

**MAY 2017**

**THE CONNECTICUT BUILDING A PRESENCE FOR SCIENCE NETWORK IS SUSTAINED THROUGH THE ADVOCACY OF THE CCAT, CONNECTICUT SCIENCE SUPERVISORS ASSOCIATION, AND THE CONNECTICUT SCIENCE TEACHERS ASSOCIATION**

State Coordinator..David Lopath

[lopath@comcast.net](mailto:lopath@comcast.net)

List Moderator..Eloise Farmer

[eloisef302@gmail.com](mailto:eloisef302@gmail.com)

**NAMES AND E-MAIL ADDRESSES OF OUR POINTS OF CONTACT AND KEY LEADERS ARE NOT SHARED WITH ANY OTHER ENTITY**

## Resources



Connecticut Science Teachers Association

"...to inspire, promote and support the learners of science in the state of Connecticut."

**Science Professional Development Opportunities!** Are you interested in high quality, low cost, Teacher Professional Development opportunities? Visit the [CSTA website](#) and click on Opportunities. You will not be disappointed. Contact us if you have questions.



The UConn Integrated Pest Management (IPM) and

Environmental Science curriculum kits are available at no cost to any teachers or other educators for use in their classrooms. Curriculum kits for grades K/1, 2/3, and 4/5 are available, and they can be picked up at UConn Storrs campus. The curriculum, and alignments completed by Mary Lou Smith, can be viewed on the [UConn IPM website](#). Please contact Donna Ellis (email [donna.ellis@uconn.edu](mailto:donna.ellis@uconn.edu); 860-486-6448) for more information.



In New Jersey, their state dept of education has

created an integrated model NGSS curriculum that is required in some specially funded districts and optional in others. To see the topic sequence details and rationale, click on <http://www.state.nj.us/education/modelcurriculum/sci/ms.shtml>.



**NOTE FROM NSTA:** Last week you may have been one of the thousands of teachers nationwide who received misleading teaching information from a questionable source. According to the Washington Post, "Twenty-five thousand science teachers opened their mailboxes this month and found a package from the [Heartland Institute](#), a libertarian think tank that rejects the scientific consensus on climate change." The package also contained their propaganda on global warming.

We understand that the Heartland Institute is planning to send the material to teachers every week, until "every public-school science teacher in the nation has a copy."

First, scientists don't disagree about climate change or its causes.

Second, labeling propaganda as science does not make it so.

Third, science teachers are the critical bastion in the war against reason. And the special interests know it.

NSTA will support you as you resist this unprecedented attack. Just teach science in your classroom. We invite you to take advantage of the multiple resources below from NSTA and the scientific community about climate change.

- NSTA resources on climate change are [here](#).
- Here are [resources](#) from the North American Association for Environmental Education.
- Download National Wildlife Federation's [resources](#) and Climate Classroom [lesson plans](#).
- AAAS curriculum materials are [here](#) and [here](#).
- Resources from the National Center on Science Education are [here](#).
- The CLEAN Network provides a [collection of 650, ready-to-use](#) and rigorously reviewed resources for educators.
- Read the Washington Post article [here](#) and the PBS article [here](#).

As always, we appreciate the work you do and for standing with us at this critical time for science and science education.

Sincerely,

David L. Evans  
Executive Director, NSTA

# Green Teacher

Green Teacher has recently launched a YouTube Channel. To date, we've posted 8 videos on our website, with several more in various editing stages. In time, we hope this will grow into a valuable resource for educators. Among those currently posted, are those describing:

- + How Google Earth was used by high school students as part of an invasive species removal project
- + How an elementary school in a northern resource town created partnerships so that their students could explore the natural and cultural environment in their area.
- + How to build better bug houses – and pack waste free lunches.

Check out the posted videos here:  
<https://greenteacher.com/check-out-these-videos/>

In essence, we're keen to both receive short (i.e. 2-6 minute), practical videos – edited or unedited – from teachers and other youth educators on a wide variety of topics. Like the articles and activities we seek for *Green Teacher* magazine, we're looking for innovative green learning strategies on a wide variety of topics. Your presentation should provide sufficient detail and enough guidance that will enable viewers to replicate the activity in their own communities. Your video should specify early on the age group for which your learning activity or strategy is most appropriate. For more details of what we're looking for, check out:

<https://greenteacher.com/send-us-your-videos/>

Finally, if you see a short environmental video that deserves a wider audience, send us a quick note about it.

