NEW ENGLAND AIR MUSEUM

Adventure, Discovery, and the Dream of Flight

Ever wanted to sit and have your picture taken in the cockpit of a fighter jet? Wear shoes you can climb in and live out your fantasy with the CSSA at the easily accessible New England Air Museum, 36 Perimeter Rd, Windsor Locks, CT. The Museum houses vintage planes & helicopters, plus simulators & hands-on educational exhibits. The CSSA meeting will be held in the exhibit area where attendees will have dinner with the planes. Educators attending will hear what offerings are available at the museum for their students and enjoy a wonderful catered dinner. Admission is a special $35.00 to all. You can sign up and pay for the meeting on the CSSA web site or mail a check to CSSA and send to Sandra Justin, CSSA Arrangements, 11 Patricia Drive, Vernon CT 06066. The Museum will be open for Registrants to tour at 4PM and the event will begin at 5PM. Directions and other information about the Museum can be found at https://www.neam.org/.

Sign up and get more details at: www.cssaonline.org

1. **FunScienceDemos** - A YouTube channel with over 150 science demonstrations by master teachers. Every important science ideas kids should know before high school. Over 50,000 subscribers so far! [https://www.youtube.com/user/funsciencedemos](https://www.youtube.com/user/funsciencedemos)

2. **FunScienceSupport** - A website filled with free teacher resources for K-8 science education. Readings, writing prompts, math activities, poems and more! [https://sites.google.com/temple.edu/funscience/home](https://sites.google.com/temple.edu/funscience/home)

3. **FunScienceToons** - UNDER CONSTRUCTION - Science animation in which siblings help each other learn about science and the natural world. Watch our first animation. [Earth Spins and the Day Begins](https://www.youtube.com/watch?v=1234567890)

**LearningScience.org** - A dynamic and curated list of free, high quality, online resources from around the world for science education.


STUDENT LOAN NOTICE!!

Have a student loan that needs forgiveness? Go to

[http://bap.nsta.org/Attachments/PblcFrgvns-TeacherTitle.pdf](http://bap.nsta.org/Attachments/PblcFrgvns-TeacherTitle.pdf)
Identify phenomena that can drive student learning: PHENOMENA,

Anyone? Looking for meaningful phenomena based instruction? Then check out this amazing opportunity that happens right in your own home.
http://learningcenter.nsta.org/products/online_courses/vc_180728.aspx

Session proposals for the 8th annual STEM forum and expo in San Francisco, are now being accepted. The dates are July 24-26 2019. The area conferences will be held in Salt Lake City October 24-26 2019, Cincinnati November 14-16 2019, and Seattle, December 12-13 2019.

To submit a proposal, visit https://www.nsta.org/conferences/sessions/meetingsacceptingabstracts.aspx

Elementary Science opportunities.

DEEP Climate Change Workshops and Opportunities
Webinars on the first Wednesdays of the month at 4:00 pm include the following topics:

February- What Color is your Air-Ozone, EPA Flag Program
Workshops planned to date: February 27- Environmental Literacy K-12 For more information go to the DEEP webpage at the following URL: https://www.ct.gov/deep/cwp/view.asp?a=2691&q=322502&depNav_GID=1627

Talcott Mountain Science Center and Academy documentary premiere was broadcast on Thursday, October 25 at 8 p.m. on CPTV. https://cptv.org/at-wonders-peak/ The lesson emphasized that the use of technology, information and knowledge can achieve positive impact in the world around you.

EdAdvance is excited to announce an opportunity for teachers interested in the intersection between Science and Computer Science. With support from a new National Science Foundation grant, Skills21 is recruiting a cohort of teachers this year who want to engage their class in a CS challenge and present student team solutions at the 2019 Expo Fest on June 1, 2019 (expofest.skills21.org).

Through the new Skills21 Science/CS challenge, student teams are compelled to develop a computer science product, service or solution leveraging a scientific discipline to meet a need, solve a problem or capture an opportunity. Student solutions might include mobile apps, wearable solutions or other innovative uses of computer science.

