



2016 STEM DAY AT THE IOWA STATE FAIR

Recap Report from the Iowa Governor's STEM Advisory Council
Sunday, August 21, 2016 9:00 a.m. to 7:00 p.m.



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Iowa Governor's STEM Advisory Council

Thank you for your support of the 2016 STEM Day at the Iowa State Fair on Sunday, August 21, 2016. Our goal with this event is to build on the work of the Iowa Governor's STEM Advisory Council and create interest and awareness among Iowa's general public to help move the STEM initiative forward.

GENERAL OVERVIEW

Although the Iowa State Fair didn't surpass attendance records this year, the results from an evaluation of STEM Day at the Iowa State Fair show attendance and engagement levels on the Grand Concourse like never before.

Thanks to our partnership with the Blue Ribbon Foundation and our Corporate Partners for the event, including Iowa Workforce Development, Kemin Industries, Noodles & Company and Rockwell Collins, the third year of the event was bigger and better, showing off more than 6,000 square feet of Iowa STEM on the Grand Concourse with 26 exhibitors and their hands-on activities.

Our first-ever STEM Stage had standing-room only for most of the day, hosting exciting stage acts like Blank Park Zoo, the Grout Museum District, the Science Center of Iowa, Team Neutrino with FIRST Robotics Competition (FRC) and a juggling mathematics professor, Steve Butler, from Iowa State University. That afternoon, Lt. Governor Kim Reynolds, co-chair of the STEM Council, and Des Moines Central Campus science teacher Kacia Cain, a STEM Council member, helped launch the I.O.W.A. STEM Teacher Award, calling for nominations for outstanding STEM teachers in Iowa.

As many as 10,000 Iowans were "STEM-ed" at the State Fair, with 8,500 of them receiving "Greatness STEMs from Iowans" backpacks that helped spread STEM across the fairgrounds. Some participated in the STEM Day at the Fair Checklist. Most took part in assembling a tower, programming a robot, pulse-checking a mannequin, extracting DNA, testing their own torque and dozens of other hands-on adventures.

This annual event—through coordination across several Iowa organizations, volunteers, vendors, Iowa State Fair staff and investments from our Corporate Partners—helps Iowa STEM further reach families to garner greater awareness and understanding, as well as help build a stronger STEM workforce for Iowa.

If you missed the event, you can still get a peek at the day by [watching this 60-second recap video](#) or checking out our [photo spread on Facebook](#).



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EXHIBITORS

The **26 exhibiting organizations** listed below provided dozens of hands-on activities throughout the day, coordinating several teams or groups into one exhibit booth throughout the course of the 10-hour-long event.

Post-Fair Survey Results showed:

- 100% of surveyed exhibitors rated their overall experience at STEM Day at the Iowa Fair as “Good” or “Excellent.”
- 100% of surveyed exhibitors said they would exhibit again at STEM Day at the Iowa State Fair.
- 100% of surveyed exhibitors said they felt “Informed” or “Very Informed” about exhibiting at STEM Day at the Iowa State Fair.

2016 EXHIBITORS



“With many passionate STEM advocates gathering in one place, it’s like a STEM family reunion! It’s an opportunity for STEM enthusiasts from around the state to come together to collaborate on actively demonstrating how Greatness STEMs from Iowans!”

ACE Mentor Program
Drake University
Des Moines Area Community College
Elevate Iowa
Girl Scouts of Greater Iowa
Grant Wood AEA
HyperStream
IEEE Central Iowa Section
Iowa Agriculture Literacy Foundation

Iowa Center for Nursing Workforce/
Indian Hills Health Sciences
Simulation Lab
Iowa FIRST Organization
Iowa Public Television
Iowa State University
John Deere
Kemin Industries
Lincoln Intermediate
Million Women Mentors Iowa

Noodles & Company
Project Lead The Way
Program for Women in Science and
Engineering (WiSE)
Saint Ambrose University
Science Center of Iowa
The Grout Museum District
University of Iowa SySTEMs of Discovery
University of Northern Iowa STEM
Vermeer Corporation

“PROUD STEM ADVOCATE” VENDORS

The 19 Iowa State Fair vendors listed below supported STEM Day at the Iowa State Fair by placing a total of 26 signs in their booths the day of the event that deemed them as a “Proud STEM Advocate.”

Post-Fair Survey Results showed:

- Surveyed vendors said some people did ask about their sign and talked about STEM.
- 40% of surveyed vendors said they knew about the Iowa STEM initiative before being asked to participate, 60% did not.
- 100% of surveyed vendors said they would participate again next year.