Tim Grant, Editor  
, [tim@greenteacher.com](mailto:tim@greenteacher.com),

## Residential Summer Workshops at the University of Connecticut's School of Engineering *The daVinci Project*, July 10-14, 2017

Introducing our students to engineering is a national need. Most students love to be creative and to connect academics to the real world....this is what engineers do while making technologies that solve serious world problems. The UConn School of Engineering is holding its 18<sup>th</sup> annual daVinci Project. It is a weeklong (Mon-Fri) residential series of hands-on workshops for middle and high school science and math teachers. This year it's being held July 10-14. Teachers live on campus and participate in one of 10 very engaging workshops, as well as many other seminars, a variety tours through research labs, our state of the art water reclaim and wastewater facilities, and our CoGen plant. Come and be part of an exciting week of exploration! **We have 27 fellowships available.** Please share this professional development opportunity with the other STEM teachers in your school or district.

1. [Understanding Pain: Sensory and emotional stimulus to your brain](#) – 2 fellowships available
2. [Bioinformatics: Using Computer Science to Understand Life](#) – 3 fellowships available
3. [Topology Optimization: A computational technique for design of 3D-printed parts](#) – 2 fellowships available
4. [Low Cost Solar Cells](#) – 5 fellowships available
5. [Air Quality and Health: Building an Air Pollution Measurement Device with an Arduino®](#)
6. [Basic Arduino® Programming for STEM Projects](#) – 3 fellowships available
7. [Mathematical Optimization with Applications to Smart Grid and Intelligent Buildings](#) – 10 fellowships available
8. [Fuel Cell: Construction and Operation](#)
9. [Robots: Use in Industry and Elderly Assistance](#)
10. [Monitoring and Maintaining Stream Health in a Developed Watershed](#) – 2 fellowships available

Kevin McLaughlin, Director, Engineering Diversity and Outreach Center

### CASE MEMBER ROBERT SCHOELKOPF TO RECEIVE 2017 CONNECTICUT MEDAL OF SCIENCE

The 2017 Connecticut Medal of Science Selection Committee met on April 10, 2017, to select the winner of this year's Medal.

The committee unanimously selected CASE Member Robert Schoelkopf, Sterling Professor of Applied Physics and Physics and Director of the Yale Quantum Institute as the winner of the 2017 Connecticut Medal of Science. See the **NEWS RELEASE** for an overview of Professor Schoelkopf's accomplishments. [NEWS RELEASE](#)

**JASON National Conference June 22-24 2017 Announcement, Theme: "Change"**  
**George Washington University, Science & Technology Campus, Ashburn, VA**

(45 minutes outside of DC)

**Register:**

<http://www.jason.org/national-educators-conference>

**\*Four Scholarships Available for CT public school educators (value of \$600.00, includes all workshops, keynote presentations, field adventure, Thursday evening reception, and lunches associated with conference!)**

**Apply:**

<https://goo.gl/forms/HluKno3nRh8ctwjE2>

**Applications due by midnight on Friday, May 22, 2017. Applicants must be public school educators in CT (teachers / science coaches / mentors instructional leaders/ curriculum directors / administrators all eligible). If you are unsure of your eligibility, please contact [amy@jason.org](mailto:amy@jason.org). Recipients will be notified by May 26, 2017.**

Join JASON Learning as we convene our unique community of teachers, trainers, scientists, and thought leaders for our annual National Educators' Conference! Our three-day event features a wide range of breakout sessions, exciting field trip adventures, engaging presentations, networking, and rare opportunities to interact with a host of researchers and scientists. Every attendee will discover something new, valuable, and usable this year, even if you've attended JASON training or conferences in the past. Our world is changing quickly, from climate

to technology, and in the way we teach and learn. This year's JASON National Conference takes educators on a thoughtful journey to explore these changes, and equips them with deeper core science content, tools to integrate classroom technology, and strategies to embrace new pedagogy. **See attached JNC Flyer and Adventure Day Supplement for more information!**

**\*Featured Keynote Speakers\***

- **"Sea-Level Rise and Citizen Science"**, Dr. Simon Englehart, Assistant Professor in Geosciences, University of Rhode Island
- **"Shifting Landscapes: Studying Climate Change in Diverse Plant Communities"**, Dr. Lynn Sweet, Associate Research Specialist, Center for Conservation Biology at the University of California, Riverside - Palm Desert Center
- **"So What? How 'Why' Matters When Teenagers Study STEM"**, Constance Adams, Space Architect for NASA and commercial space ventures, Bechtel Corporation
- **"Rainbow of Learners, Spectra of Success"**, Juliana Texley, Assistant Professor, Central Michigan University and Lesley University

