Wednesday, March 30


*Presenter(s):* Victor Sampson (The University of Texas at Austin: Austin, TX), Patrick Enderle (Georgia State University: Atlanta, GA), Ashley Hamill Murphy (The University of Texas at Austin: Austin, TX)

*Time:* 9:00 am - 4:00 pm

*Location:* Omni Nashville Hotel, Legends E

Wednesday, March 30

PLI-4: GreenSTEM: Applying the Engineering Design Process to Community-Based Projects

*Presenter(s):* Anne Tweed (McREL International: Denver, CO), Laura Arndt (McREL International: Denver, CO)

*Time:* 9:00 am - 4:00 pm

*Location:* Omni Nashville Hotel, Legends D

Wednesday, March 30

PLI-3: Enriching Your Science Instruction with Three-Dimensional Teaching and Learning

*Presenter(s):* Eric Brunsell (University of Wisconsin Oshkosh: Oshkosh, WI)

*Time:* 9:00 am - 4:00 pm

*Location:* Omni Nashville Hotel, Legends C
Wednesday, March 30

**PLI-2: Integrating Science and Literacy with Picture Books**

*Presenter(s):* Karen Ansberry (Picture-Perfect Science: West Chester, OH), Emily Morgan (Picture-Perfect Science: West Chester, OH)

*Time:* 9:00 am - 4:00 pm

*Location:* Omni Nashville Hotel, Legends B

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Wednesday, March 30

**PLI-1: Supporting Conceptual Understanding in Science by Linking Assessment, Instruction, and Learning**

*Presenter(s):* Page Keeley (The Keeley Group: Fort Myers, FL), Joyce Tugel (Maine Mathematics and Science Alliance: Augusta, ME), Richard Konicek-Moran (Professor Emeritus, UMass Amherst: Amherst, MA)

*Time:* 9:00 am - 4:00 pm

*Location:* Omni Nashville Hotel, Legends A

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Wednesday, March 30

**The Planetary Society Lecture: If the Dinosaurs Had a Space Program**

*Presenter(s):* Bill Nye - The Planetary Society: Pasadena, CA

*Time:* 6:00 pm - 8:00 pm

*Location:* Music City Center, Grand Ballroom B/C
Thursday, March 31

AMSE (Association for Multicultural Science Education) Session: English Language Development Opportunities for ELLs Through Meaningful Integration of the NGSS and CCSS

Presenter(s): Jerry Valadez (CSU, Fresno: Sanger, CA), Ana Lopez (Central Valley Science Project: Sanger, CA)

Time: 8:00 am - 9:00 am

Location: Omni Nashville Hotel, Legends E

Thursday, March 31

NSTA Press Session: Teaching Science for Conceptual Understanding: Exploring the “Big Ideas” of Conceptual Teaching and Learning in Science

Presenter(s): Page Keeley and Richard Konicek-Moran

Time: 8:00 am - 9:00 am

Location: Music City Center, 101D

Interactively explore a resource that can transform K–16 teachers' beliefs and practices about teaching science, including a framework for linking instruction, assessment, and learning.

Thursday, March 31

NSTA Press Session: Promote Enduring Understanding with Literacy-Infused Units

Presenter(s): Jessica Gaither and Terry Shiverdecker (authors of Inquiring Scientists, Inquiring Readers)

Time: 8:00 am - 9:00 am

Location: Music City Center, 101C

Join the authors of Inquiring Scientists, Inquiring Readers for an investigation integrating literacy and inquiry. Discuss the application of this powerful approach in your classroom.
Thursday, March 31

**NSTA Press Session: Reimagining the Science Department**

*Presenter(s):* Todd Campbell (University of Connecticut: Storrs Mansfield, CT), Wayne Melville (Lakehead University: Thunder Bay, ON), Doug Jones (Sir Winston Churchill Collegiate & Vocational Institute: Thunder Bay, ON)

*Time:* 12:30 pm - 1:30 pm  
*Location:* Music City Center, 101C

We will reveal strategies for the collaborative work of departments supportive of NGSS implementation.

