

NSTA

AREA CONFERENCES ON SCIENCE EDUCATION

2016 AREA CONFERENCES PREVIEW

MINNEAPOLIS

MINNESOTA

OCTOBER 27-29

CELEBRATE SCIENCE:
10,000 CONNECTIONS

PORTLAND

OREGON

NOVEMBER 10-12

EXPLORING MOUNTAINS:
GUIDING SCIENCE TEACHING
AND LEARNING

COLUMBUS

OHIO

DECEMBER 1-3

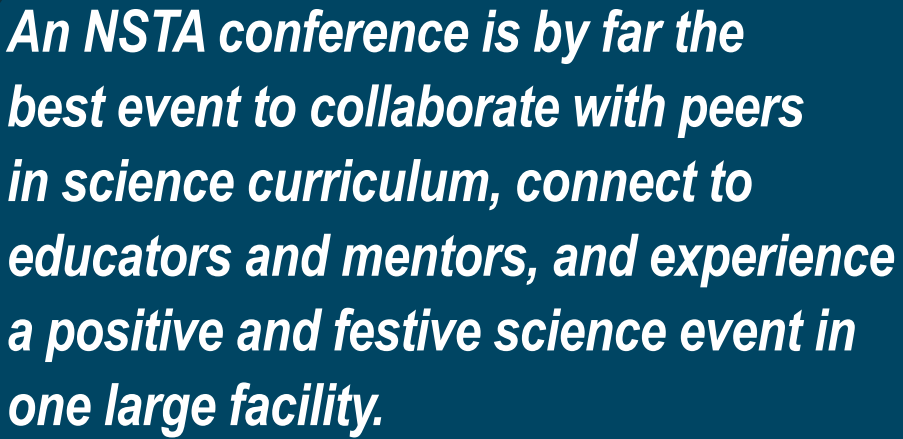
CHAMPIONS OF SCIENCE:
A GAME PLAN
FOR THE FUTURE!



#NSTA16

REGISTER EARLY AND SAVE \$\$
WWW.NSTA.ORG/CONFERENCES

NSTA National
Science
Teachers
Association



An NSTA conference is by far the best event to collaborate with peers in science curriculum, connect to educators and mentors, and experience a positive and festive science event in one large facility.

– Lisa Moser, past attendee



**WANT TO FLY TO AN
CONFERENCE FOR**

Minneapolis, MN
October 27–29

Portland, OR
November 10–12

Enter to win 1 of 27 round trip tickets on Southwest

View details and enter here: nstatravel.hscampaigns.com

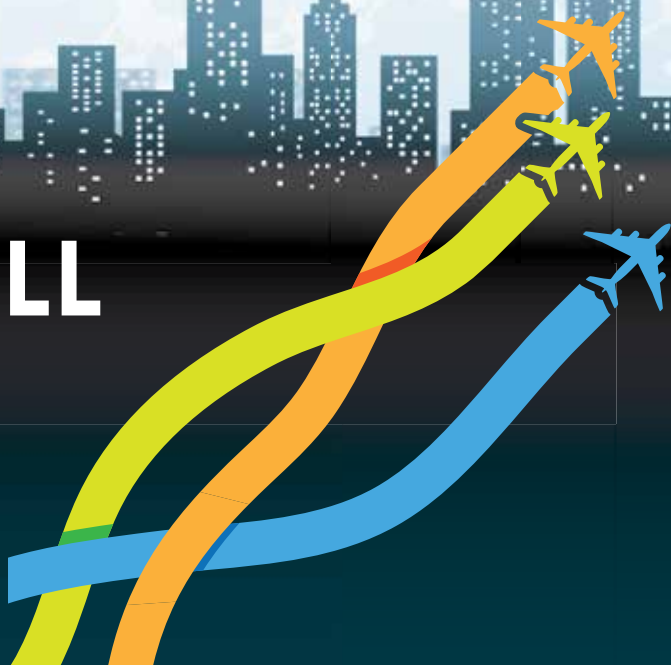
August 29 to September 16, 2016

I absolutely LOVE the professional development opportunities provided at an NSTA conference! It is an opportunity to network with like-minded professionals – people passionate about science and STEM education.

– Susanne Hokkanen, past attendee

NSTA FALL FREE?

Columbus, OH
December 1-3



Airlines to one of our fall area conferences.

Southwest® 

NSTA National
Science
Teachers
Association

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Minneapolis Speakers

Follow your favorite speaker on Twitter! See our featured speakers' Twitter handles on these pages or search on #NSTA16.

KEYNOTE SPEAKER

Why We Need More People to Ask Why



Ainissa Ramirez @ainissaramirez

Scientist, Educator, and Science Evangelist, New Haven, Conn.

Ainissa G. Ramirez is a science evangelist who is passionate about getting the general public excited about science. She co-authored *Newton's Football: The Science Behind America's Game* and authored *Save Our Science: How to Inspire a New Generation of Scientists*. Before taking on the call to improve the public's understanding of science, she was an associate professor of Mechanical Engineering & Materials Science at Yale University. Dr. Ramirez now focuses her energies on making science fun as well as co-hosting a science podcast called Science Underground.

Every year, five million kindergartners enter school armed with the word, "why." However, by the time they leave school, just a few years later, those "whys" grow silent. This talk will make a case for asking why and will share STEM strategies to keep those "whys" aglow in students.

FEATURED PRESENTATION

Inclusive STEM Schools: Deconstructing and Determining the Success of a Complex Innovation



Melanie LaForce @melanielaforce

Associate Director and Lead Researcher, Outlier Research & Evaluation, CEMSE, The University of Chicago, Ill.

Melanie LaForce directs STEM school research at Outlier Research & Evaluation. She is currently the PI of the NSF-funded STEM Schools Study (S3), which examines the implementation of STEM school strategies and their relationship to student success. Prior to joining Outlier in 2011, Melanie served as a senior analyst at the Consortium for Chicago School Research in the Urban Education Institute (UEI) at The University of Chicago. Her core research mission is to better explicate how, why, and under what conditions educational practices may impact student motivation, self-perceptions, and ultimately success.

STRAND STEMify Instruction Through Collaboration Across the Curriculum

STEM can be a powerful unifying theme across the curriculum and in many settings. STEM provides an opportunity for collaboration among teachers, disciplines, and schools, as well as postsecondary, informal education, and community partners. This strand will explore models of integrated STEM education programs, learn strategies to productively STEMify lessons, and investigate how to effectively engage students.

FEATURED PRESENTATION

Wearable Technology and the Connected World



Lucy Dunne @LucyEDunne

Associate Professor and Director, Apparel Design Program, and Co-Director, Wearable Technology Lab, Dept. of Design, Housing, and Apparel, University of Minnesota, St. Paul

Lucy Dunne founded the Wearable Technology Lab at the University of Minnesota in 2008. Her background spans apparel design, computer science, and electronic engineering. Lucy teaches in the Apparel Design undergraduate program and the Apparel Studies graduate program and is a member of the graduate faculty in Human Factors and Ergonomics and Product Design. In 2013, she was awarded the NSF CAREER award and NASA's Silver

Achievement Medal for her research, teaching, and outreach activities. She is the co-author of *Functional Clothing Design: From Sportswear to Space Suits*.

