

CONNECTICUT SCIENCE CONNECTION

February 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

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

Resource

[Find Your Science Education Solutions](#)

Join NSTA and *Martian* author Andy Weir for an out-of-this-world experience at the [2017 National Conference](#) in Los Angeles



TRAINING!

From our Guru of Safety Ken Roy! The annual

calendar for the Science Safety Workshop Series is ready! Information can be found at :<http://www.wesleyan.edu/greenstreet/professionaldev/sciencesafety.html>. This year we are excited to announce that each registration includes a copy of Dr. Ken Roy's latest book – *Science Laboratory Safety Manual*. A \$99 value with over 450 pages of legal safety standards, best practices, and more for your reference! February 16, 2017 – Safety in the Art Classroom/Studio March 9, 2017 – Safety in the Next Generation Science Standards (NGSS) March 23, 2017 – Science Lab Safety and Liability for Administrators .

The Marjot



Marjot foundation will fund grades 9-11 in environmental research. CT students are eligible. Go to www.marjotfoundation.org Students in grades 9-11 from New England and New York are eligible for \$5000 research awards. **Application deadline is April 1, 2017**



FISH SCHOOL: FREE EDUCATOR EVENT MARCH 1, 2017 4-7PM.

Calling all educators!! Attend our free educator event, Fish School, to learn about our amazing program offerings. The night will include behind-the-scenes tours, previews of our most popular programs, tours of our hybrid-electric research vessel, and an IMAX movie. Information on our latest grants, financial

assistance, help with planning a visit, and professional development opportunities will also be available. Where: The Maritime Aquarium When: March 1, 2017 4-7pm (Snow Date: March 8, 2017)

CLICK THE LINK TO REGISTER <http://maritimeaquarium.org/fun-learning/teachers-groups/education-offers>

NEW! DECONSTRUCTING PERFORMANCE EXPECTATIONS FOR AN NGSS

CLASSROOM (all grade levels) Upcoming NGSS Opportunities 2017 Open Access to JASON Programs for Public School Educators & Students in Connecticut Through 2018! Visit www.jason.org/ct to register today for any of the following:

Thursday, March 2, 2017 at LEARN 8:30am – 3:00pm

Tuesday, March 21, 2017 at Eastconn 9:00am – 3:30pm

Participants will explore the Next Generation Science Standards in more depth and participate in discussions and break-down of performance expectations to inform instructional design and implementation. 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 middle school 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.

Register at www.jason.org/ct using your school email address for free access to JASON's award-winning curriculum. JASON offers hands-on labs, digital simulations and games, articles, videos, interdisciplinary connections, and powerful classroom management tool for teachers. Explore earth science, forces & motion, energy, climate, recycling, ecology, environmental science, oceanography, weather, wetlands and more.

Contact Amy O'Neal at amy@jason.org or 860-885-4688 with questions.



Connecticut Science Teachers Association

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

CSTA has a new website coming! If you need to renew now, do so vthe new site. The direct link is <https://csta.wildapricot.org/Join-us> Renew on the web site or print form!

Do you know of a deserving scientist in your community?

CALL FOR CONNECTICUT MEDAL OF SCIENCE NOMINATIONS – DUE

DATE: March 11, 2017 – 4:00 p.m.

In 2017, the Connecticut Medal of Science, Connecticut's highest honor for scientific achievement in fields crucial to Connecticut's economic competitiveness and social-well-being, will be awarded. This Medal recognizes an individual who has made extraordinary contributions to the advancement of science in Connecticut. For this competition, science spans the physical and biological disciplines as well as mathematics, engineering and the social and behavioral sciences. Modeled after the National Medal of Science, the award is bestowed in alternate years with the Connecticut Medal of Technology. *Selection of the annual Medalist is overseen by the Connecticut Academy of Science and Engineering. Medal recipients will be permanently featured in a Hall of Fame at the Connecticut Science Center.* Use the [Online Form](#) for submitting nominations.