Thursday, March 31

**NSTA Press Session: Uncovering Preservice and K-12 Teachers’ Ideas About Science**

*Presenter(s):* Page Keeley (The Keeley Group: Fort Myers, FL), Christine Anne Royce (Shippensburg University: Shippensburg, PA)

*Time:* 2:00 pm - 3:00 pm  
*Location:* Music City Center, 101D

Learn how and see examples of how the formative assessment strategies are used to support practicing and future teachers' learning about science content and conceptual change pedagogy.

Thursday, March 31

**NSTA Press Session: Next Time You See…**

*Presenter(s):* Emily Morgan (Picture-Perfect Science: West Chester, OH)

*Time:* 3:30 pm - 4:30 pm  
*Location:* Music City Center, 101C

Join the author for ideas on how to use these award-winning books to connect science, reading, and writing, and to inspire a sense of wonder about the natural world.
Thursday, March 31

**NSTA Press Session: Teaching Science Through Integrating Children’s Literature and Outdoor Investigations**

*Presenter(s):* Christine Anne Royce (Shippensburg University: Shippensburg, PA), Steve Rich (University of West Georgia: Carrollton, GA)

*Time:* 5:00 pm - 6:00 pm  
*Location:* Music City Center, 101C

Engage in lessons that combine investigations in outdoor science topics with paired children’s literature that will enhance the topic and integrate other discipline areas.

Friday, April 1

**NSTA Press Session: Engaging Students in Predict, Observe, Explain Sequences in Your Science Classroom**

*Presenter(s):* Michael Bowen (Mount Saint Vincent University: Halifax, NS), Tony Bartley (Lakehead University: Thunder Bay, ON)

*Time:* 8:00 am - 9:00 am  
*Location:* Music City Center, 101C

Using examples from our NSTA Press book, we will demonstrate how to engage middle school and high school students in POE activities to develop their understanding of science concepts. Resources will be provided.
Nashville, 2016

Friday, April 1

NSTA Press Session: It's Debatable: Using Socioscientific Issues to Develop Scientific Literacy, K-12

Presenter(s): Sami Kahn (Collegiate School: New York, NY)

Time: 9:30 am - 10:30 am

Location: Music City Center, 101C

Join me as I model the use of controversial societal issues related to science to develop students' scientific literacy.

Friday, April 1

NSTA Press Session: Linking the Uncovering Student Ideas in Science Series and Everyday Science Mysteries to K-5 Language Literacy

Presenter(s): Page Keeley (The Keeley Group: Fort Myers, FL), Joyce Tugel (Maine Mathematics and Science Alliance: Augusta, ME), Richard Konicek-Moran (Professor Emeritus, UMass Amherst: Amherst, MA)

Time: 11:00 am - 12:00 pm

Location: Music City Center, 101C

Learn about and experience ways K–5 teachers are using the Uncovering Student Ideas in Science series and the Everyday Mystery Stories to support science learning and the literacy capacities of reading, writing, speaking, and listening.
Friday, April 1

NSTA Press Session: Doing Good Science in Middle School

**Presenter(s):** Vicki Massey (Higley Unified School District #60: Gilbert, AZ)

**Time:** 12:30 pm - 1:30 pm

**Location:** Music City Center, 101C

NGSS and CCSS integration are part of this book and discussion.

Friday, April 1

NSTA Press Session: Models and Approaches to STEM Professional Development

**Presenter(s):** Brenda Wojnowski (WAI Education Solutions: Dallas, TX), Celestine Pea (National Science Foundation: Arlington, VA)

**Time:** 2:00 pm - 3:00 PM

**Location:** Music City Center, 101D

Explore practices and strategies for making STEM professional development more effective through a focus on practical application of the PD research base in educational settings.

Friday, April 1

NSTA Press Session: The Power of Questioning: Guiding Student Investigations

**Presenter(s):** Lisa Nyberg (California State University, Fresno: Fresno, CA), Julie McGough (University of Nebraska-Lincoln: Lincoln, NE)

**Time:** 2:00 pm - 3:00 PM

**Location:** Music City Center, 101C

Let students' questions guide the inquiry while integrating collaborative conversations, reading of informational text, and writing.
Nashville, 2016

Friday, April 1

NSTA Press Session: Beyond the Numbers: Making Sense of Statistics

Presenter(s): Edwin Christmann (Slippery Rock University of Pennsylvania: Slippery Rock, PA)

Time: 3:30 pm - 4:00 pm

Location: Music City Center, 101C

Add new learning to your classroom. Join us as we focus on the NSTA Press® book, Beyond the Numbers: Making Sense of Statistics.

