

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
List Moderator..Eloise Farmer eloisef302@gmail.com

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](#).

EQiP Rubric for Science Released!

The [Educators Evaluating the Quality of Instructional Products \(EQiP\) 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*.. **exciting program, please complete and return the application form found on the web site.**



**What is NMEA 2015?
June 29 - July 2, 2014**

SENEME, SouthEastern

New England Marine Educators is proud to be the host of the 2015 National Marine Educators Association annual. You can choose the days you would like to attend –or just one day -to concentrate on the strand that interests you most or all or up to five days to absorb the full impact of marine science education; from lectures and workshops to our vast array of experiential learning opportunities in the Newport Area. Join us at the Newport Marriott, June 28 to July 2, 2015. This three to five day event will be filled with an amazing amount of current marine science information. Some of which is related to STEM education and next generation Science standards. More information can be found online At the NMEA site http://marine-ed.site-ym.com/general/custom.asp?page=NMEA_2015 Or on our site SENEME <http://seneme.org>



3 Day STEM Professional Learning Seminar at C.E.S. June 22 – 24

Join us for 3 days of hands on look at core principles for a high quality STEM program.

Outcomes:

1. Define STEM for your school or district
2. Experience how to integrate inquiry based instruction in a cross disciplinary program

Institute Description

Participants will gain a deeper understanding of the research based instructional practices of inquiry, problem based and project based learning. Teachers will learn how to integrate the New Generation Science Standards (NGSS) into their lesson plans including the Engineering Design Cycle and link these practices with the Common Core ELA and math standards. Teachers will explore this paradigm shift in classroom instruction as they integrate Science, technology, engineering and math (STEM) into their instructional objectives and how these practices provide students a richer learning environment. Designing classroom instruction by integrating process skills with meaningful content encourage students' conceptual understanding and long term retention of science knowledge and promote mastery of the Performance Expectations (PE). Teachers will gain practice in this STEM-ifying of lessons by incorporating their grade level PEs, and the STEM topics into a current instructional unit of their choice.

3 institutes will be happening simultaneously in the same location to support district collaboration: Elementary, middle school, high school. Descriptions below.

Location: C.E.S. Regional Center for the Arts, 23 Oakview Drive, Trumbull, CT

Time: 8:30 – 3:30

Fee: \$275 per person – school or teams recommended. Includes all sessions, breakfast, lunch all materials.

Questions? Email Sarah Hubert at huberts@ces.k12.ct.us

Registration will open April 1, 2015 at www.ces.k12.ct.us. Click on Professional Development Services then workshops and then Protraxx.

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/>

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. In line with the STEM philosophy, courses will integrate the STEM disciplines and provide teachers with the skills necessary to move away from the traditional way of teaching discrete subjects towards a more comprehensive way of addressing the science, technology, engineering, and mathematics disciplines for use in the classroom to prepare students for 21st century college skills and career readiness. Details can be found at:

<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

Admission Requirements:
The MS STEM Education Program is for certified teachers who hold a bachelor's degree from a regionally accredited institution of higher education. Applicants must also have a minimum undergraduate GPA of 2.70 on a 4.00 point scale (where A is 4.00), or its equivalent, and good standing (3.00 GPA) in all post-baccalaureate course work. The admissions application, application fee, and official transcripts from each college and university attended (except Central Connecticut State University) must be submitted to the Graduate Recruitment and Admissions Office.



Connecticut Invention Convention Goodwin College Community Room Essentials for CIC Program Success PD Session!

Date: Monday, 06/29/2015, Time: 8:30 am - 3 pm, Fee: \$50 per person

Light breakfast & lunch included.

Join Us on Monday, June 29, 2015 for a special PD session

specifically designed for teachers with little or no experience in the CIC.

- Engaging and motivating students with CIC activities and how those skills expand into other classes
- Learning why the CIC program is important and how it fulfills the Connecticut Core & NGSS requirements.
- Planning, setting up, promoting and running a CIC program in your school.