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>.

if you click on the individual units for each grade level on the website, you'll find lots of useful info, including objectives, sources, and sequences. All the lesson plan resources they suggest are free!



ARC Evaluators Wanted! The Alternative Route to Certification (ARC) Program is seeking Evaluators for our five-week Student Practicum. The ARC program has been helping adult learners with college degrees to enter the teaching profession in a non-traditional way

for thirty years. Students in our program attend weekend classes throughout the school year. From late February through March, students participate in a Student Practicum in schools throughout the state with the help of TEAM-trained cooperating teachers. We need retired teachers to visit schools four times during student placements to evaluate student growth, support the beginning teacher, and work with the cooperating teacher. A stipend of \$500.00 is paid upon completion of the practicum. Mileage is also paid based on the State of Connecticut mileage reimbursement system. For more information about the program, including application information and minimum qualifications, please visit <http://www.ctohe.org/ARC/>. Interested applicants should email a brief cover letter describing their interest and qualifications for the position, a current resume, and contact information (including daytime contact telephone numbers and email) for three (3) professional references to the ARC Office at: arc@ctohe.org.

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. The module 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 available 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 sciences. It was designed with *Next Generation Science Standards (NGSS)* in mind. *Materials are available at: <http://www.niehs.nih.gov/lessonsclimatechange>* Additional NIEHS developed environmental health and science training materials can be found at: <https://www.niehs.nih.gov/health/scied/teachers/> 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. The module 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 available 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 sciences. It was designed with *Next Generation Science Standards (NGSS)* in mind. *Materials are available at: <http://www.niehs.nih.gov/lessonsclimatechange>* . More materials can be found at: <https://www.niehs.nih.gov/health/scied/teachers/>

Ellington is seeking applications for a permanent science substitute teacher at Ellington High School.

Job Summary: Unique opportunity to serve as a permanent science substitute teacher in grades 7-12, co-teach with experienced teachers and work with STEM Curriculum supervisor to develop new units of study aligned to the NGSS. Guaranteed position as a permanent science substitute teacher until the end of the 2017 school year at substitute pay rate (\$85/day). More information can be found on the web site.

Application Procedure: Please apply online at www.ellingtonschools.net under District Information, Employment Opportunities and Current Employment Opportunities. Please also include a resume, copy of your certification, transcripts, three current letters of reference and a cover letter addressed to Mr. Neil Rinaldi, Principal, Ellington High School, 37 Maple Street, Ellington, CT 06029.

Selection Procedure: Applicants chosen by the selection committee for an initial interview will be contacted.



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

Full Time and Seasonal Positions Available

New England Science & Sailing (NESS) is looking for an operations coordinator, an assistant sailing director and science and adventure sports educators for the upcoming seasons. Applicants should have a strong knowledge base of being on the water in New England, experience working with kids, a contagious teaching energy and work ethic. You must be motivated, able to work within a team as well as on your own.

Various Positions Available:

- Operations Coordinator and Marine Systems Technician
- Marine Science and Adventure Sports Instructors (teaching ages 4 – 17)
- Assistant Sailing Director (coming soon)
- Westerly Ocean Adventures Program (teaching ages 6 – 9)
- NESS Eco Tours (adults & families) (coming soon)
- Camp Assistants
- Office Assistants (coming soon)
- Weekend and Evening Program Coordinator (coming soon)

To apply: Download the position description and application from <http://www.nessf.org/work-with-ness/employment-opportunities> and mail, fax or email your resume and cover letter to the appropriate Program Director listed on the position description.

About New England Science & Sailing: *New England Science & Sailing Foundation, Inc. (NESS), a nonprofit 501(c)(3), provides year-round ocean adventure education programs that engage students in experiential learning that builds confidence, teamwork, and leadership skills. Marine sciences, adventure sports, and sailing are catalysts for teaching life skills, academic discipline, and respect and responsibility for the sea. NESS currently operates out of three locations: Stonington and New London, Connecticut, and Westerly, Rhode Island. For more information, visit www.nessf.org.*

Heroic Women: Honoring Those Who Protect & Serve

We invite you to join us in 2017 as we celebrate three remarkable Connecticut women whose work and lives have exemplified the words "protect and serve." Strong, courageous women have changed history, and this year's Inductees are not only trailblazers in their chosen fields, but also have willingly risked their lives to defend our country and our communities. We are grateful for their service, and honored to celebrate their heroic achievements this year.

