

CONNECTICUT SCIENCE CONNECTION

December 2015

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
List Moderator..Eloise Farmer

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

Resources

HAPPY HOLIDAYS TO ALL!

NGSS adopted by Connecticut! Training begins in the spring of 2016 in your region. Watch for updates on the CSDE's [science curriculum web site](#).

EQulP Rubric for Science Released!

The [Educators Evaluating the Quality of Instructional Products \(EQulP\) Rubric for Lessons & Units: Science](#)

Visit the NGSS@NSTA Hub :

The [NGSS@NSTA Hub](#) now offers a dynamic version of the *Next Generation Science Standards*.

Would you like a complete list of grants that has been provided by the National Science Teachers Association? NSTA has put these grant and their deadlines in an easy to follow calendar. It includes: deadline date, description, category, and grade level. To view this list, please visit:

<http://www.nsta.org/publications/calendar/>

SAVE THE DATE! CONNECTICUT SCIENCE SUPERVISORS ASSOCIATION: ALL

educators welcome! DATE: Wednesday, December 9, 2015, 5:30 - 8:00pm
Crowne Plaza Hotel, Cromwell, CT
Cocktails and Social Time, Meet w/ Sponsoring Exhibitor 4:30-5:30 PM
Buffet Dinner and CSSA Professional Development Meeting 5:30-7:00. For more info or to reply, click on: <http://www.cssaonline.org/dinner-meetings.html> by Friday December 4 to pay on line.



The CIC is growing and this year will be the largest yet with even more schools and students than ever before. WOW!

As a consequence, we will be hiring an Administrative Manager to help us support schools, train teachers and run the many events we do throughout the year.

The primary responsibility of the Administrative Manager will be to provide administrative support to the CIC's Directors and program while managing the CIC office.

Please CLICK on [THIS LINK](#) for more specific information about this position. (Do NOT try to print the file from the web. Download it first and then print the downloaded file.)

If you or anyone you know might be interested in applying, please send a resume and cover letter to office@ctinventionconvention.org

WANT TO DESIGN A HIGH SCHOOL? XQ: The Super School Project! The Super School Project is an open call to reimagine and design the next American high school. In towns and cities far and wide, teams will unite and take on this important work of our time: Rethinking and building schools that deeply prepare our students for the rigorous challenges of college, jobs, and life.

This is a challenge to empower all of America to change high school. Together, we can transform communities and build schools that inspire new possibilities. Over the next few months, we will accept your proposals. Then we'll partner with the winning teams and provide them expert support and a fund of \$50 million to support at least five schools over the next five years to turn their ideas into real Super Schools.

<http://xqsuperschool.org/challenge>

PROFESSIONAL DEVELOPMENT

A Web-Based Introduction to Next Generation Science

Made with CT educators, for CT educators. Next-Gen Science CT is a free, online, self-paced short course that provides K-12 educators with a comprehensive starting point for understanding A Framework for K-12 Science Education and the Next Generation Science Standards. This modular overview course will eventually consist of 15 modules, a total of 20 to 60 hours of professional learning, depending on how deeply PLCs engage with the "Think & Discuss" prompts.

Each module focuses on a specific aspect of Next Generation Science teaching and learning, engaging educators in guided reflection, classroom application, and transition planning. The Moodle-based platform provides opportunities for course takers from across the state to engage in discussion and share ideas and resources.

For the best results, schools and districts are encouraged to form Professional Learning Communities (PLCs) and identify individuals who can be effective facilitators (NGSS expertise is not required). An online matchmaking forum is available for educators seeking to join a "virtual" PLC. Successfully completing all modules will confer an emailed certificate of completion and an electronic badge.

Best for: Teachers of science, teachers of other subjects, school administrators, families, paraprofessionals, special educators and others with an interest in Next Generation science.

Cost: None

Learning hours: 20 to 60

Format: In-person and virtual study groups using web-based professional learning modules

Facilitation: District-selected facilitator(s)

For details and registration, visit the course website at

<http://ngss.ccat.us> .

