

## CONNECTICUT SCIENCE CONNECTION

April 2018

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

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

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



Click on the link to learn more about JPSS! <https://scijinks.gov/subscribe/>

**Green Teacher** Green Teacher has recently launched a YouTube Channel. In time, we hope this will grow into a valuable resource for educators.  
<https://greenteacher.com/check-out-these-videos/>



**Join the CSSA**

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**Connecticut Science Teachers Association**

**Sponsored Events**

more information and registration links at <https://www.csta-us.org/events>

The CT STEM Foundation (the organization that runs the annual CT STEM Fair in Fairfield and New Haven Counties) is looking to promote a Summer Scholarship Program for a Middle School (grade 6, 7, or 8) student who requests funding for a summer program to which they are already applying. Additional details and forms are available at the CT STEM Foundation website:

<http://ctstemfoundation.org/students/scholarship/>

Inspiring & Educating Students



Many thanks to Ron Michaels at the Connecticut State Department of Education for this excellent summary of upcoming science professional development activities :

1. Professional Learning Opportunities with our implementation partner the CT Science Center including two new workshops. One designed specifically for Administrators, and the second to develop NGSS Implementation plans for School district decision makers.
2. Science Lab and safety PD opportunities
3. JASON Learning opportunities
4. Connecticut Invention Convention (CIC) Educational opportunities

### 1. Professional Learning with our implementation partner CT Science Center

PLANS - Principals Learn About, Network, and Support 3-Dimensional Science Learning <https://ctsciencecenter.org/education/mandell/ngsx-info/>

- Awareness PD designed for Administrators/Evaluators
- Expert facilitated in 1 1/2 days. More opportunities planned for 4/17-18, 5/1-2, 5/30-31, 7/18-19, 8/21-22, 9/12-13.

NGSS District Transition Planning Workshop

- Start or enhance your district's multi-year science plan
- For vertical teams (example: 1 asst. supt., 2 principals, 1 science coordinator, 2 science coaches)
- Grant funding available
- 1 day workshop scheduled for 4/9, 4/23, 5/4

NGSX Part II Taking it Back to the Classroom

<https://ctsciencecenter.org/education/mandell/ngsx-info/>

- Hands-on, Expert-facilitated, Focus on support of 3D learning sequences with class materials
- Possible grant funding available. 24 hours of seminar-style learning (pre-req. Part I)

- Check link for several opportunities during the remainder of 2018

The link is as follows:

<https://ctsciencecenter.org/education/mandell/ngsx-info/>

### Connecticut Invention Convention (CIC) Educational opportunities

The Connecticut Invention Convention (CIC) is an award-winning, internationally recognized, nonprofit educational program designed to develop and enhance problem solving and critical thinking skills in children through the process of invention.

Why has CIC become one of the fastest growing STEM programs in our state? The program is project-based, NGSS and Common Core aligned. The Connecticut Invention Convention gives STEM skills a real world application.

Project-Based Learning: Not just for after-school applications..!

By asking students to solve a problem of their own choosing, they immediately connect with the invention design process. They learn collaboration, presentation skills and project management while working through the steps of invention to solve their problem.

Not your typical STEM Program:  
Invention is Interdisciplinary

Through engineering design practices, students are able to make personal connections to the relevance of science, technology, engineering and math to the world beyond the classroom. Children who enjoy other disciplines also connect to the program, as they can add their passions for art, music, history, language arts, etc. Invention is an interdisciplinary process!

The Connecticut Invention Convention naturally accommodates different student needs and learning styles as they guide their invention

process. Moreover, the student-generated problem/solution process leads to high levels of determination and motivation. Invention leads students to own their work.

Young inventors need your help at our CIC events!

Once again we invite our CIC partners to come out and volunteer at CIC Regional events and the 35th Annual 2018 Connecticut Invention Convention.

In order to make this a successful year for our young inventors, we need volunteers and judges!

Our volunteers save the day! They help our small staff check in inventors, guide inventors to their judging circles, and assist judges and inventors while the judging process is occurring. As parents are not allowed on our judging floor, we only allow certified teachers to assist our young inventors to the restrooms. We need teachers like you to help us make sure our inventors are comfortable during the long judging circle time.

