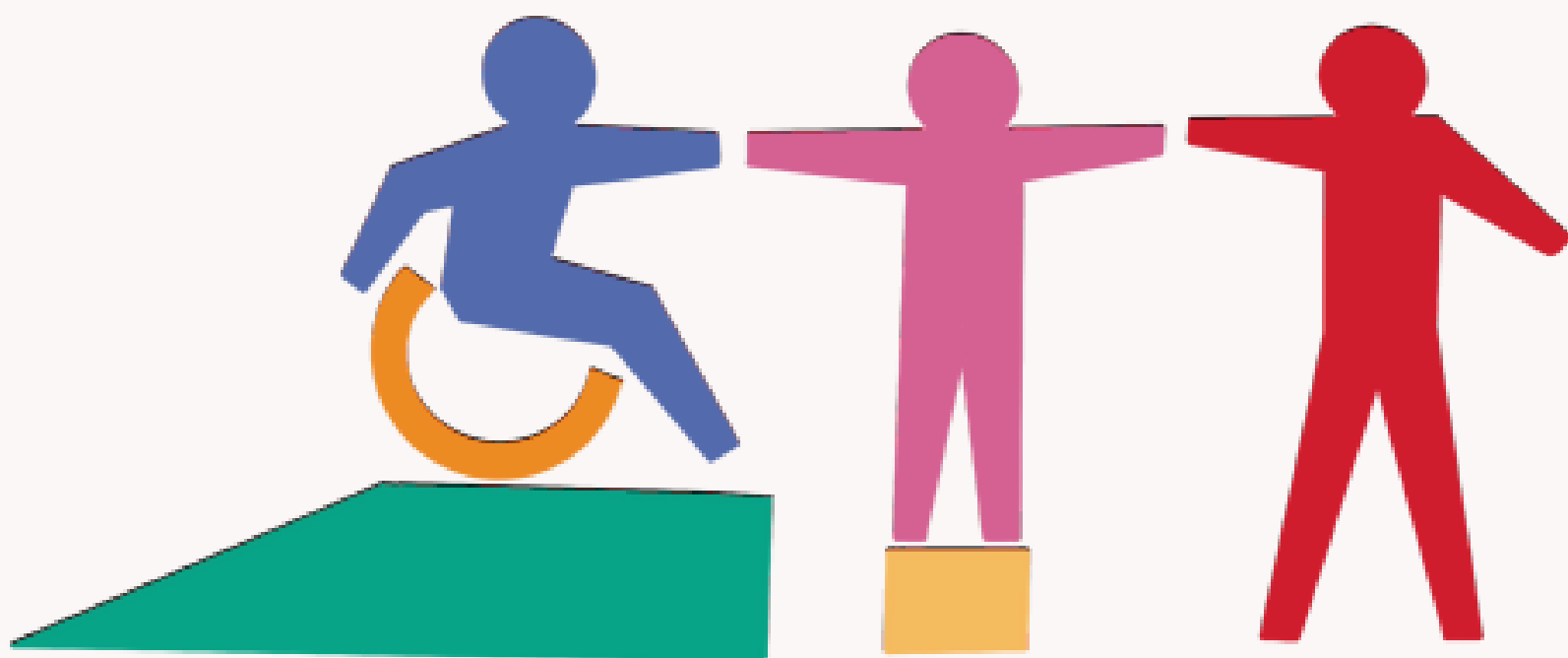


# ENGAGING IN EQUITABLE SCIENCE



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OCT. 3-4, 2021

DMACC  
ANKENY

# Welcome



## ISTS Conference Chair

Welcome to the Fall 2021 Iowa Science Teaching Section Conference! My name is Jesse Wilcox and I'm honored to serve as the Conference Chair.

The theme for this year's ISTS conference is *Engaging in Equitable Science*. The conference team and I believe this theme is in line with the commitment of ISTS to provide all students with an exceptional science education experience. Thank you all for doing your part in achieving that goal.

We are very excited to offer this conference face-to-face and virtually. We haven't had a face-to-face conference since 2019, so this conference is extra special for me. I hope you take advantage of all ISTS has to offer including: 56 breakout sessions, the exhibit hall, and of course, connecting with one another. Have a great conference!

Jesse Wilcox, Ph.D.

Assistant Professor of Biology and Science Education at the University of Northern Iowa  
Conference Chair of the Iowa Science Teaching Section

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## Meet the ISTS Chair

Dr. Jaclyn (Jaci) Easter grew up on a farm in southwest Iowa, where her love for science and nature first began. She attended Simpson College, and received Bachelor's degrees in biology and psychology. After spending time in the mental health field, working with young adolescents in a psychiatric treatment facility, Jaci became passionate about helping all students find the joy in learning, particularly science.

She received her Master of Arts in Teaching from Drake University, where she first got involved with ISTS as a pre-service teacher. Jaci taught science at both the high school and middle-level, and continued to be an active participant in ISTS and other science teaching organizations, presenting 35 times since that first fateful ISTS presentation. Jaci has received the Maitland P. Simmons Award for science teachers through the NSTA, and the North Central Association for Science Teacher Education Graduate Student Research Award. Jaci received her Ph.D. in Education (Science) from Drake University and now teaches science education courses at Grand View University.

Jaci is excited to serve to the organization that has given her so much over the years. Please say hello to our ISTS Chair when you see her at the conference.



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Welcome to the 2021 ISTS Fall Conference. I hope you enjoy the conference and find the information you receive to be informative and time well spent. The Iowa Science Teaching Section of the Iowa Academy of Science has once again put together an excellent conference with many opportunities to meet other science professionals and learn new ideas to use in your classroom.

The Iowa Academy of Science is Iowa's general science organization and ISTS is one of twelve science-related sections. If you are not familiar with the Academy, please visit our website at [www.scienceiniowa.org](http://www.scienceiniowa.org). Learn about opportunities for you to lend your expertise to advance science in Iowa outside your normal professional life. We try to find ways for you to participate within your busy schedule. Learn about the other eleven section in the Academy and how you can join them. Meet new people and friends from across Iowa in the Iowa Academy of Science. Thanks for attending! We are glad you are here.

Craig Johnson

Executive Director

Iowa Academy of Science



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Help promote science research, science education, the public understanding of science, and recognize excellence in these endeavors by becoming a member of the Iowa Academy of Science.

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# NEW for the ISTS Conference in 2021

## What's new for this year at the ISTS Conference?



### **FREE Pre-conference Event at the Zoo!**

Join us for a pre-conference event at the Zoo on October 3<sup>rd</sup> from 2-4 pm! You will get a behind-the-scenes tour, and a breakout session from the Zoo staff. Water will be provided free of charge and you are welcome to purchase food through the zoo. To register, please visit <https://forms.gle/CBetFZgahNChUTC7>.

### **Lunch**

To increase social distancing, we will have a boxed lunch this year instead of a buffet. You can take your lunch to any first floor break-out room, the main large room, around the FFA building, or even outside. During lunch, we will have the awards and keynote speaker and those can be viewed over Zoom. The breakout rooms and large room will already have Zoom pulled up, but you can also access Zoom on your personal device.

### **Awards**

Award winners will be given their awards live over the lunch time in the large room and this will be streamed over Zoom. Tables will be designated for award winners and their guests and award winners will be ushered to the stage by a member of the ISTS board when your award is being announced.

### **Zoom Link**

The Zoom link can be used to attend the awards and keynote speaker. We also have a QR code in the program.

