



## Forum & Expo

HOSTED BY NSTA

Kissimmee/Orlando

July 12–14, 2017

# Program Changes

6th Annual STEM Forum & Expo, *hosted by NSTA*

July 12–14, 2017

Wednesday Kickoff: First-Timers Orientation and Student Panel Discussion, as well as STEMx sessions followed by an Evening Exhibit Preview and Welcome Reception and STEM Leaders' Panel moderated by David L. Evans.

## Session Evaluations

### Chance to Win an Apple iPad mini 2

Help NSTA's GREEN efforts by completing session evaluations online **July 12–25, 2017**, while the session is fresh in your mind!

To evaluate a session, you should visit the STEM Forum session browser ([www.nsta.org/STEMForumbrowser](http://www.nsta.org/STEMForumbrowser)) and search for part of the session title or presenter's name using the **Find Keyword** search option. Once you find the session you wish to evaluate, simply click the **Evaluate Session** button, enter your badge number, and answer the evaluation questions. When you finish evaluating the session, click the **Submit Evaluation** button. Repeat this process for each session attended.

*Note:* Our session evaluation system is designed to work from a computer and while it may work on smartphones/tablets, it is not really designed for them.

Concurrent session presenters may also complete an evaluation for their own sessions in order to track professional development credit. Remember—the last day to evaluate STEM Forum sessions is **July 25**.

Beginning **August 7, 2017**, you can view your transcript at the NSTA Learning Center ([learningcenter.nsta.org](http://learningcenter.nsta.org)) by logging on and then clicking **My Profile** under the **Welcome**. Here you'll find a **Certificates** tab, which you can use to access your transcript. You can also document credit for activities that are not being evaluated (e.g., Exhibit Hall visits). In addition, the NSTA Learning Center offers professional learning experiences (online and face-to-face) for your long-term growth and professionalism.

For more details, see page 8. A Professional Learning Documentation Form is included following page 8. This form can help you keep track of sessions/events attended that are NOT available for online session evaluation...and it can be used to take notes on sessions attended that are available for online session evaluation.

## Interested in Joining NSTA?

Stop by the **NSTA: STEM Starts Here** counter at the NSTA Science Store to learn about the benefits of membership. Here you'll also find computer stations where you can sign up for a free six-month membership on your own.

## Graduate Credit Opportunity

STEM Forum & Expo attendees can earn one or two graduate-level credit/s in professional development through Dominican University of California ([dominicancaonline.com](http://dominicancaonline.com)). For details on the assignment requirements, visit [bit.ly/2rMqk42](http://bit.ly/2rMqk42). Questions? E-mail Lisa Johnson-Bowers at [ljb@dominicancaonline.com](mailto:ljb@dominicancaonline.com) or call 330-289-9159.

## New Wednesday Panel

A STEM Leaders Panel: **Do We Need STEM Certification? And, Who Decides?** will be held from 6:45 to 8:00 PM in Osceola B, Gaylord Palms.

Join us in a lively discussion as we bring all our voices together to discuss STEM certification.

Our leading STEM associations/organizations will weigh in on your responses to several thought-provoking questions that will be presented during the session. Audience participation is critical in informing this group as they consider criteria for STEM certification. A series of blogs will be scheduled to follow during subsequent months.

Moderator: David Evans, NSTA Executive Director

Panelists:

- David Crowther, NSTA President
- Bob Melton, NABT Past President
- Jennifer Buelin, Director of Curriculum and Professional Development, ITEEA
- Norman L. Fortenberry, ASEE Executive Director
- Sherri Rukes, AACT President-Elect
- Diane Briars, NCTM Past President
- David Burns, Director of STEM Innovation Networks, Battelle

Follow along on Twitter using **#STEMvoices**.

## 7th Annual STEM Forum & Expo, hosted by NSTA

Mark your calendar for the **7th Annual STEM Forum & Expo, hosted by NSTA** next summer, which will be held in Philadelphia, Pennsylvania, **July 11–13, 2018**. Stay tuned to [www.nsta.org/conferences](http://www.nsta.org/conferences) for more details.

## Exhibit Hall Hours

Located in Hall C, exhibits will be open for viewing during the following hours:

<i>Evening Exhibit Preview and Welcome Reception</i>	
Wed., July 12	4:30–6:30 PM
<i>Exhibits</i>	
Thu., July 13	9:15–3:00 PM
Fri., July 14	9:15–3:00 PM

## NSTA Science Store Hours

Be sure to shop the NSTA Science Store. Open Wednesday afternoon/evening and early in the morning before the Exhibit Hall opens, the hours are very convenient.