Questions? Contact Nick Balisciano at nbalisciano@ccat.us

RESOURCES:

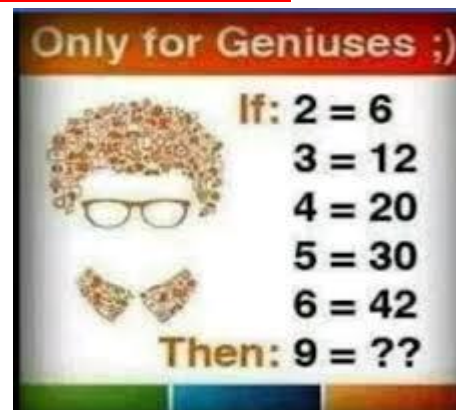
FREE!! A set of 8 videos which will introduce teachers to strategies based on NGSS, and demonstrating what NGSS looks like in the High School classroom. Funded by Disney and in partnership with the CREATE for STEM Institute at Michigan State University. Get them at <http://ngss.nsta.org/ngss-videos.aspx>

Are you using tablets in your classroom? If so, High School or advanced Middle School students can learn about Electromagnetism playing games and answering challenges to help understand electric currents, fields, and their applications to real life. The app is available at www.mazalearn.com

WORRIED ABOUT TEACHING THE ENGINEERING PARTS OF THE NGSS?

A new website from the National Academy of Engineering provides opportunities for connecting with educators who model engineering instruction and background information on engineering design. Go to www.linkengineering.org

For AP Physics students or the genius in your physics class, explore for the map of the theories of everything from Quanta Magazine.



<https://www.quantamagazine.org/20150803-physics-theories-map/>

5th Annual STEM Forum & Expo, hosted by NSTA

Denver: July 27–29, 2016! The dynamic, 5th Annual STEM Forum & Expo hosted by NSTA, brings together educators and organizations who are actively implementing STEM programs in their schools or districts. Held in Denver next July 27-29, come prepared to learn tactics that work, build your professional learning network, connect with effective outreach programs and partnerships, discover new resources, and build a strong curriculum. Keynote Speaker: Derek Muller, Australian-Canadian science communicator, filmmaker, and television presenter created the leading science YouTube channel, Veritasium, that features experiments, expert interviews, cool demos, and discussions with the public about "everything science." Join the over 2 million subscribers and see him in person at the Expo!

A Winter of Webinars

Green Teacher's upcoming webinars are an interactive way for educators to continue learning about key environmental topics. Our professional development webinar series features some of the most important thinkers in the field of environmental education addressing vital and relevant topics.

We have five webinars scheduled in the coming months. Registration is FREE and one can obtain a certificate upon completion. Learn more about each one and sign up now at <http://greenteacher.com/webinars/> to ensure you don't miss out on any of the following:

Welcoming Immigrants via Outdoor Recreation Programs

Presenter: Adrienne Blattel, Tuesday, November 24 2015 7:30-8:30pm EST

In 2010, Adrienne Blattel developed a program through an inner-city community centre in Montreal to bring together newly-arrived immigrants and other Montrealers through outdoor recreation. During this presentation, Adrienne will outline how activities are run to foster integration and intercultural understanding, which types of outings have worked well, lessons learned and ideas for the future.

Fostering Leadership for Sustainability, Presenter: Pat Armstrong, Wednesday, December 2 2015 7:30-8:30pm EST

What is the best way to get 11-18 year olds engaged and active in bringing about change for a more sustainable future? Pat will share ten principles that emerged from her many years of leadership training programs.

How to be a Better Teacher-Naturalist: Presenter: Clare Walker Leslie, Wednesday, December 9 2015 7:30-8:30pm EST

In her presentation, Clare will share her straight-forward techniques for engaging people of all ages with the natural world. Often using paper and pencil in an Observational Format, she shows ways to use both writing, simple drawings, and various observation techniques to record what is being seen directly while outdoors. In fact, Clare uses an instructional method that harkens back to the early study of Science, when naturalists had to record their observations in order to prove what they had seen to their patrons and colleagues. Today, when schools are under pressure to meet State Standards, Clare is careful to make sure her work in classrooms fits into the particular curriculum of each class, age and situation.