For the first time, we've developed a **free educator toolkit** to go along with our annual theme! This short guide includes brief bios of our three 2017 Inductees, some compelling questions to get discussion started, and some suggested activities (including our new-ish "[Connecticut Women & War](#)" school program that you can host for free)! **[Download your free toolkit today!](#)**

Official announcement of the new [Eileen Kraus Scholarship](#), a partnership between the Hall and Kaman Corporation that honors the legacy of **[2002 Inductee Eileen Kraus](#)**. For each of the next five years, this program will award a **\$5,000 scholarship** to one deserving young woman in Connecticut to launch her into her college experience. **[Click here for all the application details](#)**, and please share this announcement widely with students and colleagues. Application deadline for the first year is February 15, 2017.



ETHNICALLY-
DIVERSE
CONNECTICUT
TEACHERS!

Enhance your environmental education methods and knowledge.

We are awarding SIX 80% Scholarships for summer 2017

WHAT: Sharing Nature: An Educators' Week Workshop

WHERE: Hog Island Audubon Camp, Muscongus Bay, Maine

WHEN: JULY 16 - JULY 21, 2017

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:

[audubon workshop information](#)

Green Teacher

Upcoming webinars

Check out these webinars at the following site:

<http://greenteacher.com/webinars/> where you can also learn how to access *Green Teacher's* previous 65+ webinars.

Place-based Education

Presenter: Amy Demarest Wednesday, February 1st 2017 7:30-8:30pm EST

"The Power of Positive, Inspiring Solutions"

Mon., Feb. 20, 2017, 7:30 - 8:30 p.m. EST

Presenter: Guy Dauncey, [Register for free](#)

To Unplug or Plug In, Presenters: Justin Hougham and Steve Kerlin

Monday, March 27th 7:30-8:30pm EST

Time to Depave Paradise?, Presenter: Alix Taylor

Wednesday, April 12th 2017 7:30-8:30pm EST

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/>

CONNECTICUT STATE MUSEUM OF NATURAL HISTORY & CONNECTICUT ARCHAEOLOGY CENTER

<http://www.cac.uconn.edu/mnhcurrentcalendar.html>

WINTER ESCAPES AND SPRING ADVENTURES

Molecular Plant Remains at Archaeological Sites, A Sea Vegetable Saga, The Winter Milky Way, Bone Identification Workshop, Scientific Illustration – Insects, An Archaeologist's View of Life in Seventeenth-Century Maine, Plymouth Plantation Day Trip, Exploring Connecticut's Towns – Whitneyville, People & Oceans: From Robust Frontiers to Fragile Environments History, and Management of Timber Rattlesnakes are a few of the activities and talks being offered this season by the Museum and Archaeology Center. Don't miss out on exciting special events, workshops, field learning programs, and notable presentations.





Learn More About the NRCA's Conservation Ambassador Program:

<http://nrca.uconn.edu/>

NRCA's Conservation Jump-start Workshops

Beginning August 2017, faculty from UConn's Center for Land Use Education & Research and Departments of Natural Resources & the Environment and Education will be running multiple 2-day workshops for high school students and adult learners. Workshops will introduce participants to innovative, user-friendly geospatial technology that can be utilized to study and address local conservation issues.

NRCA's Teacher Training

Also, beginning July 2017, faculty from UConn's Center for Land Use Education & Research and Departments of Natural Resources & the Environment and Education will be running a 3-day professional development workshop for secondary school teachers. Participants will be immersed in relevant local and regional water resource issues and online mapping tools to study these issues further. Each participant will also design 5-7 classes on a Water and Sustainability Science unit based on Next Generation Science Standards during the workshop that can be tailored to their needs.

