



2024 Iowa Classrooms + Workplaces Summit

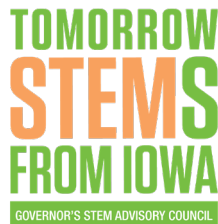
Forging Work-Based
Learning
Partnerships



April 10, 2024

Iowa Events Center – Community Choice Credit Union Convention Center
833 5th Avenue, Des Moines, IA 50309

Brought to you by:



Department of Education

SUMMIT INFORMATION

TABLE OF CONTENTS

Summit Agenda	2
Breakout Sessions Map	4
Breakout Sessions	5
Speaker Biographies.....	13
Iowa STEM Teacher Award.....	16
Summit Sponsors	17

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Wi-Fi: 2024Summit
PASSWORD: partnerships

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PHOTOS/VIDEO

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SUMMIT AGENDA

8:30-9:30 A.M.

REGISTRATION - Continental Breakfast and Networking

9:30-10:00 A.M.

WELCOME

Diane Young, Owner and Director of Technical Services, Foundation Analytical Laboratory, Inc.; Co-Chair, Governor's STEM Advisory Council

Justin Lewis, STEM Bureau Chief – Innovation Division, Iowa Department of Education

McKenzie Snow, Director, Iowa Department of Education

10:00-10:30 A.M.

CREDENTIALS TO CAREERS

Quentin Suffren, ExcelinEd Senior Advisor

10:40-11:30 A.M.

The Future of Innovation and STEM: CS and AI Education as a Foundation

Pat Yongpradit, Code.org Chief Academic Officer, presenting with moderator Hannah Weissman, Code.org Director of Policy

11:30 A.M.-12:00 P.M.

LUNCH AND NETWORKING

12:00-12:30 P.M.

THE IMPORTANCE OF SCIENCE EDUCATION IN OUR WORLD TODAY

Rebecca Lucas, Kemin Industries Human Nutrition and Health Global Director of Research and Development

12:30-1:00 P.M.

IOWA STEM TEACHER AWARDS RECOGNITION, SPONSORED BY KEMIN INDUSTRIES

1:05-1:45 P.M.

BREAKOUT SESSIONS 1

ROOM 302 thru 304

Build Math Relevance: Creating Context for Secondary Math Enriches Content & Connects Careers

ROOM 312 thru 314

Embracing Concurrent Enrollment Coursework to Up the Ante in WBL Programs

ROOM 315 thru 318

Advancing Classroom + Workplace Partnerships: Teachers in the Workplace

SUMMIT AGENDA

1:45-1:50 P.M.

TRANSITION TO 2ND BREAKOUT SESSION ROOMS

1:50-2:30 P.M.

BREAKOUT SESSIONS 2

ROOM 305 thru 307

Connecting Science Classrooms to STEM Experiences in the Community

ROOM 308 thru 310

Youth Voice on Embedding STEM Careers through Individual Career and Academic Plan (ICAP)

ROOM 315 thru 318

Credentials in Action: Elevating CTE Classrooms with Industry-Recognized Credentials

2:30-2:35 P.M.

TRANSITION TO 3RD BREAKOUT SESSION ROOMS

2:35-3:15 P.M.

BREAKOUT SESSIONS 3

ROOM 302 thru 304

Leveraging Community Partnerships to Expand Computer Science Education

ROOM 312 thru 314

Ways to Expand STEM Education Opportunities: STEM Scale-Up Program and Beyond

ROOM 315 thru 318

Scaling Work-Based Learning through School + Business Partnerships

3:15-3:20 P.M.

