



## CONNECTICUT SCIENCE CONNECTION

September 2019

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

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



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**Professional Development Opportunities! Are you interested in**

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



**Join the CSSA!**

**[www.cssaonline.org](http://www.cssaonline.org)  
All Teacher leaders**

**welcome You do not have to be in a formal Supervisor Position, but should be interested in helping keep your colleagues informed on the latest in science education.**

**A FREE workshop designed exclusively for greenleaf schools Meet other Green LEAF schools • Learn what is NEW in Green LEAF • Develop and support your school's Green Team • Evaluate your school's progress & set goals using the Green LEAF Self-Assessment tool • Share success stories and challenges • Build resources for school implementation**

**Tuesday, November 5, 2019 (Election Day) 9:00 am- 3:00 pm Connecticut Forest & Park Association 16 Meriden Rd., Rockfall, CT**



**SAVE THE DATE for (SENEME) Fall Conference & Annual Meeting Saturday, October 19, 2019 at University of Rhode Island, Narragansett Bay Campus**

**Mark your calendar! The Southeastern New England Marine Educators (SENEME) will be hosting its 2019 Annual Conference on Saturday, October 19<sup>th</sup> from 8:00 am – 4:00 pm at the University of Rhode Island Narragansett Bay Campus. This event will include: a panel discussion on ocean exploration, networking opportunities, skill-building workshops, field trips, and a silent auction. All are welcome, come join us!**

**CALL FOR PRESENTERS! We are also announcing the call for presenters! We welcome a broad range of sessions addressing any and all ocean topics and ocean literacy . All concurrent workshops will run for 60 minutes. Come share your best practices, lessons, tips, or strategies for making oceans come alive and relevant for your students. <https://tinyurl.com/SENEME2019>**

### **NATIONAL MARINE SANCTUARIES WEBINAR SERIES**

**Catch and Release: Large whale entanglements and response efforts to mitigate the threat**Entanglement or by-catch is a global issue that affects many marine animals, including large whales like the charismatic humpback whale. Hundreds of thousands of whales die worldwide each year, but the impacts go beyond mortality. When conditions and resources allow, trained responders under NOAA's Marine Mammal Health and Stranding Response Program attempt the dangerous task of freeing whales from life-threatening entanglements. However, the ultimate goal is to gain information to reduce the threat for whales and humans alike. The Hawaiian Islands Humpback Whale National Marine Sanctuary working closely with its partners and the community, coordinates response efforts for Hawaii, the principle breeding and calving ground of humpback whales in the North Pacific. The effort represents a unique and valuable opportunity to gain a broader understanding of large whale entanglement threat. Learn more about whale entanglements and response efforts from expert Ed Lyman.

**This webinar series provides formal and informal educators with educational and scientific expertise, resources, and training to support ocean and climate literacy in the classroom. Visit our [archives](#) to watch past webinar recordings.**

**More information on the series and upcoming webinars can be found [here](#). After registering you will receive a confirmation email containing information about joining the webinar. The Webinar ID is 462-571-163.**

## Sam Rhine's 2019-20 Genetic Update Conferences for High School Students and their Teachers

**Plainville High School - Oct 10th**  
Program runs from 9:00 am to 12:30 pm / Lunch on your own  
Pre-registration begins Sept 1, 2019: at [www.samrhine.com](http://www.samrhine.com)

- **Developing Viruses as Antibiotics**
- **CRISPR/Cas3 - the 'DNA Shredder'**
- **Chromosome Tips & Life Expectancy**
- **Producing Human Organs in the Lab**
- **3-D Printing of Human Body Parts / Human-Animal Chimeras**
- **CRISPR Modified Pigs produce Organs for Humans Transplants**
- **Human Brain 'Organoids' / Decellularization & Recellularization**

If you teach an AP or Honors Biology class and have not experienced a visit to Sam Rhine's presentation, I highly recommend planning attendance to this event next fall. It is well worth the trip to centrally located Plainville High School!



Secondary life and Earth science teachers... please register for a

water- and land-based NOAA-funded NGSS workshop on Saturday, September 7th [More information Link](#)



The Teacher of the Year Award annually gives \$6,000 (\$3,000 for school use under the teacher's supervision for educational purposes and \$3,000 for personal use by the teacher) to a K-12 teacher within the United States who has demonstrated outstanding leadership in the field of geoscience education.

Your application should include material taught during the academic year ending the previous Spring or Summer semester.

### REQUIREMENTS & GUIDELINES

#### How To Apply

Application open Sept. 2 to Jan. 31.

<https://foundation.aapg.org/teacher-of-the-year-award-k-12>

**NSTA NEWS!** A members-only community forum is now available for NSTA members! An opportunity to share ideas, express opinions, ask questions about the proposed name change. Click here to sign in and join the conversation. Not a member? join here!

### \*\*\*\*\* AN INVITATION FROM NEW YORK SUNY EDUCATORS!

Registration is now open for our Fall Case Study Teaching in Science Conference, September 27-28, 2019, in Buffalo, NY, sponsored by the National Center for Case Study Teaching in Science, at the Buffalo Marriott Niagara.

Our conference offers sessions for both the beginner and advanced case study teacher and is formatted for college and high school teachers. In addition to our distinguished group of session teachers, we have brought in a noted scholar to address the general conference, Joseph Kim, Associate Professor in Psychology, Neuroscience and Behavior, McMaster University, Hamilton, Ontario, Canada to present on "Motivating Durable Learning: Focused Attention Through Instructional Design."

Workshop sessions this year will cover teaching cases using backward design, multimedia learning principles, developing cases using biointeractive videos, high school methods of engaging students, and more! See below for a full listing of workshop sessions and other information.