Friday, April 1

NSTA Press Session: Using Everyday Mysteries to Promote Literacy

Presenter(s): Richard Konicek-Moran (Professor Emeritus, UMass Amherst: Amherst, MA), Andrea Allen (Knox County Schools: Knoxville, TN)

Time: 5:00 pm - 6:00 pm

Location: Music City Center, 101C

Join us as we use the NSTA Press® book Everyday Science Mysteries to reinforce literacy while teaching science concepts to either struggling or gifted readers.

Presenter(s): Emily Morgan (Picture-Perfect Science: West Chester, OH), Karen Ansberry (Picture-Perfect Science: West Chester, OH)

Time: 8:00 am - 9:00 am

Location: Music City Center, 101C

The authors of NSTA's award-winning Picture-Perfect Science series will share lessons that integrate elementary science and the Common Core State Standards for ELA.

NSTA Press Session: Integrating Engineering Practices into a Whole-Class Inquiry Challenge

Presenter(s): Dennis Smitheny (Elmhurst College: Elmhurst, IL), Joan Gallagher (Niles North High School: Skokie, IL), Michael Nocella (Niles West High School: Skokie, IL)

Time: 8:00 am - 9:00 am

Location: Music City Center, 101D

The authors have successfully transformed typical high school science classrooms into student-led scientific communities in which learners take ownership of their projects and mimic real-world exploration.
Saturday, April 2

**NSTA Press Session: Solar Astronomy Curriculum Resource That Meets the NGSS = Getting Ready for the All-American Eclipse**

*Presenter(s):* Dennis Schatz (Pacific Science Center: Seattle, WA), Andrew Fraknoi (Foothill College: Los Altos Hills, CA)

*Time:* 9:30 am - 10:30 am

*Location:* Music City Center, 101C

The authors are award-winning experts in both astronomy and science education, so they know just how to encourage students to work like scientists by asking questions, doing experiments, comparing notes, and refining and reporting results.

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Saturday, April 2

**NSTA Press Session: Diving into the NGSS Disciplinary Core Ideas: How and Why They Are Important for Teaching and Learning**

*Presenter(s):* Ann Rivet (Teachers College, Columbia University: New York, NY), Ravit Golan Duncan (Rutgers Graduate School of Education: New Brunswick, NJ), Joseph Krajcik (CREATE for STEM Institute, Michigan State University: East Lansing, MI)

*Time:* 11:00 am - 12:00 pm

*Location:* Music City Center, 101D
Saturday, April 2

**NSTA Press Session: Bringing Outdoor Science In**

*Presenter(s):* Steve Rich (University of West Georgia: Carrollton, GA)

*Time:* 11:00 am - 12:00 pm

*Location:* Music City Center, 101C

Explore STEM in the school yard with NSTA Press® books, and find out how birds and students can "engineer" with sticks and stems.

When it’s just not possible to take students out to explore the natural world, bring the natural world to the classroom. Clearly organized and easy to use, this helpful guide contains more than 50 science lessons in six units: Greening the School, Insects, Plants, Rocks and Soils, Water, and In the Sky.

Saturday, April 2

**NSTA Press Session: Learn Strategies to Help You Implement the NGSS Practices**

*Presenter(s):* Susan Koba (Science Education Consultant: Omaha, NE), Anne Tweed (McREL International: Denver, CO)

*Time:* 11:00 am - 12:00 pm

*Location:* Music City Center, 104E

Use instructional tools that help provide students with multiple opportunities to learn, promote linguistic and nonlinguistic approaches to teaching, and support NGSS practices.

Handouts!

The presenters, Susan and Anne, are the co-authors of Hard-to-Teach Biology Concepts. Susan was also one of the editors of Exemplary Science: Best Practices in Professional Development, and the editor of Mixing it Up: Integrated, Interdisciplinary, Intriguing Science in the Elementary Classroom.
Saturday, April 2

**NSTA Press Session: Five E(z), “Elementary” Steps To Next Generation Science Teaching**

*Presenter(s):* William Banko (Knowing Science LLC: Armonk, NY), Thomas O’Brien (Binghamton University: Binghamton, NY)

*Time:* 2:00 pm - 3:00 pm

*Location:* Music City Center, 101D

“The old models of teaching as simply telling, and learning as passive sit-and-get listening, will not meet the needs of tomorrow’s citizens.”

