

CONNECTICUT SCIENCE CONNECTION

June 2014

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

Resources and Events

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

More on Standards at:

<http://www.nextgenscience.org/>



To get

all the latest happenings at the Connecticut Science Center, click on the link to its newsletter!

newsletter@ctsciencecenter.org

NASA HAS MANY RESOURCES AVAILABLE TO EDUCATORS...MANY MORE THAN WE CAN DESCRIBE IN THIS NEWSLETTER. PLEASE EXPLORE WHAT IS AVAILABLE BY CLICKING ON

<http://www.nasa.gov/audience/foreducators/index.html>

Visit the NGSS@NSTA Hub :

The [NGSS@NSTA Hub](#) now offers a dynamic version of the *Next Generation Science Standards*. Standards can be accessed via a simple matrix, then displayed in a clear and easily understood format. Accompanying each standard are student performance expectations, and the corresponding science and engineering practices, disciplinary core ideas, and crosscutting concepts. The hub also provides key connections to the *Common Core State Standards* in literacy and mathematics.

EQuIP Rubric for Science Released!

The [Educators Evaluating the Quality of Instructional Products \(EQuIP\) Rubric for Lessons & Units: Science](#) was released today. The Rubric provides criteria with respect to the NGSS.

OPPORTUNITIES FOR TEACHERS:

**Residential Summer Workshops at the
University of Connecticut's
School of Engineering
*The daVinci Project***

July 7-11, 2014

Introducing our students to engineering is a national need. Most students love to be creative and to connect academics to the real world....this is what engineers do while making technologies that solve serious world problems. The UConn School of Engineering is holding its 13th annual daVinci Project. It is a weeklong (Mon-Fri) residential series of hands-on workshops for middle and high school science and math teachers. This year it's being held July 7-11. Teachers live on campus and participate in one of 6 very engaging workshops as well as many other seminars, a variety tours through research labs, our state of the art water reclaim and wastewater facilities, and our CoGen plant. Come and be part of an exciting week of exploration! *Two of our workshops receive funding from NSF grants and therefore have a number of tuition free positions available.*

- 1. Biomass Conversion to Energy**
- 2. Fuel Cell: Construction and Operation**
- 3. Genetic Engineering and Synthetic Biology**
- 4. Mathematical Optimization: Smart Buildings and Intelligent Buildings**
- 5. Tissue Engineering: Heart cells/tissues**
- 6. Sustainable Engineering**

An on-line 2014 application and more information can be accessed at

<http://www.engr.uconn.edu/davinci/>

Registration deadline: June 27, 2014. Confirmation will be sent after your registration is received. If you have questions or need further information please contact Stephany Santos at edpsw@engr.uconn.edu or 860-486



**NEW! Central Connecticut State University
School of Graduate Studies Master of Science in STEM
Education!**

Apply online at: www.ccsu.edu/gradapplication

Applications are accepted for Fall and Spring terms. Fall 2014 Application deadline: July 1, 2014. View requirements online: <http://www.ccsu.edu/page.cfm?p=1147> Admissions: 860-832-2350.



Join CTABT for the “Innovations in Teaching” workshop this June!

CTABT will be hosting a half day morning workshop at Northwestern Connecticut Community College, in Winsted, CT on Saturday, June 7, 2014. The theme of the conference will be Innovative Teaching Techniques. Free to members! The event will run from 8:30am - 12:30pm. Choose from a variety of workshops to attend as well as vendor booths to visit. For more information about registration fees for non-members, a schedule of events and to fill out the registration form, please click [here](#).

WANT TO LEARN BIO IN BERMUDA?

Could you please pass this on to any contacts that you feel might be interested in this educator workshop, that I am teaching in Bermuda? Information found by clicking on: [Bermuda Bio](#)
Thank you. .Ed Argenta



The Connecticut
Center for
Advanced

Technology, Inc. (CCAT) and the University of Hartford are inviting teams of secondary (6-12) educators who are interested in learning how to develop and implement **interdisciplinary STEM curriculum units** to participate in the PROMISE: Promoting Mastery in STEM Education **professional development** program. Additional information and an application are located at <http://education.ccat.us/promise>.
Space is limited.

Funding source: [National Institute of Allergy and Infectious Diseases](#)

The curriculum supplement will feature a teacher's guide, interactive web activities, copymasters, and a rich teacher background section.

Lessons are aligned to the Next Generation Science Standards

We are excited to announce a field-test opportunity for grade 6-8 life science teachers! [Register Now!](#) PLEASE NOTE REGISTRATION DEADLINE IS JUNE 1. (I am writing to ask for an extension for CT teachers)

The deadline for submitting applications is June 1, 2014. Allergies represent a major and growing health concern for Americans. They are the sixth leading cause of chronic disease in the United States, costing our healthcare system an estimated \$18 billion annually. Allergic diseases are estimated to affect 40 to 50 million Americans. Furthermore, allergic conditions are among the most common types of chronic disease affecting children in the United States. To help middle-school teachers more effectively teach about the immune system and its relationship to food allergy, BSCS and Dawson Media Group have developed and are researching an online curriculum supplement titled Allergies and Scientific Inquiry (ASI). Funded by the National Institute of Allergy and Infectious Diseases, ASI is an innovative online, multimedia resource focused on food allergies and employing science practices associated with inquiry-based teaching. The ASI supplement addresses several concepts that are important for middle school students to understand:

- Allergies involve inappropriate reactions of the immune system.
- The symptoms and signs of allergies are the result of interactions among body systems.
- Scientific medical diagnosis of food allergies is critical.
- The main management option for people with food allergies is avoidance.
- The management of food allergies is improved if people know how to correctly read food labels.
- Food-induced anaphylaxis is serious and medical help needs to be summoned immediately.
- Individuals with food allergies should not be stigmatized.

The ASI supplement is composed of five lessons where students take on the roles of medical students at an allergy clinic. Due to the online nature of these new materials, participating teachers will need computers and Internet access to participate in this project. Field-test teachers must agree to participate in a process that extends over two academic years and includes administering pretests and posttests to students (during the fall of the 2014-15 school year AND fall of the 2015-16 school year), teaching the ASI lessons during fall 2015, and answering questions about the ASI supplement in online surveys. BSCS will work with each teacher's district to fulfill these research requirements. Field-test teachers receive a \$400 stipend for their participation (\$200 during the 2014-2015 school year, and \$200 during the 2015-2016 school year). BSCS is excited about working with classroom teachers around the country to research the effectiveness of the ASI resource. Teachers like you are key partners in the development process by helping us test what will benefit teachers and students in the future. If you are interested in being a field-test teacher, please complete the online application and submit the required signature page. If you have questions, please contact BSCS Science Educator and Project Director Mark Bloom at mbloom@bscs.org or 719.219.4167. A research study of the instructional materials will assess student content understanding, changes in attitudes toward others who have food allergies, and interest in biomedical careers. The Allergies resource will be available at no cost in 2016.