Participating teachers will receive:
- $1000 stipend for planning, out-of-class time engagement and curricular review
- $500 for project materials
- Onsite coaching and professional development

Participating teachers will need to:
- Pilot and/or provide feedback on Computer Science infused Science units including lesson plans and an end of unit performance assessment
- Bring a team of students to the 2019 Expo Fest to compete in the new Science/CS Challenge
- Allow Skills21 to conduct pre- and post-intervention surveys (September and June)

What’s the time commitment?
- In and out of class time commitments for teachers will vary based on individual class settings. Experienced Skills21 staff will work with prospective teachers to help gauge the required time commitment and investment

Priority Eligibility:
- First priority in the early stages of this grant are for teachers that work with traditionally underserved student populations

How to Get Involved
Interested teachers should contact Liz Radday (radday@edadvance.org) or Susan Auchincloss (auchincloss@edadvance.org).

Funding has been provided by the Long Island Sound Study to compile a catalogue of Educational Resources relevant to Long Island Sound and applicable to grades K-12. Please participate and complete this survey form (link below) for each LIS educational resource that you may use or meets our criteria and is available for use. You may access the survey form multiple times if you have information on more than one resource to enter. This survey should only take 5-10 minutes to complete.

Your email address is requested, however, it will only be used if we need to contact you for more information.

Long Island Sound Based Educational Resources Survey: https://goo.gl/forms/yECH0OU7QLcCAzFa2
The Hartford Audubon Society (HAS) is pleased to announce our third annual Hartford County Big January of Birding birdwatching challenge. The purpose of the activity is to encourage folks to get outside during the month of January and see as many species of wild birds in Hartford County as possible! The competition is free to people of all ages. Birdwatching is a delightful, free activity that can be enjoyed by people of all ages, in any setting. Birds can be seen anywhere — you can watch pigeons, peregrine falcons and snowy owls in Hartford; count the birds on your feeders from your windows; identify ducks and geese on a local river; or seek rare woodland birds on land trust reserves. Anywhere you go, birding is just plain fun. And this year already we’re seeing unusual numbers of pine siskins and evening grosbeaks at feeders! January, 2019 may be a very interesting month. To participate, birders should enter their daily or periodic observations onto ebird.org, the free birdwatching site maintained by the Cornell University of Ornithology. At the end of the month, please create a month-long record of your observations in ebird and share this list with HAS Vice President, Sarah Faulkner. To enter, there are three categories: Youth (ages 4-10) who must see at least 25 species to enter; Teen (ages 11-17) who must see at least 35 species to enter, and Adults (ages 18 - ?) who must see at least 60 species to enter. All entries that meet the minimum number of species for each challenge group will receive a certificate of achievement. A special prize will be awarded for the highest species count for each challenge group. Please see the HAS website at www.hartfordaudubon.org for contest details.

RE: Grant and Scholarship $ for Amazon Rainforest PD Workshop

As a Science Matters State Coordinator, I am hoping you can help us spread the word about the scholarships and grants that we have available for K-12 science educators to join the 2019 Educator Academy in the Amazon (July 1-11).

- NEW!! $1500 Grant from Vernier Software & Technology for a HS/AP Science Educator
- $1100 scholarships via Amazon Rainforest Workshops for K-12 educators

Last year we had very few applications and would like to make sure that the funding is utilized this year! The deadline for the applications is Feb. 1, 2019.

JUDGE: The 2019 Connecticut Science and Engineering Fair will be held March 11-16, 2019 at Quinnipiac University. CSEF needs about 300 judges for a successful fair. Individuals with experience in the physical and life sciences are invited to participate as judges for regular category judging, special categories, and special awards. If you or someone you know would like to participate as a judge, please visit the judges page of the CSEF website.