We also need judges, who speak with our students, offer feedback, score their inventions, and recommend inventors to advance to other events. No experience necessary, since everyone receives training on the day of the events. With so many inventors in attendance, we can match you up with a judging circle of students you do not know.

We are asking for your help to make sure our events run seamlessly for our inventors! Could you invest a few hours at some of our events to support a child's interest in inventing? Could you help us spread the word and ask your colleagues and friends to volunteer with us?

### Our Events Schedule

Date	Time	Event	Location
April 28, 2018	8:00 - 3:00 PM	CIC Final	Gampel Pavilion UCONN, Storrs

You can register for individual Regionals or spend the entire day with our young inventors! When you register, you will indicate what events you are available to judge. Please consider registering for more than one event.

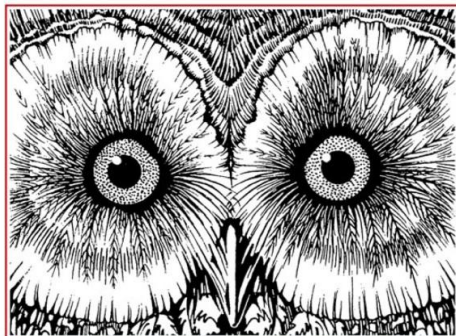
For more information contact: Christine Lawlor-King, Director of Education, CIC  
As the event day approaches, a more definitive schedule will be sent to you.

IF YOU HAVE ALREADY REGISTERED as a judge, simply forward this email to others who also may want to foster creativity in our youth. *Thank you for your support,*

PO Box 230311 Hartford, CT 06123 Phone: 860-878-1662

Email: [christine@ctinventionconvention.org](mailto:christine@ctinventionconvention.org) [www.ctinventionconvention.org](http://www.ctinventionconvention.org)

### Connecticut State MUSEUM OF NATURAL HISTORY



UNIVERSITY OF CONNECTICUT

For a full listing of programs and registration information visit [www.cac.uconn.edu/mnhcurrentcalendar](http://www.cac.uconn.edu/mnhcurrentcalendar)

### Spring Seedlings Workshop

Julia Cartabiano and the students of Spring Valley Student Farm, UConn

Saturday April 7, 10:00 to 11:30 am – Storrs, CT  
Space is limited and advance registration is required – Free

Adults and children ages 8 and above.

Children must be accompanied by an adult.

To register email [david.colberg@uconn.edu](mailto:david.colberg@uconn.edu) or call 860.486.5690



Hello teachers of physics,

Skills21 at EdAdvance has a unique opportunity for

you to be part of physics curriculum development with a computer science and computational thinking component. Skills21 has a three year STEM+CS grant from the National Science Foundation. As part of this grant we are developing units in traditional science courses that embed computer science and computational thinking practices into unit activities and the end unit performance assessment. We are looking for a cohort of teachers that are interested in piloting our units as they are developed and then providing feedback and insight into what worked and what didn't. All units are NGSS aligned and each unit addresses different combinations of science practices, disciplinary core ideas and cross-cutting concepts. The units also address different computer science concepts and practices. We are offering a \$100 Amazon gift card to each teacher who participates in piloting the units and provides feedback. If you are interested in participating in this opportunity, please [complete this form](#). The first pilot unit can be found at [this link](#).

Thanks, Liz Radday

UConn Environmental Metanoia Film Series

This film series, presented as part of UConn's Metanoia on the Environment, consists of six recent documentaries about pressing environmental issues. The selections showcase a variety of voices and in addition to explaining problems, offers solutions that can and are being pursued around the world.

*Screenings are Free and Open to the Public.*

- All films will be shown in the [Student Union Theater](#), 2110 Hillside Road, Storrs, CT, 06268.
- Doors will open 30 minutes prior to the start of the film.

### ***10 Billion: What's On Your Plate***

Sunday, April 8, 1:00 PM

By 2050, the world population will grow to ten billion people. In the midst of the heated debate about food security comes this broad and analytic look into the enormous spectrum of global food production and distribution - from artificial meat, insects, industrial farming to trendy self-cultivation. [View trailer](#).