If you are interested in learning more about these programs, I would be happy to discuss them with you further over email (laura.cisneros@uconn.edu) or by phone (860-486-4917). I am also visiting schools to give brief presentations on our programs to the students and teachers.



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 or Kaitlin Baird at: kaitlin.Baird@bios.edu for more information.

Go here for the program flyer:

<http://www.bios.edu/education/educator-workshops-at-bios/>

Here is a great synopsis of what is happening that relates to the goals of a science education in Connecticut! Do not let the politicians tell you we are not doing well in our State with science and technology. Every science teacher should see the opportunities and achievements in our State. A link to an electronic edition of the CASE Bulletin is shown below:



**CONNECTICUT
ACADEMY OF
SCIENCE AND
ENGINEERING**

http://www.ctcase.org/bulletin/31_4/31_4.pdf Take a look!



- For Program Descriptions, Prices, and Re





Judges who care about fostering creative problem solving in our youth are needed! No experience necessary! [CLICK HERE TO REGISTER](#)

Once again we invite our friends to judge at multiple CIC Regional events and the 34th Annual 2017 Connecticut Invention Convention.

We need your help to encourage young students to consider careers in science, technology, math, and engineering endeavors. Could you invest a few hours at some of our events to support a child's interest in becoming a creative problem solver? *We currently have 250 schools with 12,000 student inventors! To accommodate the increase number of students involved in this fantastic program, we have created a series of Regional Events. Students will now participate in a judging circle at one of four Regional Events and then be selected to participate in the CIC Finals at Gampel Pavilion. The Regional events will have the same excitement and value as the Finals, but they will be smaller and closer to home.* We need your help

judging AND recruiting additional judges. No experience is needed since new judges will be teamed with experienced partners. The judging process, and your participation, is critical to the success of the Invention Convention. Children's lives are forever changed by having learned to think critically, creatively, and commercially to solve their very own real problems. Indeed, one of our participant's parents said: "You have no idea what the CIC has done for our child. It opened doors we didn't know existed. It changed her life and ours, too." If you are still undecided about helping this year, please see the testimonies in this video:

<http://www.youtube.com/watch?v=mGLeVO86WGc>

To register as a judge click here:

<http://www.cicregistration.org/judges/>

Note, if you have been told you are a CIC Finals Sponsor Judge, select your company name in the area under "Sponsor Award Judges". If you have not received notification that you are a Sponsor Judge, please do not select a company. Please consider registering for more than one event. As the event day approaches, a more definitive schedule will be sent to you along with a complete set of directions, FAQs, and a Judges overview. We will provide judge training the morning of the events.

IF YOU HAVE ALREADY REGISTERED as a judge, simply forward this email to others who want to foster creativity in our youth. We have included a Judge Recruitment Poster to help you. Simply click on the link, print, and display at your company! Your friends and colleagues will thank you!

[Judge Recruitment Poster](#)

NOTE: If your company tracks your volunteer hours via their internal tracking system, please do not forget to register your total volunteer hours associated with participation at these events.

Thank you for your help and support, Judging Coordinator
judgesinfo@ctinventionconvention.org CIC Hotline: (860) 793-5299

Please follow us on
TO GET THIS YEAR'S
DATES

Visit our website
www.ctinventionconvention.org

ANNOUNCING GENES IN SPACE 2017 – DESIGN AND LAUNCH YOUR DNA EXPERIMENT TO SPACE!

We invite students in grades 7 through 12 to design DNA experiments for space. Students will pioneer DNA research on the International Space Station to address real-life challenges of deep space exploration. Five finalist teams will receive mentoring from Harvard and MIT PhD scientists, present at the 2017 International Space Station R&D Conference, and receive miniPCR DNA Discovery System™ for their education institutions. Winners will also attend Space Biology Camp and send their DNA experiment to space! Submission deadline is April 21st 2017.