STRAND Teaching Science in a Connected World

Students and teachers have access to many forms of technology. These technologies can be effective tools to access information, deliver instruction, communicate ideas, connect with people from around the world, and build professional learning networks. Educators attending these sessions will explore instructional materials, technologies and strategies for effective learning for students and adults, and responsible use of digital resources and processes.



—Photo courtesy of © Meet Minneapolis

FEATURED PRESENTATION

Title to be announced



Christine Anne Royce

@caroyce

Department Chairperson and
Professor of Teacher Education,
Shippensburg University,
Shippensburg, Pa.



Steve Rich

@bflyguy

Author and Science Methods
Instructor, University of West
Georgia, Carrollton

Christine Anne Royce is department chairperson and a professor in the Department of Teacher Education at Shippensburg University and co-director of the MAT Program in STEM Education for second career educators. She serves in a variety of roles for NSTA, including being co-author for *Science & Children's Teaching Through Trade Books* column. Christine's research interests focus on the use of children's literature to teach elementary science; science literacy issues; and Earth science and astronomy education in the classroom.

Steve Rich writes books based on his experiences as a teacher, state science specialist, nature enthusiast, and as a father. He is the author of books for teachers and students, including his popular NSTA Press® titles *Outdoor Science: A Practical Guide* and the follow-up, *Bringing Outdoor Science In: Thrifty Classroom Lessons*. His passion for teaching children about butterflies led to a role in helping former First Lady Rosalynn Carter create a butterfly garden at her home in Plains, Georgia, which became the beginning of the Carter Butterfly Trail at the Jimmy Carter National Historic Site.

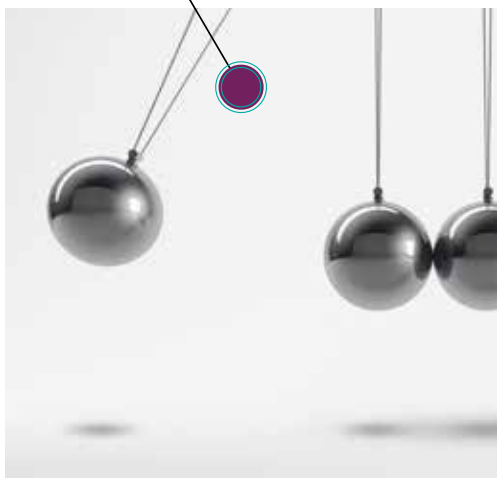
STRAND Celebrating Elementary Science and Literacy Connections

Children are born investigators. Science is an engaging way to develop students' skills in thinking creatively, expressing themselves, and investigating their world. Reading, writing, and speaking are inspired through science experiences. Educators attending these sessions will gain confidence in teaching science, learn strategies for literacy and science integration, and celebrate elementary science.

Check out more than 300 sessions and other events with the Minneapolis Session Browser/Personal Scheduler (www.nsta.org/minneapolisbrowser).

MINNEAPOLIS SPECIAL EVENTS

PHYSICS DAY FRIDAY, OCTOBER 28



ENGINEERING DAY FRIDAY, OCTOBER 28

CHEMISTRY DAY FRIDAY, OCTOBER 28



the Minneapolis conference...

STARTS **THURSDAY**
OCTOBER 27
@ 8:00 AM

ENDS **SATURDAY**
OCTOBER 29
@ 12 Noon



—Photo courtesy of © Meet Minneapolis

GRADUATE CREDIT OPPORTUNITY

Graduate Credit Sponsored by Framingham State University

Earn one graduate-level credit in professional development through Framingham State University. To obtain credit, you must be registered for the Minneapolis conference, complete a Framingham State University Registration Form, attend a minimum of 12 hours of programs, submit a written report, and pay a fee of \$179. The registration form is available from the Framingham State University website (www.framingham.edu/nsta). An NSTA transcript is also required. *Note:* Credit is by pass/fail option only.

For complete information, visit www.framingham.edu/nsta.

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NSTA NATIONAL CONFERENCE ON SCIENCE EDUCATION

Over **1,200** sessions

Network with more
than **10,000**
educators

375+ exhibitors
with cutting-edge
resources

And much more!



SUN • SURF

Science

LOS ANGELES

March 30–April 2 **2017**



"The conference provides a wealth of information from lesson plans to the latest science news. I leave each conference renewed and recharged!"

Sharon Ruggieri,
past conference attendee



CONFERENCE STRANDS

NGSS
The Next Generation
of Science Teaching

2017
A STEM Odyssey

Science & Literacy
Reloaded

Mission Possible
Equity for
Universal Access

Stay up-to-date with conference information at
www.nsta.org/losangeles

NSTA National
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Minneapolis Conference at a Glance

Make your own conference schedule using the Minneapolis Session Browser/Personal Scheduler (www.nsta.org/minneapolisbrowser). Browse events by day, format, subject, grade level, conference strand, sponsor, or keyword.

| | | Life Science | Physical Science | Earth and Space Science | Engineering and Technology | General Science Education | Informal Science Education | PRESENTATION | WORKSHOP |
|---------------------|--|--------------|------------------|-------------------------|----------------------------|---------------------------|----------------------------|--------------|----------|
| Elementary | Thurs., 8:00–9:00 AM—Native Plants and Seeds, Oh My! | • | | | | | | | • |
| | Thurs., 12:30–1:30 PM—Forces, Motion, and Engineering for Kindergarten? Yes! | | • | | | | | | • |
| | Thurs., 3:30–4:30 PM—NOAA SOS Explorer: Earth Science Data Visualizations in the Classroom | | | • | | | | | • |
| | Thurs., 5:00–6:00 PM—Inventing Is Just Plain Fun (for All)! | | | | • | | | | • |
| | Fri., 8:00–9:00 AM—Bee Wild About Pollinators | • | | | | | | | • |
| | Fri., 9:30–10:30 AM—Engineering FOR, FROM, and BY Animals: A Powerful Way to Engage Students and Teachers in STEM Learning at the Zoo and in the Classroom | | | | | | • | | • |
| | Fri., 12:30–1:30 PM—A Picture-Perfect Approach to Connecting Reading Strategies and Science | | | | | • | | | • |
| | Fri., 3:30–4:30 PM—Deep Time | | | • | | | | | • |
| | Sat., 8:00–9:00 AM—Using Engineering Design to Collaboratively Create Engineering Design | | | | • | | | | • |
| | Sat., 9:30–10:30 AM—Three-Dimensional Assessment for Responsive Three-Dimensional Instruction | | • | | | | | | • |
| Middle Level | Thurs., 8:00–9:00 AM—NGSS and Climate Change for Middle School | | | • | | | | | • |
| | Thurs., 12:30–1:30 PM—Engineering: Blow the Roof Off! | | | | • | | | | • |
| | Thurs., 3:30–4:30 PM—Sing for the Planet | | | | | • | | | • |
| | Thurs., 5:00–6:00 PM—Chemistry Concepts STEAM-ified | | • | | | | | | • |
| | Fri., 8:00–9:00 AM—The Monarch Butterfly: Sophisticated Science | • | | | | | | | • |
| | Fri., 9:30–10:30 AM—ACS Session: Solids, Liquids, Gases, and Changes of State | | • | | | | | | • |
| | Fri., 12:30–1:30 PM—Writing to Improve Science Understanding | | | | | • | | | • |
| | Fri., 3:30–4:30 PM—Evolution for Educators | • | | | | | | | • |
| | Sat., 8:00–9:00 AM—The Restoration of New York Harbor: Reconnecting Students to the Water | | | • | | | | | • |
| | Sat., 11:00 AM–12 Noon—Engineering from Every Angle: Engineers as Proficient in Emotional Intelligence as Well as Analytical Skills | | | | • | | | | • |
| High School—College | Thurs., 8:00–9:00 AM—Physics on the Cheap | | • | | | | | | • |
| | Thurs., 12:30–1:00 PM—Regenerative Medicine in the Classroom: Inquiry-Based Instruction | • | | | | | | | • |
| | Thurs., 2:00–3:00 PM—Climate Change and Forest Ecosystems: A Systems Approach | | | • | | | | | • |
| | Thurs., 3:30–4:30 PM—Strategies for Equity in the High School Classroom | | | | | • | | | • |
| | Fri., 8:00–9:00 AM—Global Anatomy and Physiology Students Display Interest in Curated Online Helps | • | | | | | | | • |
| | Fri., 9:30–10:30 AM—Strengthen Your STEM Lessons with the NSTA High School Committee Activities | | | | | • | | | • |
| | Fri., 11:00 AM–12 Noon—Teach an Old Dog New Tricks: Engaging Older Students in STEM | | | | • | | | | • |
| | Fri., 3:30–4:30 PM—NASA Earth Science: Real-World Connections to Data and Tools for Science Fairs | | | • | | | | | • |
| | Sat., 8:00–9:00 AM—Using Engineering Design to Collaboratively Create Engineering Design | | | | • | | | | • |
| | Sat., 9:30–10:30 AM—Connect Chemistry to Your World with ChemClub | | • | | | | | | • |