—Thomas O’Brien in the Overview to *Science for the Next Generation*

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Saturday, April 2

**NSTA Press Session: Uncovering Student STEM-Connected Ideas in Science**

*Presenter(s):* Page Keeley (The Keeley Group: Fort Myers, FL), Joyce Tugel (Maine Mathematics and Science Alliance: Augusta, ME)

*Time:* 3:30 pm - 4:30 pm

*Location:* Music City Center, 101C

Experience a variety of formative assessment probes and techniques designed to uncover students’ thinking about the T, E, and M connections to science concepts.
Sunday, April 3

**NSTA Press Session: CCSS ELA and Literacy + NGSS = Even More Brain-Powered Science**

*Presenter(s):* Thomas O'Brien *(Binghamton University: Binghamton, NY)*

*Time:* 8:00 am - 9:00 am

*Location:* Music City Center, 101C

O’Brien has developed interactive activities—many of which use inexpensive materials—to engage the natural curiosity of both teachers and students and create new levels of scientific understanding. The hands-on activities serve as visual participatory analogies for science education principles related to the nature of science and cognitive learning theory, bridging the gap between practice and theory.

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Sunday, April 3

**NSTA Press Session: What Are They Thinking? Investigating the Moon Through Formative Assessment Probes and Strategies That Link Concepts and Practices**

*Presenter(s):* Page Keeley *(The Keeley Group: Fort Myers, FL), Brian Kruse *(Astronomical Society of the Pacific: San Francisco, CA)*

*Time:* 9:30 am - 10:30 am

*Location:* Music City Center, 101C

Discover how to link formative assessment to a modeling activity on eclipses to create conceptual change in preparation for the Great American Eclipse in 2017!
Nashville, 2016

Sunday, April 3

NSTA Press Session: Forensics in Chemistry

**Presenter(s):** Angela Codron (Normal West High School: Normal, IL)

**Time:** 11:00 am - 12:00 pm

**Location:** Music City Center, 101C

Forensics seems to have the unique ability to maintain student interest and promote content learning…. I still have students approach me from past years and ask about the forensics case and specific characters from the story. I have never had a student come back to me and comment on that unit with the multiple-choice test at the end.”

— from the Introduction to Forensics in Chemistry: The Murder of Kirsten K.
Thursday, March 31

**Discover the NGSS: An Interactive Exploration of the Next Generation Science Standards**

**Presenter(s):** Leisa Clark (NSTA: Arlington, VA

**Time:** 2:00 pm - 3:00 pm

**Location:** Omni Nashville Hotel, Music Row 2

Come learn how to put the pieces of the NGSS together with help from NSTA's interactive e-book on the standards, *Discover the NGSS: Primer and Unit Planner*. The first 20 attendees receive free copies of this Enhanced E-book.

Saturday, April 2

**The NGSS@NSTA Hub**

**Presenter(s):** Ted Willard (NSTA: Arlington, VA

**Time:** 8:00 am - 9:00 am

**Location:** Music City Center, 104A

This session will feature a tour of the NGSS@NSTA Hub, a digital destination to support teaching and learning of the NGSS. Hear about the work of 55 NGSS@NSTA curators—a group of educators from all across the U.S. working to identify resources that support the standards.
Saturday, April 2

Ten NGSS Talking Points: How to Talk about the Next Generation Science Standards in Your School and Community

**Presenter(s):** Cindy Workosky (NSTA: Arlington, VA)

**Time:** 11:00 am - 12:00 pm

**Location:** Music City Center, 104A

Talking about educational standards is an expected task of teachers and administrators. It's an opportunity to help parents and others know what teachers will be teaching and what students will be learning. Join me and learn more about the goals of the NGSS and get 10 tips for how you can talk about them in your school and community.