Addressing Aquatic Invasive Species Presenters: Bob Thomson and Brook Schryer, Tuesday, February 2 2015 7:30-8:30pm EST

Tackling aquatic invasives species (AIS) presents special challenges for educators. Bob Thomson uses inquiry methods with a place-based format to ensure that students are participants in the educational process. AIS allows his students to develop their informational reading skills on a subject that they can research and create informational essays and presentation that they can use to inform the community on

ways to prevent the spread of AIS. They also do research projects focused on understanding the impact of invasive species impact, in cooperation with local agencies. Brook Schryer will introduce the Grades 4 & 6 curriculum units developed by the Invading Species Awareness Program of the Ontario Federation of Anglers and Hunters.

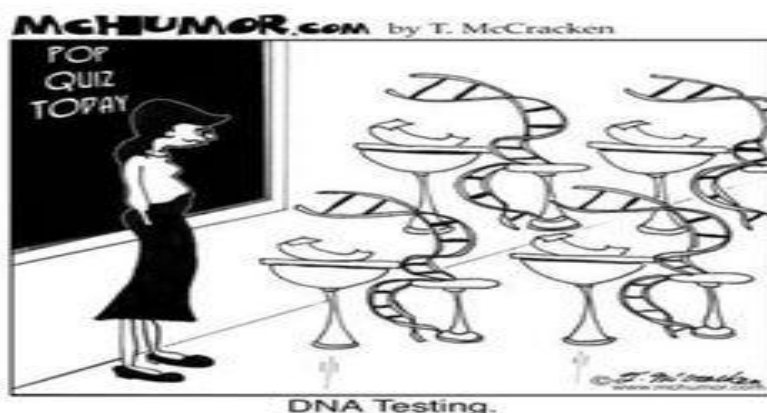
Collecting Field Data on Local Birds with Elementary Students, Presenters: Renee Bachman and Ted Watt Thursday, February 4 2015 7:30-8:30pm EST

Birds provide a ready access for elementary level students to a variety of life science content areas. Science practices such as bird observation skills, visual and auditory, field data collection and analysis skills, and student presentation techniques for the wider community are but some of the options that will be explored in this webinar. The presenters planned and carried out a nesting bird survey with 5th Graders in Western Massachusetts as part to Cornell's Birds in Forested Landscape program. While teaching in Phoenix, Renee and her students collected data for the Central Arizona & Phoenix Long Term Environmental Research Project. Ted has taught bird identification in informal settings for over thirty years. In this Webinar Ted and Renee will describe their projects, including how Cornell University's Ebird can be utilized in the classroom. Outdoor bird study with students, aligned with NGSS practices, is tons of fun!

Remote Cameras in Environmental Education, Presenters: Ryan Pennesi and Dawn Tanner, Wednesday, February 10 2015 7:30-8:30pm EST

Young people do not realize there are so many interesting things that they can learn about animals in their own schoolyard and neighborhood. Using remote cameras helps teachers to increase technology learning in their classrooms and brings students outside to create meaningful connections. Whether you think small scale at what your students will learn about the animals that share their space when they are absent or you choose to connect with local scientists, setting up trail cameras will give you a window into the wild. Join Ryan and Dawn in discussion as they address choosing the best locations to place the cameras, how to set them up and what can be done both inside and outside of the classroom with the resulting images and data.

Subscribe to Green Teacher at <http://greenteacher.com/subscribe/> and gain access to 55+ webinars and 300+ articles and activities, all cataloged according to 28 topics and various age groups. 1-year print \$34 or 1-year digital \$27.50
Tim Grant, Editor, Green Teacher, 28 Lennox Street #8, Toronto, ON M6G 1J4
416-960-1244, tim@greenteacher.com, US mailing address: Green Teacher, PO Box 452, Niagara Falls NY 14304



Center for Science and the Schools Saturday Science Workshop series are now open! We will have several others throughout the year focused for 6-12 grade STEM teachers as well. All workshops are FREE for educators and tie in the Next Generation Science Standards. To sign up for our STEM-E Newsletters offering many opportunities and experiences for teachers and students please go to: <http://www.csats.psu.edu/newsletters> To register for Saturday Science workshop series go to: <http://www.csats.psu.edu/saturday-science>

Any questions, please feel free to reach out!

Amanda J. Smith, M. Ed
ajs398@psu.edu

Happy Holidays to all!