FOR THOSE WHO TEACH COLLEGE CLASSES

There is a unique college science teaching institute coming up on May 31 & June 1, 2014 on the MIT Campus just prior to the Boston AAS meeting. Designed specifically for college and university faculty, the MIT #ASTRO 101 institute focuses on revitalizing and reinvigorating introductory astronomy courses with innovative teaching strategies and modern classroom learning materials. The program is funded by NASA and provides a \$250 stipend for all participants who are currently teaching college courses. I'm pasting an advertising flyer at the bottom of the email. We hope that you will consider joining us and perhaps even forwarding this advertisement to interested colleagues, including adjuncts in your department. Contact: Timothy F. Slater, University of Wyoming Excellence in Higher Education Endowed Chair of Science Education, caperteam@gmail.com, cell: 520-975-1373, American Astronomical Society Education Officer, 2006-2012. Online institute pre-registration is preferred at <http://www.caperteam.com/currentworkshops/>

*The #ASTRO101 2-Day Teaching Excellence Institute at MITpart of the NASA-funded 'Faculty INstitutes for Earth & Space Science Education' (FINESSE) Program. May 31 & June 1, 2014 on the MIT Campus just prior to the Boston AAS meeting <http://www.caperteam.com/currentworkshops/> DESCRIPTION: Funded by NASA, the FINESSE Team is providing a 2-day interactive teaching excellence workshop at MIT for college and university faculty focusing on reforming and revitalizing undergraduate astronomy and planetary science survey courses. The goals are to enhance courses with interactive teaching strategies and data-rich problem-based learning approaches steeped in authentic scientific inquiry, which consistently demonstrate effectiveness with diverse groups of college students. Participants practice new interactive teaching strategies and conduct mini-science data-rich research projects using NASA science data using highly

structured inquiry-learning based on proven models that can be readily applied in your classes next semester. Most importantly, the Institute agenda allocates significant time to illustrating best practices for working with diverse students. Participants leave with an enhanced toolbox of different astronomy teaching techniques and a well-formulated action plan to reform their teaching and their courses - particularly those courses that include future school teachers. Pre-registration is recommended and participants are encouraged to bring their personal laptop computers with MS Office (or OpenOffice) installed. \$250 STIPEND: Participants who are college and university faculty who participate in the entire 2-day MIT workshop are eligible to receive a \$250 stipend to help subsidize some of their expenses for attending. The stipend will be paid approximately 8 weeks after the workshop. \$25 COST: A \$25 registration fee (paid by credit card) is required to reserve your space and cover expenses not covered by federal grants; a \$250 stipend is paid to participants who complete the workshop. REGISTRATION: <http://www.caperteam.com/currentworkshops/> LOCATION: MIT Stata Center, Room 32-124, <http://whereis.mit.edu/?go=32>, near Kendal T-stop at Vassar & Main Streets TIMES: 9am-4pm Sat. on May 31 & 9am-3pm on Sun. June 1, 2014. SPONSORING PARTNERS: NASA ROSES EPOESS, National Association of Black Physicists NSBP, CAPER Center for Astronomy & Physics Education Research, and the WHFreeman & Pearson Publishing Companies. Keep up with the conversation with other FINESSE participants from around the country! Join our FINESSE Mailing List by sending a blank email to FINESSEProgram+subscribe@googlegroups.com and watch your inbox or junk mail spam box for a confirmation email to which you need to reply to join. You can also follow us on TWITTER at <http://www.twitter.com/caperteam> or receive cell phone text updates from Twitter by texting FOLLOW CAPERTEAM to 40404. *Funded in part by a NASA SMD EPOESS Grant focusing on improving instruction with diverse students, this professional development program for college and university professors who work with future teachers in their classes is hosted by the CAPER Center for Astronomy & Physics Education Research (<http://www.caperteam.com>) and National Society of Black Physicists (<http://www.nsbp.org>) using materials developed under NSF GeoEd OEDG and NSF CCLI/TUES funding with generous support from the WHFreeman and Pearson Publishing Companies in partnership with the Massachusetts Institute of Technology MIT. Email caperteam@gmail.com for additional information not included on web site.* May 31 & June 1 on the MIT Campus near Boston-a college faculty teaching workshop for revitalizing ASTRO 101-\$250 stipend available.



Call for Presenters! The Connecticut Science Education Conference is November 22, 2014 at Hamden Middle School and we need you! We know you have a great lesson, interesting experience, or innovative pedagogical technique to share. The conference serves science educators in grades K-12, so there is a place for you. All disciplines, from general interest/general science, to biology, physical science, chemistry, earth and environmental science, and physics are welcome (and needed!) If you have never presented before, consider teaming up with a colleague. As an added benefit, presenters attend the conference for a highly reduced fee!! **Submit your Presentation Proposal online at https://www.csta-us.org/event_reg_pres.htm?id=2azessfl** **Submission Deadline is June 26, 2014.** For questions please contact presenter chairs Laurel Kohl KOHL@easternct.edu or Heather Toothaker heather.toothaker@new-haven.k12.ct.us



The Connecticut Geographic Alliance and CREC are

jointly offering a teacher workshop this summer .

WHO Should Attend: Middle School & High School Educators .

Content will be aligned with Next Generation Science Standards & Connecticut Core Standards objectives

WHERE: CREC Two Rivers Magnet Middle School, 337 East River Drive East Hartford, CT 06108

WHEN: July 22-July 24, 2014, 8:30 a.m. - 3:30 p.m.

COST: \$60 click to register: Go to <https://www.protraxx.com/Scripts/EzCatalogny/ViewClass.aspx?ID=303917&CustomerId=128>

The topics will be on Contemporary Environmental Issues. Sessions will focus mainly on activities rather than content, and many of the activities will use technology in compliance with Connecticut Core Standards & Next Generation Science Standards objectives. **Day**

#1 "Global Population Issues."

Planned activities include: using the Population Reference Bureau (PRB) 2013 world population data sheet; using "population connection" activities and more. **Day #2 "Global Environmental Issues"** global climate change, acid rain, and ozone depletion. Planned activities include: using probeware to determine the change of atmospheric CO₂ graphing leaf eating insect "frass" from the rainforest, and more,. **Day #3** will focus on "Local Environmental Issues."

The morning will be spent outside, using instruments, session on using Google All participants will receive electronic and hard copies of the activities as well as maps and many other handouts that will be of value in the classroom. Lunch and parking provided.



MICROSCOPY SOCIETY OF AMERICA is hosting its' annual conference in Hartford from August 3 - 7, 2014. They are offering a few programs that are free for administrators and educators, including local and national outreach initiatives involving STEM and microscopy, hands-on demos with new portable electron microscopes, as well as ways to involve inexpensive, engaging lessons using simple tools into lessons.

A Special Conference Education Event , X-90: Microscopy in the Classroom:

Strategies for Education and Outreach ,Tuesday, August 5,

2014 8:30AM-12:30PM

Marriot Ballroom E (Session) & Convention Center (Expo Floor & Posters) Hartford, CT.

There are three sessions at the conference between August 5 and 6, which all provide free attendance to educators, and access to the exhibit floor (which will have a number of high-end instruments such as SEMs and TEMs on display). In some of the sessions, including the one I chair (X-90) we will have in-room demonstrations of tabletop SEM units available for teachers to use, food and drink, and giveaways!

At the frontiers of science, the microscope is the interdisciplinary tool which allows researchers to glimpse into the unknown and link structure and function. The Education Outreach Committee of MSA seeks to connect individuals and institutions, and ensure that the pathways to microscopy careers and education are exciting, engaging and clear. In this half-day session, educators and microscopy professionals will present and discuss:

- ☐ Local facilities taking part in best practices for microscopy outreach and education
- ☐ National initiatives emphasizing STEM education and outreach
- ☐ Initiatives for continuing education of novice and professional microscopists
- ☐ Methods to expose students to microscopy in a fun and engaging manner Each of the presentations will be followed by a roundtable discussion where educators will be encouraged to discuss microscopy or outreach questions, concerns or successes. In addition, these discussions will provide a networking opportunity for educators, microscopists, and professionals in order to build a resource and support system for growing microscopy education. In-room demonstrations of table-top SEMs will take place during the session break, and refreshments will be available. Local educators and school administrators can attend this session and also visit the Conference Exhibition Hall to view additional microscopy instrumentation and products **AT NO CHARGE!**

Registration for local educators will be done on-site at the X-90 session (Ballroom E). All conference attendees are invited and encouraged to attend this educational session.