<https://DMACC.zoom.us/j/6902550879>

Meeting ID: 690 255 0879

### **Masks**

Masks are required at the conference except for when you are eating lunch. We will have some disposable masks available for you at the registration desk.

### **License Renewal and Graduate Credit for attending ISTS**

This year, we are offering one license renewal or one graduate credit for attending ISTS with some additional work. License renewal through ISEA is \$25 and graduate credit is \$90 through Drake University. Please e-mail Jesse Wilcox at [jesse.wilcox@uni.edu](mailto:jesse.wilcox@uni.edu) for more information or visit <https://cvent.me/wQP4xZ> to register.

# Pre-Conference Events

## Sunday October 3

### Blank Park Zoo

7401 SW 9th Street, Des Moines, IA

Join us in a welcoming event

## 2:00–4:00 PM

Join us for a pre-conference event at the Blank Park Zoo! Get a behind the scenes tour of the Zoo and attend two engaging breakout sessions. Water will be provided for free and food will be available to purchase through the zoo. Admission is **FREE** to registered conference participants.



## Join IAS at the

133rd Annual Meeting Iowa  
Academy of Science  
and the 89th Meeting of the Iowa Junior  
Academy of Science  
April 2022



Cover design by Ethan Leners 2021

# Monday October 4

- 8:00 - 8:15 Opening Room 106–107
- 8:15- 9:00 Breakout Session 1
- 9:00 - 9:30 Exhibit Hall
- 9:30 -10:00 Breakout Session 2
- 10:00- 10:45 Breakout Session 3
- 10:45 - 11:15 Exhibit Hall
- 11:15- 11:45 Breakout Session 4
- 11:45- 1:10 Lunch, Awards and Keynote
- 1:10-1:55 Breakout Session 5
- 1:55 -2:15 Exhibit Hall
- 2:15 - 3:00 Breakout Session 6
- 3:00- 3:15 Closing



## Engaging in Equitable Science: Symbols for Conference Themes:

- Diverse - Engaging Diverse Learners in Science
- Comm - Community Partnerships in Science
- Grow - Fostering Growth Mindset in Science
- C P - Collaborative Participation
- STEM - Real-world Relevant STEM Experiences

### Award Winners

- ESTA Excellence in Science Teaching Award (IAS)
- DTA Distinguished Teaching Award (IAS)
- Pres Presidential Award for Excellence in Math and Science Teaching



## Lunch

Lunch will be boxed, grab-and-go style, so conference participants can easily take their lunches and spread throughout the breakout rooms on the first floor and Room 106 during the awards and synchronous keynote. Zoom will be pulled up on all open breakout classrooms and in Room 106 to allow social distancing during the meal. The awards presentation will be pre-recorded with pauses to give awards live to those who are present. If you would like to watch the awards and keynote outside or in a different location, please use the following Zoom link, Meeting ID, or QR Code: See page 14 for QR code

<https://DMACC.zoom.us/j/6902550879> Meeting ID: 690 255 0879



# Monday Schedule

8:00 - 8:15 Opening	Room 106 - 107				
	Rm 107	Rm 108	Rm 109	Rm 112	Rm 113
Breakout #1 8:15–9:00	<b>A Delaney</b> Playing with Science through Inquiry-Based Centers	<b>J Lang, M Lang</b> Iowa Stem Teacher Externships	<b>C Weller</b> Reach New Heights with the Interactive Digital Edition of OpenSciEd provided by Activate Learning	<b>L Flynn, M Hasken-Averkamp</b> STEM Problem-based Learning for a Diverse Classroom of Learners	<b>T Morgan, K Roberts, J Becker, L Berry, C Smith</b> Iowa Science Phenomena Teacher and Student Resources from Iowa PBS
9:00 - 9:30	AM Exhibit Hall				
Breakout #2 9:30–10:00	<b>T Anderson, T Johnson, J Easter</b> Collaborative Biomes and the Nature of Science	<b>D Del Carlo</b> Professional Growth of Science Teachers through Community	<b>B Ehlers, C Carney, J Monteith, D Colsch</b> Engaging Students in Community Action through Environmental Issues Instruction	<b>L Flynn, M Hasken-Averkamp, L Regina, E Murra</b> STEM Innovator: Portfolio Assessment and Community Engagement Platform	<b>K Gray, J Maroo, A Czarnetzki, S Kucuksari</b> The Iowa Secondary Energy Curriculum (ISEC) Project - Update on New Curriculum
Breakout #3 10:00–10:45	<b>L Chizek</b> Engineering a Pancake Recipe: Connecting Chemistry to Everyday Life	<b>B VanMeeteren</b> Making Space for STEM: Structuring Time for STEM Experiences Every Day Within the Literacy Block	<b>Barb Gigar</b> Iowa DNR WILD Field Investigations	<b>S Derry, M Trent, J Wilcox,</b> Growing STEM in Your Community: Planning a STEM Festival	<b>S Black, L Barnard, P Lala</b> Land Grab: Engaging Students in Resource Management, Climate Change, and Hazards
10:45–11:15	AM Exhibit Hall				
Breakout #4 11:15 - 11:45	<b>J Bliss</b> Is the digital content you created accessible to all learners?	<b>D Andersen</b> Life Cycle of a Cupcake: Carbon and energy cycling and its impact on our earth	<b>C Rankin</b> Best Practices in STEM Education: Learn from and interact with <b>past Iowa STEM Teacher Award Recipients</b>	<b>C Heinzel, R Clark, S Lundy</b> Earth Science Resources for Teachers and Students	<b>L Escalada, J Morgan</b> Providing Professional Growth for High School Physics Teachers
11:45–1:10	Lunch, Awards & Keynote in the breakout rooms				
Breakout #5 1:10 - 1:55	<b>Brian Klaff</b> What can NSTA do for you?	<b>J Weld</b> STEM = Equity	<b>J Monteith, B Ehlers, C Carney, D Colsch</b> Coding For Crop Success: Equitable Coding to Fuel a Growth Mindset	<b>J Wilcox, N Moore, A Peck</b> Teaching Units for Elementary Physical Science and STEM	<b>B Watson, L Sharp</b> Building Iowa's and Wastewater Treatment Industry through Paid Highschool Student Internships.
1:55–2:15	PM Exhibit Hall				
Breakout #6 2:15- 3:00	<b>M Bechtel, M Dehli, K Hoey, LBrown, B Montgomery, S Baumgartner</b> Ioponics (Iowa Aquaponics)	<b>B Berns Jason Martin-Hiner</b> Using Talk Moves To Support Equitable Discourse	<b>C Carney W Fett</b> Pork Culture: Fostering Student Interest Through Pork Production	<b>J Wilcox, M Lindsey, K Steinke</b> Warming Up To Inquiry: Embedding Inquiry into Elementary Lessons	<b>L Campbell, J Wells, C Wolken, J Hobb</b> Monarch Conservation with an Engineering Twist
3:00- 3:15	Closing Room 106 - 107				