Enhance your environmental education methods and knowledge. We are awarding SIX 80% Scholarships for summer 2016 **WHAT: Sharing Nature: An Educators' Week Workshop** **WHERE: Hog Island Audubon Camp, Muscongus Bay, Maine**

WHEN: JULY 17 - JULY 22, 2016

SCHOLARSHIP: \$900 towards \$1,095 registration fee (*Price includes program, lodging, boat travel, all meals*)

Features of Educators' Week:

- Designed for science and non-science educators to generate exciting ideas for creating and incorporating environmental education activities into your curriculum.
 - Inspiring and experienced instructors will share their favorite approaches, methods, and activities for engaging you, and your students, with nature.
 - Workshop presentations and guided field trips on the island share techniques in field biology, art, music, photography, theater, journaling, and other disciplines. Interactive workshop: "Increasing Diversity in Environmental Education" led by Chandra Taylor Smith, Ph.D. Vice President, Community Conservation and Education, National Audubon Society.
- TO APPLY:** E-mail letter of interest and names & contact info. of 2 professional references to Camp Director Pete Salmansohn at psalmansohn@audubon.org. Awards given on a rolling basis, so early application is strongly suggested. For details, photos, videos about the camp visit: hogisland.audubon.org.



Hog Island Rainbow by Eric Snyder



You can sign up for a free 30-day trial to check out a new online course, Marine Science 101. It is a comprehensive online (with offline components), high school, semester-long course.

<https://oceanclassrooms.com/learning/marine-science-101> . We also have a free Ocean Literacy online course on our home page: <https://oceanclassrooms.com/> as well as a free portal with live ocean data from around the globe.

PROGRAMS FOR STUDENTS:

UConn's Natural Resources Conservation Academy (NRCA) (nrca.uconn.edu). UConn's NRCA is an exciting program that engages high school students (grades 9 to 11) in natural resource conservation in their local community that is meaningful for the student, complementary to existing science curriculum, and beneficial to our communities and environment. First, students attend a week-long field experience at UConn in July. Afterwards, each student conducts a conservation project under the mentorship of a local conservation leader. Projects culminate in March, when students present their work at the Connecticut Conference on Natural Resources and graduate as "Connecticut Conservation Ambassadors."

To date, we have worked with 92 students and 51 community partners on 74 conservation projects. It has been an enriching experience for both students, their partners, and their communities. This year we will be inviting teachers with students attending our program to participate in one of the field experience days as well. If you are interested in sharing this experience with your students, I would love to give a brief presentation (5-8 minutes) and answer questions. If time permits, I can also share a brief activity that we conduct during the NRCA field experience. Please feel free to contact me via email (laura.cisneros@uconn.edu) or phone (860-486-4917) to discuss the NRCA further. I have also linked three informational documents on our program (i.e. a brochure for students, a NRCA overview document, and a NRCA success stories document for teachers/partners). I look forward to hearing from you! Laura Cisneros Assistant Extension Educator and NRCA Program Coordinator Natural Resources Conservation Academy Dept. of Natural Resources and the Environment University of Connecticut 1376 Storrs Road Storrs, CT 06269-4087 Phone: 860-486-4917 Fax: 860-486-5408

A Way to Integrate Science with Language Arts!

WANTED: "High-Tech Pen Pals" Fifth grade classes near Albuquerque, New Mexico, are looking for partners to exchange information about watersheds, rivers, stormwater, and other water resources topics!



RiverXchange is a FREE year-long program focused on

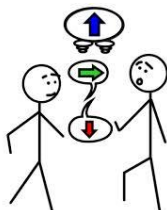
communication between classes

around the world about water resources issues. Our hands-on lessons can be used for reference, to enhance your existing curriculum, or as a complete program that explores rivers, watersheds, stormwater, municipal water supplies, ecology, and conservation.



Students communicate 4 times throughout the school year on a private website. We provide training and support to ensure a successful experience. Through writing and creative sharing about rivers, we integrate science with language arts, social studies, and 21st-Century learning skills, all correlated to Common Core Language Arts Standards!

Check out the public website, www.RiverXchange.com, for more information and to access the registration form. They'd love to hear from you if you have any questions about the program.