Genes in Space is a partnership between miniPCR, Boeing, Math for America, CASIS, and New England Biolabs. The contest is free, and does not require equipment. Proposals will be judged solely on their creative and scientific merit. miniPCR DNA Discovery System™ will also be awarded to the top 5 teams from grades 7 and 8 (Junior Scientist Awards) and to the school with the highest number of submissions from each of the 5 US regions (Constellation Awards). Teachers – Here's how you can turn contest submissions into a class assignment that's aligned with national standards.

Find us on the web at [GENES IN SPACE Web site](#)

Subject: [CTEnvL] Trail Construction & Maintenance Intern Positions Available for Summer, 2017

Do you know an 18-24 year-old who would benefit from a great outdoor experience this coming summer working on a Trails Crew to maintain Blue-Blazed Hiking Trails in Connecticut? If so, please let them know about this internship opportunity (training and a stipend are included):
<http://www.ctwoodlands.org/about-us/job-opportunities>

**Science & Engineering Colloquium
for Teachers**

MIT Club of Hartford, March 18, 2017

(PLEASE NOTE CORRECTED DATE!),

MIT Professor Eric Klopfer

**Director of the Scheller Teacher
Education Program and the Education
Arcade “Applying Science to Your
Students’ Lives”**

The MIT Club of Hartford will be hosting this colloquium at the Pratt and Whitney Training Center in East Hartford. This colloquium is open to science, mathematics and technology teachers from Southern New England and is free of charge. Each teacher is encouraged to bring motivated, interested students. Space is limited to an audience of 60 teachers and students, so register today. In addition, all attendees must have registered prior to the event.

Program:

- 10:00 AM – Welcome by Avi Ornstein, MIT Club of Hartford.
- 10:15 AM – Professor Klopfer will speak on "Games and Simulations in STEM Teaching and Education".
- 11:00 AM – Professor Klopfer will participate in a group discussion, answering questions from the audience.
- 11:30 AM – Everyone will participate in a group discussion of what is going on in STEM education.
- 12:30 PM – Professor Klopfer will have an informal discussion with students over pizza regarding these issues that will affect their future.
- 12:30 PM – Teachers will also be able to have pizza and will be able to visit the Next Generation Technology Center and to participate in an entertaining tour of the Pratt aircraft engines led by a retired B52 pilot.
- 12:45 PM – Students will be able to participate in an entertaining tour of the Pratt aircraft engines led by a retired B52 pilot.

The MIT Club of Hartford is counting on YOUR participation. Please set aside this date. Please contact Avi Ornstein (ornstein@alum.mit.edu) if you are interested in attending or if you desire more information.



MoDRN (Molecular Design Research Network)

from Yale, **developed a number of materials for HS teachers.** These hands-on classroom exercises can be used by educators to introduce the topic of **safer chemical**

design through inquiry based learning. The topics can be easily integrated into any existing science curriculum or can be allied health – based curriculum. We also matched the modules so they are aligned with Next Generation Science Standards. (see the attachments)

In addition to these exercises, we developed a database with the science fair ideas which teach the concepts of green chemistry and sustainability.

All materials are free of charge and can be accessed through our website, but I wanted to send some sample pdfs for the ease of distribution.

Attached you will find six modules, which can be also accessed online.

Our website address is <http://modrn.yale.edu/education> and under high school curriculum you will find the above mentioned materials. I do hope that your network will find them useful, and if possible, please forward to the annual conference participants. And while none of my colleagues is available this weekend, we hope to start building relationship with HS teacher network.

Finally, our collaborators from University of Washington will be sending a follow-up e-mail to NSTA participants who were part of our workshop in early November.

CLIMATE COST PROJECT'S 016/2017 WITNESSING CHANGE VIDEO COMPETITION.