**\*Exciting Adventure Day Opportunities\* (participants choose one)**

- **"Out of the Classroom and Into the Field"**, Great Falls National Park, McLean, VA
- **"Tracking Change"**, Smithsonian's Environmental Research Center (SERC), Edgewater, MD
- **"Innovations in Car Crash Testing & Safety"**, Insurance Institute for Highway Safety (IIHS) Car Crash Testing facility, Ruckersville, VA
- **"Land and Sea"**, The Calvert Marine Museum, Solomons, MD
- **"Flight!"**, iFly & the Stephen F. Udvar-Hazy, National Air & Space Museum, Chantilly, VA

**Full-day and Half-day Breakout Sessions**

- JASON Core Curriculum, including New! A World of Waves: Sound, Light, and Communication
- Tools of Technology
- Strategies for Teaching and Learning
- Climate Change: What do we need to know and how do we engage students?

**Live! STEM Role Model Event/ Q & A with [Shirley Murillo, Meteorologist, NOAA](#): April 20, 2017 at 1:00pm Eastern (US) **FREE** for all students, teachers, and parents!**

Shirley Murillo is a research meteorologist for NOAA's Hurricane Research Division (HRD), located at the Atlantic Oceanographic and Meteorological Laboratory in Miami, Florida. She leads the Observing System Simulation Experiment (OSSE) science team, and is featured in JASON's Monster Storms. Come join us . . . you may just want to ask Shirley what it's like to fly into cyclone winds! Join or find out more about the at:

<http://www.jason.org/shirley-murillo-meteorologist> Hope to see you there!

**[Webinar Added! Tuesday, May 23, 2017 - 3:00-4:00 pm: Planning Ahead for the 2017-18 School-year - Best Suited for Grades 5-10, although materials adaptable for lower and higher levels](#)**

**Incorporating JASON into NGSS Curriculum – One Hour Live Webinar for Connecticut 3:00 – 4:00p.m.**

Are you unsure of how to take full advantage of the free resources provided by JASON Learning and how it fits in with Next Generation Science Standards? We understand the challenges of learning and implementing new lessons, especially when time is a limiting factor. Come join us for a one hour *live* webinar, customized for educators and administrators in Connecticut to walk-through the “basics” of the JASON site navigation, key teacher tools, and tips on how to find what you’re looking for to support NGSS implementation. This includes a 10-15 Q & A so educators can get the help they need to get started or continue using these resources.

Register at

<https://attendee.gotowebinar.com/register/212667577253204787>

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**Free Online Access to JASON Learning for Public School Educators in CT Extended Through 2017-18: Sign-up at [www.jason.org/ct](http://www.jason.org/ct)**



**May 18, 2017 is Outdoor Classroom Day. What are your plans?? Sign up! <https://outdoorclassroomday.com/>**



**Children in the Stream Conference:**

The country's only interdisciplinary educational fly fishing conference

In the summer of 2012, we held the first and what remains as the only national interdisciplinary fly fishing conference. The Children in the Stream's intensive three-day conference continues to be a huge success as it trains adults who are interested in integrating fly fishing into the curriculum in their community, school, organization or company. These comprehensive workshops use fly fishing as the foundation for investigating science, math, English language arts, visual arts and community outreach. This truly unique interdisciplinary approach is possible because of eclectic expertise of participants and the committed instructors. The conference is presented by Dr. Mike Jabot and Alberto Rey. Dr. Jabot is a renowned professor in science education who is a member of NASA's international educators team and who has received many teaching awards. Alberto provides his experience as an Orvis endorsed fly fishing guide, as the founder and director of an 18 year old youth fly fishing program and as a distinguished professor in visual arts.

*Children in the Stream* provides the instruction, materials and means of acquiring discounted equipment needed to implement the participant's own customized interdisciplinary fly fishing curriculum or to start a youth fly fishing program in a community. The truly unique programming also meets the needs of each school through the integration of the common core learning standards. The instructors also address how to realize the participant's goals while working within limited budgets. The conference's interdisciplinary workshops promotes a holistic integration of conservation and community involvement that nurtures future stewards of our natural resources. The ultimate goal is to get youth outdoors and provides them with a fuller understanding and appreciation of their environment.