Portland Speakers

KEYNOTE SPEAKER

The Serengeti Rules: The Quest to Discover How Life Works and Why It Matters



Sean B. Carroll @SeanBiolCarroll

Vice President for Science Education, Howard Hughes Medical Institute, Chevy Chase, Md.

Hailed for his pioneering work in evolutionary developmental biology, Sean Carroll is an award-winning scientist, writer, educator, and executive producer. Join Dr. Carroll as he discusses the discovery of the “The Serengeti Rules,” the ecological rules that regulate the numbers and kinds of animals and plants in any given place, and how they are being applied to restore some of the greatest wildernesses on the planet. In addition to his role at Howard Hughes Medical Institute, Sean is also the Allan Wilson Professor of Molecular Biology and Genetics at the University of Wisconsin.

Follow your favorite speaker on Twitter! See our featured speakers' Twitter handles on these pages or search on #NSTA16.

FEATURED PRESENTATION

Are You Ready for the Astronomical Event of the Decade: The 2017 All-American Total Eclipse?



Dennis Schatz

Senior Advisor, Pacific Science Center Learning, Seattle, Wash.

For the first time in almost 40 years, the U.S. will experience a total solar eclipse—Monday, August 21, 2017. Interest will be high because the total phase of this “All-American” eclipse will only be seen in the U.S., with the partial phase of the eclipse visible to everyone in North America. Come learn more about this astronomical event of the decade as well as suggestions for how to make this a community-wide event and ideas for safe and effective learning activities to use in both in-school and out-of-school settings.

Check out more than 300 sessions and other events with the Portland Session Browser/Personal Scheduler (www.nsta.org/portlandbrowser).

FEATURED PRESENTATION

Implicit Bias and Its Effect on Diverse Youth



Deena Pierott @DeenaPierott

Founder of iUrban Teen and Diversity & Inclusion Consultant, Portland, Ore.

How can we intentionally counteract the negative effects of implicit bias across students' educational experiences. Implicit biases can impact youth's interactions with each other and impede learning opportunities. Join Deena as she focuses on both explicit and implicit biases and the role of educators in mitigating their effects both personally and in their classrooms. A 2013 White House Champion of Change, Deena founded iUrban Teen in 2011 in an effort to expose nontraditional STEM learners to career opportunities while encouraging high school graduation and extended learning.

STRAND The View from the Summit: Celebrating Science for All

In a science- and technology-driven society, equity means that all students should have access to knowledge that will allow them to participate as productive citizens. Successful application of science and engineering practices and the understanding of how crosscutting concepts play out across a range of disciplinary core ideas will demand increased cognitive abilities of ALL students. This strand will demonstrate how teachers can provide equitable science and engineering learning opportunities that engage students in constructing meaning about the world around them.

FEATURED PRESENTATION

How Should Districts and Schools Focus Professional Development When Starting to Implement *NGSS*?



Philip Bell @philipbell

Professor of the Learning Sciences and Shauna C. Larson Chair, University of Washington, Seattle

Discussion centers on how to implement *NGSS* through curriculum adaptation, the development of formative assessments, and the use of discourse strategies to engage all students. Dr. Bell is also currently editing a series of research- and practice-based tools for science education called *STEM Teaching Tools*. The effort aims to provide resources for equity-focused improvements in science education.

STRAND The View from All Angles: Connecting Three-Dimensional Science Instruction

The *NRC Framework* and *NGSS* identified research-based best practices for today's learners. Quality instruction incorporates the three dimensions of *NGSS* (crosscutting concepts, disciplinary core ideas, and science and engineering practices). This strand will exemplify the intertwining nature of the three dimensions necessary for high-quality science instruction at all levels.

FEATURED PRESENTATION

Beyond the Blender Metaphor of Integration: *NGSS* as a Lever for Transforming Educational Opportunities for Elementary Learners



Carla Zembal-Saul @czem

Kahn Endowed Professor of STEM Education and Co-Director, Elementary and Early Childhood Education, Penn State University, University Park

Join the conversation about how to make the most of this exciting time in education and intentionally move beyond the “chop it up and mix it together” (i.e., blender) metaphor of integration. Carla will present clear opportunities to integrate science teaching and learning with literacy and mathematics instruction around reasoning about phenomena and arguing from evidence.

STRAND Base Camp: Collaborating to Integrate Elementary Science Instruction with Math and ELA

By teaching science and laying the foundation, elementary teachers provide students with the tools they need to reach the summit to become scientifically literate adults. When teachers integrate content during instruction, they are modeling how the real world operates, allowing students to make meaning of the world they live in. Teachers choosing this strand will learn how to bundle science, mathematics, and ELA standards in a way that reaches the whole child and improves the efficiency in the elementary classroom.

TEACHER EVENING AT OMSI

Come attend a Private Evening Event

at the Oregon Museum of Science and Industry

Thursday, November 10, 6:00–9:00 PM

(Ticket Required: M-1): \$30 advance, \$35 on-site (per person)

Ranked as one of the top science centers in the U.S., OMSI (www.oms.edu) has an international reputation for its innovative exhibits and educational programs. Join us to explore OMSI exhibits, experience STEM programming as well as demonstrations and hands-on activities with museum educators. This evening experience will give teachers opportunities to engage in classroom-ready, hands-on activities, and take-away resources encouraging implementation of STEM activities in the classroom.

Ticket cost includes museum admission and light appetizers. Tickets may be purchased at registration. Cash bar.

Note: Transportation to and from the museum is not provided. OMSI is on the streetcar line about 15 minutes from the Convention Center. The cost is \$2 to ride or use your TriMet pass and ride for free (given out at program pickup). For directions and parking, visit www.oms.edu/visitor-info.

