

# 2015 Iowa STEM Summit

## “STEM: Opportunity through Diversity”

Community Choice Credit Union Convention Center  
833 5<sup>th</sup> Avenue, Des Moines, Iowa



### Monday, March 30, 2015

<p><b>8:30 to 9:15 a.m.</b> Foyer/Ballroom, Level 4</p>	<p><b>Registration – Continental Breakfast and Networking</b></p>		
<p><b>9:15 to 9:30 a.m.</b> Ballroom, Level 4</p>	<p><b>Welcome</b></p> <table border="0"> <tr> <td data-bbox="467 1329 954 1434"> <p><b>The Honorable Kim Reynolds</b> Lieutenant Governor of the State of Iowa <i>Co-Chair, Governor's STEM Advisory Council</i></p> </td> <td data-bbox="995 1329 1482 1434"> <p><b>Mary Andringa, CEO/Chair of the Board</b> Vermeer Corporation <i>Co-Chair, Governor's STEM Advisory Council</i></p> </td> </tr> </table>	<p><b>The Honorable Kim Reynolds</b> Lieutenant Governor of the State of Iowa <i>Co-Chair, Governor's STEM Advisory Council</i></p>	<p><b>Mary Andringa, CEO/Chair of the Board</b> Vermeer Corporation <i>Co-Chair, Governor's STEM Advisory Council</i></p>
<p><b>The Honorable Kim Reynolds</b> Lieutenant Governor of the State of Iowa <i>Co-Chair, Governor's STEM Advisory Council</i></p>	<p><b>Mary Andringa, CEO/Chair of the Board</b> Vermeer Corporation <i>Co-Chair, Governor's STEM Advisory Council</i></p>		
<p><b>9:30 to 9:35 a.m.</b> Ballroom, Level 4</p>	<p><b>Peek into a STEM Classroom – Sioux Center High School</b></p>		
<p><b>9:35 to 10:10 a.m.</b> Ballroom, Level 4</p>	<p><b>Opening Address</b> Kwizera Imani, Senior at Des Moines North High School, enrolling at Iowa State University in the Fall of 2015 and majoring in Aerospace Engineering.</p>		
<p><b>10:10 to 10:20 a.m.</b> Ballroom, Level 4</p>	<p><b>Peek into a STEM Classroom – Davenport West High School</b> <b>Transition to Breakout Sessions</b></p>		

**Wireless internet access is available under the “STEM Conference” network name.**

**Visit us at [www.IowaSTEM.gov](http://www.IowaSTEM.gov) and use #IowaSTEM to share your experience on social media!**

## Morning Sessions – 10:20 to 11:20 a.m., Breakout Rooms, Level 3

<b>Room 307</b>	<p><b>Scale-Up — What’s the impact? How to get involved? How to improve it? (Panel)</b></p> <p><u>Facilitator:</u> Sarah Derry, South Central Regional STEM Manager</p> <p><u>Panelists:</u> Michael Arquin, KidWind          Chris Ciuca, A World in Motion (AWIM)          Kim Glenn, Project Lead the Way (PLTW)          Tamara Kenworthy, HyperStream/VREP          Chris Kolar, Defined STEM          Kay Murphy, Pint Size Science (PSS)          Joshua Remington, Curriculum for Ag Science Education (CASE)          Beverly Simmons, TEN80          Christopher Soldat, Engineering is Elementary (EiE)          Rebecca Whitaker, FIRST Tech Challenge (FTC)</p> <p><u>Description:</u> As we enter the STEM Scale-Up program's fourth year, join a panel of STEM service providers to discuss the impact of Scale-Up programming, learn to leverage these programs to increase community involvement in STEM and join the roundtable discussion on how Scale-Up programs can continue evolving to best serve Iowa's youth.</p>
<b>Room 308</b>	<p><b>Broadband Legislative Update — How four, rural districts and Northeast Iowa Community College are leveraging technology to transform teaching and learning</b></p> <p><u>Facilitator:</u> John Carver, Superintendent, Howard-Winneshiek Community School District</p> <p><u>Description:</u> As part of the Connect Every Iowan Initiative, Governor Branstad charged the STEM Council’s Broadband Committee with the creation of a broadband expansion plan for Iowa and a timetable that included the delivery of a recommended policy. Legislation was introduced in the 2014 session of the Iowa legislature and is, once more, being introduced in the 2015 session.</p>
<b>Room 309</b>	<p><b>Iowa’s STEM Teaching Endorsement Partnership — Higher Education Plan</b></p> <p><u>Facilitator:</u> Jeff Weld, Executive Director, Iowa Governor’s STEM Advisory Council; Kris Kilibarda, Director, Jacobson Institute for Innovation in Education (STEM) and Jacobson Chair, Grand View University</p> <p><u>Description:</u> Last year, the Iowa Board of Educational Examiners approved a series of new STEM endorsements for teachers. Since then, two campuses have launched the endorsement (Drake University and Grand View University), and many dozens more are interested, including public universities, independent colleges, and community colleges. They have all committed to a consortium model informally underway while awaiting the possibility of funding from the National Science Foundation. In this session, come learn more about the proposed model.</p>
<b>Room 310</b>	<p><b>Computer Science for Iowa — How can Iowa get K-12 students into Computer Science?</b></p> <p><u>Facilitators:</u> Mark Gruwell, President and CEO, LearnAcre, and Ann Watts, Program Manager, IT Academy, Governor’s STEM Advisory Council</p> <p><u>Description:</u> This breakout session will feature the Computer Science Committee that has been tasked to come up with recommendations that are due to the STEM Council in June. The committee will share what has been discussed in terms of current programs (Microsoft IT Academy, PLTW Computer Science, etc.), leveraging existing resources, how curriculum interfaces with concurrent enrollment and AP courses, possible legislation, and credentialing of instructors. Let your voice be heard as the committee drafts its recommendations.</p>