Brownells
Carl's Gizmo Sandwiches
Cherry Coke Stands
Clear Creek Orchard, Inc.
Cognizant
Cre8tv Qn

FodderWorks Midwest LLC
Gorgeous Gourds and Woodcarvings
Grandview University
Hill Concessions
Mom's Candles
Oasis Aqua Massage

Old Time Portraits
Pella Convention and Visitors Bureau
Professional Educators of Iowa
Smith Concessions
Soapcakes
Turkey Grill/Iowa Turkey Foundation
Upper Iowa University

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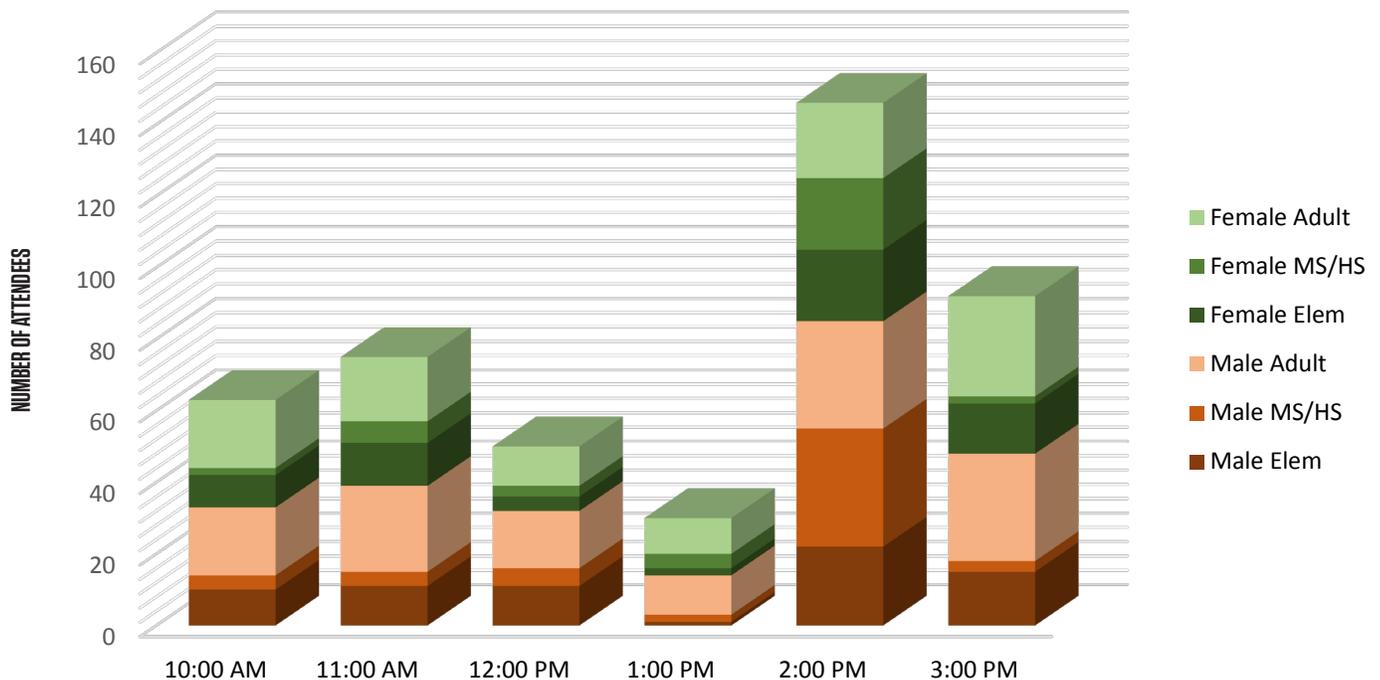
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STAGE ACTS

The six stage acts listed below headlined the morning and afternoon of STEM Day at the Iowa Fair that drew in a total of 459 people, a 46% growth over the 2015 STEM Day at the Iowa State Fair attendance rates.

- 10:00 a.m. — Blank Park Zoo — 66 attendees
- 11:00 a.m. — Driven by Science: Grout Museum — 75 attendees
- 12:00 p.m. — The Science Center of Iowa — 50 attendees
- 1:00 p.m. — I.O.W.A. STEM Teacher Award Launch — 30 attendees
- 2:00 p.m. — FIRST Robotics Team Neutrino — 146 attendees
- 3:00 p.m. — Teaching Mathematics with Juggling — 92 attendees