OSTA and WSTA Events

OSTA PRECONFERENCE SEMINARS

The Oregon Science Teachers Association (OSTA) is offering five **Preconference Seminars on Wednesday, November 9, 12 Noon–4:00 PM**. Tickets are \$75 per person for each seminar. For complete descriptions and to purchase tickets, visit www.oregonscience.org/events. (Tickets Required)

Using Science to Promote Language and Literacy for All Elementary Students

Presenters: Carol Biskupic Knight and Jennifer Whitten

This seminar builds off the Math Science Partnership Grant: Expansion of K–6 NGSS Science Instructional Specialists. Experience active engagement of phenomenon-based activities along with modeling by classroom teachers. (www.oregonscience.org/event-2283799)

NGSS for Middle School Science Teachers

Presenters: Susan Holveck and Berkeley Gadbow

This active, hands-on seminar is designed especially for middle school science teachers who want to experience what NGSS instruction and assessment look like in the classroom. (www.oregonscience.org/event-2283901)

Physics for the Next Generation

Presenters: Bradford Hill, Matt McCollum, and Stephen Scannell

This hands-on seminar is driven by the recurring question: “How do we find and use patterns in nature to predict the future and understand the past?” (www.oregonscience.org/event-2283880)

Chemistry for the Next Generation

Presenters: Jomae Sica and Lori Lancaster

Using knowledge of thermodynamics, engage in the practice of inquiry to collect data that will then inform a design of a hot or cold pack. (www.oregonscience.org/event-2283887)

Biology for the Next Generation

Presenter: Caitlin Everett

Experience the patterns approach of using inquiry experiments as a mode to learn content as well as how to integrate engineering and student-centered learning experiences, such as case studies and simulations, into instructional design. (www.oregonscience.org/event-2283897)

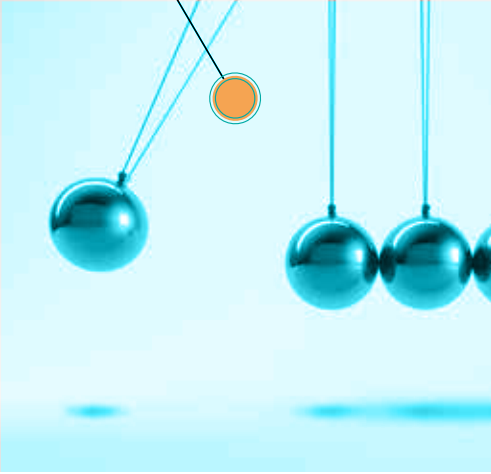
OSTA/WSTA AWARDS PROGRAM @ OMSI

Date: Thursday, November 10, 4:30–6:00 PM

Join your OSTA and WSTA colleagues at Theory, the Cafe at OMSI, for food and drink to celebrate awardees honored for their professional excellence in science education. Enjoy exploring the museum after the celebration. Tickets are \$25 per person and available for purchase on the OSTA website. (www.oregonscience.org/event-2288540)

PORTLAND SPECIAL EVENTS

PHYSICS DAY FRIDAY, NOVEMBER 11



ENGINEERING DAY FRIDAY, NOVEMBER 11

CHEMISTRY DAY FRIDAY, NOVEMBER 11



the Portland conference...

STARTS THURSDAY
NOVEMBER 10
@ 8:00 AM

ENDS SATURDAY
NOVEMBER 12
@ 12 Noon

Short Courses

All short courses are filled on a first-come, first-served basis, so act now! For complete descriptions and to purchase tickets, visit www.nsta.org/portlandbrowser. (Tickets Required)

NASA's Exploration of the Solar System: Activities for Out-of-School Time (SC-1)

Date: Thursday, November 10, 1:00-4:00 PM

Ticket Price: \$13 advance; \$18 on-site

Discover Jupiter's unique personality traits, including its dynamic weather, mysterious interior, and amazing magnetic field. Join in as we compare the characteristics of planets through hands-on activities, compare their densities, weigh ourselves on other worlds, and use models to infer their structure and composition.

Supporting the NGSS with Process-Oriented Guided Inquiry Learning (POGIL) (SC-2)

Date: Friday, November 11, 11:00 AM-5:30 PM

Ticket Price: \$55 advance; \$60 on-site

Strand: The View from the Summit: Celebrating Science for All

In this short course, immerse yourself in collaborative learning to explore connections among POGIL strategies and the NGSS. The small group collaborative learning strategies support all students, from English language learners to special education through gifted, as they work through guided inquiry activities.

Writing in Science: A Research-Based Approach That Enhances Learning in Both Domains (SC-3)

Date: Friday, November 11, 1:00-4:00 PM

Ticket Price: \$20 advance; \$25 on-site

Strand: Base Camp: Collaborating to Integrate Elementary Science Instruction with Math and ELA

Explore research-based strategies for using scaffolding to increase diverse elementary students' achievement in science and writing, as described in NGSS and CCSS ELA. Learn how to use word banks, graphic organizers, and writing frames so that students learn how to think, talk, and write.

From Roots to STEM: Using Roots Instruments to Teach STEM (SC-4)

Date: Saturday, November 12, 8:00 AM-12 Noon

Ticket Price: \$36 advance; \$41 on-site

Strand: The View from All Angles: Connecting Three-Dimensional Science Instruction

Build a STEM program that rocks! In this short course, participants will build one of the most influential roots instruments—the diddley bow—and explore how to use high-quality, student-built roots instruments as part of an integrated STEM program.

Educational Trips

From an introduction to assessing volcanic activity to studying geology at the Gorge, the Portland off-site educational trips have something for everyone! For complete descriptions and to purchase tickets, visit www.nsta.org/portlandbrowser. (Tickets Required)

Oregon National Primate Research Center Tour (T-1)

Date: Thursday, November 10, 8:30 AM-12:30 PM

Ticket Price: \$17 advance, by preregistration only

Do you ever think about where medicines come from? Before human clinical trials can begin, ideas must be generated and research must be conducted to understand the processes that underlie health and disease. The Oregon National Primate Research Center (ONPRC), one of seven national centers supported by the National Institutes of Health, is home to nearly 50 scientists who direct basic research focused on a variety of health issues. Your visit to ONPRC will include an interactive presentation about current research projects and a discussion about the critical need for animal models in this work, as well as an overview of the animal care program at the Center. Following this presentation, we will visit the outdoor housed breeding colonies of rhesus macaques and Japanese macaques. *Note:* Guests must be at least 10 years old. Ability to walk a half mile and climb stairs is important. Guests should wear comfortable walking shoes and dress for the weather. Photography is not permitted. No food or beverage provided on this trip.

Cascades Volcano Observatory Tour (T-2)

Date: Thursday, November 10, 12:15-5:00 PM

Ticket Price: \$28 advance; \$33 on-site

Dominating the skyline of the Pacific Northwest, active volcanoes are part of a 1,000-mile volcanic chain. The U.S. Geological Survey is responsible for assessing volcano hazards, monitoring volcanic activity, and issuing warnings of impending eruptions. During this tour, scientists provide an introduction to volcanic hazards and techniques for detection of volcanic unrest, short-range forecasting, and volcano mitigation. Participants will receive a tour of the seismic/operations room and research labs, and view volcano-monitoring equipment. Participants receive volcano posters and literature. *Note:* No food or beverage provided on this trip.