A Science Argumentation rubric has been developed by Mary Lou Smith and her colleagues. If anyone tries it out, they would really like to get some feedback! To get a copy, you can request one by email from Eloise Farmer at eloisef302@gmail.com



From Donna Ellis at UConn: "IPM curriculum kits are now available to any teachers or other educators who could use them in their classes, at no cost as long as the teachers can pick them up at UConn. We still have quite a few curriculum kits available. Teachers can view the curriculum and the excellent curriculum alignments completed by Mary Lou Smith on the UConn IPM website at http://www.ipm.uconn.edu/pa_curriculum/. I am available to conduct workshops or other curriculum training by request if any teachers are interested." To schedule a pickup of kits please contact Donna Ellis at donna.ellis@uconn.edu and make arrangements to pick up the curriculum kits at the UConn Depot campus.



www.CLEANet.org has more than 640 units, lessons, videos, and diagrams that have been rigorously reviewed by both scientists and teachers. While their focus is on Middle and High school, there are some middle school activities that would be appropriate for both. There may also be some resources on the k12 portal of the SERC website: <http://serc.carleton.edu/k12/index.html>

STEM PROGRAM AT CENTRAL CONNECTICUT STATE UNIVERSITY!

The MS in STEM Education for Certified Teachers will prepare certified teachers in the trans-disciplinary areas of Science, Technology, Engineering and Mathematics (STEM). Courses are aligned with National and/or CT state content standards in each discipline: Science, Technology, Engineering, and Math, and the Common Core for Mathematics and Language Arts. Does not lead to CT state teacher certification or cross-endorsement
<http://ccsu.smartcatalogiq.com/current/Undergraduate-Graduate-Catalog/Masters-Degree-Programs/STEM-Education-for-Certified-Teachers-M-S> . For further information, contact Marsha Bednarski at: bednarskim@ccsu.edu

Connecticut Green LEAF Schools has been awarded a **Teacher Quality Partnership Grant** through the CT Office of Higher Education. . More information about Connecticut Green LEAF Schools can be found at www.ctgreenleaf.org

WE ARE LOOKING FOR RETIRED SCIENCE CONTENT SPECIALISTS

willing to support K-6 science teachers on our free website at <http://justaskateacher.com> . Our project asks the science content specialist to (1) first view a video of a K-6 science lesson, (2) then meet with the teacher online to discuss the science content, and (3) finally, allow us to post the video of the session with the teacher so that other K-6 teachers can benefit. Interested? Please let us know.

Charles Matthews
Academic Research Scientist
University of Missouri at St. Louis
Email to schedule Skype or PolyCom Session matthewssc@umsl.edu
Skype: dr.charles.c.matthews

IF YOU TEACH COURSES WITH CHEMISTRY OR PHYSICS CONTENT, WE NEED YOUR EXPERTISE.

Currently, our website shares 30 K-6 lessons with physics content and 32 K-6 lessons with chemistry content. In anticipation of increased numbers of K-6 teachers sharing lessons in 2015-16, we would like to have more physical science content specialists who would consider viewing a video of a K-6 lesson, meeting online with the teacher who taught the lesson to discuss the lesson's science content, and then sharing the recorded discussion on our website for the benefit of K-6 teachers nationwide. (We make all our video recordings at-a-distance).

Meanwhile, you can get our Summer 2015 Newsletter, share it, and give us your ideas. Our Summer Newsletter focuses on the past, present, and future of the "Teachers Helping Teachers Teach Inquiry Science: Just ASK" project and invites suggestions and questions.

Teachers currently sharing their adapted science inquiry lessons always appreciate comments and suggestions.

Charles Matthews, Academic Research Scientist, University of Missouri at St. Louis. Email to schedule Skype or PolyCom Session, matthewssc@umsl.edu
Skype: dr.charles.c.matthews PolyCom IP Address 98.172.76.

NGSS K-8 Evidence Statements Now Available The NGSS Evidence Statements for elementary grades (K-5) and middle grades (6-8) are now available. These statements were developed and reviewed by educators and scientists, including many members of the NGSS writing team. The evidence statements are intended to identify clear, measurable components that, if met, fully satisfy each performance expectation (PE) described within the NGSS. Given that each PE is three-dimensional, the statements describe how students can use the practices, crosscutting concepts, and disciplinary core ideas together to demonstrate proficiency on the PEs by the end of instruction. They are not meant to limit or dictate instruction and were written to allow for multiple methods and contexts of performance, including students' performance on multiple related PEs together at the same time.

For more information, see the Introduction and Overview, which applies to the evidence statements for all grade levels. Additional materials, including appendices for K-2, 3-5, and middle school are coming soon.

