

Iowa Governor's STEM Advisory Council Meeting XIV  
 Science Center of Iowa | 401 West Martin Luther King Jr. Parkway | Des Moines, IA



December 16, 2015 | 10:00AM to 2:30PM

Wednesday, December 16, 2015  
 Principal Hall, Science Center of Iowa

9:30 to 10:00AM	Continental Breakfast and Conversation
10:00AM	Welcoming Remarks Curt Simmons, President and CEO of the Science Center of Iowa
10:10AM	Opening Remarks Dr. Chris Nelson, President and CEO of Kemin Industries <i>Co-Chair, Governor's STEM Advisory Council</i>
10:15 to 11:15AM	Updates and Discussion <ul style="list-style-type: none"> <li>› Computer Science Working Group, Mark Gruwell and Ann Watts, co-chairs</li> <li>› Ag. Science Working Group, Rachel Hurley and Will Fett, co-chairs</li> <li>› Evaluation Briefing, Dr. Erin Heiden, Center for Social and Behavioral Research, UNI; Mari Kemis, Research Institute for Studies in Education, ISU</li> <li>› Day In The Life: How the Operations Team and Regional Managers serve you</li> </ul>
11:15 to 12:15PM	<p><b>THREATS TO AND OPPORTUNITIES FOR IOWA STEM – a three-year outlook</b></p> <p>Current Programs (hand-out)</p> <p><i>From the archives: What are the known best strategies in Iowa and beyond? Where do weaknesses in the system lie? What do we need to do? What resources will it take? [October 31, 2011, 1<sup>st</sup> STEM Council mtg.]</i></p> <p><b>Table Group Facilitated Discussion:</b></p> <ol style="list-style-type: none"> <li>1. Brainstorm <b>Threats</b> to the strength, effectiveness and longevity of Iowa's STEM initiative.</li> <li>2. Brainstorm <b>Opportunities</b> yet to be seized that would strengthen Iowa's STEM initiative.</li> <li>3. Develop of list of <b>*concrete*</b> actions and tactics needed in order to abate those <b>Threats</b> and seize those <b>Opportunities</b>.</li> </ol>

12:15PM	<b>Lunch (self-serve boxed lunches)</b>  <i>5 minutes: Howard-Winneshiek Superintendent and STEM Council Executive Committee member John Carver on Iowa-specific implications of the National Technology Education Plan and ESSA.</i>
12:30 to 1:00PM	<b>STEM Program Showcase: Pint Size Science!</b> Renee Harmon, Vice President of Science Learning of the Science Center of Iowa
1:00 to 1:45PM	<b>Table Groups (cont'd.)</b> 1. Distill to the TOP 2 most important <b>Threats</b> . 2. Distill to the TOP 2 most ripe <b>Opportunities</b> . 3. Narrow to a manageable 4 the recommended *concrete* actions and tactics.
1:45 to 2:15PM	<b>Reporting Out by Table Group:</b> Threats, Opportunities, Actions/Tactics for the STEM Council over the next three years
2:15 to 2:30PM	<b>Announcements by and for Council Members</b> <b>Closing Remarks</b> Director Beth Townsend, Iowa Workforce Development <i>Executive Committee, Governor's STEM Advisory Council</i>
2:30PM	<b>Science Center OPEN to STEM Council Attendees</b> Featuring the exhibition <i>RACE: Are We So Different?</i>

**NEXT MEETING:** April 18, 2016, 5:30pm to 7:30pm, Terrace Hill

The Governor's STEM Advisory Council Meeting XIV is hosted by:



# Programs of Iowa's STEM Council

**Regional STEM Network:** Six regions, each operated by a regional STEM manager housed at a hub institution, and each guided by a Regional STEM Advisory Board. School-business matching, regional communications and events, and local implementations of Council programs.

1. **STEM Scale-Up Program.** Exemplary S-T-E-M programs in engineering, computers, energy, mathematics, basic science, and more, provided to ~2,500 PreK-12 educators and ~100,000 children throughout the state.
2. **STEM BEST (Businesses Engaging Students and Teachers).** A total of 8 (so far) community collaborations involving school and business partnerships.
3. **STEM RLE (Redesigned Learning Environments).** A total of 13 (so far) re-designed 21<sup>st</sup> century learning spaces along with the preparation of educators capable of conducting student-centered, active, problem-solving instruction, making purposeful connections to local business partners.
4. **Real World Externships for Teachers of Mathematics, Science and Technology.** Six-week, paid, summer professional development in local industries and businesses for STEM teachers in Iowa.
5. **STEM Festivals.** Engaging, free, hands-on educational experiences (45 last year across Iowa) for preK-12 youth and their families.
6. **I.O.W.A. STEM Teacher Award.** Kemin Industries sponsored award to honor certified K-12 teachers in Iowa who teach a science, technology, engineering and/or mathematics subject and who are inspiring Iowa's students to develop a passion for STEM subjects.
7. **Code Iowa.** Partnership with Code.org on the "Hour of Code" during national Computer Science Education Week. Some 600 Iowa schools commit to doing an Hour of Code.
8. **Microsoft IT Academy.** A software and systems certification program that bridges the world of education with the world of work. 150 Iowa schools are involved, thousands of kids have earned certifications.
9. **STEM Seal of Approval.** Ten (so far) outstanding non-Council programs affiliated through common goals, high quality.
10. **STEM Teaching Endorsement.** Three universities (so far) with at least 10 more shortly, producing STEM teachers.
11. **STEM @ State Fair.** Annually engages about 10,000 Iowans via dozens of exhibits, stage acts, vendor partners.
12. **STEM @ State Capitol.** Annually engages legislators via dozens of exhibit partners and corporate-sponsored lunch.
13. **Annual State STEM Summit.** Four-to five hundred attendees learn from and contribute to Iowa STEM.
14. **STEM Messaging Campaign.** With Strategic America, staff training in communications, print, radio, and television creations, event promotions, branding, and more.
15. **OTHER RESOURCES PRODUCED BY STEM COUNCIL**
  - a. **Business Engagement Toolkit.** Programs and guidelines that engage business and education in STEM.
  - b. **STEM Program Evaluation & Report.** Conducted by a consortium of evaluation centers at the University of Northern Iowa, the University of Iowa and Iowa State University.
  - c. **STEM On-line:** Website - daily maintained and updated array of resources, data, and information. Twitter, Instagram, Facebook communication platforms updated routinely, frequently.
  - d. **STEM video library.** A growing array of public awareness videos on Youtube at <https://www.youtube.com/user/iastem>.

**Active Working Groups:** Focused on Council priorities: Computer Science, Ag. Science, Counselors, Volunteering, Arts, Informal/Nonformal, Broadband, 4-year and Community College connections, and others convened as needed (e.g., proposal or award reviewers, website design, event planning, etc.).

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## IOWA GOVERNOR'S STEM ADVISORY COUNCIL

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