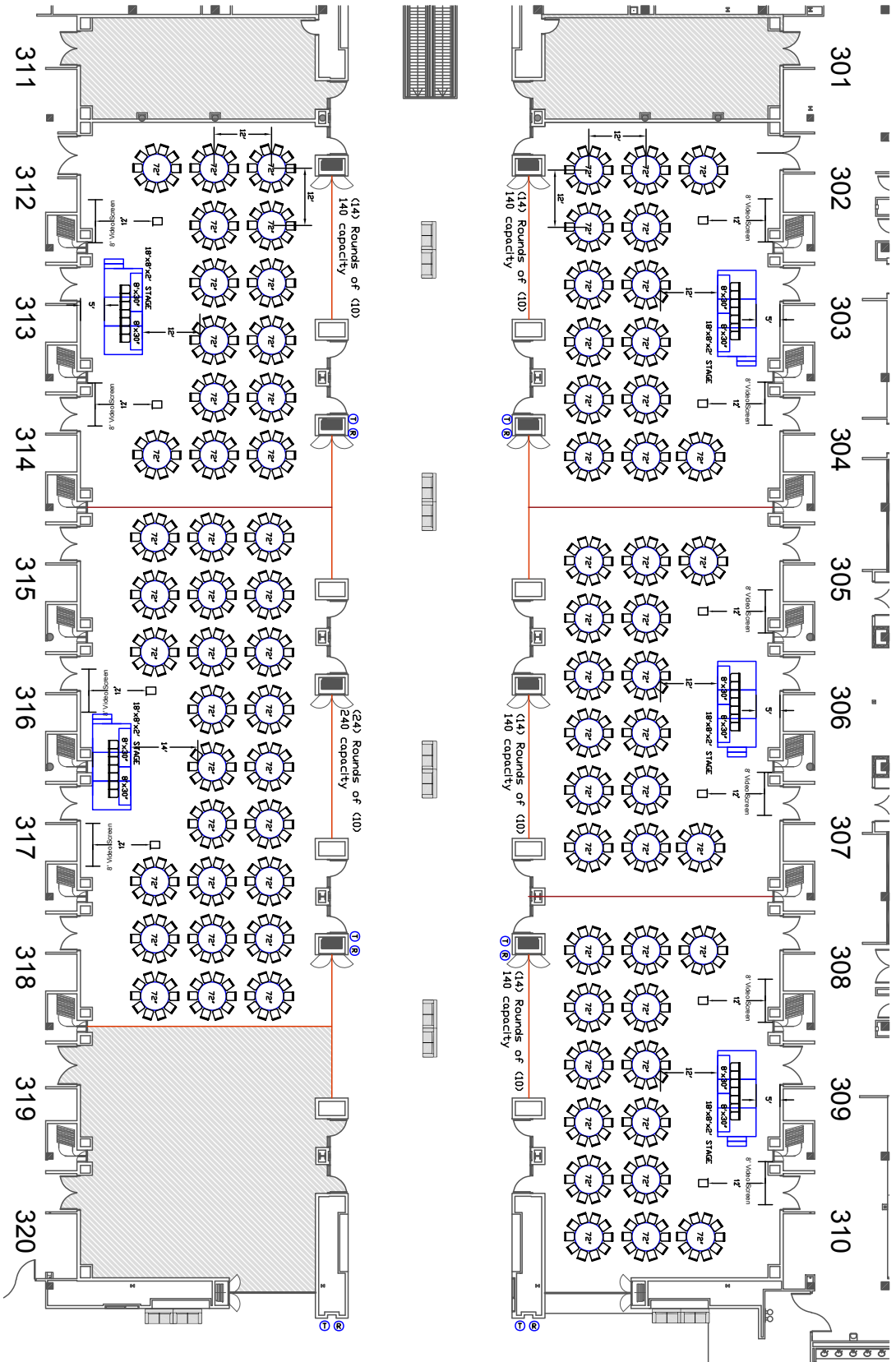
TRANSITION TO GRAND BALLROOM

3:20-3:30 P.M.

CLOSING REMARKS

The Honorable Kim Reynolds, Governor of Iowa

BREAKOUT SESSIONS MAP



BREAKOUT SESSIONS

SESSION 1

Room 302 thru 304

BUILD MATH RELEVANCE: CREATING CONTEXT FOR SECONDARY MATH ENRICHES CONTENT & CONNECTS CAREERS

When are we ever going to use this in real life? Courses that contextualize high-level mathematics with hands-on, real-world projects address this common complaint and build student confidence. During this session, attendees will hear from students, educators and community partners about schools that have coupled the following courses: algebra + business and geometry + career and technical education. Measurable outcomes include higher student interest and an increase in academic success.

Moderators:

- April Pforts and Jody Vanderloo, Education Program Consultants – Mathematics, Iowa Department of Education Bureau of Learner Strategies and Supports
- Sarah Derry, South Central Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

- Emily Logan, Mathematics Curriculum Consultant, Grant Wood Area Education Agency
- Roxanne Paulsen, Mathematics Teacher, Marion Community School District
- Stacey Cole, Superintendent, Storm Lake Community School District
- T.J. Meyerholz, Director of Pre-Construction, Ryan Companies
- Student(s), Amped on Algebra course, Marion High School
 - Jonathan A.
 - Josie L.
 - Savanah P.
 - Sevanna S.
 - Jameson T.