## Morning Sessions – 10:20 to 11:20 a.m., Breakout Rooms, Level 3

<b>Room 317</b>	<p><b>Out-of-School Active Learning Community — Quality STEM for Active Learning</b></p> <p><u>Facilitators:</u> STEM Active Learning Community Partners Working Group</p> <p><u>Description:</u> Through a project with the Noyce Foundation and the National Networks of Statewide Afterschool Networks, the STEM Active Learning Community Partners is utilizing the Dimensions of Success (DoS) STEM Program Planning Guide to provide a common definition of active learning STEM and improve the quality of STEM educational experiences. Learn more about this tool and how it can support STEM active learning for all youth.</p>
<b>Room 318</b>	<p><b>Business Engagement in STEM — Who’s involved? What could be done better?</b></p> <p><u>Facilitator:</u> Carrie Rankin, Assistant Director for Development, Governor's STEM Advisory Council</p> <p><u>Panelists:</u> David Barajas, CEO, Marshalltown Regional Partnership Kacia Cain, Anatomy &amp; Biotechnology Teacher, Des Moines Central Campus Adriana D'Onofrio, Senior Community Relations Specialist, Rockwell Collins Kenneth Hagen, AIA, Architect, DLR Group</p> <p><u>Description:</u> This session will offer an overview of the Business-Engagement Toolkit, otherwise known as the “Guidelines for Business-Education Partnerships in STEM,” and how it is being used across Iowa. The session will feature a panel of educators, economic developers, and business/industry leaders who will share actual examples of how education and business professionals are coming together in their communities and schools to work more closely to further STEM education.</p>
<b>Room 319</b>	<p><b>STEM-Focused Classrooms — Redesigning STEM Learning Environments (Panel)</b></p> <p><u>Facilitators:</u> John Bedward, Assistant Professor of Education, STEM, Buena Vista University; Mark McDermott, Clinical Associate Professor, Science Education, University of Iowa</p> <p><u>Panelists:</u> Lauren Fernandez, Science Teacher, Mt. Pleasant Middle School Maureen Griffin, School Improvement Coordinator, Hoover High School Darren Hanna, Director of Instruction and Technology, Mt. Pleasant Community School District</p> <p><u>Description:</u> This session will feature a panel of education leaders who are activating Iowa's first STEM-focused classrooms. Gain insight into room design, facility use, teacher training, and integrated STEM curriculum which will help to shape the future for Iowa's STEM-focused classrooms and schools.</p>
<b>Room 320</b>	<p><b>STEM Volunteer Service – What are the opportunities? How to get involved?</b></p> <p><u>Facilitators:</u> Jeff Beneke, Northeast Regional STEM Manager; Krista Ferguson, Million Women Mentors; Adam Lounsberry, Americorps; Mary Sheka, Volunteer Iowa</p> <p><u>Description:</u> Share your input about what you think is necessary to support and expand STEM through volunteering, mentoring, and national service. The committee has been tasked to present recommendations to the STEM Advisory Council in June. If you are looking for volunteers/mentors or if you would like to serve as a volunteer/mentor, hear about the opportunities available through Volunteer Iowa, Million Women Mentors, and Americorps.</p>