The conference is held at the beautiful Roger Tory Peterson Institute of Natural History in Jamestown, New York. Roger Tory Peterson, the ornithologist whose "Field Guide to the Birds" inspired and instructed millions of bird-watchers the world was also instrumental in motivating our present environmental movements. In 1984, the Roger Tory Peterson Institute of Natural History was founded in Peterson's hometown of Jamestown, New York, as an educational institution charged with preserving Peterson's lifetime body of work and providing environmental programming.

This years conference will take place his year on June 27, 28 and 29. The cost for the three- day conference is \$350 which includes instruction in the classroom and in the field, fly rod outfits, fly tying kits and publications. The low conference fee is available because of private grants and donors.

For information about the schedule, registration and comments by the past participants please go to:

<http://www.childreninthestream.com/>.

If you are interested in attend, please sign up for the conference by June 1.



**"Teaching & Learning in 3D: An Orientation for Next Generation Science Standards"** May 2, 10 & 17. Introduces the NGSS' three dimensions, hands on experience with key instructional shifts, and practical tools for immediate changes in the classroom and long term curricula updates.

<http://www.crec.org/protraxx/docs/355739/att.pdf>

**"Engaging Elementary & Middle School Students through Scientific Inquiry"** May 18 AM half-day. Explores inquiry-based instruction strategies and how they support the NGSS.

<http://www.crec.org/protraxx/docs/364617/att.pdf>

**"Employing Engineering Practices in Middle & High School Science Classes"**

May 18 PM half-day. Explores the role of engineering in the NGSS with exemplars of engineering-integrated science activities.

<http://www.crec.org/protraxx/docs/364615/att.pdf>

**"Teaching & Learning in 3D: An Orientation for Next Generation Science Standards"**

June 19, 20 & 21. Same as above.

<https://www.protraxx.com/scripts/ezcatalogny/ViewClass.aspx?ID=364484&CustomerID=128>

**"Three-Dimensional Lesson Planning for the NGSS"**

June 22. Explores the NGSS' three dimensions, and provides templates for using the BSCS "5-E" model to plan lessons with all three.

<https://www.protraxx.com/scripts/ezcatalogny/ViewClass.aspx?ID=364586&CustomerID=128>

**CASE STUDY CONFERENCE** Join us for our annual Fall Case Study Teaching in Science Conference, September 15-16, 2017, in Buffalo, NY, sponsored by the National

Center for Case Study Teaching in Science. We are at a new venue this year—the beautiful Buffalo Marriott Niagara.

Our conference offers sessions for both the beginner and advanced case study teacher and is formatted for college and high school teachers. In addition to our distinguished group of session teachers, we have brought in a noted scholar to address the general conference; Briana Pobiner, Paleontologist and Educator, Smithsonian National Museum of Natural History, and Associate Research Professor, Department of Anthropology, George Washington University, Washington, DC, to present on the "Effectiveness of Using Human Case Studies to Teach Evolution."

Workshop sessions this year will cover teaching with "flipped" case studies, combining team-based learning and case studies, using cases across multiple classes, personalizing the curriculum, and more!

Our conference is led by Dr. Clyde (Kipp) Herreid, SUNY Distinguished Teaching Professor and Director of the National Center for Case Study Teaching in Science. The conference is open to anyone interested in case study education, including high school teachers and international teachers. It also includes a poster session and we would be pleased if you submitted a proposal by September 1, 2017.

Register now for this rewarding two-day Case Study Teaching in Science Conference, September 15-16, 2017. <http://sciencecases.lib.buffalo.edu/cs/>

Carolyn Wright

Administrator, National Center for Case Study Teaching in Science University at Buffalo, State University of New York



The Farrington College of Education at Sacred Heart University offers graduate programs that prepare candidates for their first teaching positions and for ongoing advancement in their careers. Long recognized as a leader in education, the Farrington College of Education addresses many critical needs in our nation's schools. Graduates of the Farrington College of Education achieve success as valued members of the education community in Connecticut and throughout the nation.

Join us at our Graduate Programs Information Session on Tuesday, May 30, 2017. [Register here!](#) Refreshments will be served at 6:00 pm and sessions will begin at 6:30pm.

Extend your knowledge or facilitate a career change by selecting one of the following degree programs within the Farrington College of Education:

Initial Teacher Certification and Tuition-Paid Teaching Internships

Master of Arts in Teaching (Transitioning to Master of Education in Teacher Leadership in Summer 2017)

CT Literacy Specialist Program (102 & 097 certification)

Intermediate Administrator Certification (092)

Learn more about our graduate Education programs in individual presentations by Program Directors and Faculty. Admissions and Financial Aid staff will be available to discuss admission requirements and procedures, as well as financial aid options for each of our academic programs.