River Gorge Geology Tour (F-1)

Date: Friday, November 11, 7:30 AM-5:00 PM

Ticket Price: \$44 advance: \$49 on-site

Come study the geology of the Columbia Gorge. Explore the evolution of this area through examination of the rocks and features. Examine Glacial Flood evidence and visit Rocky Butte, Multnomah Falls, Hood River Delta, the Cascade Locks, and various other scenic stops as time allows. Moderate hiking is required. Bring field clothing, water bottle, any medicine you might require. *Note:* This trip is not weather dependent. If it rains, we travel east, starting our stops at Hood River with one at Multnomah Falls on the west side. Nice weather, we start our outside stops right in Portland. Lunch on own at Basalt Rock Cafe at Columbia Gorge Discovery Center & Museum.

Evergreen Aviation & Space Museum (F-2)

Date: Friday, November 11, 8:00 AM-2:00 PM

Ticket Price: \$52 advance; \$57 on-site

The Evergreen Aviation & Space Museum offers teachers many standards-focused history and STEM-centered programs, including Ground School; history tours of both aviation and space museums; robotics and rockets; space exploration; and engineering design challenges. Tour the one-and-only *Spruce Goose*, Howard Hughes' famous transport seaplane; experience the Magic Planet; and see one of the fastest spy planes, the SR-71. *Note:* Bring your own snack and beverage, if needed, for the bus ride. Box lunch included. Travel time is roughly 1.5 hours each way.

Rice Northwest Museum of Rocks & Minerals Tour (F-3)

Date: Friday, November 11, 8:30 AM-1:00 PM

Ticket Price: \$23 advance; \$28 on-site

The Rice Northwest Museum showcases not only fine rocks and minerals, but also fossils, meteorites, lapidary art, and gemstones from both the Pacific Northwest and all around the world. Home of the famed Alma Rose, a rare rhodochrosite crystal, the museum is housed in the former home of Richard and Helen Rice. Participants will be guided by our curator through the 9,600-square-foot museum, which includes some of the finest mineral specimens in North America. Bring your cameras.

An In-Depth Tour of Vernier Software & Technology (F-4)

Date: Friday, November 11,
9:30 AM-3:15 PM

Ticket Price: \$5 advance;
\$10 on-site

How do you create and produce world-class sensors, interfaces, and software? Find out on this in-depth tour of Vernier. Vernier Software & Technology is a world leader in probeware. Participants are invited to tour the company with David Vernier, former physics teacher and founder of the company. Visit the on-site Technology Museum, discover a bit about the company's history, see new products demonstrated, receive a bag of science goodies, and have a relaxing lunch provided courtesy of Vernier. Come check out Vernier's LEED-certified building with cool science features such as solar panels, electrochromic windows, a saltwater aquarium, an augmented reality sandbox, and an indoor slide that is perfect for fun-loving science teachers. *Note:* Group will travel to Vernier via MAX Light Rail.



—Photo courtesy of Vernier Software & Technology

Portland Conference at a Glance

Make your own conference schedule using the Portland Session Browser/Personal Scheduler (www.nsta.org/portlandbrowser). Browse events by day, format, subject, grade level, conference strand, sponsor, or keyword.

| | Life Science | Physical Science | Earth and Space Science | Engineering and Technology | General Science Education | Informal Science Education | PRESENTATION | WORKSHOP |
|---|--|------------------|-------------------------|----------------------------|---------------------------|----------------------------|--------------|----------|
| Elementary | Thurs., 8:00–9:00 AM—Engaging Young Children in Exploring the World of Water | | • | | | | | • |
| | Thurs., 12:30–1:30 PM—Patterns of Survival | • | | | | | | • |
| | Thurs., 5:00–6:00 PM—Engineering Inspired by Books: Early Childhood Engineering | | | | • | | | • |
| | Fri., 8:00–9:00 AM—The Monarch Butterfly: Sophisticated Science | | | | | • | • | |
| | Fri., 9:30–10:30 AM—Basic Polymer Science for the Science Classroom | | • | | | | • | |
| | Fri., 11:00 AM–12 Noon—CESI-Sponsored Session: Elementary Science Share-a-Thon | | | | | • | | • |
| | Fri., 12:30–1:30 PM—Squeezing Time in for STEM | | • | | | | | • |
| | Sat., 8:00–9:00 AM—Engaging Students Through Integrated Instruction Using Elementary GLOBE Storybooks | | | • | | | | • |
| | Sat., 9:30–10:30 AM—Goldilocks, an Engineer? | | | | • | | | • |
| Fri., 3:30–4:30 PM—No Hassle Messy Science with a Wow! Chemical Reactions | | • | | | | | • | |
| Middle Level | Thurs., 8:00–9:00 AM—The Re-Wilding Project! | • | | | | | | • |
| | Thurs., 12:30–1:30 PM—Ocean Plastic Pollution: Examining Issues and Solutions in a Middle School Classroom | | • | | | | | • |
| | Thurs., 3:30–4:30 PM—Inclusion: Strategies for Helping Students with Disabilities in the Science Classroom | | | | | • | | • |
| | Thurs., 5:00–6:00 PM—The nPower Girls: Cultivating Interest and Achievement in STEM | | | | • | | • | |
| | Fri., 8:00–9:00 AM—Coyote vs. Road Runner: Why Acme Anvils Aren't Needed | • | | | | | | • |
| | Fri., 11:00 AM–12 Noon—Constructing Equitable STEM Activities for All | | • | | | | | • |
| | Fri., 12:30–1:30 PM—Connecting to the Coast and Ocean | | | • | | | | • |
| | Fri., 3:30–4:30 PM—Climate Change Education and State Science Standards: A National Assessment | | | • | | | • | |
| | Sat., 8:00–9:00 AM—Increase Student Engagement Through Educator Collaboration and Community Partnerships | | | | | | • | • |
| Sat., 11:00 AM–12 Noon—Engaging Girls in STEM | | | | • | | | • | |
| High School–College | Thurs., 2:00–3:00 PM—Globe at Night Citizen Science Program | | | | | • | • | |
| | Thurs., 3:30–4:30 PM—Problems and Phenomena: Engaging Your Students in 3 D NGSS Learning! | | | | • | | | • |
| | Fri., 8:00–9:00 AM—NGSS? Got It Covered! | • | | | | | | • |
| | Fri., 9:30–10:30 AM—Chemistry Concepts STEAM-ified | | • | | | | • | |
| | Fri., 11:00 AM–12 Noon—Dark Skies and Energy Education: Globe at Night Citizen Science Program Workshop | | | • | | | | • |
| | Fri., 12:30–1:30 PM—Making Yogurt as an Engineering Design Project in Biology | • | | | | | • | |
| | Fri., 3:30–4:30 PM—Beyond Differential Instruction | | • | | | | | • |
| | Fri., 5:00–5:30 PM—Students Tell the Story of a Glacier Using Science, Math, and Literacy | | | • | | | • | |
| | Sat., 8:00–9:00 AM—What Do You Mean I Have to Teach Engineering?!? | | | | • | | | • |
| | Sat., 9:30–10:30 AM—Engineering Design, 3D Printing, and Physics—Putting It All Together | | | | • | | | • |



—Photo courtesy of Travel Portland

GRADUATE CREDIT OPPORTUNITY

Graduate Credit Sponsored by Portland State University

Earn one graduate-level credit in professional development through Portland State University at the Portland Area Conference. To obtain credit, you must be registered for the conference, complete a PSU Registration Form, attend at least five sessions and one keynote presentation, submit a written report, and pay a fee of \$180. The registration form is available at bit.ly/2aoAWju. An NSTA transcript is also required. For any questions, contact Terry Shlaes at shlaest@loswego.k12.or.us.

