

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

CSDE's [science curriculum web site](#).

### **EQuIP Rubric for Science Released!**

The [Educators Evaluating the Quality of Instructional Products \(EQuIP\) 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/>

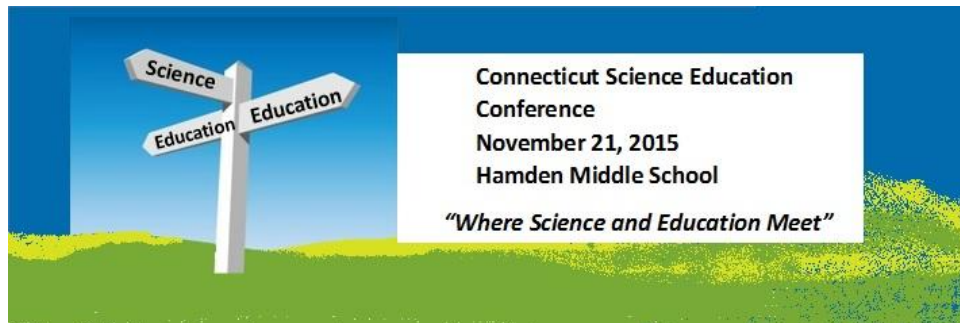
### **SAVE THE DATE! CONNECTICUT SCIENCE SUPERVISORS ASSOCIATION:**

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, click on:

<http://www.cssaonline.org/dinner-meetings.html>

Get the latest on the Connecticut Science Center at:

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



It is time to register! < <http://www.csta-us.org/event.htm?id=2azessfl> > for the Connecticut Science Education Conference. Save the date — November 21, and get your registration in for the best science in the state.

Our headline this year is Next Generation Science, and with the State's adoption decision approaching, the CT Science Education Conference is the place to learn more, explore, and bring new science teaching and learning ideas back to your classroom.

Our Keynote Speaker this year is Dr. Mary Gromko, President-elect of NSTA and former CT science teacher. We've designed an exciting NGSS strand featuring national experts, including:

There are workshops for all grade levels. And don't forget the exhibitor's hall, great giveaways, fabulous networking, and more! You won't want to miss this!!



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

### **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](mailto:nbalisciano@ccat.us)



Don't miss the LAST session! LAST PD SESSION THIS YEAR  
Saturday, November 7 **CLICK HERE to register**

<http://www.eventbrite.com/e/esentials-for-cic-program-success-tickets-17787035502?ref=ebtn>

Great for teachers with some CIC experience who want to improve that they've been doing or are ready to try something different. Also wonderful for new CIC teachers who need to know what the CIC is all about and how they can create a very successful program in their school.

Do NOT miss this last opportunity

to get what you need to help your students!

Last year was great, but this year will be even better!

About Us: Connecticut Invention Convention P. O. Box 230311

Hartford, Connecticut 06123-0311

[www.ctinventionconvention.org](http://www.ctinventionconvention.org)

(860) 793-5299. Any questions or comments: [info@ctinventionconvention.org](mailto:info@ctinventionconvention.org)

### Best Practices in Sustainability Education

#### Collective Impact: Green School Change

Are you struggling with how to assess "green" progress at your school?  
Are you looking for ideas and resources to do the projects you and your students are dreaming of?

Join us for all of this and more.....

A conference for classroom teachers, school leaders, facilities managers, school health & nutrition professionals, and other people who care about growing green schools in Connecticut.

**November 3, 2015**, 9am-3pm

Eastern Connecticut State University, Willimantic, CT

Dean Kamen: Inventor & Entrepreneur

Innovation: Past, Present and Future

- When: Saturday, November 7, 2015
- Where: University of Connecticut, Storrs, Laurel Hall 102

Time: Registration starts at 12:30 pm

- Keynote Lecture 1:30 pm – 2:45 pm | FREE

Reception 2:45 pm – 3:15 pm | FREE

[click here for For directions to UConn](#)

[click here to R.S.V.P. to Attend](#)

- Transportation from UConn Health Center (Farmington, CT)/please register to access this information

- For more information, click on the link <http://cicats.uconn.edu/dean-kamen/>



PennState **csats**

Center for Science and the Schools

The Penn State 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](mailto:ajs398@psu.edu)

## AWARD FOR SCIENCE TEACHERS!

Do you know a great teacher of science in Connecticut?