We look forward to meeting you on the 30th!



# Enjoy a Summer Week with...

# STEM

Science Technology Engineering Math



## **“STEM on the Move” Summer Program for Students in Grades 5-9**

**June 26–30, 2017 • 9 a.m.–3 p.m.**  
**EASTCONN Conference Center, Hampton**

During these 5 days, students will experience what it's like to work on a **Mobile STEM lab** while investigating the mysteries of:

- Energy Conservation
- Forensics
- Heredity and Adaptation
- And more

**Fee:** \$175 for the 5-day program, includes lunch

**Register and pay online:**

<http://ae.registereastconn.org/stem-on-the-move.html>

## **Robotics for Students: Summer Program for Students in Grades 5-10**

**July 17–21, 2017 • 9 a.m.–3 p.m.**  
**EASTCONN Conference Center, Hampton**



***Do you know students in grades 5-10 who are interested in robotics?*** During this week, students indulge in the wonderful world of robotics while building and programming their own robots. Students learn Easy C programming and design solutions to real-world problems.

**Fee:** \$175 for the 5-day program, includes lunch

**Register and pay online:**

<http://ae.registereastconn.org/robotics-program.html>

**Questions? Contact: Dr. Stacey Williams-Watson, [swatson@eastconn.org](mailto:swatson@eastconn.org).**



**Climate Science & Education  
Professional Development  
Workshop:**

***Resilience: It's Not Just Surviving  
the Zombie Apocalypse***

**University of Connecticut Avery  
Point Campus, Groton,  
Connecticut**

**Tuesday, July 11 through  
Thursday, July 13, 2017**

**[Click here to register for the  
workshop](https://goo.gl/FIaHz)**  
**[\(https://goo.gl/FIaHz\)](https://goo.gl/FIaHz)**

**NOAA's Climate Stewards  
Education Project (CSEP) and  
Connecticut Sea Grant are  
collaborating with Federal, State  
and NGO partners to convene a  
climate science and education  
workshop for formal and  
informal educators. Participants  
will learn from and interact with  
climate science, education and  
communication experts. The  
workshop will focus on topics of  
climate science and resilience  
strategies for the northeast  
region of the United States, with  
a goal of connecting educators  
and their students and/or  
audiences to the best available  
science-based information and  
pedagogic resources.**

**Registration for the workshop is  
on a first come first serve basis  
and the number of participants is  
very limited! When enrollment  
has reached capacity, online  
registration will be closed.**

**Registration is \$40 per person. It  
includes daily lunch, snacks, field  
trips, and a plethora of resources!  
Attendees are responsible for  
arranging their own  
transportation and lodging.**

To register for the workshop you must fully complete the [online form](#) and send a check or purchase order to: Connecticut Sea Grant - Climate Workshop, 1080 Shennecossett Rd, Groton, CT 06340.

You will receive an email confirming your participation in the workshop only when your registration fee has been processed. A detailed workshop itinerary, lodging and dining recommendations, and additional information will be sent to all confirmed registrants well in advance of the workshop. All attendees will receive a certificate acknowledging their participation in the workshop as well as the number of professional development hours earned.

For more info re: the overall workshop, contact Diana Payne at:

[diana.payne@uconn.edu](mailto:diana.payne@uconn.edu). phone: 860.405.9248

Questions re: your registration fee? contact Andrea Kelly at:

[andrea.kelly@uconn.edu](mailto:andrea.kelly@uconn.edu). phone: 860.405.9128

A professional development workshop for formal and informal educators who wish to:

- Increase their knowledge of climate science, and resilience strategies;
- Learn about climate impacts and adaptations in the northeastern US; and
- Translate climate science and resilience to the classroom and/or informal education settings.

**Times: 8:30am - 5:00pm daily.**

**Place: [Marine Sciences Building, Room 103, The University of Connecticut - Avery Point, 1080 Shennecossett Road, Groton, CT 06340](#)**

**Primary Contacts:**

- Diana Payne [diana.payne@uconn.edu](mailto:diana.payne@uconn.edu)
- Molly Harrison [Molly.Harrison@noaa.gov](mailto:Molly.Harrison@noaa.gov)
- Bruce Moravchik [Bruce.Moravchik@noaa.gov](mailto:Bruce.Moravchik@noaa.gov)
- Peg Steffen [Peg.Steffen@noaa.gov](mailto:Peg.Steffen@noaa.gov)

**Featured Activities:**

- Presentations by scientists and educators on climate science and resilience.
- Activities to increase participant climate science knowledge.
- Activities and demonstrations on teaching climate, engaging in resilience activities and related topics.
- Connections to the [Next Generation Science Standards](#).