## Transition to Lunch, Ballroom, Level 4

<p><b>11:30 to 12:30 p.m.</b> Ballroom, Level 4</p>	<p><b>The Honorable Terry E. Branstad, Governor of Iowa</b></p> <p><b>STEM Education Award for Inspired Teaching Awards Ceremony</b> Introduced by Dr. Chris Nelson, President and CEO, Kemin Industries, sponsor of the award</p> <p><b>STEM in Iowa’s Re-envisioned Economic Development Roadmap (2014 Battelle Report)</b> Introduced by Kathryn M. Kunert, Vice President, Business and Community Development, MidAmerican Energy Company; Carrie Rankin, Assistant Director for Development, Governor’s STEM Advisory Council.</p>
<p><b>12:30 to 12:45 p.m.</b> Ballroom, Level 4</p>	<p><b>Peek into a STEM Classroom – Hoover High School and Mt. Pleasant Middle School</b></p> <p style="color: green;"><b>Transition to Breakout Sessions</b></p>

## Regional STEM 12:45 to 1:40 p.m., Breakout Rooms, Level 3

Learn what is happening regionally, how to connect, and offer your advice or services.

<p><b>Room 307</b></p>	<p><b>Northwest STEM Region</b> <u>Facilitator:</u> Molly Faber, Northwest Regional STEM Manager</p>
<p><b>Room 308</b></p>	<p><b>North Central STEM Region</b> <u>Facilitator:</u> Paul Gibbins, North Central Regional STEM Manager</p>
<p><b>Room 309</b></p>	<p><b>Northeast STEM Region</b> <u>Facilitator:</u> Jeff Beneke, Northeast Regional STEM Manager</p>
<p><b>Room 310</b></p>	<p><b>Southwest STEM Region</b> <u>Facilitator:</u> Deb Frazee, Southwest Regional STEM Manager</p>
<p><b>Room 317</b></p>	<p><b>South Central STEM Region</b> <u>Facilitator:</u> Sarah Derry, South Central Regional STEM Manager</p>
<p><b>Room 318</b></p>	<p><b>Southeast STEM Region</b> <u>Facilitator:</u> Kristine Bullock, Southeast Regional STEM Manager</p>

## Afternoon Sessions – 1:45 to 2:45 p.m., Breakout Rooms, Level 3

<p><b>Room 307</b></p>	<p style="color: orange;"><b>STEM Support of the Arts — What ideas are circulating? How can STEM do better?</b></p> <p><u>Facilitator:</u> Steven Triplett, Client Relations Manager – STEM Initiatives, ACT®, Inc.</p> <p><u>Panelists:</u> David Barajas, CEO, Marshalltown Regional Partnership Tim Bower, Project Manager, John Deere, and SE STEM Region Advisory Board Chair Sarah Derry, South Central Regional STEM Manager Leon Kuehner, Executive Director, Iowa Alliance for Arts Education Val Ruff, Executive Director, Marshall County Arts and Culture Alliance</p> <p><u>Description:</u> Members of the working group “STEM Support of Arts and Culture” will be reviewing working group discussion topics, potential areas of emphasis, and seeking input on how best to support multiple areas of Arts and Culture through STEM. After an initial overview from the panel members, audience input will be encouraged.</p>
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## Afternoon Sessions – 1:45 to 2:45 p.m., Breakout Rooms, Level 3