Wed., July 12	1:00–7:00 PM
Thu., July 13	7:30 AM–4:30 PM
Fri., July 14	7:30 AM–5:00 PM

## Parking Adjustment

The valet parking rate has changed to \$33 a day (tax is additional). *Rates are subject to change. Please note that special rates may apply for groups or special events.*

## Thursday Program Changes

### Canceled Sessions

**Cultivating the Whole Plant, Not Just the STEM**, hands-on workshop, 8:00–9:00 AM, Emerald 8, Gaylord Palms (p. 28).

**Developing Resilience in the Science Classroom**, presentation, 9:30–10:30 AM, Emerald 3, Gaylord Palms (p. 32).

**High-Paying STEM Careers in the Medical Field That Use the NGSS Life Science Performance Expectations**, presentation, 11:00 AM–12 Noon, St. George 102, Gaylord Palms (p. 39).

**Starting STEM Early**, hands-on workshop, 1:30–2:30 PM, Tampa 1, Gaylord Palms (p. 45).

**Integrating Technology into Middle School NGSS Engineering Design Performance Expectations**, hands-on workshop, 3:00–4:00 PM, St. George 104, Gaylord Palms (p. 49).

### New Location

The presentation **Do You Need a New Science Lab?**, 1:30–2:30 PM, has been moved. Originally in St. George 102—this session is now in Destin 1 (same day/time) (p. 44).

The presentation **Female STEM Major Selection and Persistence**, 3:00–4:00 PM, has been moved. Originally in St. George 102—this session is now in Destin 2 (same day/time) (p. 48).

### New Exhibitor Workshop

Thursday, 11:00 AM–12 Noon

**Using Nanotechnology Content and Activities to Enhance STEM Concepts**

(Grades 7–College) Osceola 6, Gaylord Palms

Sponsor: Nano-Link: Center for Nanotechnology Education

**Deb Newberry**, Nano-Link: Center for Nanotechnology Education, Rosemount, Minn.

Join us for several activities that have been enhanced to include aspects of STEM content. Practice these hands-on activities and learn how STEM concepts are integrated into the activities, as well as how to use nanotechnology content in traditional science classes, plus math, English, and Career Technical Education–based courses.

### Rescheduled Session

The hands-on workshop **Climate Change and Nano-Bio-Sensor Science**, 9:30–10:30 AM, has been moved. Originally in Emerald 6—this session is now in St. George 112 at 8:00–9:00 AM (same day) (p. 33).

### New Presenter

**David Lockett** (@DavidJLockett; [david.lockett@lwcharterschools.com](mailto:david.lockett@lwcharterschools.com)), Edward W. Bok Academy, Lake Wales, Fla., joins Chandra Jones as co-presenter of the presentation **What's Happening with STEM in Libraries?**, 11:00 AM–12 Noon, Emerald 5, Gaylord Palms (p. 38).

## Friday Program Changes

### Canceled Sessions

**STEM Projects for the Science Classroom**, presentation, 9:30–10:30 AM, Osceola A, Gaylord Palms (p. 56).

**Coding Across the Curriculum**, hands-on workshop, 9:30–10:30 AM, St. George 104, Gaylord Palms (p. 58).

**Addressing NGSS with Technology in the Field**, presentation, 1:30–2:30 PM, Emerald 5, Gaylord Palms (p. 65).

**Building Leadership and Mentoring Through STEM-Based Literacy Projects**, hands-on workshop, 1:30–2:30 PM, St. George 114, Gaylord Palms (p. 66).

### Rescheduled Sessions

The presentation **Effective Food Safety Curriculum for STEM Teachers: A Case Study**, 1:30–2:30 PM, has been moved. Originally in St. George 102—this session is now in Vero at 3:00–4:00 PM (same day) (p. 65).

The presentation **Climate Change, Teenagers, and Butterflies**, 3:00–4:00 PM, has been moved to an earlier time. This session is now scheduled at 11:00 AM–12 Noon (same room/day) (p. 69).

The hands-on workshop **Measuring Sea Level from Space**, 3:00–4:00 PM, has been moved. Originally in St. George 104—this session is now in Emerald 2 at 1:30–2:30 PM (same day) (p. 70).

## Friday Program Changes, cont.

### New Location

The hands-on workshop **Get Ready: A Total Eclipse Is Coming to the United States!**, 1:30–2:30 PM, has been moved. Originally in St. George 104—this session is now in St. George 106 (same day/time) (p. 66).

The presentation **STEAMing Ahead: Integrating the Arts into STEM Instruction**, 3:00–4:00 PM, has been moved. Originally in Emerald 3—this session is now in St. George 112 (same day/time) (p. 68).