**Notes on Food & Lodging:**

- Lunch and snacks will be provided during the workshop.
- Participants must make their own travel and overnight arrangements. Lodging and dining recommendations and additional information, will be sent to all confirmed registrants well in advance of the workshop.



## Professional Learning: Archaeology Field School for Educators

Dr. Brian Jones, State  
Archaeologist, CSMNH UConn  
Monday, July 10 through Friday,  
July 14, 9 am to 3 pm, Windsor,  
CT

Advance registration required: \$45  
(\$35 for Museum Members and  
Donors)

Educators will spend a week doing hands-on archaeology at the *Archaeology Field School for Teachers* sponsored by the Connecticut State Museum of Natural History at UConn and Office of State Archaeology. This field school is designed to give educators who teach history or social science in a classroom or museum setting a deeper appreciation of the importance of archaeology as a tool for learning about Connecticut's fascinating past. The field school will cover the basics of field methods, paperwork, data management, and artifact identification. Learning proper archaeological methods will develop the participant's understanding of the ethical aspects of archaeology and the archaeologist's responsibility to preserve the data they retrieve so that it will remain valuable to future researchers. These lessons provide a first step toward developing the skills needed to undertake your own archaeological investigations with students.

Participants will experience an authentic and significant archaeological investigation, working with primary sources at a historic site in Windsor, Connecticut. They will also learn about the role of the Connecticut Office of State Archaeology and how it can be an important resource in developing archaeological lessons and activities for students. Space is limited. To request a registration form please contact David Colberg at [david.colberg@uconn.edu](mailto:david.colberg@uconn.edu) or 860.486.5690.

## Guide PBS Education's Work Today to Improve Resources for Teachers Tomorrow!

Would you like to help shape the resources and services PBS Education offers teachers across the United States?

Join our new research panel to share your insights! UPDATE: We encourage participation from teachers across the preK-12 spectrum – but in order to balance our current panel numbers, we are seeking preschool-3rd grade teachers. We appreciate your help in spreading the word!

### PBS Teachers' Advisory Group Members:

- Provide instant feedback through an easy, online survey once or twice a month.

Share opinions on our curriculum resources, professional development offerings, and other programs in development.

- Weigh in on a variety of topics including teacher needs, best practices, classroom experiences and more.

To join the PBS Teachers' Advisory Group, please click (the working) 'Join Now' button below where you can access the qualification and screening questionnaire.

**[Join Now](#)**

The information you provide will be kept confidential and only shared in aggregate with PBS staff.



NASA Wallops Flight Facility is pleased to announce the seventh Wallops Rocket Academy for Teachers (WRATS), June 19 – June 23, 2017. This professional development opportunity offers high school teachers a unique look into NASA's Sounding Rocket Program utilizing the

expertise of program engineers and technicians to learn the basics of rocketry as well as flight and safety operations. The week culminates in the launch of Terrier-Orion rocket containing payloads built by college and university students in the Rock ON! And Rock SAT-C programs. These programs are being held simultaneously along with the WRATS workshop as part of NASA Wallops' Rocket Week. Space is limited. Participants must be US Citizens. A \$1000 stipend will be provided upon completion of the workshop requirements to help offset any travel and lodging expenses. A block of rooms at the Wallops Lodge has been reserved for participants. Lodging costs per night are \$59 for single occupancy (double occupancy is not possible). Contact information for the Wallops Lodge will be provided once you have been accepted as a participant. For information regarding the WRATS workshop or to apply, contact Linda Sherman at [linda.a.sherman@nasa.gov](mailto:linda.a.sherman@nasa.gov)



The Walton National Sustainability Teachers Academy will provide two intensive workshops this June. These professional development opportunities are available to pairs of K-12 teachers (of any subject) from the same school or district. We are hoping to recruit teachers from your state who will lead the way toward a more sustainable future. Teachers will learn about sustainability from expert scientists from ASU's Global Institute of Sustainability, collaboratively generate a plan of action, and receive a comprehensive collection of lesson plans and teaching materials to implement in the classroom. Each teacher who attends will receive a \$700 stipend with an opportunity to receive an additional \$300 for implementing a project in their school. Costs of meals, housing and travel are covered as well. Please encourage teachers in your network to apply. For more information, please visit our website at: [sustainability teachers academy](http://sustainabilityteachersacademy.com)