The competition gives advanced high school and college students an opportunity to document local impacts of climate change, educating themselves, their communities, and the public. In addition to the video contest, the Climate Cost Project provides interdisciplinary educational materials on the economics of climate change, including a specialized climate change economics game and 101 environmental economics chapter. You can find out more about the competition, and our work and mission, in the short video further below, and on our [website](#). We hope to see some of your student's submissions in the spring, and of course please get in touch with us if you have any additional questions.

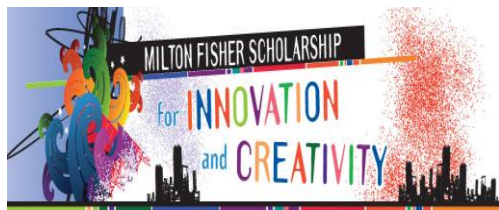
https://www.youtube.com/edit?o=U&video_id=YWaB3wbNuCQ



Earn graduate credit this spring 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 March 20. Save \$50 when you use code SCIENCEMATTERS. Plus, register by February 20 to save another \$50 for a total \$100 savings! Courses in the life, Earth, and physical sciences include *The Brain; Climate Change; Earth: Inside & Out; Evolution; Genetics, Genomics, Genethics; The Ocean System; The Solar System; Water* and more. For more information about the program, check out *Seminars on Science* at amnh.org/learn. If you have any questions, send us an email at learn@amnh.org or call (800) 649-6715.



The Milton Fisher Scholarship wants to support students who excel as creative problem-solvers and to help make their higher education goals more accessible. We encourage you to read the short description about the scholarship below. Please forward this information along to any promising student applicants that you may know and/or to relevant staff members.

To access the online application, see answers to frequently asked questions and read about previous winners, visit our

website: www.rbffoundation.org

Applications due: April 30, 2017 We offer up to \$20,000 (up to \$5000 per year for four years) the scholarship is open to exceptionally Innovative and Creative High School Juniors, Seniors and College Freshmen who are:

- Graduating from a high school in Connecticut/New York City Metropolitan area (and

plan to attend or are attending college anywhere in the U.S.)

OR

- Graduating from a high school anywhere in the U.S. and plan to attend (or are attending) college in CT or NYC

Apply for this scholarship if you are . . .

- a student who has solved an artistic, scientific, or technical problem in a new or unusual way,
- a student who has come up with a distinctive solution to problems faced by your school, community or family,
- a student who has created a new group, organization, or institution that serves an important need.

The Milton Fisher Scholarship for Innovation and Creativity is administered by the Community Foundation for Greater New Haven.



Population Education's *World of 7 Billion* student video contest is back for the 2016-2017 school year. Would you consider helping us spread the word to Connecticut

environmental educators? The contest is open to all high school and middle school students and the deadline for submissions is February 23th, 2017. We're hoping that by giving teachers enough lead time, they'll be able to incorporate the contest into their syllabi. Participating teachers can receive free curriculum resources and the student winners receive cash prizes.

This year's challenge:

Students will create a short video (up to 60 seconds) about human population growth that highlights one of the following global challenges:

- Climate Change
- Ocean Health
- Rapid Urbanization

***All videos must include a) how population growth impacts the issue, and b) at least one idea for a sustainable solution. We are happy to send copies of our [contest flyer](#) for you to share**

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

MIDDLE SCHOOL TEACHERS with two to 10 years of experience can participate in this week-long professional development opportunity at the National WWII

Museum in New Orleans. During July 23–28, participants will experience firsthand how necessity, perseverance, and skills can lead to innovations and careers in science, technology, engineering, and math (STEM)—just as it did during World War II.

Fifth- through eighth-grade teachers at public, charter, private, and parochial schools may attend. Participants receive free room and board, a travel stipend, and all seminar materials needed to complete the program. Apply by February 24 at <http://goo.gl/id8OQ6>.