BREAKOUT SESSIONS

SESSION 1

Room 312 thru 314

EMBRACING CONCURRENT ENROLLMENT COURSEWORK TO UP THE ANTE IN WBL PROGRAMS

High school students in Iowa can take college-level courses for free in the state of Iowa. During this session, staff from the Iowa Department of Education, Iowa Lakes Community College, and teachers and students from MOC-Floyd Valley School District will present an overview of Senior Year Plus programming in Iowa, including concurrent enrollment courses, the summer college credit program and career academies. Session attendees will learn how to make connections between concurrent enrollment coursework and work-based learning programs like the STEM BEST (Businesses Engaging Students and Teachers) Program.

Moderator:

- Mary Trent, Northwest Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

- Heather M. Meissen, Education Program Consultant – Program Quality, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
- Kari Hampe, Director of High School Partnerships, Iowa Lakes Community College
- Grant Hedstad, Assistant High School Principal, MOC-Floyd Valley Community School District
- MOC-Floyd Valley students involved in the STEM BEST and Concurrent Enrollment Programs

BREAKOUT SESSIONS

SESSION 1

Room 315 thru 318

ADVANCING CLASSROOM + WORKPLACE PARTNERSHIPS: TEACHERS IN THE WORKPLACE

Why isn't this being taught in school? How do we educate students about local career opportunities and assure they have the needed skills? This session will focus on finding creative solutions to these common questions by giving teachers hands-on experiences at community workplaces. STEM Teacher Externships and Micro-Externships are transforming how educators teach and the learning experience for students while enhancing the work of business partners and creating a workforce pipeline. Participating teachers have found these programs to be some of the most valuable professional development experiences of their careers. Hear from industry professionals, educators, students and program staff to find out how these two programs can benefit community business partners, teachers and students all while building Classroom + Workplace Partnerships.

Moderators:

- Ann Gritzner, STEM Teacher Externships Program Coordinator and STEM BEST Program Assistant Coordinator – Iowa Governor's STEM Advisory Council
- Joanne Tubbs, Education Program Consultant – Administrative, Iowa Department of Education Bureau of Educational Examiners

Presenters:

- Jessica Howard, Computer Science/Business Teacher, Lone Tree Community Schools; STEM Teacher Extern; Iowa STEM Teacher Award recipient
- Kathleen McGrane, AP Chemistry Teacher, West Des Moines Valley; STEM Teacher Extern
- Kirby Phillips, Human Resource Manager, Muscatine Power and Water
- Hajdi Zulic, Corporate Trainer, MidAmerican Energy Company
- Students benefiting from these opportunities for teachers

BREAKOUT SESSIONS

SESSION 2

Room 305 thru 307

CONNECTING SCIENCE CLASSROOMS TO STEM EXPERIENCES IN THE COMMUNITY

This session will connect community stakeholders and provide a forum for sharing and discussing strategies for designing STEM experiences outside of the classroom (e.g., workplace, community science, etc.). An emphasis will be placed on building community partnerships and potential models for students at different age levels.

Moderators:

- Matt Stier, Southeast Regional STEM Manager, Iowa Governor's STEM Advisory Council
- Christopher Like, Education Program Consultant – Science, Iowa Department of Education Bureau of Learner Strategies and Supports

Presenters:

- James Pifer, K-12 Science Professional Development and Curriculum Coordinator, Southeast Polk Community School District
- Student(s) benefiting from these opportunities
- Gustaf Elliott, Conservation Education Specialist, Communication, Iowa Department of Natural Resources Outreach and Marketing Bureau

BREAKOUT SESSIONS

SESSION 2

Room 308 thru 310

YOUTH VOICE ON EMBEDDING STEM CAREERS THROUGH INDIVIDUAL CAREER AND ACADEMIC PLAN (ICAP)

Join us for a session that combines career discussions with youth spanning PK to 20 and an exploration of ICAP's core areas, including a focus on STEM careers. You will get first-hand stories from Iowa's youth, schools and businesses that are fully embracing career development, particularly within STEM fields. We will start with a quick intro to ICAP and highlight districts that are leading the way. Then, we will dive into Panel discussions that focus on integrating insights on STEM careers and supporting students with career exploration. Engage, exchange ideas and walk away with innovative strategies to seamlessly weave exploration and STEM careers into your school's program!