AN IMPORTANT LINK FOR EDUCATORS TO VISIT FOR INFORMATION ON THE STATUS OF SCIENCE STANDARDS IN CONNECTICUT:

<http://www.sde.ct.gov/sde/cwp/view.asp?a=2683&Q=333862>



Get the latest on the Connecticut Science Center at:

<https://www.ctsciencecenter.org/education/stem2015/>

SAVE THE DATES! CONNECTICUT SCIENCE SAFETY NETWORK CSSN 2015-16 WORKSHOP CALENDAR can be found at:

http://www.wesleyan.edu/greenstreet/professionaldev/science_safety/2015-16%20CSSN%202015-16%20Workshop%20Calendar.pdf

INTERESTING INFORMATION and BASIS FOR A DISCUSSION AND ANALYSIS IN CLASS THIS WINTER! SEE Following page!

NEWS RELEASE CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING, CASE Releases Winter Highway Maintenance

Study: Rocky Hill, CT — The Connecticut Academy of Science and Engineering (CASE) conducted a study entitled Winter Highway Maintenance Operations: Connecticut, on behalf of the Connecticut Department of Transportation (CTDOT). The study was conducted in response to Section 6 of Public Act 14-199 that directed the

Commissioner of Transportation to conduct an analysis of the corrosive effects of chemical road treatments on 1)

state snow and ice equipment vehicles, 2) state bridges, highways and other infrastructure, and 3) the environment; The analysis shall determine the cost of corrosion created by road treatments, and shall include an evaluation of alternative techniques and products, such as, but not limited to, rust inhibitors, with a comparison of cost and effectiveness.

The study found that chloride-based deicing chemicals should be expected to be the standard for the foreseeable future and CTDOT should continue to use sodium chloride as the primary deicing chemical. Furthermore, although corrosion inhibitors are available for use with deicers, literature reviewed did not find evidence of their effectiveness in the field. It is important to note that vehicle washing is the best defense to reduce/prevent corrosion and the public should be educated on the need to wash vehicles, including the undercarriage.

The study concluded that ensuring the safety and mobility of the traveling public requires the most effective winter highway maintenance practices possible. Accomplishing this is a shared responsibility among stakeholders. To achieve comprehensive and sustainable success competing factors must be considered including: safety, cost, corrosion, operating practices, materials and equipment, environmental and economic impacts, and communication with the general public, stakeholders, and government leaders. Balancing these factors presents a challenge that can be met through ongoing monitoring and continuous improvement based on evolving best practices. Also, it was noted that CTDOT engages in an ongoing process of monitoring current practices, identifying areas for improvement, and instituting improvements based on best practices. Further, analysis of winter season injury crash data showed that CTDOT's anti-icing strategy the reduced number of injury crashes during winter weather events.

The report includes recommendations for consideration by CTDOT and Connecticut's municipalities related to deicing chemicals and application techniques, infrastructure, vehicles, the environment, and outreach and education.

The Full Report, Executive Summary, and Briefing PowerPoint are available on the CASE website (www.ctcase.org). Scroll down to Reports and Studies.

The Connecticut Academy of Science and Engineering was chartered by the Connecticut General Assembly in 1976 to provide expert guidance on science and technology to the people and to the state of Connecticut, and to promote the application of science and technology to human welfare and economic well-being. For more information about the Academy, please see www.ctcase.org



CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING



WANT TO GO TO THE AMAZON? : Deadline for PD scholarships for K-12 Educator Academy in the Amazon

The scholarship deadline is February 1st. Subject: \$1000 Scholarships for Amazon Rainforest PD Workshop .

Get your explorer on and apply for a scholarship to explore the Amazon rainforest next summer!