Additional conference information can be found on the Microscopy Society of America website (www.microscopy.org). Specific inquiries about the session may be addressed to: **Craig Queenan & Alyssa Calabro** Microscopy Society of America, Education Outreach Committee Chairs / X-90 Session Chairs NSIL@bergen.org

See web site to register and for detailed program information.

<http://www.microscopy.org/MandM/2014/register.cfm>



[Understanding and Using K-12 Science Learning Goals](#) July 10-11 and Oct. 20-21 in Washington, DC,

AAAS Headquarters: The AAAS Project 2061 team can help you tap into a set of tools, resources, and strategies for meeting the challenges of NGSS implementation. During this two-day workshop you'll explore NGSS and take a hands-on approach to using the new standards to improve curriculum, instruction, and assessment.

(SUMMER EDUCATIONAL EXPERIENCE AT KENT) PROGRAMS AND IN THE WORKSHOP FOR K-12 TEACHERS HERE AT KENT SCHOOL, CT.

The four SEEK programs are designed to give high school students, including those who will be beginning ninth grade, the chance to experience engineering education and entrepreneurship. [The Summer Educational Experience at Kent \(SEEK\)](#) will be offered in partnerships with professionals from several institutions, including [U. Penn's Wharton Business School](#), [Harvard Kennedy School](#), and the [Georgia Tech Integrated Product Lifecycle Engineering \(IPLE\) Laboratory](#).

For teachers, we are offering a K-12 Teachers Workshop in collaboration with the Georgia Tech Integrated Product Lifecycle Engineering (IPLE) Laboratory.

- ❖ Week 1 (June 2–6, 2014) SEEK1: **Pre-Engineering** and SEEK2: **Entrepreneurship**
- ❖ Week 2 (June 7–13, 2014) SEEK 3: **Global Development**
- ❖ Two-Week Program (July 14–25, 2014) SEEK4: **Team-based Engineering and Manufacturing**
- ❖ **K-12 Teachers Workshop** (July 18–20, 2014): **(Georgia Tech) Team-based Engineering and Manufacturing**

Click [here](#) for the 2014 SEEK program and the **Teachers Workshop** brochure.

Smithsonian Science Education Academies for Teachers (SSEATs)

Registration is now open for the 2014 SSEATs. Join us for the following SSEATs!

Biodiversity Academy on June 22-27, 2014: unique experiences designed to introduce teachers to the variety of life and enhance teacher understanding of concept related to biodiversity. Teachers participate in inquiry-based content sessions lead by scientists, curators, and museum educators.

Energy: Past, Present, & Future on July 13-18, 2014: explores the history of energy development and use in the United States, current energy needs, and alternative energy sources for the future. Topics will include fossil fuels, solar power, wind power, nuclear energy, and alternative energy sources. Each day participants will engage with scientists, curators, engineers, and educators at the Smithsonian and other local venues. Participants will engage in hands-on content sessions that take them behind the scenes, and will learn of current research in sustainable energy resources.

Earth's History and Global Change Academy on July 27-August 1, 2014

looks at change from the perspective of the history of Earth from its formation through the origin of life. Topics will include planetary processes, volcanism and plate tectonics, the oceans and atmosphere. Each day participants will engage earth scientists at the Smithsonian and elsewhere in hands-on content sessions that take them behind the scenes and explore current research on our planet's past environments. [Learn More and Register](#)

Grants and Opportunities For K-12 Teachers

CT Green LEAF Professional Learning Communities Grant www.sustainenergy.org
Connecticut Green LEAF Schools has been awarded a **Teacher Quality Partnership Grant** through the CT Office of Higher Education. The purpose of this grant is to support intensive and effective professional development in core academic subjects for Connecticut in-service teachers and school administrators. We invite you and your teachers to participate in this great opportunity! We are **creating Professional Learning Communities (PLCs) among our CT Green LEAF schools (and schools wishing to join!)** The program will provide participants with

- **Academic knowledge about the topics** and
- **Support your skills to integrate Common Core skills and Next Generation Science standards into your lessons.**

Each participant will choose a PLC track of specific interest to them. Tracks include—

Schoolyard Science: Using your school grounds as a learning laboratory. This area includes understanding the biome, methods to help student explore this space, incorporation of citizen science activities (such as Operation Bud Burst.)

Using School Gardens in the Curriculum. This area includes the sciences of growing, food, and nutrition integrating science and social sciences with gardens, food system awareness and community outreach.

School Resources as Topics in the Curriculum. This area will help schools explore the topics of energy, water, waste, transportation and purchasing, focusing on the school as the learning laboratory. Our partners in presenting this information for teachers and administrators includes faculty/staff from Eastern Connecticut State University, Central Connecticut State University, Southern Connecticut State University, and many of our professional and program resources, such as DEEP's Project WET, and Food Land and People; Project Learning Tree; CT Energy Education; eeSmarts; and CT Audubon. More information about Connecticut Green LEAF Schools can be found at www.ctgreenleaf.org

THE MATERIALS & MANUFACTURING 2014 SUMMER TEACHERS' INSTITUTE: "How Things Are Made - Networking with Local Industry to Bring Ideas Back to Your Classroom": In collaboration with New Haven Manufacturers Association, Southern CT Chapter ASM and Platt Tech HS, CRISP @ Southern CT State University is offering a three day workshop that is designed to acquaint science teachers with real-life applications of STEM skills in today's manufacturing environment. From July 29 - July 31, teachers will meet and work with industry professionals and visit four manufacturing plants to see how products are actually made. This workshop is open to STEM (science, technology, engineering and mathematics) teachers grades 7-12. However if space permits others are welcome. Please visit www.southernct.edu/go/crisppd for application materials or contact Carol Jenkins at crisp.mrsec@gmail.com, 203.392.8959. Slots for last year's workshop filled quickly so please respond today!

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/>

As a facilitator of one of the Summer Institutes Offered by MITS, I wanted to reach out and ask if you would post the following profession development STEM workshops on your website?
<http://mits.org/summer-institutes/>
A short description is as follows:
MITS Professional Development

Institutes are unique professional development courses offered in eight regions of Massachusetts. These professional development institutes for teachers bring together scientists, engineers and other STEM professionals with educators from museums, aquariums, natural science centers and other science, technology or cultural organizations to provide 1 week, 2 week or hybrid graduate level courses. Science (MITS), 1354 Hancock St. Ste. 302, Quincy, MA 02169 (617) 328-1515

SUMMER INSTITUTE FROM THE PERSONAL GENETICS EDUCATION PROJECT AT HARVARD: I am hoping you can post and/or send out an announcement for our Summer Institute from the Personal Genetics Education Project, housed at Harvard Medical School. We create interactive lesson plans for high school science, health, and social studies teachers about social and ethical issues related to personal genetics. We are trying hard to widen our reach and connect with teachers from parts of the nation we have yet to reach, and would appreciate it if you could let your teachers know about this PD. Here is a link: <http://www.pged.org/event/professional-development-summer-institute/>. Thank you and please feel free to contact me with any questions.
Best, Lauren Tomaselli, M.Ed, Director of Curriculum and Training, Personal Genetics Education Project, Harvard Medical School, 617-432-1797, www.pged.org

WATER QUALITY MONITOR CONFERENCE!