# Monday Schedule

8:00 - 8:15 Opening	Room 106 - 107				
	Rm 114	Rm 115	Rm 208	Rm 212	Rm 213
Breakout #1 8:15–9:00	<b>M Wadler</b> Can you ESCAPE the Science Lab?	<b>E Schiller</b> Update on Nepal: Rebuilding after Earthquakes & Now after a Global Pandemic	<b>P Evans</b> <b>S Nelson</b> A Forward Learning Experience: FLEx Space Artemis		<b>M Kuhn, R Rinehart</b> Introducing the Revised ASSIST Approach
9:00 - 9:30	AM Exhibit Hall				
Breakout #2 9:30–10:00	<b>A Schiller Haynes</b> Water Sampling Data Collecting to Enhance the Science Classroom	<b>J Kruse, S Voss, I Kent-Schneider</b> Asking better questions...about science.	<b>K Bergman, T Hunt</b> Sparking Interest in STEM Careers while Meeting Local Community Needs	<b>P Joslyn</b> Promoting the Art of Questioning	<b>B Kaufmann</b> Kick Start Science Units: Using Investigations to Elicit Questions and Encourage Collaboration
Breakout #3 10:00–10:45	<b>M Cozza</b> Strategies to Support English Learners (ELLs) in the Science Classroom	<b>L Peitz, E Schiller</b> STEM Activities Appropriate for 6th Graders	<b>R Henry</b> “Teacher, how do I become a...?” Inspire your students to pursue STEM careers	<b>H Schmitt</b> <b>G Gregg</b> Dart Frog: A TOADally Un-FROGettable Classroom Pet	<b>L Campbell, T Samuleson</b> Teaching Life Science with Monarchs On the Move
10:45–11:15	AM Exhibit Hall				
Breakout #4 11:15 - 11:45	<b>L Bleeker, S Arbuckle</b> Wanted! Dead or Alive Iowa Invasive/Endangered Species Poster Project	<b>J Kruse, L Menke</b> What do students need to engage in socio-scientific issues?	<b>N Weirather</b> Let’s Allow Our Students to Soar	<b>P Joslyn</b> Creating a STEM camp in your community	<b>C Carney</b> <b>W Fett</b> Agriculture Literacy for Diverse Worlds
11:45–1:10	Lunch, Awards & Keynote in the breakout rooms				
Breakout #5 1:10 - 1:55	<b>M Cozza</b> Using Storylines to Enhance Student Voice and Learning	<b>C Like, T Gilmore</b> First Tee: Erosion, Pollution, and Golf	<b>D Kearney</b> Breakout of the Box - Soil	<b>C Weller</b> Reach New Heights with the Interactive Digital Edition of Open-SciEd provided by Activate Learning	
1:55–2:15	PM Exhibit Hall				
Breakout # 6 2:15- 3:00	<b>M Cozza</b> Claim-Evidence-Reasoning: Scientific Explanations to Increase Student Voice	<b>A Mohr, S Dahlby, M Haage</b> Integrating Modeling with Project GUTS	<b>D Krefting</b> Supporting Growth Mindset with Self Paced Learning	<b>M Sanderman</b> <b>C Byram</b> Rising to the challenge - growth through STEM	<b>A Brown, C Smith</b> Digital Field Trips within Iowa, for Iowans!
3:00- 3:15	Closing Room 106 - 107				

Rooms and times are subject to change.



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- Physiology & Health Sciences

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# Conference Credit Opportunity



## ISTS Professional Development Syllabus

**Course Name:** 2021 Iowa Science Teaching Section Conference

**Course Credit:** 1 ISEA License Renewal Credit or 1 Drake University Graduate Credit (30 hours additional course time required for Drake Graduate Credit with the 15 hours Required for ISEA License Renewal Credit)

**Course Cost:** \$25 ISEA License Renewal or \$90 for Drake University Graduate Credit

**Instructor(s)/Contact Information:** Jesse Wilcox, Ph.D., [jesse.wilcox@uni.edu](mailto:jesse.wilcox@uni.edu) or 515-450-2759

**Published Description of Course:**

The purpose of this course is to take your learning from the Iowa Science Teaching Section Conference directly into your classroom setting. An emphasis of the assignments will be to make your science classroom more equitable.

**Required Text:** None. Readings for the reading assignment can be found online.

**Objectives/Standards for the Class:**

Students will:

1. Engage in professional development activities at the Iowa Science Teaching Section Conference
2. Engage in reflective practice focused on improvement.
3. Apply learning from the ISTS conference/course materials to improving science teaching.
4. Demonstrate an accurate understanding of equity in PK-12 science.
5. Express best practices in engaging students with real-world experiences (e.g., community, inquiry).

Please e-mail Jesse Wilcox at [jesse.wilcox@uni.edu](mailto:jesse.wilcox@uni.edu) for more information or visit <https://cvent.me/wQP4xZ> to register.

# Session 1 8:15 – 9:00

<b>Room 107</b> <i>Playing with Science through Inquiry-Based Centers</i>	Diverse Elem Life, ESS, PS, Eng	Purposeful play in science and engineering is best practice in early childhood (PK-3). This presentation will focus on inquiry-based science using classroom centers.	Ashley Delaney Heartland AEA
<b>Room 108</b> <i>Iowa Stem Teacher Externships</i>	STEM MS,HS Life, ESS, PS, Eng	Looking for a way to engage in the STEM careers where you live? Visit us to learn how to spend next summer as a Teacher Extern!	Jason Lang, Meghan Lang, Iowa Governor's STEM Advisory Council
<b>Room 109</b> <i>Reach New Heights with the Interactive Digital Edition of OpenSciEd provided by Activate Learning</i>	Diverse MS PS, Eng	Join us for an engaging session that introduces the interactive digital edition (IDE) of OpenSciEd, beginning with an overview of the Teacher Edition's and its structure: Plan, Teach, Assign and Assess. All participants will walk away with a complimentary 60-Day trial of the new and exciting digital edition of OpenSciEd.	Cynthia Weller Activate Learning
<b>Room 112</b> <i>STEM Problem-based Learning for a Diverse Classroom of Learners</i>	Diverse, All levels Life, ESS, PS, Eng	Engage in a hands-on, minds-on activity to engage ALL learners in the practices and concepts of science while employing a culturally responsive project-based learning framework	Leslie Flynn, Maria Hasken-Averkamp, University of Iowa, Colleges of Engineering, Business, Mathematics, Computer Science
<b>Room 113</b> <i>Iowa Science Phenomena Teacher and Student Resources from Iowa PBS</i>	Diverse Elem, MS, HS Life, ESS, PS, Eng	Start using local phenomena in your classroom today with Iowa PBS Iowa Science Phenomena and the newly developed teacher and student companion resources!	Tiffany Morgan, Iowa PBS, Kean Roberts, Ames Middle School; Jonnie Becker, Des Moines Public Schools; Laney Berry, Muscatine Community School District;; Cody Smith, Media Integration Specialist, Iowa PBS
<b>Room 114</b> <i>Can you ESCAPE the Science Lab?</i>	CP Life, ESS, PS, Eng	Learn to create virtual and hands-on ESCAPE rooms for science! Escape rooms promote student discourse, collaboration, problem solving, leadership and so much more!	Monica Wadler Savvas Learning Company
<b>Room 115</b> <i>Update on Nepal: Rebuilding after Earthquakes &amp; Now after a Global Pandemic</i>	Pres ESTA STEM All levels Life, ESS, PS, Eng	Find out how a 3rd World Country like Nepal has recovered after a severe earthquake & is now trying to recover from COVID-19 Pandemic	Ernest Schiller Holy Trinity Schools
<b>Room 208</b> <i>A Forward Learning Experience: FLEx Space Artemis</i>	Diverse Elem, MS, HS ESS, PS, Eng	The FLEx Space Artemis platform addresses diverse learning providing transformational experiences in a 21C creative STEM learning framework.	Pete Evans, Sara Nelson Iowa State University
<b>Room 213</b> <i>Introducing the Revised ASSIST Approach</i>	Pres Grow Elem Life, ESS, PS, Eng	In this presentation we will share the structure of the revised ASSIST approach. The updated version includes student-centered inquiry and dialogic argumentation.	Mason Kuhn Ron Rinehart University of Northern Iowa