More Judges! The Connecticut Invention Convention (CIC) has received multiple awards for its internationally recognized, 501(c)(3) nonprofit educational program. The program is open to K-12 students statewide, and is designed to develop, encourage, and enhance critical thinking skills through invention, innovation and entrepreneurship. Prospective Judges register on-line using the CIC Online Registration Portal. If interested, click here to get started.

Emerging Female Scientist (EFS) is the first electronic, peer-reviewed, open access scientific journal promoting and publishing articles by female middle and high school students. The goal is to inspire, recognize, train, and equip students to pursue and share their scientific ideas and research. All research submissions must have a female as the primary author. Every submission is received and reviewed by an all-female, renowned editorial board, which is guided by a Scientific Advisory Board of nationally-recognized scientists, researchers, and educators. The editorial and advisory boards are committed to fostering a fun and meaningful research and publication experience. Submissions will receive constructive feedback on the content, research methods, results, and conclusions. This experience teaches students about the publication process from peers and experts who ultimately help them refine and improve their work into a polished and worthy final research product. In addition to original research, students can also submit interviews with female STEM leaders, historical vignettes of noted female scientists, and/or current science and technology review articles.

NSTA is well known for its commitment to furthering science education and fostering STEM activities nationwide, as well as working with Key Leaders in each state to develop the Science Matters program. Can you bring this announcement to the attention of Key Leaders and STEM Coordinators in your state who may find the journal a useful educational opportunity for aspiring science students? Additionally, my editorial staff would welcome input on the journal and how it can best meet the goal of increasing the number of young women who choose science as their career path. Please visit our new website: www.emergingfemalescientists.com
Subject: Scholarship & Grant $ for Amazon Rainforest PD Workshop

What: 2019 Educator Academy in the Amazon Professional Development

When: July 1-11, 2019

Grant: $1500 Vernier Software & Technology Grant for a HS/AP Science Educator

Scholarships: $1100 Amazon Workshops Scholarships for K-12 Educators

Application Deadline: February 1, 2019

Get more info: http://amazonworkshops.com/educator-academy/

The July 1-11, 2019 Educator Academy in the Amazon Rainforest of Peru is a cross-curricular professional development workshop for formal and informal science educators. Highlights include:

- **21st Century Instruction**: 5E Lesson Design ~ Inquiry-Based Exploration ~ STEM
- **Inquiry Protocols & Resources**: Vernier Software & Technology ~ Celestron Digital Microscopes
- **Global and Cultural Perspectives**: Service Learning ~ Sustainability ~ Global Education
- **NEW!**: A specialized track for HS bio and environmental science educators with a focus on sustainability, conservation, and field work with the Maijuna indigenous community
- **Work side-by-side with scientists and researchers** on citizen science projects and field studies.
- **Explore the ¼ mile long ACTSPeru Rainforest Canopy Walkway** in one of the world’s most biologically diverse environments.
- **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.

Contact program director, Christa Dillbaugh at christa@amazonworkshops.com or 1-800-431-2624 for more information.

Please see attached article by NSTA president Christine Royce.

Please click link to view attachment:

NSTA_75TH.png

**Exciting News from NESS!**

We have EXCITING news! The New England Association of Schools and Colleges (NEASC) voted to accredit New England Science & Sailing Foundation (NESS) as a school partner program. This decision makes NESS the first school partner program to be accredited by the oldest accreditation agency in the country.

This accreditation demonstrates our commitment and passion to provide the highest quality educational experience for all students, complementing and enhancing students' traditional school experiences.

Of NESS, NEASC remarked: "NESS makes a difference in the lives of the young people it nurtures-sometimes a life-changing difference and sometimes a simple moment of self-confidence gained. We had a distinct sense the people who make NESS what it is regard this opportunity as a genuine and rare privilege. Their commitment will continue to strengthen this exceptional program."

Please feel free to contact me for programs details at our office 860-535-9362 or email pgibbs@nessf.org. Visit us at www.nessf.org.