Moderator:

- Casey Wenstrand, Southwest Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

- Erica Woods-Schmitz, Education Program Consultant – Career and Academic Planning, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
- Joe Collins, Education Program Consultant – Health Science and Work-Based Learning, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
- Kattie Lewis, Director of Southwest Iowa Technology Career Hub (SWITCH)
- Rachel Ramaeker, Director of Secondary Programs, Southwestern Community College
- Katelin George, Human Resources and Marketing Manager, Malvern Bank
- Anne Crowley, BSN, RN, District Nurse, Murray Community School District and Concurrent Health Science Instructor, Southwestern Community College
- Addilyn Danley, Senior, Murray High School

BREAKOUT SESSIONS

SESSION 2

Room 315 thru 318

CREDENTIALS IN ACTION: ELEVATING CTE CLASSROOMS WITH INDUSTRY-RECOGNIZED CREDENTIALS

Embark on a transformative journey where education meets industry relevance! Join our breakout session to explore innovative strategies for aligning Career and Technical Education (CTE) classrooms with the latest industry-recognized credentials (IRCs). This session will delve into dynamic and achievable approaches that bridge the gap between classroom learning and credentialing that propels students toward successful and fulfilling careers.

Moderator:

- Ann Gritzner, STEM Teacher Externships Program Coordinator and STEM BEST Program Assistant Coordinator, Iowa Governor's STEM Advisory Council

Presenters:

- Dennis Harden, Section Chief – Career and Technical Education, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
- Cale Hutchings, Education Program Consultant – Applied Sciences and Industrial Technology, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
- Ben Applegate, Industrial Technology Instructor, Waverly-Shell Rock High School
- Bryan Benham, Industrial Technology Instructor, Waverly-Shell Rock High School
- Waverly-Shell Rock High School Students:
 - Mitch M. - Junior
 - Brock S. - Senior
 - Jack T. - Senior

BREAKOUT SESSIONS

SESSION 3

Room 302 thru 304

LEVERAGING COMMUNITY PARTNERSHIPS TO EXPAND COMPUTER SCIENCE EDUCATION

Discussion and examination of how to take computer science education to the next level by incorporating community partnerships into the classroom. During this session, hear from both the education and business sector about the value of partnerships, as well as how to begin partnerships and how to begin to examine what you can do next to take computer science education to the next level.

Moderator:

- Mauree Haage, North Central Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

- Justin Lewis, STEM Bureau Chief – Innovation Division, Iowa Department of Education
- Kyle Kuhlers, Information Technology (Web Programming and Cybersecurity) Instructor, Waterloo Career Center
- Adrian Gomez, Student, Waterloo Career Center
- Steven Davis, CEO and co-founder, Bio:::Neos
- Aaron Hibben, Service Desk Supervisor, VGM Group, Inc.

SESSION 3

Room 312 thru 314

WAYS TO EXPAND STEM EDUCATION OPPORTUNITIES: STEM SCALE-UP PROGRAM AND BEYOND

The Iowa STEM Scale-Up Program has been in existence since 2012, aligning with the Iowa STEM Council's mission to increase interest and achievement in STEM studies and careers through school + business partnerships. Schools in Dubuque and Waterloo were awarded the Scale-Up Program First Lego League Explore during the 2021-2022 school year. Learn how the schools implemented the program and created partnerships. During the session, students will demonstrate the program. Join the discussion to discover how you can be an engaged partner with a Scale-Up Program.

Moderators:

- Jeff Beneke, Northeast Iowa Regional STEM Manager, Iowa Governor's STEM Advisory Council
- April Pforts and Jody Vanderloo, Education Program Consultants – Mathematics, Iowa Department of Education Bureau of Learner Strategies and Supports

Presenters:

- Erin Sale, STEM Coach K-12, Waterloo Community Schools
- Ryan Christoffer, Elementary Curriculum Coordinator, Waterloo Community Schools
- Theresa Northouse, Media Coach, Marshall Elementary School, Dubuque
- Danelle Tigges, Staff Engineer, John Deere Dubuque Works
- Elementary Students, Waterloo Community Schools

BREAKOUT SESSIONS

SESSION 3

Room 315 thru 318

SCALING WORK-BASED LEARNING THROUGH SCHOOL + BUSINESS PARTNERSHIPS

Hear from education leaders, students and community leaders from Okoboji Middle School and their No Boundaries model about the importance of work-based learning and the partnerships formed through these experiences. Participants will come away with ideas for inspiration, resources to explore and a network of practitioners to tap into.