# Exhibit Hall 9:00 – 9:30

# Session 2 9:30 – 10:00

<b>Room 107</b> <i>Collaborative Biomes and the Nature of Science</i>	CP Elem, MS Life	This middle-level presentation is an interactive science exploration about energy flow in an ecosystem where students learn to make connections to Nature of Science ideas.	Trevor Anderson Grand View University Trent Johnson Van Meter MS; Dr. Jaci Easter Grand View University
<b>Room 108</b> <i>Professional Growth of Science Teachers through Community</i>	ESTA CP All levels Life, ESS, PS	Presentation details how the MA program in Science Education at UNI builds a community of teacher practitioners while students complete different requirements of the program.	Dawn Del Carlo University of Northern Iowa
<b>Room 109</b> <i>Engaging Students in Community Action through Environmental Issues Instruction</i>	STEM All levels Life, ESS	In this session, participants will gather ideas to support student involvement in community action projects that involve science issues.	Barb Ehlers, Cathryn Carney, Jeff Monteith, Dawn Colsch Upper Iowa University
<b>Room 112</b> <i>STEM Innovator: Portfolio Assessment and Community Engagement Platform</i>	Comm Life, ESS, PS, Eng	Explore a problem-based learning assessment tool developed by the University of Iowa to capture workforce and college readiness skills and mindsets.	Leslie Flynn, Maria Hasken -Averkamp, Lucas Regina ,E. Murra, University of Iowa
<b>Room 113</b> <i>The Iowa Secondary Energy Curriculum (ISEC) Project - Update on New Curriculum</i>	STEM MS,HS, College ESS, Eng	ISEC is developing ten earth science units that incorporate Iowa energy usage with a career element. We are currently recruiting for the summer 2022 workshop.	Kyle Gray, Jill Maroo, Alan Czarnetzki, Sadik Kucuksari University of Northern Iowa
<b>Room 114</b> <i>Water Sampling Data Collecting to Enhance the Science Classroom</i>	Pres ESTA STEM MS, HS	See examples of how to incorporate water sampling into a variety of science curriculums.	Alicia Schiller Haynes Central Lee High School
<b>Room 115</b> <i>Asking better questions...about science</i>	Grow All levels Life, ESS, PS, Eng	Inquiry-based teaching requires teachers to guide student learning. We'll share some new classroom-based insights about how to ask better questions to improve all our lessons.	Jerrid Kruse, Sarah Voss, Isaiah Kent-Schneider Drake University
<b>Room 208</b> <i>Sparking Interest in STEM Careers while Meeting Local Community Needs</i>	STEM Elem, MS, HS Life, ESS, PS, Eng	STEM BEST engages innovators to provide authentic learning experiences to students. Learn best practices on beginning an initiative in your community and applying for an award.	Kelly Bergman Tanya Hunt STEM Advisory Council
<b>Room 212</b> <i>Promoting the Art of Questioning</i>	Grow MS, HS Life, ESS, PS, Eng	Developing an environment to promote the skill of questioning through active participation, students can engage in classroom discussions by participating in questioning through scientific discovery.	Pamela Joslyn Muscatine Community School District
<b>Room 213</b> <i>Kick Start Science Units: Using Investigations to Elicit Questions and Encourage Collaboration</i>	ESTA CP Elem Life, ESS, PS, Eng	Hands-on investigations engage young students in actively exploring materials and collaborating with peers. Questions will emerge that can be used to start your units!	Brenda Kaufmann North Tama County Community School

# Session 3 10:00 – 10:45

<b>Room 107</b> <i>Engineering a Pancake Recipe: Connecting Chemistry to Everyday Life</i>	Pres ESTA STEM Elem PS, Eng	Create an appetite for STEM with your elementary students by engaging in an “Engineering a Pancake Recipe” design process that makes the structure and properties matter more meaningful.	Lisa Chizek Iowa State University
<b>Room 108</b> <i>Making Space for STEM: Structuring Time for STEM Experiences Every Day Within the Literacy Block</i>	Diverse Elem, PS, Eng	Meeting the interests and needs of diverse learners requires rethinking the literacy block in PK-2 classrooms. Learn how Iowa teachers are doing it well.	Beth VanMeeteren Iowa Regents' Center for Early Developmental Education at the University of Northern Iowa
<b>Room 109</b> <i>WILD Field Investigations</i>	STEM Elem, MS, HS Life, Eng	Interactive introduction to resources and tactics for teaching questioning, observation, and investigation skills. Participants will receive access to national Field Investigations Guide, and Iowa specific resources	Barb Gigar Iowa DNR
<b>Room 112</b> <i>Growing STEM in Your Community: Planning a STEM Festival</i>	ESTA, DTA, Comm MS, HS Life, ESS	Ignite student interest in STEM learning by creating a night to engage hands-on with organizations in their own backyards that apply STEM every day!	Sarah Derry, Ia Governor's STEM Advisory Council/ Drake University; Mary Trent, Ia Governor's STEM Advisory Council/Ia Lakes Community College; Jesse Wilcox, UNI
<b>Room 113</b> <i>Land Grab: Engaging Students in Resource Management, Climate Change, and Hazards</i>	ESTA CP MS, HS ESS	Iowa City High School Earth and Space Science teachers lead an abbreviated version their class project relating a location to its impact regarding climate change, resources, and natural hazards.	Scott Black, Lynsey Barnard, Phil Lala Iowa City High School
<b>Room 114</b> <i>Strategies to Support English Learners (ELLs) in the Science Classroom</i>	Diverse Elem, MS Life, ESS, PS, Eng	Come engage in strategies that can help your English Learners (ELs) make sense of science concepts and apply their science knowledge to real-world applications.	Michele Cozza STEMscopes by Accelerate Learning
<b>Room 115</b> <i>STEM Activities Appropriate for 6th Graders</i>	Pres ESTA STEM Elem, MS, HS Life, ESS, PS, Eng	STEM activities begin at early education levels. We will discuss what our school does for elementary STEM and how you can incorporate these ideas into your school's classroom	Linda Peitz Ernest Schiller Holy Trinity Schools
<b>Room 208</b> <i>“Teacher, how do I become a...?” Inspire your students to pursue STEM careers</i>	STEM Elem, MS, HS Life, ESS, PS, Eng	Educators will gain access to engaging online resources that will reinforce key STEM skills and let students discover some exciting career opportunities that await.	Rachel Henry EVERFI
<b>Room 212</b> <i>Dart Frog: A TOADally UnFROGettable Classroom Pet</i>	STEM All levels Life, Eng	Dart frogs and their vivariums are a unique and safe way to teach students a variety of subjects while including all learners.	Hanna Schmitt Genoa Gregg Wartburg College
<b>Room 213</b> <i>Teaching Life Science with Monarchs On the Move</i>	Pres ES- TA STEM Elem Life	Participants learn about life science standards that engage students in STEM-focused experiences with monarch butterflies and connect learning to how science happens in real life.	Lynne Campbell Iowa State University Terri Samuleson, Pocahontas Area Community School