Someone who really reaches, encourages, and inspires their students? A colleague or even yourself? Apply for the CSTA Excellence in Science Teaching Award. The Connecticut Science Teachers' Association gives three 'Excellence In Science Teaching' awards each year: Elementary, Middle School, and Secondary. These awards recognize and honor teachers who epitomize the highest ideals of the teaching profession by: Being effective and innovative classroom teachers of science Serving as role models for colleagues and providing outreach to colleagues through workshops, publications, school-wide projects, or special events.

Demonstrating a genuine commitment to personal and professional growth (life-long learning) by attendance and active participation at conferences, workshops, graduate courses, and in-service sessions. **Reaching out** beyond their classrooms and using their knowledge and talents in community service programs and projects. **Teaching Experience:** At least five years of successful science teaching. **Nomination:** By one or more current members of CSTA or CSSA, or by self-nomination.

**Approval:** By a 90% vote of Award Committee members (preferably, and usually by unanimous acclamation). Award: A commemorative plaque, a \$500 monetary award, and dinner for the awardee and a guest of his/her choice at the annual award banquet. For additional information please contact Dr. Ralph Yulo Jr Phone: 860-974-0599 or by email: [oluy@aol.com](mailto:oluy@aol.com) **Deadline for nominations is November 16.** Click on:

<http://www.csta-us.org/images/AwardApplic1.15.pdf> to receive an application form.

The poster features a blue and green background with a central image of a rocky coastline. Text includes: 'Scaling Up Estuary Goals: From the Local to the Global', 'Ecosystem Services as a Link Between Conservation Aspirations and Action', 'November 19th 7:30 pm', 'Chu Room, Shain Library', 'Presented by Goodwin-Niering Center for the Environment', 'Jean Thomas Lambert '45 Environmental Lecture Series', and 'CONNECTICUT COLLEGE'. A photo of Boze Hancock, PhD, is shown with his title: 'Boze Hancock, PhD. Restoration Scientist The Nature Conservancy Global Marine Team'. A circular badge says 'Free & Open to the Public!'.



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/](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](mailto:donna.ellis@uconn.edu) and make arrangements to pick up the curriculum kits at the UConn Depot campus.

### ENVIRONMENTAL GRANT PROGRAM – APPLICATIONS NOW BEING ACCEPTED!

The Connecticut Chapter of the Society of Women Environmental Professionals (SWEP-CT) is now accepting applications for our 2014-2015 Environmental Grant Program. This grant program provides non-profit community based groups and educational organizations with up to \$2000 in funding for local projects that benefit the environment in Connecticut. Note that the grant application deadline is November 15th, 2015. For examples of groups and projects that have received funding in the past, please visit our website [www.swep-ct.org](http://www.swep-ct.org). You can also download application forms on our website.

We encourage you to forward notice of the program and application process to groups and schools in your community. The SWEP Executive Committee will review each application and select Grantees in December. Awards will be made in January 2015.

If you have any questions about SWEP-CT's Environmental Grant Program and application process, please contact Melody Christopher at [melody.b.christopher@us.abb.com](mailto:melody.b.christopher@us.abb.com) or 860-687-4907.

The application process is quick – a one page form and a W-9 if selected.



[www.CLEANet.org](http://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. There may also be some resources on the k12 portal of the SERC website: <http://serc.carleton.edu/k12/index.html>

**PROGRAMS FOR STUDENTS:**  
**CALLING FOR COMPETITORS FOR THE 2015 PRINCETON UNIVERSITY PHYSICS COMPETITION (PUPC), A TWO HOUR EXAM FOR HIGH SCHOOL STUDENTS TO DISPLAY THEIR PROBLEM SOLVING SKILLS IN NON-STANDARD PHYSICS PROBLEMS IN KINEMATICS AND DYNAMICS.**

This year's Onsite Test at Princeton will occur on **Saturday, November 21st**. If you are eligible to compete this year (you are a high school student), we strongly encourage you to register soon at:

<http://physics.princeton.edu/pupc/2015/registration.htm> We are able to offer and host the Onsite Test entirely **free of charge**, thanks to new sponsors and official support from both the Department of Physics and the Department of Astrophysical Sciences at Princeton. We have a maximum capacity of 300 people this year. This year there will be a Keynote Speech to be given directly to all contestants by Princeton's own faculty member, Prof. Zahid Hasan, an expert in topological insulators, Weyl semimetals, and other topological phases of quantum matter. This talk will occur while contestants' works are graded and judged by the Judging Committee.