The first statewide conference of Connecticut volunteer water quality monitors will be held on Friday, July 25th at Goodwin College in East Hartford. Link to the Save the Date/Call for Presentations. The Conference Coordinating committee is currently accepting proposals for presentations and/or workshops. The conference is intended to be a very low-key, welcoming experience, so even if you have never presented, it will be a great forum to share your experiences and ideas with your peers. We are looking for presentation/workshop suggestions that celebrate volunteer water quality monitoring efforts in Connecticut in order to stimulate discussion between volunteers of all experience levels. Suggested topics include: case study examples; program planning, design, and evolution; non-traditional funding solutions; integrating quality control into monitoring; creative data analysis and presentation; networking and collaboration; linking data with advocacy efforts; and urban community engagement. We encourage workshops that and presentations that promote collaborative discussion among attendees and the audience. To submit a proposal, please send an email to CT.VWQM.Conference@gmail.com. In the body of your email please include: the title of your presentation/workshop, presenter name(s) and affiliation(s), a brief description of the presentation/workshop, a list of possible audience discussion questions, and preferred duration (10, 20 or 40 min slots available). Submission Deadline: June 13, 2014. To be added to the conference mailing list please send an email to CT.VWQM.Conference@gmail.com. A conference agenda will be released late June/early July.

EDUCATORS - Save these Workshop Dates! July 8-10, 2014*****

Face the Next Generation Science Standards without Flinching

Befuddled by the suite of scientific practices, content and concepts you're now being asked to incorporate into your curriculum and instruction?
Join scientists and educators for a fun, three-day, hands-on workshop geared to help you apply "real world" scientific practices, data, and cross-cutting concepts in your science classroom!

WHO: Middle and high school science formal and informal educators

WHAT: Introduction to the Next Generation Science Standards, with a series of half-day complementary components covering life sciences, engineering and technology, climate change and adaptation, and natural hazards

WHAT YOU GET: Useful resources and tools, science content presentations and discussions, various datasets to explore, trip on Project Oceanology's Envirolab, stipend, lunch and snacks daily, **WHEN / WHERE: July 8 & 9, 2014** at the University of Connecticut Avery Point campus in **Groton**

July 10, 2014 at the University of Connecticut main campus in **Storrs**
Workshop Leaders: Diana Payne, Assistant Professor in Residence / Education Coordinator, CT. Sea Grant **Nancy Balcom**, Senior Extension Educator, Connecticut Sea Grant / UConn Extension **Session instructors, among others, include the following scientists and educators:**

Connecticut Sea Grant - Dr. Juliana Barrett, Dr. Diana Payne
National Underwater Research, Technology & Education Center - John Hamilton, Plainville High School - Ken Fusco, UConn Center for Land Use Education and Research (CLEAR) - Dr. Michael Dietz, Joel Stocker, Emily Wilson . *For more information and to register, contact Diana Payne diana.payne@uconn.edu*

*******SPACE IS LIMITED - RESERVE YOUR SPOT TODAY!**

Sponsored by Connecticut Sea Grant with financial support from the EPA Long Island Sound Study

You will be able to: Address Next Generation Science Standards Teach at the beach - Apply science inquiry skills! Connect your students, wherever they live, to their coastal environment. Organize your own field study site at Long Island Sound. Apply science concepts to improve test scores. Excite and motivate your students to work as scientists!

Long Island Sound Mentor- Teacher Workshop Seine the Sound with Next Generation Science

Standards Date/Time: Friday, September 26, 2014

8:45 am to 3:15 pm (Downpour will reschedule to Tuesday, September 30)

Location: Meigs Point, Hammonasset Beach State Park, Madison, CT **Who should attend:** Grade 4-12 Teachers & Informal Science Educators

Take-Home Materials include:

Get Started! Teacher Curriculum Resource Guide, seine net, several field guides including a \$40 Guide to life in LIS, geology tools, posters, multimedia and more! You will LOVE this day!



energize CT
CONNECTICUT

Empowering you to make
smart energy choices

2014 eesmarts Summer Institute

eesmarts™
an energy education learning initiative

As part of the Energize Connecticut initiative, **eesmarts** is an energy efficiency and clean energy educational program designed to facilitate students' understanding of the science, math and technology related to energy efficiency, clean energy sources and electricity.

The **eesmarts** program offers Professional Development workshops led by the Capitol Regional Education Council (CREC) free-of-charge to K-12 formal and informal educators across the State of Connecticut. Workshops are interactive and cross disciplinary, featuring inquiry-based, hands-on activities.



The **eesmarts** Summer Institute held annually in late June and July gives educators a chance to attend intensive one or three-day workshops on various energy-related topics. The **eesmarts** Team continues its partnership with Project Learning Tree (PLT) GreenSchools! Investigations and that several PLT workshops will be conducted in conjunction with our eesmarts Summer Institute.



Benefits of attending an eesmarts Summer Institute Workshop include:

- Receive \$100 stipend (per day)
- Receive free program lessons and materials for your classroom. All **eesmarts** and Project Learning Tree lessons are fully aligned with Connecticut Science and Mathematics Framework standards
- Gain knowledge, confidence and skills for teaching your students about energy, energy conservation, renewable energy sources and efficient technologies
- Receive a free year-long pass to one of the following Energize Connecticut museum partners:
 - Connecticut Science Center (Hartford)
 - Discovery Museum (Bridgeport)
 - Stepping Stones Museum for Children (Norwalk)

Register for a Workshop!

Visit: www.eesmarts.com/workshops
or Call: 877-514-2594

OPPORTUNITIES FOR STUDENTS

Science Enrichment

The goal of this two-week science enrichment program is to provide an exciting and fun environment that allows students to learn about various science topics through engaging, hands-on activities. By immersing the students in a scientific atmosphere and allowing them to explore intriguing concepts and ideas, the students will build their problem-solving and higher order thinking skills. They'll leave energized about science, armed with the projects and experiments they **have completed.** **2014 Course Offerings** include: **Environmental Science, Physical Science, and Chemistry.** **The natural surroundings of our wooded campus will be the basis for students to explore, observe, and learn about their environment. The laws of nature are all around us and will be explored in this class. From magnets to circuits, balloons to rockets, the mysteries of physics will be revealed.**

Students will explore chemical reactions and much more through experiments, many of which can be done at home. Online for application: eaglehillsschool.org/programs-summer
By phone: (203) 622-9240

NEW CHALLENGE! Chemical Educational Foundation® (CEF), a nationally recognized non-profit organization dedicated to enhancing grade K-8 students' appreciation of the science and value of chemistry. CEF has created a series of *You Be The Chemist*® (YBTC) programs, including the YBTC [Challenge](#), an academic competition for grade 5–8 students. The YBTC Challenge engages grade 5–8 students in learning about important chemistry concepts, scientific discoveries, and laboratory safety. The Challenge is organized into three

competitive levels: local, state, and national. Local and state competitions take place throughout the school year, and culminate in a national competition held each June in Philadelphia, PA (see our [YouTube video](#)). This year the Challenge will celebrate its tenth anniversary with over 23,000 participants in 30 states. Connecticut currently has three Local Challenge sites in New Haven County, Fairfield County, and Waterbury. For more information, including information about our YBTC [Activity Guides](#) (available for FREE online download) www.chemed.org.