For complete information, visit bit.ly/2aoAWju.

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Columbus Speakers

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KEYNOTE SPEAKER

Be a STEM Hero



Ainissa G. Ramirez @ainissaramirez

Scientist, Educator, and Science Evangelist, New Haven, Conn.

Ainissa G. Ramirez is a science evangelist who is passionate about getting the general public excited about science. She co-authored *Newton's Football: The Science Behind America's Game* and authored *Save Our Science: How to Inspire a New Generation of Scientists*. Before taking on the call to improve the public's understanding of science, she was an associate professor of Mechanical Engineering & Materials Science at Yale University. Dr. Ramirez now focuses her energies on making science fun as well as co-hosting a science podcast called Science Underground. Ainissa's talk will invite listeners to get in

touch with their inner STEM hero and share strategies to develop the STEM skills children will need for the future.

FEATURED PRESENTATION

Hurricanes: What Makes Them Tick and How Do We Track Them?



Jason Dunion @jason_dunion

Meteorologist, University of Miami and NOAA's Atlantic Oceanographic and Meteorological Laboratory, Miami, Fla.

A meteorologist at the University of Miami, Jason Dunion also works closely with the NOAA Hurricane Research Division. Specializing in satellite remote sensing of hurricanes, he has led the development of several new satellite products for monitoring tropical cyclones and Saharan dust storms. Jason will share how he became interested in studying hurricanes and the different kinds of work meteorologists do around the world. He'll cover the key ingredients needed for making a hurricane, how

we track them with satellites, and wrap things up talking about NOAA's Hurricane Hunters and what it's like flying into the eye of a hurricane.

STRAND Training Camp: Strengthening Fundamentals in Elementary Education

Effective elementary science instruction requires a specific set of skills to provide students meaningful learning opportunities. Teachers need to have a fundamental understanding of integrating content, crosscutting concepts, science and engineering practices, as well as strategies to assess student understanding. This strand will strengthen participants' abilities to implement and assess rich science instruction for all students.

FEATURED PRESENTATION

Climate Change: The Evidence, People, and Our Options



Ellen Mosley-Thompson

Director, Byrd Polar and Climate Research Center, and Distinguished University Professor, Dept. of Geography, The Ohio State University, Columbus

Lonnie Thompson

Distinguished University Professor, School of Earth Science, and Senior Research Scientist, Byrd Polar and Climate Research Center, The Ohio State University, Columbus

Lonnie Thompson and Ellen Mosley-Thompson are both climate scientists at The Ohio State University and they lead the Ice Core Paleoclimate Research Group at OSU's Byrd Polar and Climate Research Center where Ellen is currently the director. Ellen is a Distinguished University Professor in OSU's Atmospheric Science Program and Lonnie is a Distinguished University Professor in OSU's School of Earth Sciences and a senior research scientist at the Byrd Polar and Climate Research Center. As paleoclimatologists, they use the chemical and physical properties preserved in Earth's ice sheets, ice caps, and glaciers to reconstruct the climate history of our planet. To collect ice cores for their research they have conducted numerous field projects to some of Earth's most remote parts, including Antarctica, Greenland, the Tibetan Plateau, the Russian Arctic, and the South American Andes among many others.

STRAND Science Boosters: Taking It to the Next Level

People are naturally inquisitive and make real-world connections beyond the science classroom. Teachers are the key to the establishment and success of educational partnerships, as well as the promotion of enriching experiences. This strand increases participants' understanding and ability to initiate and build successful collaborative partnerships that provide a wealth of resources inside and outside of the classroom in order to take science to the next level.

FEATURED SPEAKER TO BE ANNOUNCED

STRAND Game Time: Tackling Scientific Problems and Pitching Engineering Solutions

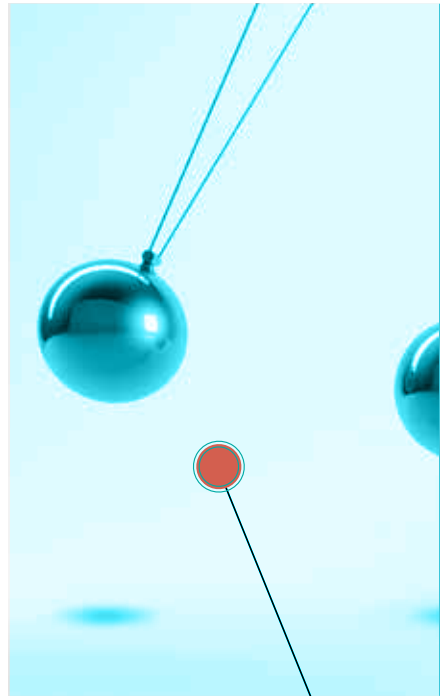
The current challenges facing society are both complex and interdisciplinary. Issues like water availability/quality, climate change, renewable energies, food shortages, the need for improved transportation/city infrastructure, and issues in the biomedical realm require clearly defining problems that can be solved through design. Students address these issues by implementing the practices of scientists and engineers, including developing explanations, designing and building models, and creating solutions. Students must be able to link the domains of science and teachers must teach students in a learnable manner that reaches multiple grade levels, increasing in depth and sophistication.

COLUMBUS SPECIAL EVENTS

CHEMISTRY DAY FRIDAY, DECEMBER 2



ENGINEERING DAY FRIDAY, DECEMBER 2



PHYSICS DAY FRIDAY, DECEMBER 2

the Columbus conference...

STARTS **THURSDAY**
DECEMBER 1
@ 8:00 AM

ENDS **SATURDAY**
DECEMBER 3
@ 12 Noon

EDUCATIONAL TRIPS

From visiting one of the largest makerspaces to learning about polar, alpine, and climate research, Columbus off-site educational trips have something for everyone! Please note that the following educational trips are tentative. Please check our website (www.nsta.org/columbusbrowser) on September 1 for complete ticket information. (Tickets Required)

Columbus Idea Foundry Tour (T-1)

Date: Thursday, December 1, 9:00 AM-12 Noon

Ticket Price: To Be Determined

The Columbus Idea Foundry is one of the world's largest and most active makerspaces! Join us to tour our workshop areas—welding, woodworking, blacksmithing, metalworking, and the foundry. Participants will also be taken to our tech-based stations, including our electronics lab, 3D printers, and laser cutters. Founder and CEO Alex Bandar will talk briefly about how the maker movement and facilities like this are bringing new life to STEM education and inspiring entrepreneurs in many different markets from libraries to K–12 schools and colleges. Participants will get to see up-close and in-person demos in blacksmithing and laser cutting. Participants should wear pants and closed-toe shoes.



—Photo courtesy of Columbus Idea Foundry

Tour of the Byrd Polar and Climate Research Center and Overview of Tools Used to Understand Earth's Climatic Past (F-1)

Date: Friday, December 2, 12 Noon-4:30 PM

Ticket Price: To Be Determined

The Byrd Polar and Climate Research Center at The Ohio State University is recognized internationally as a leader in polar, alpine, and climate research. The research programs are conducted throughout the world. The Center is named in honor of Admiral Richard Byrd, America's most famous polar explorer. Research at the Center focuses on the role of cold regions in the Earth's overall climate system, and encompasses geological sciences, geochemistry, glaciology, paleoclimatology, meteorology, remote sensing, ocean dynamics, and the history of polar exploration. The tour will include a look at the Polar Rock Repository containing more than 40,000 samples collected by U.S. expeditions to polar regions, an opportunity to walk through the minus 25 degree Fahrenheit freezers housing the largest collection of tropical ice cores in the world, and two featured talks by researchers from the center on how scientists use measurements from ice and sediment to understand Earth's climatic past. Visitors are welcome to bring cameras.