# Exhibit Hall 10:45 – 11:15

## Session 4 11:15 – 11:45

<b>Room 107</b> <i>Is the digital content you created accessible to all learners?</i>	Diverse All levels Life, ESS, PS,Eng	When COVID changed our instructional delivery of STEM content, many students struggled with virtual learning. This presentation will provide a checklist of strategies to be sure content is accessible to all learners.	Jennifer Bliss Iowa Educational Services for the Blind and Visually Impaired
<b>Room 108</b> <i>Life Cycle of a Cupcake: Carbon and energy cycling and its impact on our earth</i>	ESTA STEM MS,HS Life, ESS	In this activity, students make cupcakes in the microwave and calculate the amount of carbon dioxide produced in each step as well as the energy used. They analyze their data to see where they can reduce their impact on the earth. Life cycle analysis can be applied to products they use on a regular basis.	DeEtta Andersen Center Point Urbana High School
<b>Room 109</b> <i>Best Practices in STEM Education: Learn from and interact with past Iowa STEM Teacher Award Recipients</i>	Pres ESTA Grow Elem, MS,HS Life, ESS, PS,Eng	In this interactive panel, past recipients of the Iowa STEM Teacher Award (sponsored by Kemin Industries) will share insights on great classroom STEM curriculum/partners.	Carrie Rankin, Iowa Governor's STEM Advisory Council: Previous Recipients of the Iowa STEM Teacher Award, sponsored by Kemin Industries
<b>Room 112</b> <i>Earth Science Resources for Teachers and Students</i>	STEM All levels ESS	Learn best practices and tools for setting up and running your own Iowa geology field trip, on-site or virtually. Ready, Set, Explore.	Chad Heinzl, University of Northern Iowa Ryan Clark, Iowa Geological Survey; Sherman Lundy, Basic Materials Corp./ Iowa Limestone Producers Association
<b>Room 113</b> <i>Providing Professional Growth for High School Physics Teachers</i>	Comm HS PS	The presentation will introduce participants to UNI Physics program and courses available to teacher practitioners to complete course requirements for the Iowa physics teaching endorsement.	Lawrence Escalada Jeffrey Morgan University of Northern Iowa
<b>Room 114</b> <i>Wanted! Dead or Alive Iowa Invasive/ Endangered Species Poster Project</i>	Pres CP MS, HS Life	Students research and create a Wanted! Dead or Alive poster about Iowa endangered or invasive species. Resources provided for immediate classroom use.	Lynne Bleeker Parkview Middle School Shannon Arbuckle, formerly at Parkview
<b>Room 115</b> <i>What do students need to engage in socio-scientific issues?</i>	STEM All levels Life, ESS, PS,Eng	Using classroom-tested activities, we'll explore socio-scientific thinking and teaching strategies to help students reason through complex issues.	Jerrid Kruse Drake University Lucas Menke
<b>Room 208</b> <i>Let's Allow Our Students to Soar</i>	ESTA Diverse Elem, MS, HS Life, ESS, PS,Eng	The NGSS are for ALL students. You will get ideas and templates to teach students with aptitude to ensure they have the opportunity to grow.	Nadine Weirather Central Lee
<b>Room 212</b> <i>Creating a STEM Camp in your Community</i>	STEM, Comm MS Life, ESS, PS,Eng	Access community partners to promote out of classroom experiences in your community and encourage youth to engage in STEM activities.	Pamela Joslyn Muscatine Community Schools
<b>Room 213</b> <i>Agriculture Literacy for Diverse Worlds</i>	Diverse Elem ESS	Gather tools to integrate agriculture into your diverse classroom through investigating plants from around the world and children's literature.	Cathryn Carney Will Fett Iowa Agriculture Literacy Foundation

# Luncheon, Awards & Keynote

## 11:45–1:10

Lunch will be boxed, grab-and-go style, so conference participants can easily take their lunches and spread throughout the lower floor breakout rooms and Room 106 during the awards and synchronous keynote. Zoom will be pulled up on all open breakout classrooms and in Room 106 to allow social distancing during the meal. The awards presentation will be pre-recorded with pauses to give awards live to those who are present. If you would like to watch the awards and keynote outside or in a different location, please use the following Zoom link, Meeting ID, or QR Code:

<https://DMACC.zoom.us/j/6902550879> Meeting ID: 690 255 0879



## Keynote Speaker

### SciGirls: Effective Equitable Teaching Practices in STEM Education Spaces

**Dr. Barbara Billington** is an instructor, researcher, and writer for *SciGirls*, a PBS project encouraging girls to get involved in science, technology, engineering, and math (STEM). Her goal is to bring equitable teaching practices throughout the twin Cities metropolitan area and beyond. She has also assisted in the development of an app, which is designed to help students understand cellular respiration and photosynthesis. She currently teaches other educators student-centered, culturally relevant, gender-equitable, and inquiry based science with a critical feminist perspective.



# Presidential Awards for Excellence in Math and Science Teaching

(PAEMST) are the Nation's highest honors for teachers of mathematics and science. The awards recognize highly qualified K-12 teachers for their contributions in the classroom and to their profession. The core of the award is a \$10,000 National Science Foundation grant to the recipient's school, to be spent at the teacher's discretion.



## Iowa 2020 PAEMST Finalists



**Deb Hufalin**

Osage Community  
School District  
Osage, Iowa.

3rd grade



**Sarah Borzo**

Waukee Community  
School District  
Waukee, Iowa

6th grade

## Iowa 2021 PAEMST Finalists



**Kyla Burns**

Johnston High School  
10th–12th grade

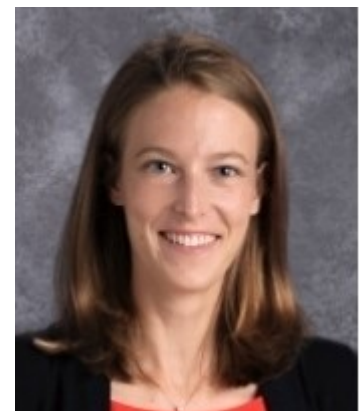
Zoology and AP Environmental Science



**Shannon McLaughlin**

Norwalk High School,  
Norwalk, IA

Physical Science and  
Engineering



**Allison McPherran**

Southeast Polk High  
School, Pleasant Hill, IA,

Earth Science, Freshman  
Physics, and Biology,

# 2021 Friend of Science Awards

## Small Corporation



**Skye Jones and Curt Buhr** (as professionals in **DMACC Continuing Education**) partnered with the Iowa Academy of Science [IAS] and the Iowa science Teachers Section [ISTS] to transition in-person conference events into virtual events. Due to the Covid-19 pandemic, a number of IAS and ISTS events scheduled in 2020-21 were in limbo as in-person gatherings were simply not possible. Through coordination with Craig Johnson, Jaclyn Easter, Jesse Wilcox, and others, DMACC was able to successfully host several events virtually for the members of the IAS and

ISTS community. The overarching goal was to make each experience as user-friendly and simple as possible for both the presenters and the participants, while maintaining meaningful content sharing and continuity. It's clear that with the guidance of Curt Buhr and Skye Jones, that DMACC Continuing Education has this year, truly been a Friend of Science Education and merits recognition as the 2021 ISTS FOS recipient.

## Large Corporation

The past two years have brought on unprecedented challenges to science classrooms across Iowa, the Midwest and the nation. Over that span, the **National Science Teaching Association** has been dedicated to providing support to science teachers and their students. Initiatives like "The Daily Do's," that promote three dimensional sense-making, Webinars on social justice, as well as Virtual Sessions on topics like cross-cutting concepts, have provided teachers with guidance and support during the Covid pandemic.



Throughout this crisis NSTA has helped keep teachers and students at the forefront as we create a "new normal" in science education. During Covid, the NSTA really came through for science teachers and truly merits being recognized as the 2021 Recipient of the ISTS Friend of Science Education Award.