**STATE OF CONNECTICUT
STATE BOARD OF EDUCATION**

TO: Superintendents of Schools
FROM: Dr. Dianna R. Wentzell, Commissioner of Education
DATE: December 13, 2016
SUBJECT: Science Assessments Transition Timeline

The Connecticut State Board of Education adopted the Next Generation Science Standards (NGSS) in November 2015. The NGSS places more emphasis on critical thinking than on rote memorization. In an NGSS classroom, students investigate natural phenomena and real-world problems in much the same way that scientists and engineers do.

The Connecticut State Department of Education (CSDE) is aware that its current science assessments (CMT/CAPT) do not align well to the NGSS performance expectations. The CSDE is working closely with Connecticut educators, science education partners, and test development experts to develop a new assessment that is aligned to the NGSS. This assessment is expected to be ready for administration in the 2018-19 school year (i.e., for the spring 2019 administration).

One persistent question from Connecticut educators is whether the high school science assessment will remain in Grade 10 or be administered, as with the English Language Arts and Mathematics assessments, in Grade 11. The unanimous feedback from science educators has been to move the high school science assessment to Grade 11. They assert that an assessment that is administered in Grade 11 will align better with the discipline-specific structure of science courses in high school; it will ensure that high school students have been taught the breadth and depth of science content and engineering practices, prior to the assessment. The CSDE concurs.

Therefore, effective 2018-19, the CSDE plans to administer the high school science assessment in Grade 11. The CSDE recognizes that though this change is educationally appropriate, it adds one more assessment to the 11th grade year. Therefore, the CSDE will consider a broader test window for the science assessment so that students have the flexibility to complete it prior to the SAT, AP, etc.

To eliminate double-testing during the transition period, the CSDE plans to not administer the CAPT high school science assessment in 2017-18; Grade 10 students who would otherwise have taken CAPT in 2017-18 can plan to take the NGSS aligned assessment in Grade 11 in 2018-19. Note that Grade 10 students will take the CAPT Science assessment as scheduled in 2016-17 (i.e., spring 2017).

Students in Grades 5 and 8 will continue to take the CMT Science assessments in both 2016-17 and 2017-18. Students in those grades will also transition to Connecticut's NGSS-aligned assessments in 2018-19.

In order for us to have an operational assessment in 2018-19, we will need your assistance over the next two years with various aspects of the test development process including item reviews, item pilots, field testing and standard setting. I trust that we can count on your enthusiastic collaboration in this important endeavor. Please contact [Abe Krisst](#) at 860-713-6894 with any questions.

Thank you.

cc: Ajit Gopalakrishnan, Chief Performance Officer

NGSS Curriculum Unit Development Institute

Five Day Institute

February 9, 13, 14, 22, 23, 2017

8:30 am - 2:30 pm

at LEARN

Cost \$475 per person

(includes materials and light breakfast)

Register

www.learn.k12.ct.us/NGSS

Space is limited

Questions?

Contact Dr. Terry Contant tcontant@learn.k12.ct.us

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44 Hacketts Hill Road
Old Lyme, CT 06371
860-434-4800
www.learn.k12.ct.us

The State of Connecticut

Department of Education collaborated

with the Connecticut Science Center and Regional Educational Service Centers to offer the *Next Generation Science Standards*

(NGSS) Curriculum Unit Development Institute (CUDI).

During the Institute, participants will:

dd: Experience the NGSS conceptual shifts as they investigate the architecture of the standards;

ee: Engage in the curricular design process following a research-based protocol;

ff: Generate a NGSS-aligned sample unit that is anchored in a phenomenon and is peer reviewed; and

gg: Develop learning sequences that are three dimensional and coherent.

Audience

The intended audience for CUDI includes members of district or school science curriculum development teams, such

as teachers, coaches, coordinators, and administrators. Teams of educators from a district are encouraged to attend.

Pre-Requisites

At least three days of pedagogy-rich professional development specifically about NGSS and/or A Framework for K-12 Science Education, such as:

- NGSX
- Teacher Quality Partnership PD with a NGSS focus
- At least the first four modules of the Next-Gen Science CT online course in a PLC
- An equivalent experience (contact presenter to confirm pre-requisites met)



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.