBot Kits



**Storytime STEM Pack:
Earth Day**



**Storytime STEM Pack:
Moon Adventures**

#2 Meet Zoey Perrigo, Drake's School of Education Librarian

If you're an educator in a district without a school librarian, your alma mater may be able to help with resources. We interviewed Drake's brand new **Curriculum Library Teaching & Learning Support Specialist Zoey Perrigo**. Perrigo holds a Master of Arts in Secondary Library Science from UNI and worked as a school librarian. She has a passion for helping educators and students find the materials they need.



* * *

Q: What type of resources exist in Drake's Curriculum Library?

A: We have a lot of great resources in the Curriculum Library. I can always start with our professional selection of books to help grow knowledge as educators as well as the collection of curricula that is available.

My favorite collections are the picture books, YA/Middle Grade novels, and Juvenile Nonfiction collections. These books are picked with a lot of different things in mind like diversity, popularity, and award-winning literature.

A lot of thought goes into each selection, but I've found quite a few books in this collection that focus on STEM topics like science and math skills, that

really bring them to a student in a storytelling way.

Q: Who can use the SOE Curriculum Library?

A: Our library can be utilized by anyone with a Drake ID or Cowles library card! Our collection was added to the University's library search to make sure that anyone who is in the system can check out books and materials from the curriculum library.

Q: If a teacher doesn't have access to Drake or to a certified librarian and needs resources for STEM and beyond, how might you be able to help?

A: If a teacher doesn't have access to Drake or a certified librarian, I can help navigate in a few different ways. I'm available by **email** for any helpful tips or advice as well as just someone to be a listening ear! I know how difficult it can be to find someone to bounce ideas off of if there isn't a certified librarian in the district or building. I would be more than happy to assist anyone who isn't sure what the next steps are.

* * *

Notes on Access:

- If you make a trip to Drake, come prepared! Visit Cowles Library website if you're an alum and would like to request a card. Info at: **<https://library.drake.edu/get-help/services-for-alumni/>**.
- If you aren't a Drake alum, you can obtain access to a vast network of libraries, including Drake, ISU, UI, Grandview, Simpson, and more via WorldCat through your local public library. Learn about WorldCat here: **<https://www.worldcat.org/about>**.

And, if you still have questions, perhaps Perrigo can point you in the right direction.

Nominate a Great STEM Teacher Today



Administrators, teachers, counselors, parents, students and other STEM advocates are invited to nominate an inspirational science, technology, engineering or mathematics teacher for the 2023-2024 Iowa STEM Teacher Award, sponsored by Kemin Industries and the Iowa Governor's STEM Advisory Council.

This award honors teachers who make a significant difference in the lives of students across the state by providing excellent curriculum, encouraging lifelong learning and inspiring a passion for STEM beyond the classroom and into the future. We are looking for educators who represent Iowa, defined as:

- **Innovative:** Use unique ways to educate students to develop a curiosity in STEM fields.
- **Outstanding:** Have a true passion for education and provide an exceptional learning experience.
- **Worldly:** Help students see that STEM is all around us and is more than the sum of its parts.
- **Academic:** Engage students in the classroom, preparing them for higher education and high-demand careers.

Important Dates:

- August 20, 2023 --- Nominations open
- October 10, 2023 --- Nominations close
- October 11, 2023 --- Teacher applications open
- November 14, 2023 --- Teacher applications close
- February-March 2024 --- School ceremonies for 2023-2024 recipients

**Nominate Someone
Today!**

Jan Phifer: SC Teacher of the Year



"She does things that makes kids believe in themselves!" said one student of **Jan Phifer, 2023 South Central Teacher of the Year**. Click the arrow above to see more.

We checked in with the amazing Jan Phifer last week, as she greeted her new students in the Grinnell-Newburg School District.

Q: What memorable lesson or advice is on your mind as you begin the school year?

A: This past year I have enjoyed working with a team of colleagues that have provided an after school opportunity for K-2 learners. The materials we have come from the Tiny Techies Scale-Up award materials.

One of my favorite quotes comes from the Tiny Techies Teaching Guide and is what really summarizes what I believe to be an important way to think about how we prepare young learners for the future. We need to provide instruction and opportunities that **"help students build computational thinking and problem solving skills, be creative, and practice working together. In an increasingly technology-driven world, these are all skills that will help them as they grow and prepare for jobs that**

don't yet exist."

Isn't it amazing to think about how we, as educators, are helping to shape a future that we may not even be able to imagine?



Apply if Awesome: K-12 STEM Program Providers



Providers: Click to Apply or Learn More



Students & teachers depend on great programs!

If you are interested in providing STEM programming in Iowa and would like to be considered for the Scale-Up Program initiative, please submit a proposal.

Important Dates

August 15: Request for Proposals Opens

September 19: Deadline to submit a Proposal

Organizations eligible to Present a Proposal:

- County Government
- For-Profit Organization (Other than Small Business)

- Nonprofit with 501C3 status
- Nonprofit without 501C3 status
- Private Institution of Higher Education
- Public/State Controlled Institution of Higher Education
- Small Business
- State Government
- Others that provide a PreK-12 STEM program.

Questions?