Cool Career Cards: A Fun, Easy, and Free Way to Connect Students to Careers in STEM

At Sally Ride Science, everything we do is about connecting your students to careers in STEM.

With these *Cool Careers in STEM* activity cards, kids match job titles to images and--in the process--are introduced to the wide array of careers only STEM offers.

By seeing that a rewarding career awaits them, students are more likely to stay engaged with STEM.

[Get your download here.](#) **Engaging Teacher Activity Guides** that provide classroom plans and state standard-aligned exercises for students [Visit Sally Ride Science today](#) for your Cool Careers in STEM cards and to learn more about the site license.



Get a free download of "Science Can Take Them Places," a booklet our founder, Dr. Sally Ride, helped create for educators and student parents alike. Subtitled "Encouraging a Child's Interest in Science, Technology, Engineering, and Math," it provides information and insight on helping kids stick with STEM--in school, and as a career path. And you can get it for free, in English or Spanish or both. [Click here to download "Science Can Take Them Places"](#) (and/or "La ciencia puede llevarlos a lugares"). Sally Ride Science www.sallyridescience.com

RESOURCES:



Materials Available to Connecticut Middle Schools! Free Online Teaching Materials & Professional Development for Connecticut Public School Students and Educators through June 2016. Sea Research Foundation, based in Mystic, Connecticut, is home to Mystic Aquarium, JASON Learning and the Ocean Exploration Center. Through the support of the **Connecticut Department of Economic and Community Development**, Connecticut middle schools have access to a set of multimedia instructional materials and professional development **free of charge through the 2016-17 academic school year.**

a. **Online access** to the gated, JASON Expedition Center featuring curricular resources, videos, digital labs and games, simulations, and more.

b. **Professional development workshops** in JASON curricula including teacher and student print editions, and DVD.

Best suited for Grades 5-9, the curricular themes include:

Climate, Weather, Geosphere, Ecology, Forces and Motion, and Energy.

Visit <http://www.jason.org/roll-outs/ct-statewide> to sign up to receive free access to the JASON Expedition Center and to learn more about professional development workshops being offered throughout the state. **For more general information about JASON Learning** <http://www.jason.org> or call 1-888-527-



and its programs, visit 6600

Want to be a NOAA-it-all about the weather and oceans? Explore these fantastic FREE NOAA resources and print publications [click here to shop our entire NOAA publications collection](#).

UPDATES FROM CASE

Robert J. Shiller will deliver this year's keynote address at the 39th Annual Meeting of the Connecticut Academy of Science and Engineering (CASE),.

Frederick J. Leonberger, an internationally known technologist and industry leader in the field of photonics and fiber optics, has been selected as the 2014 recipient of the Connecticut Medal of Technology will accept the award at the 39th Annual

The Connecticut Academy of Science and Engineering (CASE) has elected Michael P. Speciale, Executive Director of the New England Air Museum (the Museum), to Honorary Membership. CASE will present the award at its 39th Annual Meeting and Dinner on June 5th at the Crowne Plaza Hotel in Cromwell.

The CASE Governing Council created the category of Honorary Membership in 2009 to recognize an individual not otherwise eligible for membership. The council nominates, and selects by vote, the recipients of this honor. Speciale is recognized for his 29 years as executive director of the Museum. Meeting & Dinner of the Connecticut Academy of Science and Engineering (CASE) on Thursday, June 5, 2014 at the Crowne Plaza Cromwell Hotel. The Connecticut Medal of Technology is the state's highest honor for technological achievement in fields crucial to Connecticut's economic competitiveness. Modeled after the National Medal of Technology and Innovation, this award is made by the State of Connecticut, with the

assistance of the Connecticut Academy of Science and Engineering, in alternate years with the Connecticut Medal of Science. Visit <http://www.ctcase.org/medals.html> to see a list of past winners.

Connecticut Students to be Awarded Gerber Medal of Excellence

Three outstanding young Connecticut scientists will be awarded the H. Joseph Gerber Medal of Excellence at the 39th Annual Meeting and Dinner of the Connecticut Academy of Science and Engineering (CASE) on **June 5, 2014**, at the Crowne Plaza Hotel in Cromwell.

The award, created by the Connecticut Academy of Science and Engineering and presented in partnership with Connecticut Center for Advanced Technology (CCAT), is in recognition of H. Joseph Gerber's (1924-1996) technical leadership in inventing, developing and commercializing manufacturing automation systems for a wide variety of industries, making those industries more efficient and cost-effective in a worldwide competitive environment.

"The Academy is grateful for CCAT's continued support in recognizing Connecticut's top student scientists and engineers with the H. Joseph Gerber Medal," said CASE President Lou Manzione. "These awards celebrate scientific achievement among high school students and honor the memory of the inventor, entrepreneur and CASE member for whom they are named."

As an inventor and as founder, Chief Executive Officer, Chairman of the Board and President for South Windsor-based Gerber Scientific, Inc., Mr. Gerber was a leader for nearly half a century in inventing and producing factory automation equipment designed to solve global manufacturing problems. An elected member of the National Academy of Engineering and the Connecticut Academy of Science and Engineering, Mr. Gerber received the National Medal of Technology in 1994 followed by the Connecticut Medal of Technology in 1995.

The recipients of this year's H. Joseph Gerber Medal of Excellence are top winners of the 2014 Connecticut Science & Engineering Fair. They are: **Janine Kerr** (1st Place, Life Sciences – Senior Division) of **Danbury High School** and **Isabelle Goldstein** (1st Place, Physical Sciences – Senior Division) of **Ridgefield High School**; and **William Tait** (High School Winner – Urban School Challenge) of **Bridgeport Regional Aquaculture Science and Technology Education Center**.

Kerr's winning Science Fair entry was entitled, "*Biological Control of the Invasive Eurasian Watermilfoil Using Aquatic Weevils*" and Goldstein's award was for her project, "*Partitioning Gamma-Ray Sources in Fermi Large Area Telescope Observations for Spatial and Spectral Analysis*." Tait won for his project, "*Bio-sensor Drug Carrier for Insulin*."

"The Academy is grateful for CCAT's continued support in recognizing Connecticut's top student scientists and engineers with the H. Joseph Gerber Medal," said CASE President Lou Manzione. "These awards celebrate scientific achievement among high school students and honor the memory of the inventor, entrepreneur and CASE member for whom they are named"

CHEMISTRY TEACHERS CAN HELP A FELLOW EDUCATOR! Jordan Harshman, a doctoral student at Miami University working on a research project with Dr. Ellen Yeziarski. We are seeking your beliefs and practice of using assessment results to inform your chemistry instruction in the classroom. We understand that as high school teachers your time is very limited, so we've created an instrument that you can take online at your convenience: Click to go to the survey:

https://miamioh.qualtrics.com/SE/?SID=SV_74FFbf2Prpgl5nn

In order to complete the instrument, you must have taught at least one chemistry course in the past five academic years. It will take approximately 15 minutes to complete. All teachers that complete this online instrument will have the opportunity to enter their name in a drawing for a \$50 Amazon.com gift card (one winner will be drawn for every fifty teachers that complete the survey across the nation, odds 1:50). This survey link will only be active from May 15 to June 21, 2014. We cannot complete this project without your participation and greatly appreciate you taking the time to help us out. We also ask that you would pass this message on to teachers that you know in order to increase our sample size. Please contact me

(harshmjt@miamioh.edu) for any additional information. THANKS!

ANOTHER REQUEST FOR HELP:

Union College Graduate needs an audience to fulfill commitments.