### ***An Inconvenient Sequel***

Tuesday, April 10, 6:00 PM

A decade after An Inconvenient Truth (2006) brought climate change to the heart of popular culture, the follow-up shows just how close we are to a real energy revolution. [View trailer](#), 100 minutes.

***Watermark*** Thursday, April 12, 5:00 PM

This documentary brings together diverse stories from around the globe and explores our relationship with water and how it shapes humanity. [View trailer](#), 92 minutes.

### ***What is Metanoia?***

The University of Connecticut has had a long history of convening Metanoia around important issues facing society that would benefit from deep reflection and discussion. A Metanoia focused on the environment will take place over the 2018 Spring Semester. Many of the grave problems facing society in the 21st Century are environmental in nature, including issues of sustainability, water availability, food security, deforestation, and the loss of biodiversity. Because these problems are global, assuredly they will befall many nations and peoples that can least afford them.

To learn more and to explore all the events being offered visit:

<https://theenvironment.uconn.edu/>

## 2018 CSTA/CSSA Awards Banquet May 2nd!

For a complete description, and to Register, Please click on the link below:

# Register now!

[Click here](#) to register online

Did you know that the 2018 [March for Science](#) (MFS) is just around the corner? NSTA is a partner of MFS, and we're standing up for science and science education on April 14, and we want you to be a part of it.

This year there have been more threats to science at all levels of government as elected and appointed government officials have continued to put science-based policy on the chopping block time and time again.

Join NSTA as we partner with MFS in advocating for equitable, evidence-based policies that serve all communities. [RSVP today to your local March for Science](#).





## CONNECTICUT TEACHERS OF COLOR!

### ENHANCE YOUR ENVIRONMENTAL

### LITERACY. Apply for a 90%

Scholarship. The National Audubon Society welcomes Teachers and Youth Leaders to apply for this scholarship opportunity.

WHAT: Sharing Nature: An Educators' Week Workshop

WHERE: Hog Island Audubon Camp, Muscongus Bay, Maine

WHEN: JULY 15 - JULY 20, 2018

SCHOLARSHIP: \$1000 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 using techniques in field biology, art, music, photography, theater, journaling, and other disciplines.

Interactive EDI panel led by Deeohn Ferris, Vice President for Equity, Diversity, and Inclusion at 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](mailto:psalmansohn@audubon.org). Awards are given on a rolling basis, so early application is strongly suggested. For details, photos, videos about the camp visit: [hogisland.audubon.org](http://hogisland.audubon.org).

## Affordable NGSS Professional Development Workshops

**CSTA is proud to partner with Peter McLaren to provide aNGSS professional development.** McLaren was a member of the national writing committee for the Next Generation Science Standards (NGSS). He has also served on a number of committees including the National Academy of Engineering's Guiding Implementation of K-12 Engineering Education committee, and the National Academy of Science's Committee for Developing Assessments for the Next Generation Science Standards (NRC, 2014) and was a contributor to the NRC publication *Seeing Students Learn Science* (NRC, 2017) (Full bio below) **Space is limited to 100 participants. Don't miss this opportunity to be trained by a writer of NGSS. Register at <https://www.csta-us.org/events>** **Workshop 4: THREE-DIMENSIONAL LESSONS: ADAPTING A TRADITIONAL LESSON TO SUPPORT THREE-DIMENSIONAL TEACHING AND LEARNING** **Presenter: Peter McLaren - Next Gen Education, LLC** This full-day workshop will bring educators through a process where they will adapt a traditional lesson to support three-dimensional instruction. Educators will bring along a lesson to which they are familiar and learn how to integrate science and engineering practices, disciplinary core ideas, and crosscutting concepts. Educators will use tools and templates designed to help facilitate the adaptation process. **Date: Saturday, May 5 from 9:00AM-3:00PM** **Cost: \$10 (Light lunch will be provided)** **Location: CREC Academy of Science and Innovation, 600 Slater Road, New Britain, CT** <https://www.csta-us.org/events>

**And even more?**

**It's CSTA Grant time again....**

<https://www.csta-us.org/grants>



The Montana Learning Center at Canyon Ferry Lake is hiring certified teachers to work as camp instructors and camp counselors during their '2018 Summer

Learning Camps for Kids.' <https://goo.gl/forms/DluUOEEdFBa4QB3ne2>

We offer competitive pay, room and board at the MLC during camps, a beautiful place to work, and a great staff of highly-qualified educators to work with.