Check out more than 300 sessions and other events with the Columbus Session Browser/Personal Scheduler (www.nsta.org/columbusbrowser).

Columbus Conference at a Glance

Make your own conference schedule using the Columbus Session Browser/Personal Scheduler (www.nsta.org/columbusbrowser).
Browse events by day, format, subject, grade level, conference strand, sponsor, or keyword.

| | | Life Science | Physical Science | Earth and Space Science | Engineering and Technology | General Science Education | Informal Science Education | PRESENTATION | WORKSHOP |
|--|--|--------------|------------------|-------------------------|----------------------------|---------------------------|----------------------------|--------------|----------|
| Elementary | Thurs., 8:00–9:00 AM—Let's Get Physical—From Force and Friction to Water and Weather | | • | | | | | | • |
| | Thurs., 10:00–10:30 AM—The Scoop on SCOPES: Science Cooperative of Physicians and Elementary Students | • | | | | | | • | |
| | Thurs., 12:30–1:30 PM—Bio Blitz: Opening the Eyes of Students to the Science Around Them | • | | | | | | • | |
| | Thurs., 2:00–3:00 PM—Engineering Happily Ever After | | | | • | | | | • |
| | Thurs., 3:30–4:30 PM—How to Incorporate Math and Literacy in K–6 Active Learning NGSS Activities | | • | | | | | | • |
| | Fri., 8:00–9:00 AM—Cultivating a Culture of Science Curiosity: Teaching Accurate Science in the Primary Grades | | | | | • | | | • |
| | Fri., 3:30–4:30 PM—Teaching Engineering in Grades K–3 | | | | • | | | | • |
| | Sat., 9:30–10:30 AM—Fresh Water Stewardship: Equip Your Student-Scientists with Cutting-Edge Resources from NOAA | | | • | | | | | • |
| | Sat., 8:00–9:00 AM—Beyond Spaceship Earth | | | • | | | | | • |
| Sat., 10:00–10:30 AM—Building a Community Science Festival: The JW Family Science Extravaganza | | | | | | • | • | | |
| Middle Level | Thurs., 8:00–9:00 AM—Trees from the Top Down: A New Approach to Energy Transfer | • | | | | | | | • |
| | Thurs., 2:00–3:00 PM—Teaching Claims and Evidence Through PERC | | | | | • | | | • |
| | Thurs., 3:30–4:30 PM—Seismic Safe Structures | | | • | | | | | • |
| | Thurs., 5:00–6:00 PM—Are You MoBILISE'd? Modeling Biology Instruction: Leaders in Science and Engineering | • | | | | | | | • |
| | Fri., 9:30–10:30 AM—Adapting Bioengineering Curriculum for the Visually Impaired | | | | • | | | | • |
| | Fri., 11:00 AM–12 Noon—Engage Your Students Through Conservation Connect | | | • | | | | • | |
| | Fri., 12:30–1:30 PM—Bioplastic: Going from Synthetic to Natural Polymers | | • | | | | | | • |
| | Fri., 8:00–9:00 AM—PolyWhat? Understanding What a Polymer Is (Polymer 101) | | • | | | | | | • |
| | Sat., 9:30–10:30 AM—Engineering Is the Game Plan: "STEM" Up to the Plate | | | | • | | | | • |
| Fri., 9:30–10:30 AM—Meeting NGSS Practices Through Citizen Science and Schoolyard Investigations | | | | | | • | • | | |
| High School–College | Thurs., 12:30–1:30 PM—NASA Astrobiology: The Search for Life Beyond Earth | | | • | | | | • | |
| | Thurs., 2:00–3:00 PM—Connect Chemistry to Your World with ChemClub | | • | | | | | | • |
| | Thurs., 3:30–4:30 PM—Human-Centered Engineering Design: The Key to STEM | | | | • | | | | • |
| | Thurs., 5:00–6:00 PM—Sink into Science at Stone Lab | | | | | • | | | • |
| | Fri., 9:30–10:30 AM—Beyond the Egg Drop: Infusing Engineering Design into the Physics/Science Classroom | | • | | | | | | • |
| | Fri., 11:00 AM–12 Noon—The NSTA Learning Center: A Tool to Develop Preservice Teachers | | | | | • | | • | |
| | Fri., 3:30–4:30 PM—Teach Engineering Principles on the Cheap with Concrete | | | | • | | | | • |
| | Sat., 8:00–9:00 AM—Logistic Growth and the Zombie Apocalypse | • | | | | | | | • |
| | Sat., 9:30–10:30 AM—Tackling Toxicant Exposure with Food Choices | • | | | | | | | • |
| | Fri., 2:00–3:00 PM—Studying Climate Change and Forest Ecosystems: A Systems Approach | | | • | | | | | • |

SHORT COURSES

All short courses are filled on a first-come, first-served basis, so act now! Please note that the following short courses are tentative. Please check our website (www.nsta.org/columbusbrowser) on September 1 for ticket information. (Tickets Required)

Curious KIDSS (Kindling Interest and Discovery in Science and Social Studies) (SC-1)

Date: Thursday, December 1, 8:30-11:30 AM

Ticket Price: To Be Determined

Strand: Training Camp: Strengthening Fundamentals in Elementary Education

Come learn how K–2 educators can use the Growing Up WILD activities as a platform to expand upon and incorporate more science and social studies into their ELA and math lessons. Come learn how Curious KIDSS is working with K–2 teachers to adapt existing Growing Up WILD lessons to address standards in math, ELA, science, and social studies instruction. Each participant will receive a copy of the award-winning Growing Up WILD guide. Dress for the weather as we may go outside.

Sowing the Seeds of Science: Using Plants as a Model to Teach Science Concepts (SC-2)

Date: Thursday, December 1, 12:40-5:20 PM

Ticket Price: To Be Determined

Join us for this off-site short course at The Ohio State University's Center for Applied Plant Sciences and Arabidopsis Biological Resource Center (ABRC) where we will tour the centers' laboratories, growth chambers, and greenhouse. This short course will feature hands-on activities and experiments that demonstrate how plants can be used as a model system to teach a variety of science concepts such as genetics, growth and development, environmental issues, and global problems. Participants will be introduced to the Greening the Classroom modules, which are available for free via ABRC's education website.

4-H Innovation...Design Challenges in Action (SC-3)

Date: Friday, December 2, 7:40 AM-12:20 PM

Ticket Price: To Be Determined

Strand: Science Boosters: Taking It to the Next Level

Join us for this off-site short course at the Nationwide and Ohio Farm Bureau 4-H Center where we will tour the LEED-certified center and engage in three 4-H Ag Innovators design challenges. Experience design challenge learning to engage your students in applying science practices and engineering solutions to address real-world problems. Ohio State researchers will share job forecasts for students interested in making a difference in providing a sustainable future for generations to come. In this highly interactive short course, we will cover design challenge learning, teamwork, and STEM careers in action.