I'll be on the JOIDES Resolution (<http://joidesresolution.org/>), a seagoing research vessel that drills core samples and collects measurements from under the ocean floor, as 'Education Officer' from 7th of May until we return to port around 28th of July.

In that role, I need broadcast audiences in the U.S. and/or beyond. Elementary, middle and high school students, summer camp programs, museums or professional development groups. We are very flexible in

what we can discuss (I can accommodate any subject area). The general program a 40+/- minute broadcast. A video provides an overview of what goes on on-board the JR (<http://joidesresolution.org/node/2638science>).

Please sign up [here](#)

(https://docs.google.com/a/union.edu/spreadsheet/viewform?formkey=dExWbzh2YnZQV3pDb3dldjB_aOThtMVE6MA#gid=0) for a video broadcast from my expedition, 351.

Mike Prosalik is currently a science teacher at Malvern Preparatory school in Malvern, PA.

michaelprosalik@gmail.com

In the News Too busy to sift through the news in search of interesting stories? Click on the link to read current news stories collected for you by NSTA staff members.

Good way to learn oxidation numbers ...Mahjong Chemistry Game

<http://www2.stetson.edu/mahjongchem/>

FROM THE CORNELL ORNITHOLOGY LAB: Great New FeederWatch Website: Our team just relaunched the [Project FeederWatch](#) website.

Triangle Coalition has many STEM articles of interest to science educators: to read these articles, go to: [TRIANGLE COALITION](#)



Smithsonian
Science Education Center

(click logo for more fun!)

Check out our newest game, HABITATS!

HABITATS is available to play for free online.

Do you know where the red-eyed tree frog calls home? Play this game based on animal habitats to learn! Explore the desert, coral reef, jungle, and marsh to discover where many animals live by matching each animal to their correct habitat!

[Learn More](#)



MUSEUMS and INSTITUTIONS:

The following Presented by the Connecticut State Museum of Natural History and Connecticut Archaeology Center, part of the College of Liberal Arts and Sciences at UConn. 860.486.4460 - www.mnh.uconn.edu

"Human's Nature: Looking Closer at the Relationships between People and the Environment." Experience the Museum's permanent exhibit "Human's Nature: Looking Closer at the Relationships Between People and the Environment." The exhibit explores how the natural history of Southern New England has shaped, and continues to shape, the lives of the people who live here and, in turn, how people have shaped the environment. Monday – Friday, 10 am to 4 pm.

Elizabeth Park Conservancy's Rose Sunday, Sunday, June 15, 10 am to 4 pm
Elizabeth Park, Hartford, Stop by and visit the Museum and Archaeology Center at the Elizabeth Park Conservancy's Rose Sunday and learn about natural and cultural

history through our ethnobotany exhibit! This event celebrates the park's 15,000 blooming roses in America's oldest municipal rose garden. Explore the world famous rose garden, a two and a half acre park that has about 800 varieties of roses. There will be a number of cultural, arts, and heritage organizations participating as well as music and dance performances, and children's activities! For more information and directions visit <http://elizabethparkct.org>.

Marine Explorers: K.A.S.E.T. - Kids Are Scientists & Engineers Too!
Session 1: Monday, June 30 through Wednesday, July 2, 9 am to 12 noon*
Session 2: Monday, July 7 through Wednesday, July 9, 9 am to 12 noon*
UConn, Storrs Campus and Groton Avery Point Campus (directions will be sent to participants) Advance registration required: \$185 (\$165 if registered before June 7)
To register contact K.A.S.E.T. at 860.486.8115 or visit <http://www.kaset.uconn.edu>.

Investigate how aquatic plants and animals adapt to their environment during two mornings of activities in Storrs. On the third day, take a full-day trip to Project Oceanology at Avery Point for a lab with live animals followed by an afternoon exploring Long Island Sound aboard a research vessel. *This is a 3-day module: 2 mornings and one full-day field trip.

Space Astronomy

K.A.S.E.T. - Kids Are Scientists & Engineers Too! Monday, July 7 through Friday, July 11, 9 am to 12 noon* UConn, Storrs Campus (directions will be sent to participants) Advance registration required: \$185 (\$165 if registered before June 7) To register contact K.A.S.E.T. at 860.486.8115 or visit <http://www.kaset.uconn.edu>.

Celebrate over 400 years of

telescopic astronomy by building your own small telescope and learning what's to be seen in the night sky. We'll also track planets, a comet and one of the largest asteroids, make and test sundials and a moondial, explore Mars using the latest NASA software, and make an iMovie of you flying around a planet of your choice. In addition to activities in UConn's Planetarium and astronomy labs, you'll get to use a telescope at the night observing sessions, and observe sunspots if available. *This module includes night observing sessions. Presented by the Department of Physics, part of the College of Liberal Arts and Sciences at UConn.

Archaeology Field School for Kids

K.A.S.E.T. - Kids Are Scientists & Engineers Too!

Monday, July 7 through Friday, July 11, 9 am to 12 noon

UConn, Storrs Campus (directions will be sent to participants)

Advance registration required: \$185 (\$165 if registered before June 7)

To register contact K.A.S.E.T. at 860.486.8115 or visit <http://www.kaset.uconn.edu>.

Do you like uncovering evidence to solve mysteries? Do you like the idea of getting your hands dirty while exploring the past? Spend a week with UConn archaeologists exploring the world of field archaeology. You will learn about the science, tools, and methods used by genuine archaeologists and be part of a real archaeological field crew! Participants will be doing hands-on fieldwork and laboratory research at a professional, ongoing archaeological dig. We have been opening new areas of our on-campus dig site each year, and every session we uncover something new! Presented by the Connecticut State Museum of Natural History and Connecticut Archaeology Center, part of the College of Liberal Arts and Sciences at UConn.

Brooklyn Botanic Garden & Brooklyn Museum, NYC

Saturday, July 12

Advance registration required: Bus Fee \$45 (\$35 for Museum members)

Departing from UConn Storrs Campus (directions will be sent to participants)

All ages are welcome. Children must be accompanied by an adult.

Founded in 1910, the Brooklyn Botanic Garden today represents the very best in urban gardening and horticultural display and over 10,000 taxa of plants can be found within its 52 acres. *Gardens Within the Garden* include the Cherry Esplanade, Children's Garden, Fragrance Garden, Herb Garden, Lily Pool Terrace, Native Flora Garden, and Rock Garden to name a few. The conservatory contains the Aquatic House, Desert Pavilion, Tropical Pavilion, Warm Temperate Pavilion, and renowned Bonsai Tree Museum.

Adjacent to the Botanic Garden you will find the Brooklyn Museum, one of the oldest and largest art museums in the country. Its world-renowned permanent collections range from ancient Egyptian masterpieces to contemporary art, and represent a wide range of cultures from across the globe.

The bus will leave Storrs at 8 am and make a second pick-up in Cromwell at 8:45 am. The bus will depart Brooklyn for UConn at 5 pm. Please arrive and be prepared to board the bus prior to departure times. Admission to the Museum and Botanic Garden are not included and should be paid at the door. Both offer a discounted "Art and Garden Ticket" to visit both venues. For a preview, and prices for admission packages, visit the Brooklyn Botanic Garden website at <http://www.bbg.org> and the Brooklyn Museum website at <http://www.brooklynmuseum.org/home.php>.

Personal Fieldnotes: Documenting the World Around You

Megan Delaney, Museum of Natural History, UConn

Saturday, July 19, 10 am to 12 noon

Connecticut State Museum of Natural History, UConn Storrs
Advance registration required: \$25 (\$20 for Museum members); includes materials fee Adults and children ages 12 and above. Children must be accompanied by an adult.