### New Affiliation

The following presenter has a new affiliation for the **Administrators Featured Workshop** (p. 64) and the **Closing Session** (p. 71):

**Garrett Mason** (*garrett.w.mason@gmail.com*), High School Strand Leader, and Education Design Consultant, Leadership+Design, Longmont, Colo.

### New President

**Susie Cohen**, Florida International University, Miami, joins Tanya Taylor as president of the hands-on workshop **Critter Scene Investigation (CSI): Scat on the iPods**, 11:00 AM–12 Noon, Emerald 4, Gaylord Palms (p. 62).

### New Exhibitor Workshops

**Friday, 8:00–9:00 AM**

#### Elevate Engagement in Your Classroom with K–12 STEM-Themed Adaptive Learning

(Grades K–12)

Naples 1/2, Gaylord Palms

Sponsor: McGraw-Hill Education

**Nick Stutzman**, McGraw-Hill Education, Columbus, Ohio  
How can you reinvigorate the role of “teacher” by engaging students in anytime/anywhere learning? With personalized pathways, STEM projects, robust reporting, and actionable data, Redbird and ALEKS unlock student voice and choice for a more authentically relevant learning experience. Join us for a firsthand look at these leading adaptive learning solutions.

**Friday, 1:30–2:30 PM**

#### Olympiad Activities for the Classroom

(Grades P–12)

Naples 1/2, Gaylord Palms

Sponsor: Nasco

**Jordan Nelson**, Nasco, Fort Atkinson, Wis.

Introduce STEM concepts into your school with our version of “Classroom Olympiad.” You will design, engineer, and compete in engaging and fast-paced activities against each other in a cooperative learning atmosphere. Leave with plenty of free lesson plans and ideas to incorporate into your classroom right away. Let the games begin!

## Exhibitors

### New Exhibitors

#### Allied Powers

9474 Twister Trace St.  
Las Vegas, NV 89178  
Phone: 702-283-6401  
E-mail: *alliedpowersllc@gmail.com*

Our product provides the latest in Electric Muscle Stimulation technology. With a fully rechargeable lithium battery, our devices are portable and easy to use.

#### Big Thought

1409 S Lamar  
Dallas, TX 75215  
Phone: 214-520-0023  
E-mail: *karim@bigthought.org*  
Website: *www.bigthought.org*

The Mobile Tech XPerience is a mobile learning lab that provides STEM engagement in underserved neighborhoods under the Dallas City of Learning (DCOL) initiative. Managed by Big Thought, DCOL is a citywide partnership between the City of Dallas, Dallas ISD, and hundreds of local partners to address summer learning loss.

#### e-Schools, a division of eTechnologies Solutions Corp.

2711 Vista Pkwy., Suite B7  
West Palm Beach, FL 33411  
Phone: 561-922-9792  
E-mail: *michael.leininger@etechsolutionscorp.com*

Website: *www.etechnologycloudlabs.com*

CloudLabs virtual labs are the most advanced platform application simulators for physical laboratories available. We offer more than 120 labs in chemistry, physics, and natural science. Students can interact with field-specific instruments and tools to complement their mastery of science concepts.

#330

M, HS, C

#### Holbrook Global Field Expeditions #535

3540 NW 13th St.  
Gainesville, FL 32609  
Phone: 352-377-7111  
E-mail: *lindsay@holbrooktravel.com*  
Website: *www.holbrooktravel.com*

Since 1974, Holbrook Global Field Expeditions has fostered short course scientific and natural history travel programs for students and educators to Latin America, East Africa, and beyond. Our aim is to engage global literacy within the fields of science supporting NGSS, STEM, and core curriculum objectives through immersive scientific inquiry.

## Exhibitors, cont.

### **iFLY Vertical Wind Tunnels #435**

8969 International Dr. E, M, HS, C  
Orlando, FL 32819  
Phone: 407-342-5390  
E-mail: [cmorgan@iflyworld.com](mailto:cmorgan@iflyworld.com)  
Website: [www.iflyworld.com](http://www.iflyworld.com)

At iFLY, students learn the real-world effects of math, science, physics, aerodynamics, and, of course, communication! Indoor skydiving at iFLY is a tremendous learning opportunity for classes of all ages. By giving students the opportunity to learn how aerodynamics, physics, and more come together to help them float on air—they'll learn the real-life application of their education.

### **Infinite Beauty #534**

119 Duval St. E, M, HS, C  
Key West, FL 33040  
Phone: 305-528-7995  
E-mail: [ozmanagement34@gmail.com](mailto:ozmanagement34@gmail.com)  
Website: [www.infinitebeautyusa.com](http://www.infinitebeautyusa.com)

We are a well-established boutique spa called Infinite Beauty, with stores in Boca Raton, Miami, and Key West. We found that our products are better see-to-believe rather than from advertising on TV. We are giving away 500 free facials for you to touch and try our products firsthand. Right now we are showing a nonsurgical lifting LED machine—NASA approved and quite revolutionary! Creams, serums, and matching products are also available. Come see us for some fun!