<b>Room 308</b>	<p><b>Iowa STEM BEST (Panel) — Building Bridges Between School and Industry</b></p> <p><u>Facilitator:</u> Kristine Bullock, Southeast Regional STEM Manager</p> <p><u>Panelists:</u> Bettendorf/Pleasant Valley</p> <ul style="list-style-type: none"> <li>— Tamara Chelf, School to Work Coordinator</li> <li>— Chris Like, STEAM Specialist</li> <li>Iowa BIG: Cedar Rapids/College Community</li> <li>— Trace Pickering, Associate Superintendent Northeast</li> <li>— Alicia Christansen, Principal Rocket Manufacturing: Rock Valley</li> <li>— Chad Janzen, Superintendent STEM Innovator: Kirkwood/UI/Clear Creek Amana/College Community/Iowa City/Regina/Solon/Tipton/West Branch</li> <li>— Leslie Flynn, Professor</li> </ul> <p><u>Description:</u> This session will feature a panel of school and business leaders establishing innovative models of Iowa STEM Businesses Engaging Students and Teachers (BEST) sites. Participants will gain insight into how to develop and foster deeper relationships with industry partners, how to develop a rigorous and relevant STEM curriculum aligned to industry needs and how BEST sites can align to current and future district goals.</p>
<b>Room 309</b>	<p><b>Let's Talk about Modern Ag</b></p> <p><u>Facilitator:</u> Rachel Hurley, Governmental Affairs Manager, Monsanto</p> <p><u>Description:</u> This breakout session will be formatted like an interactive talk show. Expert “guests” (Catherine Swoboda, Will Fett, and Matt Eddy) will be available to provide examples of their respective efforts and answer questions about their current involvement in ag science education; with the intent of polling the audience, seeking input on what ag education they are engaged in (if any), what they think “modern ag” is and what it means to Iowans.</p>
<b>Room 310</b>	<p><b>Real World Teacher Externships (Panel) — What are they? How to get involved? How it could improve?</b></p> <p><u>Facilitator:</u> Meghan Reynolds, Real World Externships Coordinator, and secondary science teacher, Cedar Falls High School</p> <p><u>Panelists:</u> Jonnie Becker, 2012 Extern at Kemin Industries Ed Brown, 2012/2013 Extern at Kemin Industries and 2014 Extern at Iowa DNR State Forest Nursery Peg Conlon, 2012/2013 Extern at Monsanto Taylor Hubbard, 2010 Extern at Monsanto-Ankeny and 2013 Extern at Kemin Karen O’Loughlin, 2013 Extern at Accumold Dennis Vaughn, 2013 Extern at Des Moines Public Works</p> <p><u>Description:</u> Real World Externships for STEM Teachers are opportunities to see first-hand how what they teach in the classroom is applied in local Iowa businesses. It’s not just a job shadow—Externs earn a stipend of up to \$4,500 by utilizing their skills to contribute to their Externship host. In this session, learn more about the types of projects Teacher Externs have contributed to and how it has changed their classrooms.</p>

## Afternoon Sessions – 1:45 to 2:45 p.m., Breakout Rooms, Level 3

<b>Room 317</b>	<p><b>STEM Awareness for Iowa — Communications and Marketing Strategies</b></p> <p><u>Facilitators:</u> Angel Mendez, Communications &amp; Marketing Specialist, Governor’s STEM Advisory Council, and Dawn Buzynski, Executive Director of Public Relations, Strategic America</p> <p><u>Description:</u> This session will highlight the efforts of the Governor’s STEM Advisory Council in partnership with Strategic America regarding the statewide STEM awareness campaign. The session will discuss the successes and future plans for the campaign. Audience input will be gathered for possible future usage.</p>
<b>Room 318</b>	<p><b>“Seal of Approval” for Non-Council STEM — What is it? How to apply? How can this be better?</b></p> <p><u>Facilitator:</u> Mark Putnam, President, Central College</p> <p><u>Panelists:</u> Carrie Rankin, Assistant Director for Development, Governor’s STEM Advisory Council Teri Vos, Corporate Communications, Vermeer Corporation</p> <p><u>Description:</u> This session will provide the latest information on the STEM Council’s Seal of Approval process, application, rubric, and timeline. In addition, the first five STEM Seal of Approval programs will be announced, and the new Seal of Approval logo will be unveiled. Members of the STEM Council operations team and committee members will share their experiences through this process, and audience input is encouraged.</p>
<b>Room 319</b>	<p><b>Transitions and Evaluation in Statewide STEM Initiatives — Iowa, Massachusetts, North Carolina</b></p> <p><u>Facilitator:</u> Erin Heiden, Senior Research Scientist, Center for Social and Behavioral Research, University of Northern Iowa</p> <p><u>Panelists:</u> Jeni Corn, Director of Evaluation Programs, Friday Institute for Educational Innovation, North Carolina State University Mari Kemis, Assistant Director, Research Institute for Studies in Education, Iowa State University Jean Supel, Research Manager, UMass Donahue Institute Don Yarbrough, Director, Center for Evaluation and Assessment, University of Iowa</p> <p><u>Description:</u> Highlights from evaluations of three, large-scale statewide STEM initiatives will frame a discussion of three states’ experiences in using social network analysis to show growth and reach of STEM efforts, navigating transitions in STEM leadership, and drawing on evaluation to inform strategic planning and improvements in STEM programming. This session will feature a panel of leaders at the center of evaluation of three statewide STEM initiatives in Iowa, Massachusetts, and North Carolina.</p>