Educator Academy in the Amazon Rainforest + Machu Picchu The July 1-11, 2016 Educator Academy in the Amazon Rainforest of Peru is a cross-curricular professional development workshop for K-12 formal and informal educators to learn and use:

- 21st Century Instruction: 5E Lesson Design ~ Inquiry-Based Exploration ~ STEM
- Inquiry Protocols & Resources: Project Learning Tree ~ Cornell Lab of Ornithology ~ & More!
- Global and Cultural Perspectives: Service Learning ~ Sustainability ~ Global Education

Join Al Stenstrup, Project Learning Tree; Nancy Trautmann, Cornell Lab of Ornithology; Christa Dillabaugh, Amazon Rainforest Workshops; and Dr. David Pearson, Wildlife Travellers' Guide to Peru; and work side-by-side with scientists Dr. Steve Madigosky, Widener University; and Randy Morgan, Curator/Entomologist, Cincinnati Zoo as you:

- Participate in citizen science projects and inquiry based field studies on a 1/4-mile Rainforest Canopy Walkway in one of the most biologically diverse environments on the planet.
- Spend a day in an Amazon village as you explore the complexities of sustainability and the role of education in creating a sustainable future for Amazon children.
- Work with fellow educators to explore strategies for using the Amazon as a vehicle for incorporating STEM education, inquiry-based learning, and sustainability science education into your classroom.

PLT Certification, BirdSleuth resources and 50 ASU PD Hours included. Academic Credit and Machu Picchu Extension optional. \$1000 scholarship deadline February 1st, 2016. Program cost is \$1375 + air for scholarship recipients. Space is limited! Register early to secure your spot!

Get the details and download a syllabus and scholarship application at:

<http://www.amazonworkshops.com/educator-academy.html>

Contact christa@amazonworkshops.com or 1-800-431-2624 for more information.

Christa Dillabaugh Director, Educator Academy in the Amazon

1-800-431-2624 Email: christa@amazonworkshops.com

Web: <http://www.amazonworkshops.com/educator-academy.html>



Founded in 2007, Global Exploration for Educators Organization (GEEO) is a 501c3 non-profit organization that has sent over 1300 teachers abroad on adventurous travel programs. With GEEO educators can earn professional development credits while seeing the world. GEEO's trips are 7 to 21 days in length and are designed and discounted to be interesting and affordable for teachers. In addition to amazing tour leaders, many of the programs are accompanied by university faculty that are experts on the destination. GEEO also provides teachers educational materials and the structure to help them bring their experiences into the classroom. The trips are open to all nationalities of K-12 and university educators, administrators, retired educators, as well as educators' guests.

GEEO is offering the following travel programs for 2016: Bali/Lombok, Bangkok to Hanoi, China, Costa Rica, Eastern Europe, The Galapagos Islands, Greece, Iceland, India/Nepal, Ireland, Israel, Italy, Jamaica, Morocco, Myanmar (Burma), Peruvian Amazon, Peruvian Andes, Portugal/Spain, Heart of the Silk Road, Southern Africa, Southern India, Sri Lanka, Turkey, Vietnam/Cambodia, Western Balkans, Peru (Winter Break), Israel (Spring Break), Moorish Spain (Spring Break), and Morocco (Spring Break). The registration deadline is June 1st, but space is limited and many programs will be full well before the deadline.

Detailed information about each trip, including itineraries, costs, travel dates, and more can be found at www.geeo.org. GEEO can be reached 7 days a week, toll-free at 1-877-600-0105 between 9 AM-9 PM EST.



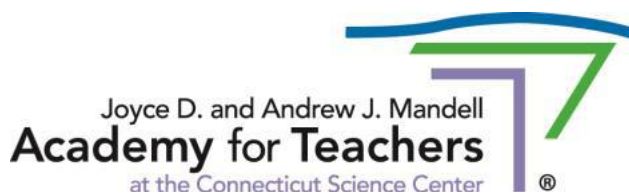
ARE YOU FAMILIAR WITH UCAR? One of the best resources having to do with Atmospheric Research. They provide K-12 educational resources and teacher professional development around atmospheric sciences. Web content, videos, games, simulations, and lessons on weather and climate. Visit <http://bit.ly/1JvhpDC>

Another great site is the GeoMentors Program. It offers a digital mapping and data analysis program call ArcGIS Online, and can be incorporated into any grade level. Investigate by going to:

<http://edcommunity.esri.com/Resources/Collections/geoinquiries>

The Connecticut State Department of Education and the Connecticut Science Center Partner to Launch First Offerings in a Next Generation Science Professional Learning System
A Web-Based Introduction to Next Generation Science
Made with CT educators, for CT educators

Next-Gen Science CT is a free, online, self-paced short course that provides K-12 educators with a comprehensive starting



point for understanding A Framework for K-12 Science Education and the Next Generation Science Standards. This modular overview course will eventually consist of 15 modules, a total of 20 to 60 hours of professional learning, depending on how deeply PLCs engage with the "Think & Discuss" prompts.