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## Fellows of the Iowa Academy of Science



A Fellow is elected by the Board of Directors from those members who have provided meritorious service to the Academy and effective promotion of science in Iowa. Fellows remain as long as they maintain membership. This is an honor with the same privileges and responsibilities as a Professional Member. The Board of Directors solicits nominations for Fellows from the membership in the fall of each year.

**Please consider nominating a worthy candidate today!**

For more information, contact IAS at [iascience@uni.edu](mailto:iascience@uni.edu).



# 2021 Friend of Science Awards

## Individual

**Dennis Schlicht** says that after 45 years in science classrooms, it is in his genes to do science. He tries to be a resource person for biology and evolution with butterflies, rocks and fossils. He adds that DeEtta Andersen provides a great forum for that, every year with her science festival which attracts many families from Center Point-Urbana Schools. Dennis also has done presentations for naturalists, adult groups and various science classrooms.

In 2007 The University of Iowa Press published *Butterflies of Iowa* which Dennis co-wrote with John Downey and Jeff Nekola. That book has been useful for investigators interested in the status of our many disappearing butterfly species. Each species account within the book concludes with questions to be investigated by students of natural history, of any level.

Dennis Schlicht has been a member of the Iowa Academy of Science since 1969 and was honored to receive the Excellence in Science Teaching Award for Environmental Science in 1997. He was elected a *Fellow* of the Iowa Academy of Science in 2001, and was elected serve on the Board of Directors of the Iowa Academy of Science in 2007.

Dennis has most enjoyed being a mentor to others in the field of natural history and hopes to continue as a resource for student investigations.

It is clear that Dennis Schlicht is an obvious selection as the 2021 ISTS Friend of Science Education Award.



# 2021 Outstanding Service Award



**Alicia Shiller Haynes** been an official member of ISTS since 1997. She has been involved in ISTS at many different levels over this time. She has served as ISTS treasurer, has helped with conference set up and tear down and has presented at almost every ISTS conference over the past 20 years. She is currently serving as the Vice-chair and is looking forward to continuing an active leadership role in ISTS. Alicia has been recognized by the National Association of Biology Teachers with the New Outstanding Biology Teacher Award during her 2nd year of teaching. From the Iowa Academy of Science, Alicia has been recognized with the Excellence in Science Teaching Award [ESTA] for Life Science Teaching, as well as the ESTA for STEM for Teaching at the High School level. She was an Iowa Finalist for the PAEMST for high school science teaching award. Alicia continues to be actively involved in the Next Generation Science Standards [NGSS] Iowa Cohort as well as Open Sci Ed. She serves as a master

Biotechnology teacher for the State of Iowa. Alicia is the sponsor the Central Lee High School Student Science Research Club and mentors high school students that pursue and conduct their own student designed science research. Over the past 25 years, she has had the honor to accompany more than 25 students to the International Science and Engineering Fair. Certainly, Alicia Schiller Haynes is a great choice for the 2021 ISTS Outstanding Service Award.

# 2021 Outstanding Service Award

**Beth Van Meeteren** is a life-long Iowan who holds a BA in Social Sciences from Northwestern College in Orange City, an MAE in literacy and Doctorate in Curriculum and Instruction from the University of Northern Iowa with an emphasis on early STEM education - particularly early engineering. She has been in Iowa public education for 37 years serving for 18 years as a rural first grade teacher at Laurens-Marathon, six years as a first-grade teacher in East Waterloo, and 13 years in higher education at the University of Northern Iowa teaching early literacy and science methods. Since 2014, she has served as Director of the Iowa Regents' Center for Early Developmental Education, a center that represents Iowa State University, the University of Iowa, and the University of Northern Iowa, and is located on UNI's campus.



As a first-grade teacher, Beth engaged in action research and piloted early STEM experiences with one being funded by the National Science Foundation. In her 13 years in higher education, she designed and delivered professional learning in early STEM on the physics of force and motion, light and shadow, rotational motion, and the properties and dynamics of air and water. Other professional learning included spatial thinking and physics in block play and the chemistry in cooking. Much of this work is free and accessible to early childhood teachers through handouts and/or video on the Iowa Regents' Center website, [regentsctr.uni.edu](http://regentsctr.uni.edu). As Director of the Iowa Regents' Center, she has led the center in its selection by the Iowa Governor's STEM Advisory Council to serve as a scale up provider leading 382 Iowa early childhood teachers in professional learning in Ramps & Pathways, and 438 teachers in Light & Shadow. She led in the designing of classroom materials for these scale ups and coordinated with UNI's Department of Industrial Technology to enable its students to learn how to source raw materials and set up production and delivery of these materials to create a Ramps & Pathways classroom kit or Light and Shadow classroom kit for every scale up awardee. This brings real life work experience for students in the Department of Industrial Technology, and provides school districts and educators access to purchase these STEM materials on the center's e-commerce site, the STEMware Marketplace.

Dr. Van Meeteren was an ITEEA 21st Century Fellow and has designed and delivered webinars on early engineering for the Applied Engineering Management (AEM) website, the National Academy for Engineering's website LinkEngineering, and most recently the STEM Cafe' for educators in the country of Colombia. Dr. Van Meeteren serves as Advisor to FIRST LEGO League in their design and launching of FIRST LEGO Discovery for PK-2 students, and on Iowa's Child Development Coordinating Council which oversees the Shared Vision funding for Iowa preschools. She served on the committees charged with crafting the NSTA Early Childhood Science Education Position Statement and the NSTA Elementary Science Education Position Statement. She has published chapters in early STEM in three books with one translated into Chinese. She is currently editing a series of six early STEM books for Teachers College Press featuring the work of Iowa PK-2 teachers with the first one coming out in May of 2022. She has served as advisor to policy writers on early STEM for the Education Commission of the States and has been an invited keynote speaker on early STEM in local, state, regional, national, and international conferences in Mexico and China. She receives requests for professional learning in early STEM from school districts in Washington DC, California, Ohio, Texas, Illinois, and Indiana, but treasures opportunities to work with Iowa districts. She works closely with PK-2 teachers at North Tama County Community School District in Traer and has signed on as partner in their 2021 STEM Best award, and looks forward to working with 100 + Iowa preschool teachers in Sioux Center and Sioux City through the NorthWest AEA. In light of her dedication and career, Beth Van Meeteren is clearly an excellent choice for the 2021 ISTS Outstanding Service Award.

# ISTS Awards

The mission of the Iowa Academy of Science is to further scientific research, science education, public understanding of science and recognize excellence in these endeavors. One of the ways to recognize this excellence is by awards. We encourage you to nominate a deserving individual or corporation for an appropriate award.

**The Friend of Science (FOS) Award - Individual** - ISTS recognizes with a plaque an individual or group, within the state, who has made significant contributions to ISTS and/or to science education at the local, regional or statewide level.

**The Friend of Science (FOS) Award - Corporate** - ISTS recognizes with a plaque a corporation, company, coalition, foundation or government entity who has made significant contributions to ISTS and/or to science education at the local, regional or statewide level.

**The Outstanding Service Award (OSA)** - ISTS recognizes with a plaque an ISTS member who has made sustained, extraordinary contributions to ISTS and/or to science education at the state and/or national level.