## Afternoon Sessions – 1:45 to 2:45 p.m., Breakout Rooms, Level 3

<b>Room 320</b>	<p style="color: #e67e22; margin: 0;"><b>STEM Education Award for Inspired Teaching Awardees (Panel)</b></p> <p><u>Facilitator:</u> Mike Wedge, chemistry teacher at Sibley-Ocheyedan High School and 2015 Northwest STEM Region recipient of the STEM Education Award for Inspired Teaching</p> <p><u>Panelists:</u> Kacia Cain, anatomy and biotechnology teacher at Des Moines Central Campus, 2015 South Central STEM Region recipient          Lisa Chizek, science teacher and STEM coordinator at North Tama Elementary, 2015 Northeast STEM Region recipient          Jason Franzenburg, technology education teacher at Davenport West High School, 2015 Southeast STEM Region recipient          Allison Gregg, second grade teacher at Sidney Elementary School, 2015 Southwest STEM Region recipient          Shelly Vanyo, science teacher and department head at Boone High School, 2015 North Central STEM Region recipient</p> <p><u>Description:</u> The six recipients of the 2015 STEM Education Award for Inspired Teaching sponsored by Kemin Industries will discuss how they use STEM curricula to inspire students. Panelists will provide insight on best practices and lessons learned as well as offering a question and answer session that concludes with an action-oriented, easy to implement takeaway that can make a difference in your classroom this week. Resource documents including lesson plan ideas and recommended resources will also be available.</p>
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## Transition to Panel Discussion & Closing – 2:45 to 4:00 p.m., Ballroom, Level 4

<b>3:00—3:50 p.m.</b> Ballroom, Level 4	<p style="color: #e67e22; margin: 0;"><b>Promoting STEM Careers from a School Counselor’s Point-of-View (Panel)</b></p> <p><u>Facilitator:</u> Rob Denson, President, Des Moines Area Community College</p> <p><u>Panelists:</u> Mike Danilson, Gilbert Community Schools          Meredith Dohmen, Des Moines Public Schools          Dave Ford, SE Polk Community Schools          Sue Schirmer, Heartland Area Education Agency          Ryan Williamson, Des Moines Public Schools</p> <p><u>Description:</u> Counselors at all levels are a valuable resource in presenting the opportunities that STEM classes and careers offer students. Hear from them as to the issues and challenges they face as they help cultivate the next generation of STEM professionals.</p>		
<b>3:50—4:00 p.m.</b> Ballroom, Level 4	<p style="margin: 0;"><b>Closing Remarks</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 5px;"> <p style="margin: 0;"><b>The Honorable Kim Reynolds</b>                      Lieutenant Governor of the State of Iowa  <i>Co-Chair, Governor’s STEM Advisory Council</i></p> </td> <td style="width: 50%; padding: 5px;"> <p style="margin: 0;"><b>Mary Andringa, CEO/Chair of the Board</b>                      Vermeer Corporation  <i>Co-Chair, Governor’s STEM Advisory Council</i></p> </td> </tr> </table> <p style="color: #76b82a; margin-top: 10px;"><i>PARTING GIFT DISTRIBUTED</i></p>	<p style="margin: 0;"><b>The Honorable Kim Reynolds</b>                      Lieutenant Governor of the State of Iowa  <i>Co-Chair, Governor’s STEM Advisory Council</i></p>	<p style="margin: 0;"><b>Mary Andringa, CEO/Chair of the Board</b>                      Vermeer Corporation  <i>Co-Chair, Governor’s STEM Advisory Council</i></p>
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