UConn’s Natural Resources Conservation Academy (NRCA), which offers environmental programs for teens, adults and teachers. The Conservation Ambassador Program (http://nrca.uconn.edu/students/index.htm) teaches teens the skills used by professionals to address current environmental issues. Students learn real field-based science during an exciting weeklong summer field experience at UConn. Then, students design their own environmental project to provide real solutions for their communities, and present their work at the Connecticut Conference on Natural Resources. For more details check out the CAP program video here. The Conservation Training Partnerships (http://nrca.uconn.edu/students-adults/index.htm) program pairs teens and adult volunteers. The team participates in a 2-day field workshop (find a workshop near you!), and learns to use conservation and mapping tools in field activities. Then, the team designs and carries out a local environmental project. For more details check out the CTP program video here. The Teacher Professional Learning program (http://nrca.uconn.edu/teachers/index.htm) extends the NRCA experience to high school science teachers. This 3-day professional development workshop immerses teachers in regional water resource issues, and provides them with online mapping tools to use in their classrooms. Each teacher leaves with 10-15 Water and Sustainability Science lessons aligned with Next Generation Science Standards.
Online applications are now open! If you are interested in learning more, we are happy to visit classrooms & organizations to give brief presentations about our NRCA programs. Please contact me to find out more.  Laura Cisneros

NSTA Reports:
The following are resources are a few samples from Nsta Reports. One of the advantages of being an Nsta member means you have access to this kind of information for your use:


Lawrence Scadden Teacher of the Year Award in Science Education for Students with Disabilities: Recognizes excellence in science teaching for students with disabilities. K-we, General Education, or special education teachers with at least 5 years of teaching experience may apply by January 20 at www.sesd.info/scadden.htm

American physiological Society Six-Star Science Online Professional Development Program for Middle and High School Science Teachers. For 10 months, online teacher fellows explore Six-Star Science, a research-based framework and develop methods to implement it in their classrooms. Fellows design experiments, engage in online discussions, and develop strategies to enhance student-centered learning. The stipend is $1400 and graduate credit is available. Any science discipline and one year of teaching experience with a current position are eligible. Teachers from rural areas or primarily minority schools are encouraged to apply. Applications are due by January 31, 2019. Details on web site at: http://bit.ly/2Q3JZfx

Student Essay Contest Now Open!

“I was offering time and laughs—the men and women fighting the war were offering up their lives,” said Bob Hope of his experiences entertaining troops during World War II. “They taught me what sacrifice was all about.”

In celebration of the special exhibit So Ready for Laughter: The Legacy of Bob Hope, The National WWII Museum is focusing its 2018 Student Essay Contest on the duty of art and artists during times of war and conflict. The contest, which asks entrants to consider the above quote by Hope in the context of the overall theme of the wartime role of entertainers and artists, is open to middle school (grades 5–8) and high school (grades 9–12) students. For more information on the essay contest, please visit The National WWII Museum 2018 Student Essay Contest website.

The Billy Michal Student Leadership Award

The National WWII Museum is currently taking nominations for The Billy Michal Student Leadership Award, given annually to one student from each state and the District of Columbia who demonstrates the values of leadership, teamwork, tolerance, creativity, and perseverance in their community. For more information and to nominate a student, see The Billy Michal Student Leadership Award website.


In response to cuts in federal funding for climate science research and education, removal of scientists from federal environmental panels and agencies, and widespread dissemination of climate science denial propaganda, PRI has embarked on a campaign to distribute The Teacher-Friendly Guide™ to Climate Change to every public high school science teacher in the country. The Teacher-Friendly Guide™ to Climate Change is the tenth book in PRI’s Teacher-Friendly Guide series (www.teacherfriendlyguide.org). Following the Heartland Institute’s national mailing of “Why Scientists Disagree about Global Warming,” PRI decided to step up and counter the dissemination of disinformation by providing teachers with access to peer-reviewed climate science and vetted strategies on teaching a potentially controversial topic. While all of the Teacher-Friendly Guides are available as free pdf downloads, PRI has embarked on a crowdfunding campaign in order to reach out to teachers and send each one their own copy of the climate change guide.

