

2025 STEM Teacher Externships Yearbook

Northeast Region

**TOMORROW
STEMS
FROM IOWA**

GOVERNOR'S STEM ADVISORY COUNCIL

EXTERNSHIPS IOWA STEM TEACHER
PROGRAM



Travis Angell

Tallgrass Prairie Center

Cedar Falls, IA

Travis is worked with staff to maintain a diverse array of native prairie plants. His responsibilities included transplanting greenhouse-grown seedlings into designated plots on the grounds. He assisted with weeding and ongoing maintenance to support healthy growth. Travis helped collect and store seeds. He also participated in fieldwork, traveling to various prairie sites to collect additional seeds, thereby enhancing the genetic diversity of the Center's seed bank.



"Each day at the Tallgrass Prairie Center involved hard, physically demanding work, but the team I worked with made the time fly by. I truly enjoyed being around people who are so passionate about their work and committed to making the world a better place."

Travis Angell, MS math and science teacher at Waverly Shell Rock CSD

Bailey Bushman

Fayette County Conservation

Fayette, IA

Bailey worked with Fayette County Conservation this summer. She helped out with educational programs, including camps for elementary students and creating display materials for the nature center and social media pages. This position allowed Bailey to see what Fayette County has to offer in terms of natural areas and educational opportunities for her students.

"Content is not always the most important thing in the workplace. Employees can learn on the job. One employee at Fayette County Conservation came into the job not knowing much about Iowa or Fayette County and has learned so much and continues learning all she can. It is alright if students don't know everything, we need to teach them how to learn and how to be curious about the world around them."

Bailey Bushman, science teacher at West Central CSD





Dawn Colsch

Effigy Mounds National Monument

Harpers Ferry, IA

During Dawn's time at Effigy Mounds National Monument, she worked with the Interpretation staff. She led tours on the Yellow River Boardwalk trail, participated in events such as the Migratory Bird Event, and helped in the visitor center and store. One of her main projects was developing a public resource for the Yellow River Water Trail in the Heritage Unit of Effigy Mounds National Monument. She researched the flora and fauna of the area and worked on a 4 x 9 infographic that visitors may take with them as they float down the Yellow River.

"My favorite part of my experience was having time to develop a knowledge base of the native culture and history in my area. I can say confidently that I have learned a lot and can share my knowledge with my students and colleagues. I will also continue to learn all that I can about the resources in my area."

Dawn Colsch STEAM teacher at MFL-MarMac CSD



Cain Cushion

Geater Machining and Manufacturing

Independence, IA

Cain worked at Geater Manufacturing and Machining in the sheet metal, machining, and drill press departments of production. During his time, he learned to manipulate programmed machines that produced parts from aluminum for the aerospace industry. Cain would need to be able to edit programs to produce the parts efficiently so that a high level of quality control was preserved. Communication and collaboration were a vital part of the externship, as he had to effectively communicate with employees from other departments with the same, positive end-goal in mind.



"Geater has made a large investment in education because they know where their development team comes from. It is our job in education to continue to show students these opportunities."

Cain Cushion, industrial tech teacher at Wapsie Valley CSD



Kaydian Davis- Goodwin

Clayton County Development Group

Elkader, IA

Kaydian worked with Clayton County Development Group to promote vacation rental lodging. She learned how guest spending at rental properties supports local development by contributing tax revenue. She created promotional videos with voiceover narration. She also used AI to analyze guest reviews, photos, and property details, gaining insights into market trends and guest preferences in order to generate content to improve listing descriptions and overall marketing impact. Her efforts directly benefited vacation rental and lodging owners by boosting property visibility, increasing guest engagement, and enhancing revenue potential.

"My favorite part of the externship was learning directly from local businesses and community members about the real challenges they face. Talking with business owners and employees helped me understand important issues like hiring, marketing, and using technology. As a business teacher, this knowledge helps me connect what I teach to real-world situations."

Kaydien Davis-Goodwin business teacher at Ed- Co CSD

Anne Friederich

Effigy Mounds National Monument

Harpers Ferry, IA

Anne worked as part of the Biological Technician staff team, assisting with various duties within the field, such as removing invasive plants and identifying native prairie plants. She also worked with the Interpretive staff to review the newly revised Junior Scientist booklet for the Heartland Network and to plan and implement a Junior Scientist Day. This position required that Anne become familiar with various areas and trails within Effigy Mounds, as well as examining, researching, and creating educational materials related to the different Junior Scientist Day components.