Participants will have the opportunity to look through the amazing archaeological fieldnotes created by John Spaulding, which inspired our current exhibit *Thinking Like an Archaeologist*. Then, we will introduce the tools and materials typically used in paper crafting and teach some basic tips and techniques for laying out photos and ephemera. You will receive a folder that contains instructions, basic supplies such as solid and patterned paper, adhesives, and embellishments, and a list of other helpful supplies to create your own fieldnote kit at home. Please bring items (such as photos, found items from your yard, or other ephemera) that you are interested in including in your own personal fieldnotes.

Magnificent Microbes!

K.A.S.E.T. - Kids Are Scientists & Engineers Too!

Monday, July 21 through Friday, July 25, 9 am to 12 noon

UConn, Storrs Campus (directions will be sent to participants)

Advance registration required: \$185 (\$165 if registered before June 7)

To register contact K.A.S.E.T. at 860.486.8115 or visit

<http://www.kaset.uconn.edu>.

Explore unseen worlds that are all around you. Discover microscopic organisms that make your food good, and those that make your food go bad. Learn how yeasts make bread, and bacteria make yogurt, and find out how to keep your kitchen clean from the microbes that can make you sick. Trek outside and hunt for microbes in lawns, ponds and woods! See the colorful microbes that live in

ponds, create rust, and help plants to grow. Uncover the microbes that help termites to eat wood. Find microbes that defend themselves with antibiotics. Join us and open your eyes to an exciting new world!

Project O—Fun in the Lab and On the Sea!

Research Staff, Project Oceanology, UConn Avery Point

Saturday, July 26, 10 am to 3:30 pm

Groton, CT (directions will be sent to participants)

Advance registration required: \$40 (\$30 for Museum members)

Fee includes both the morning workshop and afternoon cruise.

Adults and children ages 6 and above. Children must be accompanied by an adult.

Please register early as space is limited.

Spend the day on the beautiful Connecticut shoreline, experiencing marine science both onshore and at sea. You will be in the Project Oceanology laboratory in the morning to explore the natural history and diversity of Long Island Sound's animal and plant life through fun, hands-on activities. After the lunch break, you will take a voyage out to sea on the Enviro-lab II research vessel. During this 2.5-hour cruise on Long Island Sound, you will experience hands-on marine biology at the stern of the boat by pulling trawl and plankton nets, and then examining the catch. At the bow, learn chemistry and physics through scientific experimentation as you operate the instruments and equipment used in oceanography to study the characteristics of seawater. Bring a picnic lunch to eat by the harbor's edge! College of Liberal Arts and Sciences at UConn. 860.486.4460 - www.mnh.uconn.edu

Protecting Trees from Asian Longhorn Beetles and Emerald Ash Borers

Katherine Dugas, Entomologist Connecticut Agricultural Experiment Station

Saturday, August 2, 10 am Connecticut State Museum of Natural History, UConn Storrs No registration required – FREE Adults and children ages 8 and above.

Children must be accompanied by an adult. The Emerald Ash Borer (EAB) and Asian Longhorned Beetle (ALB) are two invasive forest pests that threaten Connecticut's urban and rural forests. While the Asian Longhorned Beetle has not yet been found in CT, it is in Worcester MA (35 miles from the CT border). The Emerald Ash Borer was first detected in CT in July 2012, and has since been found in 15 towns spanning the four westernmost counties of CT. The rapid spread of both of these forest pests can be prevented by limiting the long-distance movement of firewood.

Join Katherine Dugas, from the Connecticut Agricultural Experiment Station, and learn about the history and biology of Asian Longhorn Beetles and Emerald Ash Borers, current survey methods, host tree identification, control and eradication efforts for both insects, and ways that the public can help to detect and prevent the spread of these and other destructive forest pests. Then step outside as we identify and examine some of the host trees found around the Museum.

CSMNH Adult Archaeology Field School Dr. Nicholas Bellantoni, Former State Archaeologist, CSMNH UConn, Monday, August 4 through Friday, August 8, 9 am to 3 pm, Central Connecticut location (directions will be sent to participants)
Advance registration required: \$400 (\$300 for Museum members)
Adults and teens ages 16 and above. Spend an entire week learning about archaeology at the Connecticut State Museum of Natural History and Connecticut Archaeology Center's Field School! This intensive field school will cover the cultural aspects of archaeology, as well as proper archaeological field techniques and data management. As a member of this program, you will have the opportunity to

participate in a dig at an archaeological site as part of the official team of investigators under the Office of State Archaeology. Your findings will add important information to our understanding of Connecticut's rich historic past!

Hammonasset Shoreline Ecosystems

Meigs Point Nature Center Staff,
Hammonasset State Park
Thursday August 14, 10 am to 11:30 am, rain or shine, Madison, CT (directions will be sent to participants) Advance registration required: \$10 (\$5 for Museum members); parking fees are not included. All ages are welcome. Children must be accompanied by an adult. Explore the ecosystems of Connecticut's coast at Hammonasset State Park. Adjacent to Long Island Sound, in the shoreline town of Madison, the ecosystems of Hammonasset are swimming with life. From its sandy beach and rocky shore, to its salt marshes, Connecticut's largest shoreline park is not only popular with beach-goers, but also a diverse collection of plants and animals that call this shoreline environment home. Join the Meigs Point Nature Center Staff and discover the characteristics of three ecosystems found at Hammonasset State Park. Once the tour has been completed, enjoy the rest of the afternoon at this beautiful seaside setting. Bring appropriate footwear, such as boots or old sneakers, that can get wet and muddy.

High Tech Treasure Hunting: Fun with GPS and Geocaching

Cary Chadwick, Extension Educator, Center for Land Use Education and Research (CLEAR), UConn, Saturday, August 23, 10 am to 12 noon, East Haddam, CT (directions will be sent to participants), Advance registration required: \$20 (\$15 for Museum members), Adults and children ages 8 and above. Children must be accompanied by an adult.

Originally, the Global Positioning System (GPS) was developed for military use as a navigational aid. Today, the general public has access to this satellite-based technology, and using hand-held GPS devices they can participate in geocaching, a high-tech treasure hunt. The idea behind geocaching is to locate outdoor hidden containers, called geocaches, by using GPS coordinates listed on the Geocaching website, and then share your experiences with others online. Currently, there are 2,302,719 active geocaches and over 6 million participants worldwide! Cary Chadwick of UConn's Center for Land Use Education and Research will teach you how to use a handheld GPS unit. Then, everyone will go outdoors and hunt for practice caches using the coordinates given to you. One of these will be an officially registered geocache that you can list online as your first. Join us for this opportunity to learn about this fun-filled combination of hiking and treasure hunting, high tech style!

Special Trip: Meadowcroft Rockshelter and Historic Village, Avella, PA

Friday, October 10 through Sunday, October 12

Advance registration required: \$325 (double room) or \$420 (single room)

Adults and children ages 12 and above. Participants under 18 must be accompanied by an adult.

The 16,000-year-old Meadowcroft Rockshelter is the earliest known site of continuous human habitation in North America! Property owner and museum founder, Albert Miller, discovered the first prehistoric artifacts found at Meadowcroft in 1955. In 1973, the first professional excavation of the Rockshelter was conducted by the Cultural Resource Management Program (CRMP) of the University of Pittsburgh and directed by Dr. James M. Adovasio. Today, ongoing research and excavation continues under the direction of Dr. Adovasio through the Mercyhurst Archaeological Institute (MAI). The excavation protocols used at Meadowcroft are considered state-of-the-art and widely regarded as one of the most carefully excavated archaeological sites. Don't miss this special opportunity to explore this National Historic Landmark and Meadowcroft Village, which recreates an Upper Ohio Valley village from the mid-19th century.