Please direct any questions to [MontanaLearningCenter@gmail.com](mailto:MontanaLearningCenter@gmail.com). Apply today!

**NSTA has created a new engineering list.** This is in addition to the STEM list currently in existence. Here is the vision: This engineering list can be used for a variety of questions, from elementary teachers looking for and sharing ideas to secondary engineering lab teachers asking about supplies, to science content teachers looking to integrate engineering into their lessons. For example, teachers could post an engineering design challenge they were considering or have tried and get feedback on how to improve it. Here are some points: With engineering explicitly included as a fourth discipline in NGSS, and it will be valuable to have a list to which posts can be made focusing on that discipline.

1. STEM is (in my mind) more interdisciplinary in nature. Engineering focuses specifically on the E in STEM
2. The iterative nature of engineering through the engineering design process (EDP) can be one major focus (as it is in the NGSS DCI's for engineering)
3. Engineers and engineering teachers could provide feedback to elementary teachers including content knowledge to support their EDP challenges

4. Such a list can boost quality engineering activities K-12 through the interactions for which the lists are famous!
5. The list can be actively watched by folks interested in providing support PreK-12 in this field. (And the the lists are famous for having folks actively watch and support the discourse online!) **HOW DO I SIGN UP?** Make sure you are logged in on the NSTA site. Then go to: Membership tab --> Member Services --> members only Email list server Scroll to "Subscribing to/unsubscribing from e-mail lists" and follow directions from there.

Or go straight to this link:

[http://www.nsta.org/membership/istserver\\_update.aspx](http://www.nsta.org/membership/istserver_update.aspx) A quality education in science is fast disappearing as more and more science teachers leave the profession due to inadequate administrative support, isolated working conditions, and lower salaries.

Started by a generous contribution from NSTA's past President, Dr. John Penick, The Next Generation Science Teachers Fund provides support by funding pre-service and new teacher memberships in NSTA and complimentary registrations to NSTA's annual conference on science education. Scholarship awardees get:

- The opportunity to network and speak directly with over 50,000 other science teachers across the country!
- 24/7 immediate access to NSTA's library of printed and electronic materials they can use every day to bring their students the kind of education they need and deserve!
- Attendance to NSTA's national conference that will give them access to years' worth of new teaching ideas and inspiration in one week!

If you're a preservice science teacher or in your first five years of teaching, we encourage you to apply. Our first cohort will be named at the end of January, 2018.

[APPLY](#)

## UConn Environmental Programs for Teens, Adults, & Teachers:

UConn's NRCA enables **intergenerational learners** (teens, adults & teachers) to generate real conservation benefits to Connecticut communities by providing the tools and support to carry out **conservation-based service-learning projects** or **curriculum**.

Read on to learn more about our exciting **2018 programming!**

CAP arms teens (**rising 10th-12th graders**) with skills used by professionals to address **current environmental issues**. Students are immersed in real field-based science and focusing on:

**WATER QUALITY**  
**GREEN INFRASTRUCTURE**  
**GIS TECHNOLOGY**  
**FISHERIES**  
**WILDLIFE**  
**FORESTRY**  
**SOILS**

during an exciting **weeklong summer field experience** at UConn. Then, students design their **own conservation project** to provide real solutions for their communities, and present their work at the **Connecticut Conference on Natural Resources**.



Applications coming soon!

[Learn more about CAP](#)

## Conservation Training Partnerships (CTP)

CTP partners teens (**rising 9th-12th graders**) and **adult conservation volunteers**, and supports the team in carrying out a conservation-based community project.

The team participates in an **interactive 2-day field workshop** ([find a workshop near you!](#)), and applies conservation and innovative **mapping and web tools** in field activities. The team then designs and carries out a **conservation project** of any intensity and implements it in their town.

Workshops located **throughout Connecticut** and are **free** to all participants.

Applications coming soon!

[Learn more about CTP](#)

## Teacher Professional



TPL extends the NRCA experience to secondary science teachers. This 3-



***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.***