Great for ALL teachers, with or without CIC experience

Don't delay, [CLICK HERE](#)

<https://app.smartsheet.com/b/form?EQBCT=22d4354886694ca4adadf1bcc49a0c9b> to register today. Go to info@ctinventionconvention.org for more information. Gift Bag and Next Step Inventor Book for all participants



Connecticut Sea Grant Long Island Sound Mentor- Teacher Workshop 2015



Seine the Sound with Next Generation Science Standards



You will be able to:

Teach at the beach - Apply science inquiry skills!
Connect your students, wherever they live, to their coastal environment.

Have fun organizing a field study site at Long Island Sound.

Apply science concepts to improve test scores.

Excite your students to work as scientists!



Address CT Science Framework Inquiry and Content Standards for
Grades 4-12

Align Next Generation Science Standards Crosscutting Concepts and
Core Ideas!

Date/Time: Mon., September 21, 2015
9am to 3pm

Location: Meigs Point, Hammonasset Beach
State Park, Madison, CT

Who should attend: Grade 4-12 Teachers &
Informal Science Educators

COST: ONLY \$10!

Contact: Donna Rand, drand@crec.org to register or obtain more information.
<https://longislandsoundkids.wordpress.com/>

Workshop is open to first 20 people who return \$10 payment.

Take-Home Materials include:

Teacher Curriculum Resource Guide, field-tested and aligned to Science Standards, Seine net, minnow trap, several field guides including \$40 Field Guide to LIS, geology tools, and more!

You will LOVE this day!



Date/Time: Mon., September 21, 2015 (see next page left column for details)

9am to 3pm

Location: Meigs Point,
Hammonasset Beach State Park,
Madison, CT

Who should attend: Grade 4-12

Teachers & Informal Science
Educators

COST: ONLY \$10!

Contact: Donna Rand,
drand@crec.org to register or obtain
more information.

<https://longislandsoundkids.wordpress.com/>

Workshop is open to first 20 people
who return \$10 payment.

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.

Here is our Summer 2015
Newsletter. This one focuses on the
past, present, and future of the
project and invites suggestions and
question on the "Teachers Helping
Teachers Teach Inquiry Science: Just
ASK" project. K-6 teachers who are
sharing their adapted science inquiry
lessons appreciate your comments
and suggestions.

Thanks and have a great summer.

Charles Matthews

Academic Research Scientist

University of Missouri at St. Louis

Email to schedule Skype or PolyCom
Session

matthewscc@umsl.edu

Skype: dr.charles.c.matthews

PolyCom IP Address 98.172.76.67

GREAT OPPORTUNITY TO EARN UP TO \$1,500! The SimScientists Assessment
System research project, with funding from the United States Department of
Education, Institute of Education Sciences, is an assessment development project
that aims to use technology to give students ways to explore and express their
science knowledge through NGSS-aligned, computer-based simulation
assessments.

Participating teachers will receive online orientation and training (1.5 days),
stipends up to \$1,500 for their involvement in the study, as well as access to
simulation-based computer formative assessments.

In order to participate, middle school science teachers must cover Cells,
Ecosystems, and Human Body Systems units during the 2015-16 school year at
the same grade level. Please see the attachment for more information on these
units.

If you are interested in participating, please complete an online survey at
<https://www.surveymonkey.com/s/SASintake2015>

To learn more about this project, please email us at simscihelp@wested.org . For
the best chance of participating, please complete the survey by ****May 29th****.
Kevin Jordan, Research Associate, Science, Technology, Engineering, & Math
(STEM) Program, WestEd.. Phone: 510.302.4311



YOUR MOST EXCITING SUMMER EVER, NO PASSPORT REQUIRED:

The American Museum of Natural History's Seminars on Science
online graduate courses take your topic knowledge to new places and
give you rich new content for your classroom. Six-week courses
starting July 6th include The Brain: Structure, Function and Evolution; Climate
Change; The Diversity of Fishes; Earth: Inside and Out; Evolution; Genetics,
Genomics, Genethics; The Ocean System; Space, Time and Motion; Water and
more. Registration ends June 22nd.