"I have made some connections that I would like to maintain for my classroom and/or other classes at my school. The history and culture that you can learn about here isn't expanded upon in the typical school textbook and it is extremely important to have greater understanding during this tenuous time in our country."

Anne Friederich, science teacher at Postville CSD



Grady Gallagher

Kluesner Sanitation

Farley, IA



Grady Gallagher is currently completing an externship at Kluesner Sanitation, LLC. Throughout the summer, he will focus on rebuilding the company's website, creating content, developing a branding strategy, and enhancing the online customer experience. This includes taking and updating photos, auditing the workflow, and developing interactive pages that hold necessary information for the current and future updates. In addition to his work on digital improvements, Grady will also contribute to various business operations, including billing, accounting, and payroll support.



"The biggest impact on me has been the connection of what I have been teaching about small business social media and web presence and how I can tweak this to become even more authentic. This will really benefit my students as they create their own businesses, work at small businesses, or start their side hustles."

Grady Gallagher, business teacher at Beckman Catholic

Aaron Gibney

Iowa DNR, George Wyth State Park
Waterloo, IA

Aaron spent time working with the George Wyth State Park. Aaron helped the staff with park maintenance and communication with the public about what the park was about. This helped Aaron learn about about the park as well as how to convey information to others. Aaron also put up a Mason Bee house hoping to get some pollinating Mason Bees. To explain these bees, he made a brochure explaining with flowers and plants would best attract these Mason Bees to pollinate best.

“Communication is key between staff. If the staff is maintaining the park and the camp grounds they communicate to each other what they need to do or what they’ve seen at the park.”

Aaron Gibney, science teacher at St. Patrick’s, Cedar Falls





Bethany Hadley

Buchanan County Conservation

Hazelton, IA

Bethany is collaborating with the Naturalists at Buchanan County Parks to support a variety of educational and outreach efforts. Her responsibilities include assisting with day camps and programs at local libraries, guiding summer school groups, and welcoming visitors to the nature center at Fontana Park. In addition to her hands-on work with the public, Bethany is actively contributing to the park's communications by taking photos for promotional use and helping update the park's website and other digital tools.

"I think anytime we can engage students, it helps make the learning stick and these lessons are certainly engaging. Plus it connects them with their world which can help give them a sense of well being and purpose increasing their social-emotional well-being. I am so excited to take all of this knowledge back to my school this year."

Bethany Hadley, instructional coach at Oelwein CSD

Grant Kelly

Klunder Building Solutions

Cedar Falls, IA

Grant worked as a carpenter for Klunder Custom Homes. He worked on many aspects of residential home construction, from framing, inspection adjustments, siding, trimming cabinets, custom-built-in shelving, base crown, to outside siding as well. The hours working alongside Klunder and all the other trades gave him a deep understanding of all of the small things that need to come together to make a house a useable and liveable space, and all the unique skills that are required to do so.

"The logistical side of getting all the things done, and the trades in the door in the right timely windows of when the work is ready and will be needed to keep work flowing for everyone. If the Logistical flow isn't managed it could easily add a year or more to even a basic home."

Grant Kelly, industrial tech teacher at Union CSD





Madyson Larson

Clayton County Energy District

Elkader, IA

Madyson worked with Clayton County Energy District (CCED). She completed projects, ranging from researching energy comparisons and benchmarking energy burden improvement initiatives to website design and energy educational programming efforts. In addition, the help with website design and added graphics will help entice visitors to learn more about energy regulations, effects, and progress for the future. The implementation of new or improved energy educational resources, especially for younger audiences, will help engagement and understanding of energy as a whole.



"I love anything to do with developing websites. I was able to dig into CSS and HTML backside work. It has been great to practice with this, especially because one small change can make a big difference. You are also able to access more features in the backend compared to the frontend."

Madyson Larson, science teacher at MFL-MarMac CSD

Stephanie Monahan

ReEvolution Farm

Dubuque, IA

During Steph's time at ReEvolution Farms she planted & harvested several vegetables & herbs, planted hundreds of prairie plugs, set up irrigation systems, performed mite checks on the chickens, & weeded several gardens. In addition to working on the farm, Steph cleaned eggs & harvested varieties of hydroponic lettuce purchased by local restaurants. Steph also learned how to seed lettuce trays, load the hydroponic trays with newly sprouted lettuce plants, clean the hydroponic trays, and helped her host prepare for summer markets by packaging several types of produce.



