

STEM FORUM & EXPO

ATLANTIC CITY

MAY 17–19, 2012

Registration and Evening Exhibits Preview—May 16



Join the Discussion on STEM

We invite you to the first-ever NSTA STEM Forum & Expo, which is shaping up to be an incredible resource for our teachers, administrators, and those involved with after-school and outreach programs—in other words, for anyone interested in developing better STEM opportunities for our youth and professional development for STEM educators!

The Steering Committee has been working with NSTA since spring of 2011 in an effort to design a STEM Forum that will be engaging, innovative, fun, enlightening, and as useful as possible for the development of STEM education in this country. We think we have scored a win here.

First, the venue—Atlantic City, New Jersey, in the spring. Can't wait to check out the boardwalk of "America's Favorite Playground."

The strand sessions are organized by grade levels—PreK–2, Grades 3–5, Grades 6–9, Community/After-School/Outreach Programs, and Administrators. We hope you will easily find exactly which sessions will meet your needs.

Exciting keynote speakers, including:

- Kenneth Wesson, a world-renowned educational consultant in neuroscience, will share how STEM should be delivered in learning contexts in which disciplinary interdependence is highlighted for young learners.

- Mary Ellen Weber, two-time Space Shuttle astronaut, engineer, scientist, and pilot, will speak on encouraging students "To Boldly Go: The Unbounded Opportunities in Science and Math."

Family STEM Night will be staged on Friday evening. Join us and see how much fun families can have discovering the excitement of STEM teaching and learning.

Wonderful pockets of STEM expertise are developing all around our country. Here are some of the outstanding sessions scheduled:

- Fairy Tales—Assembly Required
- Trebuchets: An Interdisciplinary STEM Unit
- The Freshman Robot Project
- How to Succeed in Robotics Without Really Trying
- STEM Education: Preparing for and Opening a STEM Academy

We hope to bring all this STEM experience and knowledge together in the same place—Atlantic City, New Jersey—at the same time, May 17–19, 2012, with an Exhibits Preview on Wednesday evening, May 16.

Come join us to partake in all of the STEM education knowledge you care to gather. We look forward to seeing you in Atlantic City!



Family STEM Night

One of the most exciting and fun-filled events during the Forum will be Friday from 7:30 to 9:00 PM! Not only will you enjoy the excitement associated with this “Family STEM Night,” you’ll also learn how to organize one at your school and/or community.

All registered attendees are encouraged to participate in this free event. There is limited availability, so be sure to get your “family assignment” as soon as you arrive at the Forum. Families participating in STEM competitions will receive a “goodie bag,” including materials to help organize their own “Family STEM Nights.”

Exhibitor Workshops

Go hands on with industry experts in the company-sponsored exhibitor workshops. Whether you are already using their products or are interested in learning more about a specific company or program, you will discover something new while having fun with your friends and peers.

Roundtable Task Force

A highlight is a roundtable task force of high school and higher education teachers, along with STEM-related business leaders who will meet throughout the Forum. Visit www.nsta.org/stemforum for more details.

Special Evening Exhibits Preview and Exhibit Hours

The STEM Forum & Expo will kick off with an exclusive three-hour sneak preview of the Exhibit Hall on Wednesday, May 16, from 4:00 to 7:00 PM, including a reception featuring light refreshments. Be among the first to take in the sights and sounds of the Expo as you visit with old friends and meet new friends while enjoying complimentary refreshments throughout the exhibit hall. Brand new and soon-to-be-released STEM resources will be featured by industry leaders such as Carolina Biological Supply Company, Texas Instruments, Vernier Software & Technology, and many more. For a complete list of exhibitors, look for the digital floor plan at www.nsta.org/stemforum.

The Exhibits Preview is just the tip of the iceberg as we have dedicated more time on Thursday and Friday for you to enjoy the exhibits. Cap off your days of educator sessions and exhibitor workshops by returning to the Exhibit Hall Thursday and Friday afternoon. Exhibitors will have hands-on activities, free resources, giveaways, best practices, and more—all tailored specifically to teachers’ needs. Please note that exhibit hours are limited each day, so come early and often to take advantage of the freebies.

Exhibits Preview and Reception

Light Refreshments Provided (Exclusive Exhibits Hours!)

Wednesday, May 16 • 4:00–7:00 PM

Regular Exhibits

Thursday, May 17 • 3:00–6:00 PM

Friday, May 18 • 2:00–5:00 PM

NSTA Advocates to the STEM Forum & Expo

- ASCD (formerly the Association for Supervision and Curriculum Development)
- Center for Integrative STEM Education at the National Institute of Aerospace
- Council of State Science Supervisors (CSSS)
- International Society for Technology in Education (ISTE)
- International Technology and Engineering Educators Association (ITEEA)
- National Center for Earth and Space Science Education (NCESSSE)
- National Science Foundation (NSF)
- New Jersey Dept. of Education
- NIMBioS: National Institute for Mathematical and Biological Synthesis
- Secondary and Education Programs/ NASA
- Tennessee Science Teachers Association (TSTA)
- Vernier Software & Technology

Keynote Speakers

These renowned speakers are experts in their fields who will speak on selected topics related to STEM.



The STEM Hologram: Several Disciplines; One Interdependent Picture

Thursday, May 17
9:15–10:30 AM

Kenneth Wesson, Educational Consultant: Neuroscience, San Jose, Calif.