Email Scale-Up Project Manager Dr. Sarah Derry at sarah.derry@drake.edu

Wayne Cty STEM Fest Seeks Participants



Wayne County STEM Fest
Science * Technology * Engineering * Math

Saturday, September 30

- 10am - 2pm; Set-Up at 8am
- Wayne County Fairgrounds Event Center
- Address: 2nd Ave, Corydon, IA 50060
- Grades: PreK - 8 plus families!

An INTERACTIVE event with hands-on STEM activities designed for students to EXPLORE, CREATE, MAKE, and LEARN about exciting LOCAL opportunities in STEM.

HIGHLIGHTS INCLUDE:

- ⚡ Over 25 exhibitors
- ⚡ No admission cost
- ⚡ Open to the public
- ⚡ Free lunch for all

Attend ➡ 

Exhibit ➡ 

Volunteer ➡ 

Logos: EASTPENN, HyVee Corydon, TOMORROW STEMS FROM IOWA, Drake UNIVERSITY

Questions: Contact Connie at cmehrhoff@dekabatteries.com

The SC STEM Hub is partnering with East Penn Manufacturing and Corydon's Hy-Vee to bring a communitywide event called the Wayne County STEM Festival. The event will take place on Saturday, September 30, from 10 a.m.-2 p.m., at the Wayne County Fair Grounds Event Center, located at 2nd Ave, Corydon, IA. It's free and open to the public.

"I hope students who attend this event gain inspiration for the future by learning about the different careers that are involved with STEM throughout our community," said **Connie Merhoff, East Penn Manufacturing Personnel Recruiter**. Merhoff has exhibited at similar events throughout

Central Iowa and serves as the community founder and coordinator for this event.

Highlights of the Day

The day features engaging, hands-on activities in the area of science, technology, engineering and math exhibits from 40+ exceptional businesses, organizations, and educational institutions. While the event serves students in grades K-8, learners of all ages will enjoy the exhibits. In addition, a light lunch will be provided.

Festivals like this matter because it's crucial to engage students' curiosity and instill confidence in STEM at an early age.

"When families attend STEM festivals, in addition to having fun together, kids learn about future careers with their most important advocates, their grown-ups, by their sides," said **Dr. Sarah Derry, SC Regional Manager**. "In turn, grown-ups observe what sparks interest in the child, and they can talk to exhibiting experts about how to fan those flame as the young person progresses through education."

It's equally important that kids know about STEM educational and employment opportunities that exist in their own backyard.

"Keeping talented individuals in small communities is vital to continued growth and success of local businesses," said **Becca Bellman, Corydon Hy-Vee's General Manager**. "By showing young people interesting careers close to home, we hope to establish an interest that will carry on to when they are ready for the workforce while keeping family ties strong and kids close."

[Click to Attend](#)

[Click to Exhibit](#)

[Click to Volunteer](#)

Save-the-Date: IMMAWII Ed Day





*Photo from I'll Make Me a World in Iowa's 2023 **website**.*

Educators, exhibitors, and families--please save the date for this year's I'll Make Me a World in Iowa (IMMAWII) Education Day. Within that event, the SC STEM Hub coordinates a mini-STEM fest that features diverse exhibitors and welcoming messages.

IMMAWII's Executive Director Betty Andrews coordinates a Gala, Education Day, and Celebration Day, with the later two scheduled for February 10-11. Education Day serves students in grades 6-12, and attendees and exhibitors come from around the state.

If you have an interest in being a part of this day, please **email the hub**.

IMMAWII Ed Days: Virtual Resources, Lower Rt.

Events & Advisory

Spring/Summer Events

- September 14 -- ToC: The Big Picture, Drake Continuing Ed
- September 19 -- Program Provider Scale-Up Applications Due
- September 21 -- Automata and You, Drake Continuing Ed
- September 25 -- Iowa Department of Education Science Leadership, UI
- September 30 -- Wayne Co. STEM Festival, Corydon
- October 3 -- Iowa Department of Education Science Leadership, ISU
- October 7 -- WaterWorks Training Day 2, West Des Moines
- October 10 -- Iowa STEM/Kemin Teacher Nominations Due
- October 19 -- Iowa Department of Education Science Leadership, BVU
- February 9 -- I'll Make Me a World Education Day
- February 10 -- I'll Make Me a World Celebration Day

Visit our calendar for details and more events.

Email to subscribe to this newsletter.

We LOVE Our Advisory Board!



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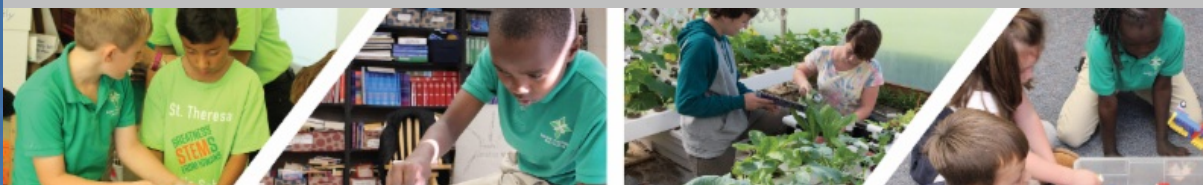


THANK YOU, SC Board Members, for your service to students, educators, and the community.

Alison Mohr & Mahesh Mathrubutham serve as co-chairs.

Email **the hub** if you'd like information on how to get more involved with STEM.

Email us details on your STEM event so we can help you share the information.



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