Moderators:

- Tanya Hunt, STEM BEST Program Coordinator, Iowa Governor's STEM Advisory Council at the Iowa Department of Education
- Joe Collins, Education Program Consultant – Health Science and Work-Based Learning, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness

Presenters:

- Becky Rients, No Boundaries Facilitator, Okoboji Middle School
- No Boundaries Middle School Students
- Community Partners forged by No Boundaries STEM BEST model

SPEAKER BIOGRAPHIES



Governor Kim Reynolds is the 43rd governor of Iowa and has the distinction of being the first woman elected to the state's highest office.

Governor Reynolds has a long-standing record of public service, having served four terms as Clarke County Treasurer before being elected to the Iowa Senate in November 2008. Two years later, as running mate of former Governor Terry Branstad, she was elected Lieutenant Governor and served nearly two terms before succeeding Branstad as Governor of Iowa in May 2017. She was elected in November 2018 to her first full term in office and re-elected in November 2022 to a second term.

Governor Reynolds is proud of her Iowa roots. A small-town, rural Iowan at heart, she grew up in Madison County, graduated from Interstate 35 Community Schools in 1977, married her husband Kevin Reynolds in 1982, worked and raised three daughters, and completed her bachelor's degree from Iowa State University in 2016 while serving as Lieutenant Governor.

Kim and Kevin cherish spending time together as a family with their daughters, sons-in-law, and 11 grandchildren who live nearby in central Iowa.



Diane Young is the director of technical services and owner of Foundation Analytical Laboratory and co-chair of the Governor's STEM Advisory Council. In 2008, with a passionate desire and clear entrepreneurial vision, Young, a graduate of Iowa State University, chose to leave the security of the corporate world and build an analytical laboratory from the ground up in her home community of Cherokee, Iowa.

Her business acumen, as well as her experience with laboratory management and the expertise gained by working with successful companies, sparked her entrepreneurial passion.

A proponent of STEM education, Diane started this science-based business to give young, college-educated individuals a reason to return to the Cherokee, Iowa, area. By providing quality, high-paying career opportunities in science and technology, she could attract young talent while enhancing her hometown economy.



McKenzie Snow was appointed by Governor Kim Reynolds to lead the Iowa Department of Education beginning June 26, 2023.

Director Snow is committed to ensuring all children have access to a high-quality education that inspires them and prepares them for the future. As director, her work is grounded in high-quality teaching and learning, family and teacher empowerment, evidence-based innovation, college and career pathways, transparency, and student-centered funding and supports.

Director Snow began her work in the classroom teaching remedial courses at the University of the Free State in South Africa. She served as Virginia Deputy Secretary of Education over early childhood education through postsecondary pathways and as New Hampshire Division Director of Academics and Assessment, Special Education, Career Development, Adult Education, Wellness and Nutrition following her confirmation.

She also served in the federal government as a special assistant to the President at the White House Domestic Policy Council, senior adviser at the Office of Management and Budget, and policy director at the U.S. Department of Education. Prior to government service, Snow was policy director at the Foundation for Excellence in Education.

Snow has been named a Fulbright grantee, Rotary Ambassadorial Scholar and Bush Institute and Clinton Foundation Presidential Leadership Scholar. She is a proud fifth-generation Midwesterner.

SPEAKER BIOGRAPHIES



Justin Lewis is the STEM Bureau Chief for the Iowa Department of Education. Justin is a passionate and empowering leader with a background spanning industry management and educational leadership. After leaving industry and earning a master's in education, Justin spent eight years teaching mathematics and computer science as well as hosting an after-school cybersecurity program. He first joined the Department as an Education Program Consultant overseeing the areas of Computer Science and CTE Information Solutions. Justin specializes in innovative strategies and visionary leadership to empower teams and foster collaboration that propels organizations toward excellence. Justin also serves as the Executive Director of the Iowa Youth Fishing League (IYFL), an Iowa non-profit organization dedicated to introducing Iowa youth to the outdoors including fishing, conservation and educational opportunities. In his free time, Justin enjoys fishing, traveling with his family and has served his community as a part-time firefighter.