**Excellence in Science Teaching Awards (ESTA)** - The Iowa Academy of Science (IAS) awards to outstanding teachers of all grade levels and areas of science, teachers who are recognized for their work and innovations in science education. The core of the Award is \$100 for the teacher and a Plaque. Nominations are accepted in the following categories:

- Physical Science (physics, chemistry and physical science)
- Life Science (biology, anatomy/physiology, life science)
- Earth/Space Science/Environmental Science
- General/Multiple Science (integrated science, interdisciplinary courses, multiple preps)
- Middle School/Junior High Science
- Elementary Science (two awards may be given/year)
- S.T.E.M. Science (one each, at Elementary, Middle School, and High School)
- Science Supervisory - (District, private, AEA, museum, naturalist, etc.)

## Excellence in Science Teaching Award 2021

Elementary Education	<b>Carrie Gordon</b>	Lemme Elementary Iowa City Community Schools
Elementary Education	<b>Terri Samuelson</b>	Pocahontas Area Elementary School Pocahontas, Iowa
Earth Science	<b>Jennifer Wells</b>	Newell-Fonda High School, Newell, Iowa
General Science	<b>Devan Walker</b>	Southeast Valley High School Gowrie, Iowa
Life Science	<b>Courtney Wolken</b>	Newton Senior High School Newton, Iowa
STEM @ H.S. Science	<b>Nancy Duncan</b>	Des Moines East High School Des Moines, Iowa



# Conference Support

## Des Moines Area Community College

DMACC offers over 200 degrees, diplomas and certificates as well as continuing education and online programs. In addition to the 6 main campus sites there are several additional satellite classrooms in the Des Moines area .



## Blank Park Zoo

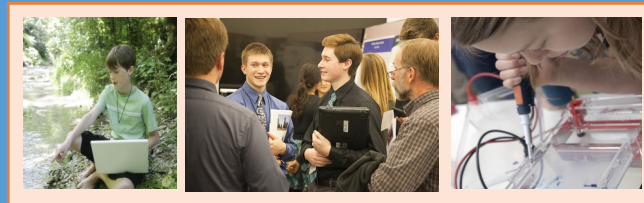
Blank Park Zoo is proud to be an organization committed to conservation. Blank Park Zoo Continually works to raise funds to support organizations and projects around the world dedicated to the same conservation ideals.

Thanks to the ISTS Planning Committee and Leadership Team for their help in putting together this **conference**: Craig Johnson; Jesse Wilcox, chair; DeEtta Andersen; Jaclyn Easter; Tom Ervin; Barbara Jacobson; Traci Maxted; and Alicia Schiller Haynes

Cover design by Ethan Leners 2021

## *Iowa Junior Academy of Science*

The Iowa Junior Academy of Science provides resources and programs for 6th-12th grade science students and their teachers/parents. IJAS promotes individual and small group student research, awards, scholarships, and extra-curricular activities to broaden a student's science experiences.



**Visit the IAS Booth for more information and to join.**



# Session 5 1:10 – 1:55

<b>Room 107</b> <i>What can NSTA do for you"</i>	CP All levels Life, ESS, PS,Eng	Professional communication and collaboration are important today. Learn how being a member of NSTA can enhance and grow your science community.	Brian Klaft National Science Teaching Association
<b>Room 108</b> <i>STEM = Equity</i>	Grow All levels Life, ESS, PS,Eng	(A) Context + (B) Application + (C) Collaboration + (D) Relevance = Equitable teaching and learning. And, A+B+C+D = STEM. Thus STEM = Equity. Here's how!	Jeff Weld Iowa Governors STEM Advisory Council
<b>Room 109</b> <i>Coding For Crop Success: Equitable Coding to Fuel a Growth Mindset</i>	Grow All levels ESS, Eng	In this session participants will gather tools to build resiliency within their classroom through engaging in a precision agriculture coding opportunity.	Jeff Monteith, Cathryn Carney, Barb Ehlers, Dawn Colsch Upper Iowa University / New Hampton CSD
<b>Room 112</b> <i>Teaching Units for Elementary Physical Science and STEM</i>	ESTA, DTA CP Elem PS, Eng	Come join us and engage in some activities from our Elementary Physical Science and STEM Units called Project First STEPS.	Jesse Wilcox University of Northern Iowa Naryah Moore , Averi Peck, Simpson College
<b>Room 113</b> <i>Building Iowa's Water and Wastewater Treatment Industry Capacity Through Workforce Recruitment &amp; Diversity</i>	Comm HS, College Life, ESS, PS,Eng	The "Water In Progress" Drinking Water & Wastewater Treatment Operator High School Student Program was developed and is managed by a committee of volunteers. This program funds "hands-on" internships in Drinking Water & Wastewater systems for the benefit of all involved. The "Water in Progress Committee" needs the aid of our local educational institutions in identifying interns.	Bob Watson; IAWEA Laurie Sharp; IDNR
<b>Room 114</b> <i>Using Storylines to Enhance Student Voice and Learning</i>	STEM Elem, MS Life, ESS, PS,Eng	Are you looking for a way to increase student ideas in the development of storylines? Increasing student voice by creating storylines leads to student autonomy in the learning process. We will discover different scaffolds to use to build student discovery and engagement.	Michele Cozza STEMscopes by Accelerate Learning
<b>Room 115</b> <i>First Tee: Erosion, Pollution, and Golf</i>	ESTA STEM MS,HS Life, ESS	Come learn how teachers at Bettendorf Middle School collaborate with an area golf course to teach life and earth science topics.	Christopher Like Tanya Gilmore Bettendorf Community Schools
<b>Room 208</b> <i>Breakout of the Box - Soil</i>	Grow MS, HS Life, ESS, PS	Participants will explore soil breakout box lessons that help students learn about the soil and nutrients under our feet. Learn how these hands on lessons can be implemented in your classroom.	Debra Kearney Nutrients for Life Foundation
<b>Room 212</b> <i>Reach New Heights with the Interactive Digital Edition of OpenSciEd provided by Activate Learning</i>	Diverse MS PS, Eng	Join us for an engaging session that introduces the interactive digital edition (IDE) of OpenSciEd, beginning with an overview of the Teacher Edition's and its structure: Plan, Teach, Assign and Assess. All participants will walk away with a complimentary 60-Day trial of the new and exciting digital edition of OpenSciEd.	Cynthia Weller Activate Learning