The fee includes round trip bus transportation (gratuity included), two nights' accommodations at Hilton Garden Inn, two upgraded full breakfast buffets, entrance to the Meadowcroft Rockshelter and Historic Village, boxed lunches during the Meadowcroft Rockshelter visit, and a tour led by Dr. James M. Adovasio of the Mercyhurst Archaeological Institute (MAI).

This trip is sponsored by the Friends of the Office of State Archaeology (FOSA) and the Connecticut State Museum of Natural History and Connecticut Archaeology Center at UConn. Advance registration with full payment is required by August 1, 2014. **To request a Meadowcroft Rockshelter and Historic Village trip registration form, please contact David Colberg at david.colberg@uconn.edu or 860.486.590.**



Four Pups are Otter This World:

First Exam Reveals 2 Girls & 2 Boys!

Connecticut's Beardsley Zoo invites public to welcome four North American River otter pups to the family. Connecticut's Beardsley Zoo welcomes four North American River otter pups, born on February 15, 2014. The babies had their first exam by the zoo's veterinarian today, revealing the gender and general health of the otters. The exam revealed that two female and two male otters were born. The females weighed in at 3.1 lbs and 2.29 lbs while the males weighed in at 3.06 lbs and 3.4 lbs. Dr. Hochman, who has been a vet at the zoo for 43 years, checked their overall wellness, listened to their hearts, and gave them their first vaccination. The pups also had identification transponders inserted. This is standard operating procedure and does not cause the animals any discomfort.

First Otter Exam

"At nearly nine weeks old, the pups have yet to venture out in public," explained Zoo Director Gregg Dancho. "They opened their eyes for the first time about two weeks ago and are just starting to explore the world around them. We expect that any day now, their mom will be coaxing them out to teach them to swim. If all goes well, these little ones will be swimming like pros within a week."

Watch video from the exam!



Mom, named Necedah, arrived at Connecticut's only zoo in 2012 from the Minnesota Zoo and Dad, Rizzo, arrived in 2004 from the St. Louis

Zoo. She is two years old and he is 11 years old. This is Necedah's first litter and Rizzo's fifth. Currently, Rizzo, Necedah, and their pups are the only otters in residence at the Zoo. The four pups are expected to be on exhibit at Connecticut's Beardsley Zoo through the fall, at which time it is possible some or all will be transferred to other AZA member institutions for breeding.

"The otters are among the favorite exhibits here at the zoo," shared Dancho. "Their antics are so entertaining that visitors never get tired of watching them slip and slide around. Add four babies to the mix and it's guaranteed to be a crowd pleaser!"



To celebrate the births, Aquarion Water Company is making a donation to support the otter exhibit. In 2011, Aquarion became the corporate sponsor of the exhibit, which enabled the construction of a new water slide and ramp for the otters to enjoy. The new slide and ramp offer both fun and function for these playful mammals, while at the same time enhancing their environment.

"In our role as stewards of the environment, water plays an essential role in our daily existence and that is especially true for our aquatic friends," offered Bruce Silverstone, vice president, corporate communications, Aquarion Water Company. "In this exhibit, water is also providing a playground for the animals. Like everyone, we're looking forward to the endless hours of pure entertainment these otters will bring."



Taken March 8, 2014

About North American River otters

River otters are members of the weasel family. They prefer fish, but also will eat turtles, crayfish, and amphibians.

These playful mammals are able to close their ears and nostrils when swimming under water and can remain submerged for six to eight minutes. They use their webbed and clawed feet, powerful tails and back legs to push them through the water at speeds of up to 18 mph. Their water repellent fur helps to keep them both warm and dry.

Connecticut's Beardsley Zoo is closer than you think and open daily from 9:00 am to 4:00 pm. Adult admission



Taken March 21, 2014
(ages 12 & older) is \$14.00, children
(ages 3 -11) and senior admission (62
and older) is just \$10.00, and children
under 3 years old are free. Zoo
members also are admitted free.
Parking at the Zoo is free of charge.

**. THE MARITIME AQUARIUM AT
NORWALK**, 10 N. Water Street,
Norwalk, CT; (203) 852-0700,
www.MaritimeAquarium.org. Hours:
10 a.m. to 5 p.m. daily.. IMAX®
theater offers the largest movie
screen in Connecticut. The name of
the Aquarium's new research vessel
will be R/V Spirit of the Sound –
chosen through a recent Name the
Boat contest open to Norwalk school
students. A Brien McMahon
sophomore wins the contest's top
prize for submitting the name.



TOM NAIMAN NAMED DIRECTOR OF EDUCATION

AT THE MARITIME AQUARIUM AT NORWALK

NORWALK, CT – Tom Naiman, who
brought educational innovation to
the Bronx Zoo for 16 years, is the

new director of education at The Maritime Aquarium at Norwalk.

Naiman takes over an active department that presents marine education to
140,000 students a year, from preschoolers to college students. Programs are
conducted during field trips in The Maritime Aquarium's classroom, in schools
through the Aquarium's Traveling Teacher offerings, at beaches for coastal
explorations and out on Long Island Sound aboard the Aquarium's research vessel.

"Tom comes to us with more than 20 years of experience in the environmental
education and curriculum development fields," said Jennifer Herring, president of
The Maritime Aquarium. "His combination of experience, accomplishment and
innovation, and his burning desire to get back into the zoo and aquarium world,
made him the top choice among a field of highly qualified finalists for the job."

Naiman comes onboard just a few months before The Maritime Aquarium receives
one of the biggest educational assets in its 25+ years: a new state-of-the-art
research vessel. Named the R/V Spirit of the Sound™, the privately funded \$2.7
million floating classroom will be the world's first research vessel with a hybrid-
electric propulsion system. The 65-foot catamaran will hold twice as many students
as the Aquarium's current boat.

Most of Naiman's career has been with the Wildlife Conservation Society at the
Bronx Zoo, where he served in a variety of roles, including director of curriculum
development and international education. He managed instructional staff, and was
responsible for the content, quality and evaluation of programs for schools and the
public. He led the professional development program, which trained more than
2,000 teachers and environmental educators a year, both locally and
internationally, including in four Chinese provinces and 19 other countries.

While with the Bronx Zoo, he also was instrumental in establishing the Urban
Assembly School for Wildlife Conservation, which is a new public school in the
Bronx, and worked closely with the zoo's development office in securing grants
totaling more than \$1 million. As an educational consultant to Nickelodeon, he was
on the team that created "Go, Diego, Go!," for which he recommended most of the
wildlife species featured on the program's first two seasons.

Naiman has spent the past five years working with the New York Department of
Education and subsequently McGraw-Hill Education, developing curriculum that
uses emerging technologies to individualize the learning process in middle-school
math.

His expertise in using emerging technologies to engage and provide access to
learners of all ages dates back to 1998, when he managed the first entirely on-line
environmental education conference, which included 600 participants from 30
countries. He has designed online learning modules and is currently on the board of
Odysseus Mobile, a producer of mobile education and entertainment applications
for zoos and aquariums.

He has served as North American representative and vice president of the
International Zoo Educators Association.

Naiman has a bachelor's degree from Brown University and a master's from SUNY-
Stony Brook.

*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***