FIGURE 1: STAGE SHOW ATTENDANCE



STEM Stage Acts



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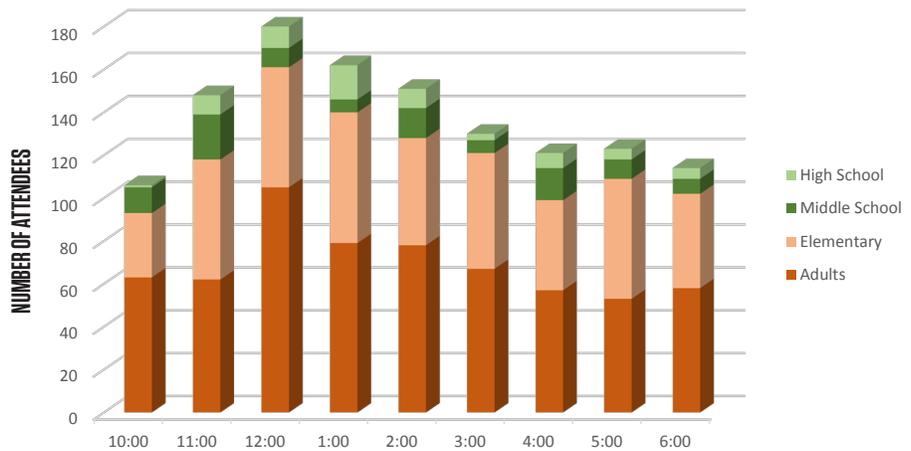
EXHIBITOR TENT ATTENDANCE

Two team members, one stationed on the North side of the Grand Concourse and one on the South side of the Grand Concourse, tallied the following numbers of attendance every hour from 10:00 a.m. to 6:00 p.m. Figures 2 and 3 show fairgoer attendance rates and gender and racial diversity.

FIGURE 2: MEASURE OF RACIAL DIVERSITY

Time	White	Non-White
10:00 AM	91.5%	8.5%
11:00 AM	94.6%	5.4%
12:00 PM	95.0%	5.0%
1:00 PM	93.2%	6.8%
2:00 PM	70.1%	29.9%
3:00 PM	72.3%	27.7%
4:00 PM	76.0%	24.0%
5:00 PM	70.7%	29.3%
6:00 PM	57.0%	43.0%

FIGURE 3: EXHIBITOR TENT ATTENDANCE AND GENDER DIVERSITY



STEM CHECKLIST ACTIVITY

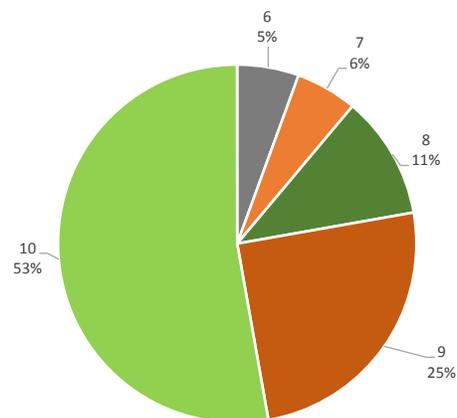
The STEM Checklist Activity works to spread the STEM message across the Grand Concourse encouraging participants to actively engage in various activities as part of their STEM Day at the Fair experience.

This year's STEM Checklist Activity had **105 participants** who completed three activities underneath the Exhibitor Tent, watched at least one STEM Stage Act and picked up their STEM Backpack. The activity also encouraged parent/student pairs to post a photo on social media, however, not required based on the participating age group.

The first 50 people to return their completed card to the STEM Tent received a pair of white, "Greatness STEMs from lowans" headphones. All participants after that received a "Greatness STEMs from lowans" T-shirt.

Part of the parent/student survey distributed along the Grand Concourse asked respondents to rate the STEM Checklist Activity if they participated in it.

FIGURE 4: How would you rate this activity from 1-10?



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PARENT SURVEYS

Two team members, one stationed on the North side of the Grand Concourse and one on the South side of the Grand Concourse, handed out double-sided surveys that asked parents the following questions. Most parents rated STEM Day at the Fair with an average 9.5 rating and said STEM is important in their lives of their children with an average 9.3 rating.

FIGURE 5: How would you rate STEM Day at the Fair?

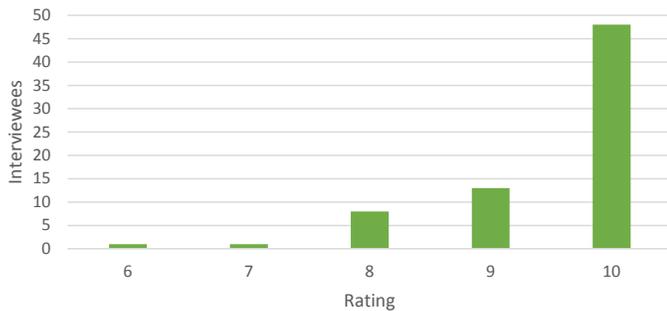
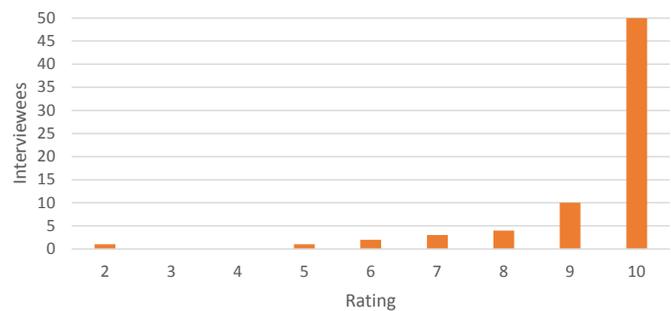


FIGURE 6: How would you rate the importance of STEM in your child's life?