**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 our public website, [www.RiverXchange.com](http://www.RiverXchange.com), for more information and to access the registration form. I'd love to hear from you if you have any questions about the program.

Susan Quincy

Environmental Education Specialist

Coordinator Project Food, Land & People and Project WET

State Parks Public Outreach

Natural Resource and Recreation

Connecticut Department of Energy and Environmental Protection

Kellogg Environmental Center, 500 Hawthorne Ave, Derby CT 06418

P: 203-734-2513 [susan.quincy@ct.gov](mailto:susan.quincy@ct.gov)

## **2016 Connecticut Radon Poster Contest Information and Contest Rules**

Send posters to:

The Connecticut Department of Public Health - Radon Program

410 Capitol Avenue, MS# 51-RAD, P.O. Box 340308 -Hartford, CT 06134

What is Radon?

Radon is a colorless, odorless, tasteless, and chemically inert radioactive gas. It is formed by the natural radioactive decay of uranium in rock, soil, and water. It can be found in all 50 states. Inhaling radon gas can be dangerous to you and your family. Testing your home is the only way to know if it is present.

The Goal:

Participation in our poster contest is a great platform for students and their families to learn more about radon and the health risk posed by exposure to elevated levels of radon gas.

The posters help increase awareness of radon, which the U.S. Surgeon General has warned is the second leading cause of lung cancer after cigarette smoking and the number one cause of lung cancer in nonsmokers. The EPA estimates that radon causes about 22,000 deaths from lung cancer annually in the United States.

**Eligibility Requirements.** The contest is open to all students ages 9-14. They can be enrolled in any school- public, private, tribal, etc. or through any sponsoring club, such as a scouting organization or 4-H club. Artwork must meet the following requirements:

- Use white paper. Size preferred is 12X18, but all sizes will be accepted.
- No student names on front
- Include a title and topic on the front.
- Fill out the Artwork Submission Form & tape on the back of the poster.
- Create with markers, crayons, paint, collage, pencil, photographs, or computer graphics.
- Do not use copyrighted characters, logos, or brand names.
- Message should be large, readable, and easily reproduced.
- Use a one-inch (1") margin on all sides

#### Poster Topics

Choose from the following topics:

1. What is radon?
2. Where does radon come from?
3. How does radon get into our homes?
4. Radon can cause lung cancer.
5. Test your home for radon.

#### Awards and Recognition

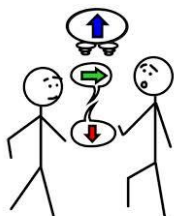
Posters will be judged by the state Radon Program. The top four winners will receive prizes in the form of gift cards. In addition, thirteen posters will be selected for the annual CT Radon Poster Calendar.

Please mail posters to the CT Department of Public Health (CT DPH) as soon as they are complete.

\*Entries must be received by

**November 13, 2015.**

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 an updated one by email from Eloise Farmer at [eloisef302@gmail.com](mailto:eloisef302@gmail.com)

**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](mailto:bednarskim@ccsu.edu)



**OCEAN CLASSROOMS**  
Inspire New Depths

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. <https://oceanclassrooms.com/sciencenodes>  
[cyndi@oceanclassrooms.com](mailto:cyndi@oceanclassrooms.com)

**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 [matthewscc@umsl.edu](mailto:matthewscc@umsl.edu)

Skype: dr.charles.c.matthews

PolyCom IP Address 98.172.76.67

**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. Have a great summer.

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

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](http://www.ctgreenleaf.org)

#### NEW MATERIALS AND PROJECTS FROM NASA!

[https://www.nasa.gov/audience/for\\_educators/index.html](https://www.nasa.gov/audience/for_educators/index.html)

#### 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>

Travel the world, earn professional development credit, and bring global understanding into your classroom!

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](http://www.geeo.org). GEEO can be reached 7 days a week, toll-free at 1-877-600-0105 between 9 AM-9 PM EST.

#### 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](mailto: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.*