Quentin Suffren is Senior Advisor at ExcelinEd, where he leads the organization's policy and research efforts to strengthen education to workforce pathways in states. These efforts also include the recently released policy framework Pathways Matter and the first-of-its-kind research into student credentialing, Credentials Matter. Quentin and his team engage with governors' offices, system leaders and state partners to develop policy and programmatic solutions to support high-demand, high-skill and high-wage pathways for learners of all ages. Before joining ExcelinEd, Quentin was Executive Director of the College, Career and Military Preparation division at the Texas Education Agency. Prior to that, he served as Executive Director of Amplify's consulting services, working with state agencies and consortia on major technology and implementation contracts. He has also held roles at TNTF and The Learning Institute. Quentin earned his master's and bachelor's degrees from the University of Memphis.



Pat Yongpradit is the Chief Academic Officer for Code.org, a non-profit dedicated to promoting computer science education, and lead of TeachAI, a global initiative to guide education leaders in rethinking education in an age of AI. His work spans policy and government affairs, curriculum and professional learning, school outreach, coalition building and international development. Before becoming a global voice on K-12 computer science and AI education, he taught for 13 years, inspiring students to create mobile games and apps for social causes and broadening participation in computer science among underrepresented groups. He has been featured in the book, "American Teacher: Heroes in the Classroom," and has been recognized as a Microsoft Worldwide Innovative Educator. He is certified in biology, physics, math, health and technology education. Although Pat currently spends most of his time in education policy conversations, he still finds ways to sneak into the classroom.

SPEAKER BIOGRAPHIES



Hannah Weissman serves as the Director of Policy at Code.org, where she is an advocate for K-12 computer science education. Her enthusiasm for computer science was ignited during her high school years, setting the stage for a career dedicated to this field. After earning a master's in education, Hannah taught high school math in Boston. Recently, she played an instrumental role in the successful passage of the Computer Science Advancement Act in Minnesota. As a Midwesterner, Hannah is particularly excited to be here working to expand access to students across arguably the best region of the country.



Rebecca Lucas is the Global R&D Director for Kemin Health and Human Nutrition, a role she has held since 2021. In this role, she leads a team exploring and launching hero ingredients for incorporation into dietary supplements leading to quality of life improvements in areas including: cognition, eye health, sleep, immunity and gastrointestinal health, to name a few.

Over the past 15+ years at Kemin, Rebecca has held positions in research and development, business development, mergers and acquisitions, consumer education and technical marketing. Rebecca is passionate about showing how the principles of STEM can be incorporated into any role and truly believes in the strength of Kemin's tagline: Compelled by Curiosity.

With a bachelor's degree in microbiology and a master's degree in business administration, Rebecca would like to thank all her teachers who patiently answered numerous questions and ignited her passion for the question, "Why?"



Libby Nelson is the Vice President and General Counsel of Kemin Industries. She's responsible for intellectual property and regulatory affairs, sustainability, and environmental health and safety. She is a second-generation Nelson family member and serves on the Kemin board of directors.

Iowa STEM Teacher Award

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

**IOWA STEM TEACHER
AWARD**

Proudly Sponsored by: **KEMIN**
Compelled by Curiosity™

For 10 years, the Iowa Governor's STEM Advisory Council at the Iowa Department of Education and Kemin Industries joined together to honor teachers who are inspiring Iowa's students to develop a passion for STEM subjects. This recognition is awarded to teachers who are making 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.

Each recipient was nominated by a colleague, student, parent or community member before completing an application showcasing their work and curriculum. As a recipient of the 2024 Iowa STEM Teacher Award, each educator will receive \$1,500 to use for their classroom and \$1,500 for personal use.

The 2024 Teacher Award recipients are:

- **Kelsey Enslin**, instructional technology teacher at CAL Elementary School in Latimer (North Central STEM Region)
- **Randi Glaser**, science teacher at Walnut Creek Campus in West Des Moines (South Central STEM Region)
- **Theresa Northouse**, technology coach at Marshall Elementary School in Dubuque (Northeast STEM Region)
- **Stephanie Prussing**, educational technology teacher at Denison Elementary School in Denison (Northwest STEM Region)
- **Trulla Pullen**, STEM teacher at Clarinda Community Schools in Clarinda (Southwest STEM Region)
- **Katie Rygh**, mathematics teacher at South East Junior High School in Iowa City (Southeast STEM Region)

Thank you to Kemin Industries for your support, partnership and commitment to honoring outstanding educators in Iowa. Congratulations to this year's recipients!

SPONSORS

THANK YOU TO OUR GENEROUS SPONSORS AND STEM EDUCATION ADVOCATES THROUGHOUT THE YEAR!



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