### **Mark Enterprise #302**

12200 Marion Lane W E  
Suite 5208  
Minnetonka, MN 55305  
Phone: 239-250-3426  
E-mail: [markenterpr@aol.com](mailto:markenterpr@aol.com)

We sell a three-dimensional toy that helps children learn colors, shapes, and sizes.

### **Nano-Link: Center for Nanotechnology Education #734**

M, HS, C  
1300 145th St. E  
Rosemount, MN 55068  
Phone: 651-423-8328  
E-mail: [deb.newberry@dctc.edu](mailto:deb.newberry@dctc.edu)  
Website: [www.nano-link.org](http://www.nano-link.org)

Nano-Link is funded by the National Science Foundation. One of the goals of Nano-Link is to provide educators with nanoscience content that can be easily integrated into their traditional classes. Nano-Link believes that educators can ignite interest and excitement in students—not only for nanoscience but also for STEM and science careers in general.

### **Orange County Public Schools #635**

E, M, HS, C  
445 W Amelia St.  
Orlando, FL 32801  
Phone: 407-317-3200, x2555  
E-mail: [bonnie.toffoli@ocps.net](mailto:bonnie.toffoli@ocps.net)  
Website: [www.ocps.net](http://www.ocps.net)

OCPS is the 10th largest school district in the nation and the fourth largest in Florida. Our vision is to be the top producer of successful students in the nation. We serve more than 203,000 students from 191 countries and speak over 160 languages or dialects. We have 188 schools: 126 elementary schools, 4 grades K–8 schools, 35 middle schools, 19 high schools, and 4 exceptional education schools. This year we will open six new campus locations to support a growing student population. Our comprehensive benefits package includes a competitive salary, health and life insurance, retirement plan, paid holidays, and much more!

### **Solar4STEM #314**

E, M, HS  
**By Custom Manufacturing & Engineering (CME)**  
3690 70th Ave. N  
Pinellas Park, FL 33781  
Phone: 727-547-9799  
E-mail: [sales@custom-mfg-eng.com](mailto:sales@custom-mfg-eng.com)  
Website: [www.solar4stem.com](http://www.solar4stem.com)

CME's new solar4STEM Solar Energy trainer is well suited for grades 3–14 renewable energy instructional and STEM. Portable, easily transportable, and easy to set up, the system has a teacher's guide with numerous experiments/activities. The solar4STEM is ideal for semi-stationary setup locations (classrooms, science centers, museums).

### **STEM Escape #634**

E, M, HS, C  
5450 State Rd. 7  
Suite 32  
Hollywood, FL 33314  
Phone: 646-409-2476  
E-mail: [info@stemescape.com](mailto:info@stemescape.com)  
Website: [www.stemescape.com](http://www.stemescape.com)

STEM Escape is a mobile game that is fun and thrilling to participants. In STEM Escape, students work on tasks similar to those seen in today's workplace and must complete their mission by using different skill sets in STEM. By integrating curriculum, students can do things like learn more about the dynamics of an engine or create a new prototype while trying to complete a mission. STEM Escape provides students with the ability to stretch their imagination through interactive, fun, and technologically advanced games.

### **TerraCycle #530**

E, M, HS, C  
121 New York Ave.  
Trenton, NJ 08638  
Phone: 609-393-4252  
E-mail: [maame.mensah@terracycle.com](mailto:maame.mensah@terracycle.com)  
Website: [www.terracycle.com](http://www.terracycle.com)

TerraCycle is the world's leader in the collection and repurposing of hard-to-recycle post-consumer waste, ranging from used chip bags to coffee capsules. Each year, TerraCycle repurposes billions of pieces of waste in 21 countries through free national brand-funded recycling programs and donates millions of dollars to schools and charities.

### **TK Design #732**

E, M, HS, C  
2121 Lohmans Crossing Rd.  
Suite 504  
Austin, TX 78734  
Phone: 512-600-3118  
E-mail: [info@russianbluediamonds.com](mailto:info@russianbluediamonds.com)  
Website: [www.russianbluediamonds.com](http://www.russianbluediamonds.com)

We feature synthetic diamonds not seen in stores cut to a 5AAA grade set in 925 silver along with high-end fashion in micro pave and incredible designer-inspired pieces—all at half the suggested retail price and all with a lifetime warranty.

## **Canceled Exhibitors**

**Florida Science Olympiad** ..... #302  
**Koantum** ..... #530