We are reaching out for help with both dissemination and fundraising. Buying the book supports both of these efforts. You can order the book and download the free pdf at http://priweb.org/tfgcc. While the book was written with teachers in mind, it’s friendly to any reader.
As of summer 2018 50,000 teachers in 36 states will receive copies of The Teacher-Friendly Guide™ to Climate Change. You can help PRI achieve the goal of reaching 200,000 teachers. We are striving to identify a point person in each school who will be the addressee for the package, and help to insure that the books actually reach teachers. Sign up to be a point person here: http://bit.ly/TFGCCcontact. Reach out to friends and social media networks to support the crowdfunding campaign (http://bit.ly/TeachClimateScience) and to get the word out about the Teach Climate Science Project.

Subject: $1250 Scholarships for Amazon Rainforest PD Workshop Educator Academy in the Amazon Rainforest
The July 1-11, 2019 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: Inquiry-Based Exploration ~ NGSS ~ STEM ~ 5E
- Inquiry Protocols & Resources: Project Learning Tree ~ Cornell Lab of Ornithology ~ & More!
- Global and Cultural Perspectives: ~ Sustainability ~ Global Education ~ Indigenous Cultures

Join Al Stenstrup, Project Learning Tree; Dr. Nancy Trautmann, Cornell Lab of Ornithology; Kristie Reddick, The Bug Chicks; along with scientists Dr. Steve Madigosky, Widener University; and Randy Morgan, Curator/Entomologist, Cincinnati Zoo as you:
- Work side-by-side with scientists and researchers on citizen science projects and field studies on the ACTSPeru Rainforest Canopy Walkway in one of the world’s most biologically diverse environments.
- Explore conservation and sustainability via hands-on workshops with indigenous communities.
- Spend a day in an Amazon village and explore the role of education in creating a sustainable future for Amazon children.
- Work in grade-level cohorts to develop strategies for using the Amazon as a vehicle for incorporating standards-based inquiry, STEM, and sustainability education into your classroom.

PLT Certification, BirdSleuth, and other resources included. Academic Credit and Machu Picchu Extension optional. $1250 scholarship deadline February 1, 2019. With a scholarship, Academy Program fees are $1345 (airfare not included). Space is limited to 30 educators - Register early to secure your spot!

Get the details and download a syllabus and scholarship application at: www.amazonworkshops.com/educator-academy. Contact Educator Academy Director, Christa Dillabaugh, for more information:

LOVE THE SEA TURTLES? Want to help in their conservation? Join the SEE Turtles Costa Rica Leatherback Turtle Volunteer trip. You will help collect eggs and move them to hatcheries, and work with the baby turtles once they hatch. The trip is June 9-15 2019. Individuals and groups up to 12 can apply. Visit https://www.seeturtles.org/costa-rica-leatherback-turtle-volunteer-trip for more info.

* Cornell Lab of Ornithology’s free webinar series launches soon! These engaging monthly webinars provide background information and K-12 activities related to scientific observations, inquiry, NGSS, citizen science, and outdoor learning. Educators can also opt to receive one Continuing Education Unit (CEU) from Cornell University. Learn more and register at: http://www.birdsleuth.org/free-webinars/. Feel free to reach out if you have any questions.

JASON PROJECT
Professional Development Opportunities Connecticut 2018-19

Resources and Tools for an NGSS Classroom
Getting ready to or already designing your NGSS units of instruction?
Or just need a little more support in understanding and practicing the NGSS shifts?

We Can Help.

Our 2018-19 Workshop Series provides one and two-day PD to help: educators build their capacity to understand and implement NGSS pedagogy; be introduced to resources, tools, and strategies that can be included in NGSS units of instruction; and offer an opportunity to share challenges, successes, and teaching tips with a network of peers. JASON’s award-winning educational resources are
routed in real-world application & phenomena, and address three dimensional teaching and learning (www.jason.org/ngss).