#### Upcoming webinars

Check out these webinars at the following site:

<http://greenteacher.com/webinars/>

[rs/](http://greenteacher.com/webinars/) where you can also learn

Best Practices in School Gardens,

Presenter: Mary Dudley

Wednesday, September 27th 2017,  
7:30-8:30pm EST

Eco-System Monitoring Programs,

Presenter: Daniel Shaw

Wednesday, October 25th 2017,  
7:30-8:30pm EST, [Register](#)

<http://greenteacher.com/webinars/>

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES (NIEHS) recently developed a [Climate and Health learning module](#) for use in high school classrooms interested in exploring the health impacts of climate change. It promotes learning about the complex interactions between climate change, the environment and human health and uses content from the US Global Change Research Program's 2016 report, [The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment](#). The materials are free of charge and can be adapted for other grades and informal educational settings. The module integrates multiple science and engineering practices, disciplinary core ideas, and cross cutting concepts for earth and life science.



If you are interested in Modeling Workshops™, please visit our website: <http://tinyurl.com/2017modeling>.

More than 60 summer Modeling Workshops™ in high school physics, chemistry, physical science, biology, and middle school science will be offered, in many states. Most are two or three weeks long.

1. CEUs; optional graduate credit. Stipends at grant-funded sites.
2. Modeling Instruction is research-informed, interactive engagement pedagogy.
3. Ask your school administration to help pay. Mention the research on NGSS readiness: Modelers are better prepared to transition to NGSS than other teachers, research shows.

Website: <http://modelinginstruction.org>

Workshop descriptions: <http://www.phystec.org/pd/?set=Modeling>

#### ABOUT MODELING INSTRUCTION:

Modeling Instruction is designated as an Exemplary K-12 science program and a Promising Educational Technology program by the U.S. Department of Education.

Modeling Workshops are peer-led. Content is reorganized around basic models to increase its structural coherence. Participants are supplied with a complete set of course materials and work through activities alternately in roles of student or teacher, as they practice techniques of guided inquiry and cooperative learning. Models and theories are the purpose and the outcomes of scientific practices. They are tools for engineering design and problem solving. Thus, modeling guides all other practices.

Each MODELING WORKSHOP has these features:

- Aligned with National Science Education Standards
- Focuses on all 8 scientific practices of NRC Framework for K-12 Science Education.
- Addresses multiple learning styles.
- Addresses student naive conceptions.
- Collaboration, creativity, communication, and critical thinking.
- Systems, models, modeling.
- Coherent curriculum framework, but not a curriculum; thus flexible.
- Compatible with Socratic methods, project-based instruction, PBL, etc.
- Science & math literacy.
- Authentic assessments.
- High-tech and low-tech options for labs.

Wendy Hehemann

**American Modeling Teachers Association**

Modeling Workshop and Outreach Coordinator

[wendy@modelinginstruction.org](mailto:wendy@modelinginstruction.org)  
<http://modelinginstruction.org/>  
480-854-4764

For 2017 Modeling Workshops™  
<http://tinyurl.com/2017modeling>

BERMUDA NEXT SUMMER!!  
Interested in a professional development workshop this summer from June 26-July 1 in Bermuda at the Bermuda Institute of Ocean Sciences? Learn the latest in data collection techniques including ocean "gliders." Also learn how to plan and implement a field study course at BIOS for your students. Contact Ed Argenta at: [Edandpat74@comcast.net](mailto:Edandpat74@comcast.net) or Kaitlin Baird at: [kaitlin.Baird@bios.edu](mailto:kaitlin.Baird@bios.edu) for more information. Go here for the program flyer: <http://www.bios.edu/education/educator-workshops-at-bios/>



Small World Initiative Partner Instructor Application – High School

If you are a biology/environmental/life science teacher and interested in doing research in May focused on sustainability/conservation in the rainforest in Costa Rica –this opportunity would be for you! Any teacher can apply to the Costa Rica experience at [www.chance.psu.edu](http://www.chance.psu.edu)  
**However, for a scholarship opportunity through Penn State (\$6500 stipend):**  
With the research that you do in Costa Rica, Penn State will be supporting you through PD to develop classroom research projects based in NGSS/PA standards and provide you

materials you need to implement your classroom research project. PA teachers around the Pittsburgh area are encouraged to apply as the PD will occur in Pittsburgh and at University Park upon your return. For further details about this piece go to: <http://www.csats.psu.edu/overview-of-csats-programs/research-experiences-for-teachers> We also have research placements at University Park and Westinghouse this summer ranging from \$5000-\$6500.