Kenneth Wesson works as an educational consultant for preschool through university institutions and organizations. An expert on the neuroscience of learning and methods for creating classrooms and learning environments that are “brain considerate,” Wesson regularly addresses educational organizations and institutions. His work is frequently referenced in Parents Magazine and the journal Brain World. Wesson regularly addresses counseling associations, school districts, and parenting organizations on establishing “brain-considerate” learning environments.



To Boldly Go: The Unbounded Opportunities in Science and Math

Friday, May 18
11:45 AM–1:00 PM

Mary Ellen Weber, Astronaut and Founder of STELLAR Keynotes & Consulting, Dallas, Tex.

ANASA astronaut for 10 years, Dr. Mary Ellen Weber is a veteran of two Space Shuttle flights. In 2000, she flew aboard the Space Shuttle Atlantis on mission STS-101, a pioneering and critical early construction mission for the International Space Station. More recently, Dr. Weber was vice president for government affairs for nine years at The University of Texas Southwestern Medical Center. She is currently with STELLAR Keynotes & Consulting, bringing her unique insights to provide consulting services in communications, in legislative strategy, and in strategies for high-stakes operations. She received her PhD in physical chemistry from Berkeley.

Sample Sessions

The STEM Forum has been organized around the following five strands. Check out a sample of sessions below. For more information, visit www.nsta.org/stemforumbrowser to view the most up-to-date listing of sessions.

PreK–2 (Early Childhood)

- STEM Education for All Early Childhood Students
- Kindergarten Engagement Lessons
- Engineering the K–2 Curriculum
- STEM Literacy: Putting It All Together
- Problem Solving by Design Through Art and Music Activities
- Introducing the Engineering Design Process to Young Children
- Creating STEM-embedded Literacy Learning Centers

Grades 3–5

- McGyver Science
- STEM Picks Up STEAM: Adding the Arts in STEM Education
- Creating Future Scientists—Beginning at the Elementary Level
- The Perfect Storm—When Technology and Science Collide
- STEM Explorations for Elementary Children and Their Parents
- Inquiry Central: Create an Elementary STEM Lab in Your School
- Rocket Building Is Out of This World

Grades 6–9

- Scalable STEM Activities for Grades 3–9
- STEM Today, Degree Tomorrow
- An Engineering and Technology Twist on the Egg Drop Activity
- Taking Things Apart: How Reverse Engineering Facilitates Learning
- Toward Energy-aware STEM Leaders for the 21st Century
- Integrating Art into STEM Through Engineering Design

Administrators

- STEM Leadership: Where Do I Begin?
- Improving STEM Teacher Education with a Residency Model
- Vertical Integration of Engineering Education in K–12 Rural Schools
- Strategic Planning for STEM Education Success
- STEM Education: Preparing for and Opening a STEM Academy
- Start Your Own STEM Summer Institute

Community/After-School/Outreach Programs

- STEM Expo: Innovative Alternatives to Typical Science Fairs
- Using VEX Robotics Competition to Immerse Students in STEM
- Engaging Young People in STEM Through Service Learning
- Need a STEM Club in Your School? Start One!
- GEE: Girls Engaged in Engineering
- Running Successful STEM Family Science Events
- STEM Stars: Community Collaboration
- Organize a STEM Career Day at Your School

STEM Forum Steering Committee

Chairperson

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Shannon Hamilton
Northeast Learning Zone Math
Facilitator
Charlotte-Mecklenburg Schools
Huntersville, N.C.



Registration and Travel


Registration Information


Registration Rates


Earlybird	Advance	Full Rate
<i>April 6</i>	<i>April 20</i>	<i>After April 20</i>
\$150	\$175	\$200

How to Register

To fax or mail your registration, first visit www.nsta.org/stemforum to download a registration form (PDF).

 **Online**—The fastest way to register 24 hours a day—register online at www.nsta.org/stemforum with a credit card.


 **Fax**—Fax form with credit card or purchase order information to 703-243-3924.


 **Mail**—Mail registration form and payment to:
National Science Teachers Association
Conference Department
PO Box 90214
Washington, DC 20090-0214

Housing Information

Housing Deadline: April 21, 2012

Make your hotel reservations now and save! NSTA has negotiated special discounted room rates with two hotels near the Atlantic City Convention Center. Visit www.nsta.org/stemforumhousing for complete details. Housing reservations can be made in one of the following ways:

 **Online**
Visit www.nsta.org/stemforumhousing and have your credit card and arrival/departure information ready.

 **Phone**
Call 877-352-6710 (toll free) or 801-505-4611 (international) between 7:00 AM and 6:00 PM Mountain Time, Monday–Friday. Be prepared to provide all the information on the housing form (available at www.nsta.org/stemforumhousing as a PDF).

Fax

Fax one housing form per room request to 801-355-0250. Housing forms are available online at www.nsta.org/stemforumhousing as a PDF).

Mail

Mail one form per room request to:
The Housing Connection—NSTA/STEM Forum
175 South West Temple, Suite 140
Salt Lake City, UT 84101
Housing forms are available online at www.nsta.org/stemforumhousing as a PDF. **Do not mail to NSTA.**

Visit www.nsta.org/stemforum for continuously updated information on the STEM Forum & Expo.