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Discover the NGSS Train-the-Trainer Workshop

*Wednesday, March 30–Thursday, March 31*

Kick start the NGSS teacher training in your school or district. This two-day program helps you build your team of experts by giving them a solid understanding of the NGSS, a guide for conducting teacher training using the interactive e-book, and the ongoing support they need to be leaders.

NGSS@NSTA Forum

*Friday, April 1, 2016 • Grand Ballroom C1, Music City Center • 8:00 AM–3:30 PM*

The daylong NGSS@NSTA Forum—free for all conference attendees—explores resources you can use to implement three-dimensional instruction. Participate in one or more presentations. Books will be raffled at the end of each session!
National Conference in Nashville

Explore Three-Dimensional Teaching and Learning in Nashville!

Take a deep dive into the Next Generation Science Standards (NGSS) with a number of special events and more than 200 presentations at the 2016 NSTA National Conference. Explore the hundreds of sessions focused on NGSS, A Framework for K-12 Science Education, and three-dimensional learning by using the search function in the session browser.
NGSS@NSTA Share-a-Thon

Saturday, April 2, 2016
9:30–10:30 AM
Grand Ballroom C1, Music City Center

At the NGSS@NSTA Share-a-Thon, get even more tips and tools to implement three-dimensional standards from NSTA’s NGSS Curators, NGSS writers, and other education experts. Leave with plenty of handouts and ideas you can use in your classroom right away!

Elementary Extravaganza

Friday, April 1
8:00 AM - 10:00 AM
Music City Center, Grand Ballroom A

This Extravaganza is not to be missed! Join elementary groups of professionals for an exceptional opportunity. Gather resources for use in your classroom immediately. Engaging hands-on activities, strategies to excite and encourage your students, a preview of the best trade books available, information about award opportunities, contacts with elementary science organizations, sharing with colleagues, door prizes, and much more will be available to participants. Walk away with a head full of ideas and arms filled with materials.
Meet Me in the Middle Session: Middle Level Share-a-Thon
Saturday, April 2
2:00 PM - 4:00 PM
Omni Nashville Hotel, Broadway E/F

Calling all middle school science teachers! Join more than 100 presenters to obtain numerous lesson plans and activities for use in your classroom tomorrow!

Presenter(s): Todd Hoover (Bloomsburg University of Pennsylvania: Bloomsburg, PA), Diana Cost (Global Learning Charter Public School: New Bedford, MA), Patty McGinnis (Arcola Intermediate School: Eagleville, PA), Mary Lou Lipscomb (National Middle Level Science Teachers Association: No City, No State), Gary Benenson (The City College of New York: New York, NY), Veronica Garcia Betancourt (Harlandale ISD: San Antonio, TX), Wendy Bohon (IRIS: Washington, DC), Rachel Zimmerman Brachman (NASA Jet Propulsion Laboratory: Pasadena, CA), Ashley Burnett (Global Learning Charter Public School: New Bedford, MA), Renee Clary (Mississippi State University: Mississippi State, MS), Mary Colson (Horizon Middle School: Moorhead, MN), Suzanne Cunningham (Purdue University: West Lafayette, IN), Brittany Frohnhoefer (Irmo Middle School: Columbia, SC), Nicole Green (Animalearn: Jenkintown, PA), Tina Harris (Marion High School: Marion, IN), Kathe Blue Hetter (Skyline High School: Ann Arbor, MI), Michael Hubenthal (IRIS: Washington, DC), Dorian Janney (NASA Goddard Space Flight Center: Greenbelt, MD), Rebecca Kurson (Golda Och Academy: West Orange, NJ), Bonnie Lasorsa (Wareham Middle School: Wareham, MA), Tom Loschiavo (PASCO scientific: Roseville, CA), Jeremy Peacock (Northeast Georgia RESA: Winterville, GA), Jean Pennycook (Penguin Science.com: Fresno, CA), Bob Riddle (Science Scope Column Editor, Scope on the Skies: Lees Summit, MO), Dannah (Dane) Schaffer (Minot State University: Minot, ND), Dennis Schatz (Pacific Science Center: Seattle, WA), Kelle Sumrall (Lafayette Middle School: Oxford, MS), Emily Weiss (The Lawrence Hall of Science: Berkeley, CA), Gordon Wells (Ohio Valley University: Vienna, WV), Heather Worsham (Southern Boone High School: Ashland, MO)