"I feel like I'm told everyday how grateful she is that I am there. I'm learning new things and I'm truly helping a great human...what could be more impactful than that?"

Stephanie Monahan, science teacher at Dubuque CSD





Emily Neal

Iowa DNR, Decorah Fish Hatchery

Decorah, IA

During her externship this summer, Neal will expand upon the programming she created last summer to increase engagement at the Decorah Fish Hatchery. Neal will make a series of outdoor interactive scavenger hunts. Hunts will include information about the Fish Hatchery and the surrounding natural area of the Driftless. Events will be held monthly during the summer, where visitors to the Hatchery can participate in new missions and adventures. Neal created special addition hunts for birthday parties, social events, school groups, daycare centers, and an ongoing Goosechase.



"This has really solidified how important it is for students to have good design skills, for even in STEM fields you are often trying to communicate your work with a public audience."

Emily Neal, science teacher at Postville CSD

Brenna Ramstad

Winneshiek County Conservation

Fort Atkinson, IA

Brenna worked alongside the Winneshiek County Conservation Board's Education and Outreach Coordinator to support the environmental education of the youth of the area. She created active and passive programs for the public to participate in at various parks and events. The majority of this experience was done through nature-based summer camps for students ages first through ninth grade. Brenna regularly used collaboration, communication and creativity along with technology and learning standards to make these programs successful.



"I definitely made some friends for life this summer and I look forward to continuing our work together as I implement my project with my students. "

Brenna Ramstad, 2nd grade teacher at South Winneshiek CSD



Dylan Shaffer

Jones County Conservation

Center Junction, IA

This summer Dylan worked alongside naturalists at Jones County Conservation Board. During his externship Dylan supported naturalists by providing educational opportunities at various sites and organization. Dylan also spent time creating phenomenon based learning activities to help educate students and the public on local phenomenon in Jones county, some of the topics covered were local water quality, biodiversity, and geological phenomenon.

"I learned so much about endangered plants and animals during these events and got to get hands on doing some citizen science. I am very excited to bring what I learned back into my classroom and encourage learning and growth for my students this coming year."

Dylan Shaffer, science and STEM teacher at Monticello CSD



Larry Shonk

Buchanan County Conservation

Hazelton, IA

Larry is working at Fontana Park. He worked with the naturalists Sondra Cabell and Michael Maas to prepare and lead activities for the multiple summer camps the Nature Center puts on for local youth. Additionally he was involved with individual programs in the community and neighboring counties including "Creature Features" in local libraries, and a raptor interaction in Manchester.

"I have learned a new answer to the question "when are we ever going to use this?" The new answer is "you never know, but when it is called for you'll be glad you know it." We really don't know what we don't know, we really can't tell a student exactly when, how, and where this knowledge will be required of them."

Larry Shonk science teacher at Isaac Newton Christian Academy





Sean Singewald

Iowa DNR Sweet Marsh

Sumner, IA

Sean worked with the Iowa Department of Natural Resources Wildlife Team at Sweet Marsh Wildlife Management Area. During his time with the DNR, he participated in habitat improvement projects, creation of winter thermal cover, songbird capture and tracking, as well as goose banding and endangered species studies.



"There are a large amount of shared science resources out there, I just don't know what they are. Being exposed to people who are really doing science has helped me discover some of these."

Sean Singewald, science teacher at Postville CSD



Andrea Sullivan

Iowa DNR Sweet Marsh

Sumner, IA

Andrea worked at the Sweet Marsh location with DNR Wildlife Management staff. During the summer Andrea was involved in a variety of projects to prepare water fowl food plots to provide hunting habitat as well as waterfowl refuge areas that allow for research and data collection on duck, goose, and other migratory bird populations. She was also able to participate in song bird tracking, goose and mourning dove banding, and many other daily tasks that help maintain the thousands of acres managed by the DNR staff based at the Sweet Marsh office.

"A lot of conversations about what they are seeing as they study native populations have brought up scenarios I can tie into classroom conversations to help make these topics more relevant to students. Wildebeest migration is an ok storyline, but ducks and geese will grab the attention of the students that would rather be out hunting than sitting in a classroom."

Andrea Sullivan, science teacher at Nashua Planfield CSD