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Teachers
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—Photo courtesy of Rod Berry, Ohio Stock Photography

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Graduate Credit Sponsored by Dominican University of California

Earn one or two graduate-level credit(s) in professional development through Dominican University of California (dominicancaonline.com). To obtain credit, you must be registered for the NSTA Columbus Conference, complete a DUC Registration Form (visit bit.ly/2aBjikX for specific requirements for one or two credits), and pay a fee of \$95 for one credit or \$175 for two credits. Should you have any questions, contact Lisa Johnson-Bowers at 330-289-9159 or LJB@DominicanCAonline.com. An NSTA transcript is also required. Grade method: A–F. **Deadline is December 19, 2016.**

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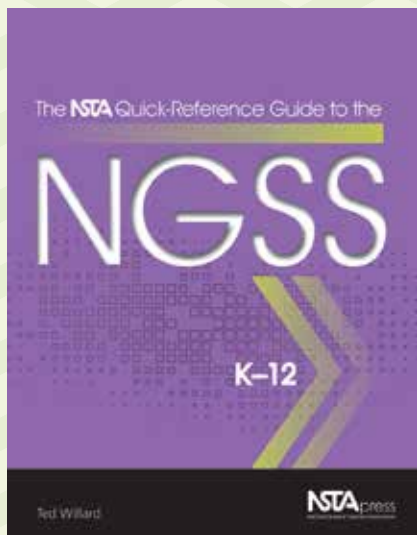
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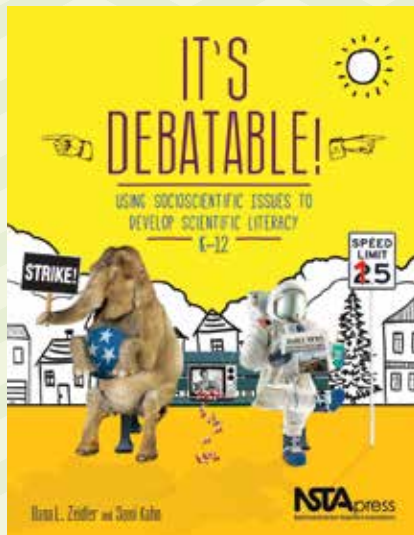
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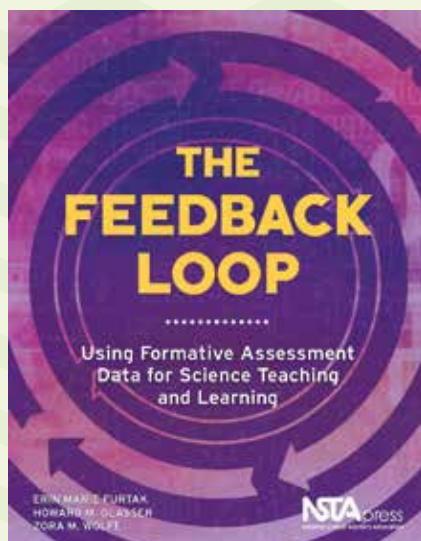
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EXHIBITORS

The NSTA Exhibit Hall, with more than 125 of the leading science education companies and organizations in the world, has the newest products to show and share with educators.

EXHIBIT HOURS

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1

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* Registration forms are available as PDFs at www.nsta.org/confreg.

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|---------------------|-------|-------|-------|
| NSTA Member | \$180 | \$190 | \$225 |
| Affiliate members** | \$180 | \$190 | \$225 |
| Nonmember | \$275 | \$285 | \$315 |
| Retired NSTA Member | \$125 | \$125 | \$150 |
| Full-time Student | \$90 | \$100 | \$120 |

ONE DAY ONLY (THU OR FRI)

| | | | |
|----------------------------------|-------|-------|-------|
| Nonstudent (member or nonmember) | \$160 | \$165 | \$185 |
| Full-time Student | \$65 | \$70 | \$85 |

ONE DAY ONLY (SAT)

| | | | |
|----------------------------------|------|-------|-------|
| Nonstudent (member or nonmember) | \$95 | \$100 | \$110 |
| Full-time Student | \$35 | \$45 | \$65 |

| | | | |
|--------------------------|------|------|-------|
| NONTEACHING SPOUSE/GUEST | \$85 | \$90 | \$110 |
|--------------------------|------|------|-------|

Save on your registration fees by taking advantage of special earlybird and advance rates! Also—save \$90 on your registration fees when you become an NSTA member!

For a description of the categories listed above, please visit www.nsta.org/confreg.

Travel Arrangements

2

TRAVEL



NSTA has made arrangements with several major airlines to offer discounted fares to NSTA conference attendees. For complete details on these discounts as well as the best way to get around town, visit

www.nsta.org/minneapolistravel

www.nsta.org/portlandtravel

www.nsta.org/columbustravel

****Affiliate members include...**

For Minneapolis only:

- *AAPT Members (American Association of Physics Teachers)*
- *ACS Members (American Chemical Society)*
- *ASEE Members (American Society for Engineering Education)*
- *MnSTA Members (Minnesota Science Teachers Association)*

For Portland only:

- *AAPT Members (American Association of Physics Teachers)*
- *ACS Members (American Chemical Society)*
- *ASEE Members (American Society for Engineering Education)*
- *OSTA Members (Oregon Science Teachers Association)*
- *WSTA Members (Washington Science Teachers Association)*

For Columbus only:

- *AAPT Members (American Association of Physics Teachers)*
- *ACS Members (American Chemical Society)*
- *ASEE Members (American Society for Engineering Education)*
- *SECO Members (Science Education Council of Ohio)*

3

HOUSING

Minneapolis Housing Deadline:

Oct. 3, 2016

www.nsta.org/mplshousing

Portland Housing Deadline:

Oct. 12, 2016

www.nsta.org/portlandhousing

Columbus Housing Deadline:

Nov. 7, 2016

www.nsta.org/columbushousing

Make your hotel reservations now and save! NSTA has negotiated special discounted room rates with hotels near the convention centers in Minneapolis, Portland, and Columbus.

**** Housing forms are available as PDFs at the above websites.*



Visit the websites listed above and have your credit card and arrival/departure information ready.



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***.



Mail CHECKS ONLY—
Download housing form*** and mail with check (one form per room request) to:

Orchid Event Solutions—NSTA/Minneapolis

175 South West Temple, Suite 30
Salt Lake City, UT 84101

Orchid Event Solutions—NSTA/Portland

175 South West Temple, Suite 30
Salt Lake City, UT 84101

Orchid Event Solutions—NSTA/Columbus

175 South West Temple, Suite 30
Kansas City, MO 84101

Do not mail to NSTA

FOR COMPLETE TRAVEL INFORMATION, VISIT

WWW.NSTA.ORG/CONFERENCES

**JOIN NSTA
AND SAVE!**

Did you know? NSTA members get substantial discounts on registration.

Become an NSTA member at www.nsta.org/membership

2016

**AREA CONFERENCES ON
SCIENCE EDUCATION**

SAVE UP TO \$45

**WHEN REGISTERING BY THE EARLYBIRD
DEADLINES LISTED BELOW**

MINNEAPOLIS
MINNESOTA
OCTOBER 27-29

PORTLAND
OREGON
NOVEMBER 10-12

COLUMBUS
OHIO
DECEMBER 1-3

#NSTA16

WWW.NSTA.ORG/CONFERENCES

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