Earn graduate credit and save \$50 when you register with code
SCIENCEMATTERS. Plus, save an additional \$50 for a total savings of \$100 when
you register by June 8th. Learn more at learn.amnh.org.

FEEDBACK WELCOMED

Like all good inventors, we never consider our invention to be perfect. Even
though this year was great, we know it can be improved. If you have
any ideas or suggestions, please let us know.



However, please only tell us about things we can control. For
example, you may have been unhappy with the weather last
Saturday, but we can't do anything about that.

On the other hand, last year, we tried a new way of distributing the
Gift Bags at the end and we ran into some problems. This year we
tried something different and it didn't work quite as well as we had hoped. But
we will not give up and we will try something different next year.
What ideas, suggestions or comments about anything do you have?
Please let us know. office@ctinventionconvention.org

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

NEW SUMMER INSTITUTES EXPLORE THE NEXT GENERATION SCIENCE STANDARDS

Join NSTA for one of two first-ever summer institutes focused on helping science educators and leaders implement the Next Generation Science Standards (NGSS). Head to Anaheim, California, on July 9 or Atlantic City, New Jersey, on July 28 and get firsthand experience studying the shifts of NGSS; exploring the three-dimensional approach; and tackling other topics, such as the integration of science with ELA and math, adapting instructional materials, and much more. Register today. <http://www.nsta.org/conferences/summer.aspx>

To see if there is still space in the UConn Joule Program, check with Aida Ghiaei aida@engr.uconn.edu

The School of Engineering at UCONN is planning its exciting summer learning opportunity for teachers, the *Joule Fellows – Teachers in Sustainable Technologies Research Laboratories* program. The Joule Fellow program is intended to provide teachers of science, mathematics, and/or technology subjects with a rare opportunity to gain valuable hands-on laboratory exposure to ongoing research in sustainable energy areas such as biofuels, renewable fuels, fuel cells, energy storage devices (including photovoltaics), other environmental and green energy technologies, as well as related fields.

The Joule Fellows program will be conducted at the beautiful Storrs campus. The six-week research program, to begin Monday, July 6th by participating in one week of Da Vinci program at first and will partner you with a UConn faculty member and a graduate student. As a member of a research team, you will hone your research methodology skills and learn to use

state-of-the-art equipment for data collection. You will participate in seminars with faculty and graduate students focused on national and international issues in renewable energy, research ethics and the cultural and economic impacts associated with developing sustainable energy.

As a participant in the Joule Fellows program, you will receive a \$5,000 stipend, additional support of \$500 toward travel and general costs, and a certificate of participation. The most important benefit, however, is the knowledge you will take back to your classroom.

Our faculty members and graduate students will work with you to develop experimental setups and curriculum modules for your students that will both engage them and enrich their learning experiences.

Enrollment is limited to a maximum of 18 teachers and preference is given to 2 teachers from same school. <http://joulefellows.engr.uconn.edu/apply-for-joule-fellows>

GREEN ATHENAEUM

Science Writing for Content and Comprehension A two-day workshop for middle school and high school science and English teachers on writing about science topics and STEM disciplines, aligned with the Common Core State Standards Tuesday, July 28 and Wednesday, July 29, 2015, 10 am-4 pm, Tower Hill Botanic Garden, Boylston, MA.

The Common Core State Standards and NGSS/Massachusetts ST/E Standards include research and writing expectations in science classes. On day one, we will examine specific types of writing (narrative, informational, and argumentative styles) and writing prompts, from lab-based abstracts and discussions to science essays and text-based summaries. We'll examine creative ways to integrate science content into writing that engages, motivates, and supports learning and comprehension. Day two will focus on argumentative writing, in which students make claims, organize evidence, build arguments, and summarize their conclusions—all while writing in an objective, formal style. We will begin with research strategies to identify unbiased, authentic sources. Then we will use graphic organizers and writing templates to organize arguments with logical claims and textual evidence—the claim, evidence, reasoning model. STEM controversies provide exciting classroom springboards for objective writing and evidence-based discussion. The workshop will include e-templates of all materials, including argumentative writing packets on several topics, handouts on academic language, open response templates, academic honesty, editing, developing writing prompts, citation style and other skills essential for science writing in your classroom. For additional information, contact Dr. Judith Sumner at Green.Athenaeum@gmail.com

Teaching About Invasive Species : A new book from Green Teacher!!