# Exhibit Hall 1:55 – 2:15

# Session 6 2:15 – 3:00

<b>Room 107</b> <i>Iponics</i> <i>(Iowa Aquaponics)</i>	STEM All levels Life, PS, Eng	Iponics (education-based aquaponics) integrates hands-on biophilic STEAM experiences and standard-aligned lessons. We were selected for the 2021 Scale-Up Award and placed with 160 Iowa educators.	Michael D Bechtel, Michaela Dehli, Krisitn Hoey, Lexi Brown, Becca Montgomery, Sidney Baumgartner, Wartburg College
<b>Room 108</b> <i>Using Talk Moves To Support Equitable Discourse</i>	CP Elem, MS, HS Life, ESS, PS,Eng	In this session, we will explore a variety of student-centered talk moves for the science classroom.	Bev Berns, Jason Martin-Hiner Keystone Area Education Agency
<b>Room 109</b> <i>Pork Culture: Fostering Student Interest Through Pork Production</i>	STEM MS, HS PS, Eng	Gather a deeper understanding of Iowa's pork production and its relationship to the people and culture of Iowa as you engineer your own hog barn.	Cathryn Carney Will Fett Iowa Agriculture Literacy Foundation
<b>Room 112</b> <i>Warming Up To Inquiry: Embedding Inquiry into Elementary Lessons</i>	ESTA, DTA STEM Elem PS, Eng	Come join us for an engaging activity about heat and a discussion about how to include inquiry in your lessons more often.	Jesse Wilcox University of Northern Iowa Maizee Lindsey, Karissa Steinke, Simpson College
<b>Room 113</b> <i>Monarch Conservation with an Engineering Twist</i>	Pres ESTA CP HS Life, Eng	Let's learn about a collaboration with Iowa State University, USDA, three high schools science teachers, and students. Participants will run tests that were conducted by the teachers and students with the goal to analyze current research and incorporate engineering.	Lynne Campbell, ISU Jenn Wells, Newell Fonda High School; Courtney Wolken, Newton High School; Jenny Hobbs, Keota High School
<b>Room 114</b> <i>Claim-Evidence-Reasoning: Scientific Explanations to Increase Student Voice</i>	Grow Elem, MS, HS Life, ESS, PS	Claim-Evidence-Reasoning (CER) is a structured approach for students to explain observed phenomenon in a scientific way using observations and data from an investigation. Students use critical reasoning to connect the claim and evidence together. CER is a highly successful instructional strategy that is changing how students understand concepts and write explanations for phenomena.	Michele Cozza STEMscopes by Accelerate Learning

Session 6 continued on next page

# Session 6 2:15 – 3:00

continued from previous page

<b>Room 115</b> <i>Integrating Modeling with Project GUTS</i>	Grow MS Life, ESS, PS,Eng	Help students develop computational thinking skills using models to evaluate scientific phenomena. Project GUTS provides educators support to integrate computer science into their science teaching.	Alison Mohr, New Bohemian Innovation Collaboration; Samantha Dahlby (NewBoCo); Mauree Haage (North Mahaska High School)
<b>Room 208</b> <i>Supporting Growth Mindset with Self Paced Learning</i>	Grow Elem, MS, HS Life, ESS, PS,Eng	Learn about AEA Learning Online's Student Personalized Learning System to support student growth mindset with self paced learning.	Denise Krefting AEA Learning Online
<b>Room 212</b> <i>Rising to the challenge - growth through STEM</i>	ESTA STEM Elem, MS PS, Eng	In this session, participants will discover and experience STEM challenges that build student skills in the Universal constructs of critical thinking, collaboration, creativity, flexibility and adaptability.	Mandie Sanderman, Chelsie Byram Central Rivers AEA
<b>Room 213</b> <i>Digital Field Trips within Iowa, f or lowans!</i>	STEM Elem Life, ESS	Announcing Iowa PBS's newest adventure: Fun Investigating New Discoveries (FIND) in Iowa! Grades 2-5 discover Iowa's geological past, agricultural history, and meet culturally diverse lowans!	Abby Brown, Cody Smith Iowa PBS

# Closing 3:00 – 3:15

Room 106 -107

Notes

# 2021 Exhibition Hall



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## Activate Learning

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Craig Johnson  
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Iowa Agriculture  
Literacy Foundation

## Iowa Agriculture Literacy Foundation

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# 2021 Exhibition Hall



## Iowa Children's Water Festival

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## Iowa Limestone Producers Association

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## Iowa State University

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## MicroTech Microscope Sales & Service

Warren Holmes  
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[www.scopeman.com](http://www.scopeman.com)



**MILLIKIN**  
UNIVERSITY

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## National Earth Science Teachers Association

Peggy Steffem  
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<https://www.nestanet.org/>

**Exhibition Hall continued on next page**

Do you have information that you want to get out to the science teachers of Iowa?

Use a booth in the exhibit hall at the ISTS Fall Conference.

Commercial and non-commercial booths available.

Please contact the Iowa Academy of Science at [ias0001@uni.edu](mailto:ias0001@uni.edu)

# 2021 Exhibition Hall



## Nebraska Scientific

Jessica Barrett  
800-228-7117

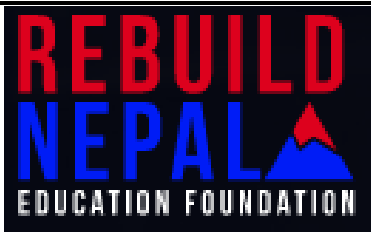
[jessicab@nebraskascientific.com](mailto:jessicab@nebraskascientific.com)  
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## Notes:



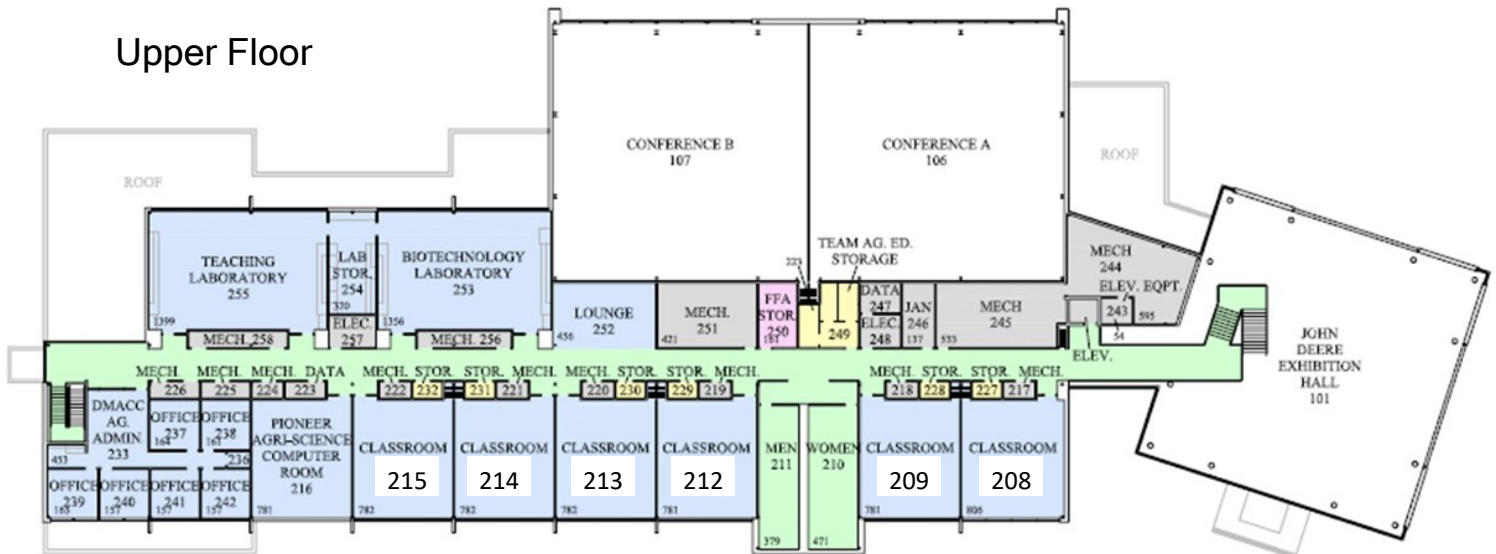
# FFA Building

## DMACC—Ankeny Campus

Lower Floor



Upper Floor



The Iowa Academy of Science is established to further scientific research and its dissemination, education in the sciences, public understanding of science and recognition of excellence in these endeavors. Affiliated with the American Association for the Advancement of Science (AAAS), the National Science Teachers Association (NSTA), National Association of Biology Teachers (NABT), the American Junior Academy of Sciences (AJAS), the Iowa Space Grant Consortium (ISGC), the Iowa Math and Science Education Partnership and the Iowa Mathematics and Science Coalition.

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