58% of parents said they and their student(s) spent 45 minutes or more on the Grand Concourse, 17% said 30-45 minutes, 20% said 15-30 minutes and 5% said up to 15 minutes.

STUDENT SURVEYS

Two team members, one stationed on the North side of the Grand Concourse and one on the South side of the Grand Concourse, handed out double-sided surveys that asked students the following questions. Most students were more interested in STEM after participating in the event and nearly all had "A Lot" of fun that day.

FIGURE 7: How interested are you in STEM after coming to STEM Day at the Fair?

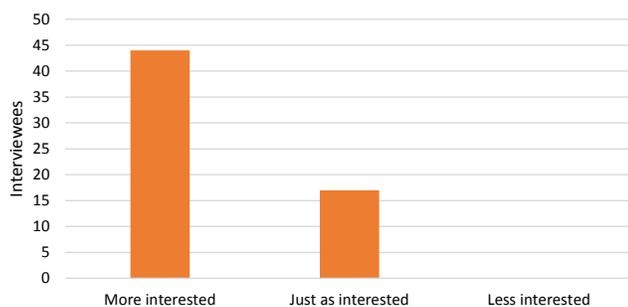
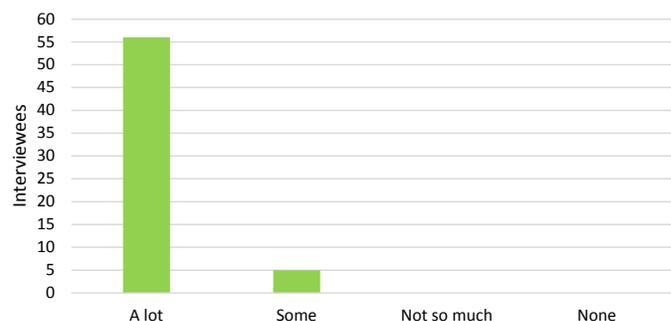


FIGURE 8: How much fun did you have at STEM Day at the Fair?



21% of students surveyed were between the ages of 3 and 6, 60% of students were between the ages of 7 and 12, and 19% of students were either 13 or older.

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MEDIA COVERAGE

Story Title, Published Outlet

[Business Record Calendar: Aug. 21: STEM Day at the Iowa State Fair](#), Des Moines Business Record

[Business Record Calendar: Aug. 21: STEM Day at the Iowa State Fair](#), Des Moines Business Record Daily PM

[Best entertainment options for kids & family, Aug. 18-24](#), Des Moines Register

[Lieutenant Governor Kim Reynolds Speaks at Iowa State Fair for STEM Day](#), WHO-TV

[STEM in Iowa and Why](#), The News Hour with Michael Libbie

**TOTAL
CIRCULATION
3,464,512**

SOCIAL MEDIA (August 21, 2016)

Travis Johnson
August 21 at 10:26am · Des Moines, IA ·

Making a robot hand Iowa Governor's STEM Advisory Council @IowaSTEM of our favorite days with all the cool stuff to do on the Grand Concourse.



Josh Harris @JoshHarris · Aug 21
Kylen learning from the @IowaSTEM tent at the @IowaStateFair



You Retweeted

Beth Townsend @BethTownsendIWD · Aug 21
Science is fun! @IowaSTEM day @IowaStateFair



You Retweeted

Iowa STEM @IowaSTEM · Aug 21
Torquing at State Fair for STEM! John Deere & dozens of STEMVP's inspiring 1000's of kids n' families #IowaSTEM



You Retweeted

Ashley Flatebo @ashflatebo · Aug 21
Lightbulb magic @IowaSTEM Day at the fair! #LincolnSTEM @Lincoln_MCCSD has a great booth!



You Retweeted

David runneals @drunneals · Aug 21
#omrobots at @Iowastem day at @IowaStateFair @LMRobotics @525Swartdogs @ifrcneutrino



Iowa Agriculture Literacy Foundation
August 21 at 3:22pm ·

Learning about the science of farming at Iowa Governor's Fair!



You Retweeted

Tyler Wyngarden @TylerWyngarden · Aug 21
Thanks @IowaSTEM @IowaStateFair @KimReynoldsIA for a great day at the fair! Count @HyperStreamIowa in for next year!



**WEBSITE
TRAFFIC**
www.IowaSTEM.gov

Total Visits: 85
Up 286% from avg. Sunday

New Visitors: 70
Up 268% from avg. Sunday

Page Views: 155
Up 203% from avg. Sunday