Whether working inside or outside schools, youth educators will find in Green Teacher's new book the tools to engage young people from 6-19 years of age in this challenging topic. Invasive species, if unchecked, will continue to have significant negative impacts on our environment and on our economy. Fortunately, the spread of many invasives can be checked. To succeed, we'll need effective education strategies to be widely deployed. This book aims to fill that gap. Included in its 80 pages are descriptions of 13 innovative, youth education programs, and 14 ready-to-use activities that are appropriate for various age groups. \$14.95 single copy, bulk pricing as low as \$5.25. To learn more or place an order visit: greenteacher.com, email: info@greenteacher.com call: toll free 1-888-804-1488



Interested in a Modeling Workshop?
Here is a list of some nearby workshops being offered this summer.

SUNY-Buffalo State College

Dates: July 20-August 7

<http://physics.buffalostate.edu/summer-physics-academy>

PHY622 – E & M

Leaders: Dan Maclsaac, Meg Helmes, Craig Uhrich

Follow this link for information

Contact: Dan Maclsaac for details

Teachers College-Columbia University, NY City

Organizer: STEMteachersNYC

Reimbursement available for lodging

<http://www.eventbrite.com/e/physics-mechanics-modeling-workshop-jul-20-to-aug-7-tickets-15058057054>

Content: mechanics

Dates: July 20 – August 7

Leaders: Paul Bianchi & Zhanna

Glazenburg, Cost: \$600 (\$300 reimbursement for those completing workshop successfully)

Content: chemistry I

Dates: July 20 – August 7

Leaders: Donghong Sun & Tammy Gwara

Cost: \$600 (\$300 reimbursement for those completing workshop successfully)

<http://www.eventbrite.com/e/chemistry-modeling-workshop-jul-20-to-aug-7-tickets-15679251062>

Content: Modeling for middle school science

Dates: July 13-July 31

Leaders: Kelly Gamez Warble and Kathryn Bauer (co-leaders), with Colleen Megowan-Romanowicz (guest leader)

Cost: \$600 (\$300 reimbursement for those completing workshop successfully)

Details & Registration

<http://www.eventbrite.com/e/middle-school-science-modeling-workshop-july-13-31-2015-tickets-15058290753>

Content: Graphical Methods for Physics Problem Solving

Dates: July 13-17

Leaders: Kelly O'Shea & Mike Pustie

Cost: \$199 (\$100 reimbursement for those completing workshop successfully)

Contact: Fernand Brunshwig for details

Contact: info@STEMteachersNYC.org

Contact: Fernand Brunshwig for details

info@STEMteachersNYC.org

Sienna College – Loudonville, NY

Dates: July 6-9

Content: Intro to modeling physics – waves

Cost: \$30 to cover cost of lunch on final 3 days

Contact Darren Broder for details

dbroder@siena.edu

Mechanics,%South%Windsor%HS,%June%29C July%17; Contact David Ennis for details

For more information, visit: www.modelinginstruction.org or

<http://www.phystec.org/pd/index.cfm?set=Modeling>

YOU CAN HELP A STUDENT WITH HER PROJECT: I am a candidate for a Masters of Science in Science Education degree through Montana State University. For my capstone project, my contribution is to research current science issues and teacher resources for the Next Generation Science Standards (NGSS).

My goal is to connect scientists and educators through this project, including with conversations like scientist interviews and teacher forums. Part of this project includes surveying teachers on their current knowledge of NGSS and access to technology.