Audience:

- Administrators, curriculum directors, curriculum developers, science coaches, team leaders, and science teachers.
- World of Waves Best Suited for Grades 4-12
- Living Well Best Suited for Grades 6-12

Prerequisites: Although not required, we highly recommend that educators participate in the Next-Gen Science CT Short Course (visit ngss.ccat.us for details) prior to attending a JASON workshop. Other prior PD focused on NGSS, and familiarity with the EQuIP rubric is also helpful. Participants are also encouraged to attend as a team of 2 or more from the same school or district.

Workshop Listings

Two-Day Workshops

World of Waves – NEW Curriculum built in partnership with ONR!

Program Cost: FREE! Sponsored Through Office of Naval Research

Build a deep, working understanding of the physics of waves and their importance in our world. Meet STEM role models ranging from Navy officers to robotics engineers & rock musicians that apply the physics of waves in their work. Visit https://jason.org/world-of-waves for more information.

Participants are eligible to receive a BOSEBuild Speaker Cube Kit of their own to pilot selected activities to explore

- How sound works
- How speakers work
- Frequency and Waveforms

LEARN – Old Lyme, CT 8:30am-3:00pm

Part 2: Friday, March 1, 2019

EASTCONN – Hampton, CT 9:00am – 3:30pm

One-Day Workshops — MORE TOPICS, DATES AND LOCATIONS COMING!

NEW Biology Curriculum! Living Well

Program Cost: $40.00

Explore the wonders of human biology from the molecular building blocks of life, to cells, organs and organ systems, to the human body as an interconnected whole, and even the behavior of populations—through the prism of human health and disease. Visit https://jason.org/living-well for more information.

LEARN – Old Lyme, CT 8:30am-3:00pm

April 5, 2019

Don’t throw those lessons out with the bathwater! “Tried and true” lessons that have created meaningful experiences for your students for years do not need to be discarded with the advent of new standards. Join us as we share how JASON Learning is redesigning labs to support the transition to an NGSS classroom. Educators will experience two versions of a JASON lab, one created pre-NGSS, and the other a newly designed NGSS version. We will examine specific modifications and the strategies and tools used to make the adaptations through hands-on experience, discussion, and the use of the EQuIP rubric. Toward the end of the session, educators are invited to examine a “tried and true” lesson of their own and apply these new strategies and tools to make future modifications. Come prepared to share ideas and engage in this deconstruct and redesign discourse.

Deconstructing Performance Expectations for an NGSS Classroom

All grade levels

Thursday, March 2, 2017 8:30am – 3:00pm at LEARN, Old Lyme, CT [Register]

Tuesday, March 21, 2017 9:00am – 3:30pm at EastConn, Windham, CT [Register]

Participants will explore the Next Generation Science Standards in more depth and participate in discussions and analyses of how educators can begin to implement 3-dimensional learning. Participants will be introduced to new lesson planning tools and strategies to begin embracing NGSS pedagogy whether it’s with existing lessons or with new materials and resources. Using activities from JASON’S Climate: Seas of Change, participants will unpack a performance expectation (MS-ESS2-6), specifically looking at how climate is created, climate modifiers, and the relationship between wind patterns and ocean circulation. While using JASON resources to explore what 3-dimensional learning looks like, this experience is intended to empower educators to apply and adapt these tools and strategies to meet the needs of their school’s curricula and classroom settings.

FOLLOWING ARE DIRECTIONS DEVELOPED BY THE NEW YORK STATE BUILDING A PRESENCE COORDINATOR, NANCY RIDENOUR.

It seems to be in a form that I cannot edit, so it has directions for a New York science teacher. However, all the directions are the same except for the State, you would select Connecticut, and contact either me or David Lopath at the email addresses just below our newsletter heading,
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.