Each module focuses on a specific aspect of Next Generation Science teaching and learning, engaging educators in guided reflection, classroom application, and transition planning. The Moodle-based platform provides opportunities for course takers from across the state to engage in discussion and share ideas and resources.

For the best results, schools and districts are encouraged to form Professional Learning Communities (PLCs) and identify individuals who can be effective facilitators (NGSS expertise is not required). An online matchmaking forum is available for educators seeking to join a "virtual" PLC. Successfully completing all modules will confer an emailed certificate of completion and an electronic badge.

Best for: Teachers of science, teachers of other subjects, school administrators, families, paraprofessionals, special educators and others with an interest in Next Generation science.

Cost: None

Learning hours: 20 to 60

Format: In-person and virtual study groups using web-based professional learning modules

Facilitation: District-selected facilitator(s)

For details and registration, visit the course website at <http://ngss.ccat.us>.

Questions? Contact Nick Balisciano at nbalisciano@ccat.us

REGISTRATION OPENS NOVEMBER 2, 2015

Transforming science teaching and learning through reasoning, modeling and communicating explanations of phenomena.

NGSX is a blended professional learning system designed to help teams of K-12 science educators apply the pedagogical shifts described in the Framework for K-12 Science Education and the Next Generation Science Standards to their own teaching. NGSX brings the expertise of Framework developers, experts in teacher learning, and expert professional development facilitators to science educators across Connecticut.

NGSX is organized into learning pathways structured to immerse participants – as learners and as teachers -- in 3-Dimensional learning using a web-based system of tasks, tools and resources. The NGSX experience combines first-hand science investigations, videotaped expert commentary and classroom case studies along with facilitated individual, small group and whole group discussions.

In a collegial, seminar-like environment, NGSX participants will engage in modeling and constructing explanations of complex phenomena, hallmarks of Next Generation Science. They will also learn to use questioning strategies, or "talk moves", to create a classroom culture in which students explain their thinking, listen to and build on the ideas of others and function as a community of critical thinkers.

To learn more about the NGSX experience, click [here](#).

Best for: Teachers of science, district science leaders, STEM coaches, teachers of other subjects, informal science educators, and university faculty

Cost: \$1,500 per teacher (estimated)

Learning hours: 30 to 40 hours; typically scheduled in 2-day sessions spread over 2 to 3 months

Format: In-person facilitated study groups using a web-based professional learning program and firsthand experiences

Facilitation: Expert-facilitated by certified learning leaders

Questions? Contact Cheryl Tokarski at ctokarski@ctsciencecenter.org

To learn more about the NGSX experience, click [here](#).

Best for: Teachers of science, district science leaders, STEM coaches, teachers of other subjects, informal science educators, and university faculty

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COMING

Coming Soon: A schedule of regional NGSX study group dates and locations, along with a registration form for 2016 winter, spring and summer sessions. Start recruiting your school's team now! Minimum 2 educators, maximum 20 educators per school.

ANOTHER ASPIRING TEACHER NEEDS HELP!

I am seeking individuals who would be willing to participate in my doctoral dissertation study. I am exploring the science-focused study experiences of pre-service or in-service teachers, and how these individuals use their study abroad experiences in their classrooms. If you have participated in a science-focused study abroad, are the teacher of record in your classroom, and are interested in participating,

please e-mail me at my university e-mail address below.
Thank you for your time, Stephanie Medina, Doctoral Candidate, Educational Leadership, Curriculum, and Instruction
Texas A&M University - Corpus Christi, stephanie.medina@tamucc.edu
NSTA Member

NEW MATERIALS AND PROJECTS FROM NASA!

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

HOW TO RECEIVE THIS NEWSLETTER BY BECOMING A POINT OF CONTACT.

We welcome new recipients to NSTA's Science Matters network! Please click on: <http://bap.nsta.org/> and sign up! You will receive information from NSTA and get this State newsletter each month. You can also email me at eloisef302@gmail.com so that I make sure you are on our mailing list. NSTA sends our newsletter to all the recipients on our State list of Points of Contact. Please join us!

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.