**Amanda J. Smith, M. Ed** STEM Outreach & Engagement Liaison,  
[ajs398@psu.edu](mailto:ajs398@psu.edu) <http://csats.psu.edu>



Earn graduate credit this summer with [Seminars on Science](#), the American Museum of Natural History's online professional learning program. The 6-week [online courses](#) are co-taught by Museum scientists and classroom educators and are accessible anytime on your schedule. Get access to cutting-edge research, rich content, and powerful classroom resources. [Graduate credit](#) is available from our university partners.

The [next session](#) starts **May 22. Save \$50 when you use code SCIENCEMATTERS.** Courses in the life, Earth, and physical sciences include *Climate Change; The Diversity of Fishes; Earth: Inside & Out; Evolution; Genetics, Genomics, Genethics; The Link Between Dinosaurs and Birds; The Ocean System; Sharks and Rays; The Solar System; Space, Time and Motion* and more. For more information about the program, check out *Seminars on Science* at [amnh.org/learn](http://amnh.org/learn). If you have any questions, send us an email at [learn@amnh.org](mailto:learn@amnh.org) or call (800) 649-6715.



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The Spring issue of the CASE Bulletin is [now available](#). In this issue:

- ***Posing 'Grand Challenges': IBM Watson Health is transforming global healthcare***
- ***Meet IBM's Kathleen McGroddy-Goetz***
- ***The Connecticut River Museum: Discover New England's Great River***
- **News from the National Academies:**
  - Human Gene Editing: Science, Ethics, & Governance
  - New Report Examines Role of Engineering Technology
  - Federal Statistics: Combining Data Sources While Protecting Privacy
  - Undergraduate Research Access for STEM Students
  - New Report Details Accomplishments of US Global Change Research Program
  - Calculating the Social Cost of Carbon Dioxide
- **IN BRIEF: Science and Technology News from Around the State**

[http://www.ctcase.org/bulletin/32\\_1/32\\_1.pdf](http://www.ctcase.org/bulletin/32_1/32_1.pdf) Take a look!

### NSTA Launches new Safety Blog!

With a new school year starting soon, science, technology, engineering, and math (STEM) students will be participating in hands-on activities and demonstrations, which means that safety must be addressed. For a safer and more memorable learning and teaching experience, check out the new NSTA Safety Blog:

<http://nstacommunities.org/blog/category/safety>

#### Why use the Blog?

- To share up-to-date information on legal safety standards and better professional practices for a safer working and learning environment and a safer STEM instructional experience;

- To disseminate current information on safety incidents occurring in K–12 classrooms, labs, and maker spaces;
- To provide support and initiate dialogue in efforts to answer safety-related questions from bloggers, either teaching or supervising in K–12 classrooms, labs, and maker spaces.

Anyone can subscribe for free! Just go to the blog address above and scroll down to the bottom of the page. Follow instructions for a complimentary subscription!

### NEW MATERIALS, PROJECTS NASA

<https://www.nasa.gov/audience/foreducators/index.html>

National WWII Museum's Real-World Science Summer Teacher Seminar  
Please follow us on



TO GET THIS YEAR'S DATES  
visit our [website www.ctinventionconvention.org](http://www.ctinventionconvention.org)



Visit our



**What Is Science Matters?** *Science Matters is an initiative by the National Science Teachers Association (NSTA) to bring content, news, and information that supports quality science education to parents and teachers nationwide. Science Matters builds on the success of the Building a Presence for Science program, first launched in 1997 as an e-networking initiative to assist teachers of science with professional development opportunities. Building a Presence for Science—now Science Matters—reaches readers in 34 states and the District of Columbia. Why does Science Matter? Science is critical to understanding the world around us. Most Americans feel that they received a good education and that their children will as well. Unfortunately, not many are aware that international tests show that American students are simply not performing well in science when compared to students in other countries. Many students (and their parents!) believe that science is irrelevant to their lives. Innovation leads to new products and processes that sustain our economy, and this innovation depends on a solid knowledge base in science, math, and engineering. All jobs of the future will require a basic understanding of math and science. The most recent ten year employment projections by the U.S. Labor Department show that of the 20 fastest growing occupations projected for 2014, 15 of them require significant mathematics or science preparation to successfully compete for a job. This is why Science Matters. Quality learning experiences in the sciences—starting at an early age—are critical to science literacy and our future workforce. Feel free to publish this information in school newsletters and bulletins, and share it with other parents, teachers, and administrators.*