This is a special request to ask you to complete this voluntary survey, which takes approximately 10-15 minutes, with optional fields and is confidential. Here is the survey link: <http://teachingcontinuum.com/survey>

This survey is open to any and all teachers, regardless of the topic or if they are involved with NGSS. Please feel free to send along to any of your peers. I'm afraid I don't have much to offer as a thank you other than a genuine thank you, so thank you.

If you are interested in being involved with the teacher forums, I think this is a place for you to share! Let me know if you have any questions and thank you again for your tremendous support.

Jess

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



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/science/nodes>
cyndi@oceanclassrooms.com

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>

In 2012, the U.S. Department of Education (USED) granted the Connecticut State Department of Education (CSDE) a three-year flexibility request from certain requirements of the Elementary and Secondary Education Act of 1965 (ESEA), also known as the “No Child Left Behind Act” The waiver provided Connecticut educators with the ability to advance state and local efforts for school improvement and utilize federal resources to support learning for all students. As part of the flexibility request, CSDE developed a state plan designed to ensure that all students are prepared to succeed in college and careers, to close achievement gaps through proven and impactful interventions in low performing schools and districts, and to support educators in reaching high professional standards and receiving meaningful development opportunities in order to ensure all

students have access to effective instruction. The USED has invited the State to renew our request for an additional three years in order to sustain our progress towards these goals.

The flexibility renewal submission continues many of the major initiatives outlined in Connecticut’s approved plan and seeks to strengthen and evolve others. Many of the proposed modifications have been presented and discussed at various stages with some educational stakeholders. Last month, the CSDE solicited public comment from all interested parties and persons regarding the proposed ESEA flexibility request. The Department invited feedback on the proposed renewal request which addresses the USED’s three prescribed principles. Provided for information was

- an overview of Connecticut's progress made to date in the implementation of the existing, approved ESEA flexibility request;
- a listing of the USED’s required components that must be addressed in the ESEA flexibility waiver renewal application; and
- an overview of the key initiatives to be continued or modified that address the required components in the renewal application.

This sets up an accountability system with many parts, including standards, the measures used to assess schools and districts, the implications for different categories of schools, and the role of teacher evaluation systems.

At a recent meeting (Mar 3), CSDE staff shared with some science educators some of the science specific issues addressed in the State proposal to the Federal Government in a request for an extension of the waiver. One of the most significant changes is in how science is “counted” in the overall measure of schools and districts. For the 2012 and 2013 School/District Performance Index scores, CAPT science, reading, writing, math were all counted equally. But for CMT Science, it was only used for tested grades (5,8), effectively making science worth 1/10, reading 3/10, writing 3/10, math 3/10.

In the future this would change, and each subject would get its own index score (based on CMT/CAPT scale scores, not performance levels as before), so that science will count the same as literacy and math.

http://www.sde.ct.gov/sde/lib/sde/pdf/esea/principle_2_performance_and_turnaround_esea_flex_renewal_031715.pdf

"Science index scores will be generated based on results from the Connecticut Mastery Test (CMT) assessments and the Connecticut Academic Performance Test (CAPT) assessments (both the standard form and Skills Checklist) in all available tested grades (i.e., 5, 8, and 10) in the district/school. This indicator weights tested subjects equally” However, Science is NOT counted in the growth part of the achievement score

- Also of note is that 9th grade passing rates count for both high schools AND 8th grade schools
- College and Career Readiness courses could include science AP or UCONN ECE courses or CTE certificates.

In Principle I of the waiver, there is some discussion on an anticipated adoption of NGSS standards, along with a mention of training , presentations, and committee work going on this spring,

Also important to note that CSDE has put forth an RFP for 2016-19 CMT/CAPT science tests which has a draft proposed timeline for transition: online testing, and a switch to NGSS standards testing by 2019.(33% in 2017, 66% in 2018, 100% in 2019). This timeline also shows high school science testing shifting to 11th grade in 2019. See pg.4 and the timeline on pg 27 of the RFP at

http://www.sde.ct.gov/sde/lib/sde/pdf/rfp/15sde0001rfp_cmt_capt_science.pdf
(Thanks to Rich Therrien for the above information)

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.