Our conference is led by Dr. Clyde (Kipp) Herreid, SUNY Distinguished Teaching Professor and Director of the National Center for Case Study Teaching in Science. The conference is open to anyone interested in case study education, including high school teachers and international teachers. It also includes a poster session and we would be pleased if you submitted a proposal by September 10, 2019.

[Register now](#) for this rewarding two-day Case Study Teaching in Science Conference, September 27-28, 2019.

## SAVE THE DATES!

# Connecticut Science Safety Network CSSN 2019 Workshop Calendar



***Each workshop is contingent on a minimum enrollment.***

All workshops instructed by internationally recognized science laboratory safety compliance specialist Dr. Ken R. Roy

❖ Cost per workshop: \$200/Person

❖ **Workshop Location:**  
Connecticut Science Center  
250 Columbus Blvd  
Hartford, CT 06103

❖ Check-in:  
Begins at 8:30AM

❖ Register online at  
[www.ctsciencecenter.org/education/mandell/sciencesafetyworkshops](http://www.ctsciencecenter.org/education/mandell/sciencesafetyworkshops)

**Workshops sponsored by CSSN in association with the:**

- Connecticut Interlocal Risk Management Agency CIRMA
- Connecticut Science Center
- Connecticut Science Teachers Association
- Connecticut Science Supervisors Association
- Connecticut State Department of Education

### DATE

Oct. 29,  
2019  
9:00AM-  
12:00PM

### TOPIC

**Science Safety and Liability for Science Teachers and other Employees like Special Education Teachers/Paraprofessionals in the Science Lab**

Under the OSHA Lab Standard, all school employees working in science labs are required to receive appropriate safety training based on the OSHA Laboratory Standard (29 CFR 1910.1450). The focus of this workshop is to address that need by providing information on legal safety standards and better professional practices.

**To Register** <https://formstack.io/F425F>

Nov. 12,  
2019  
9:00AM-  
12:00PM

**Training for Chemical Hygiene Officers + Chemical Management Safety 101 for 7-12 Science Teachers & Supervisors**

Learn the responsibilities and liabilities of being the appointed OSHA chemical hygiene officer overseeing science laboratories and employees in your school or district.

In addition, all aspects of chemical management encompassing identification, management, and reduction of risk through all stages of chemical purchasing, storage, distribution, use, and disposal will be addressed. A must for any science teacher, supervisor or chemical hygiene officer working with or overseeing hazardous chemical use in science labs.

**To Register:** <https://formstack.io/D1F40>



## Discover The Estuary Ecosystems of Long Island Sound. Tour Copps Island Oysters Company and The Sheffield Island



Come learn about a fourth generation family-owned farm that provides high quality, consistent and sustainable products from Long Island Sound.



Tour the Sheffield Island Lighthouse, the Stewart B. McKinney National Wildlife Refuge and learn how to take your students on an interdisciplinary field trip that incorporates NGSS, History and Science into an unforgettable interdisciplinary and educational experience for all grade levels.

**Date: September 21, 2019 - 9 am - 3 pm**

Join us on the Norwalk Seaport Association ferry cruise to The Copps Island Oyster Company and The Sheffield Island. Learn about the Oyster Industry from one of the last standing traditional oyster farms, the Maritime history of Norwalk's Harbor and make curricular connections with Next Generation Science Standards such as, HS LS2-6 , DCI LS2.A - Interdependent Relationships, DCI LS2. C - Ecosystem Dynamics, DCI LS4.D - Biodiversity and Humans and CCC Stability and Change, Systems and System Models

- Tour the Copps Island Oyster Company and the historic Oyster Museum on site.
- View and identify a wide variety of bird species on the journey to the Sheffield island.
- Discuss the adaptations that have allowed various species to thrive in Norwalk's Harbor.
- Tour of the lighthouse and learn about the history of the island and the lighthouse keepers
- Explore the coastline and view, sketch or collect and identify a wide variety of
  - Shells, Crabs, Seaweeds and other small organisms
- Take water samples and discuss water quality
- Investigate, explore and compare the variety of estuary ecosystems present on the island, including the salt marsh, rocky shore and sandy shore.
- Discuss the importance of each ecosystem and the impact humans have on those systems
- See one of the largest Osprey nests atop the boat ramp to the island
- Pull a plankton net and observe and identify plankton species present
- Pull a seine net and observe and identify the species collected
- Do a crab count of local crabs by size, species and sex.
- Use time with colleagues to plan you own adventure to Sheffield Island

### **Workshop Cost and Registration**

1. Complete the google form using the link below to register :

<https://forms.gle/cjAapvvPze4EH9yi6>

2. Cost: \$10 venmo or check - details will be sent once registration is completed. Payment must be made to reserve your spot for the workshop
3. Goodie bags with various items will be given out too.

Class is limited to the first 20 paid registrations. A wait list will be kept.

**Please dress for the weather and be prepared to get wet, muddy and have fun. Bring your own lunch, bug spray and sunscreen we will be outdoors on an island for the majority of the day**

#### **Class is organized by**

Eva Bartush  
Brien McMahon High School's  
Marine Biology Teacher

and

Kimberly Smith  
AITE High School's  
Marine Biology Teacher

### **With the help from**

**The Norwalk Seaport Association  
and**

**Norm Bloom and Son, The Copps Island Oyster Company.**

**MORE BELOW!**



### Advanced Instructional Coaching Institute

This workshop is geared towards Instructional Coaches who have 3 or more years of coaching experience and are looking to advance their professional learning through four half-day sessions. Through this year-long series, Instructional Coaches will have the opportunity to study and apply different coaching models, discuss strategies for difficult conversations with adult learners, and learn how to plan and present professional learning for teachers.

<b>Date</b>	<b>Location</b>	For workshop information, email Jessica Kazigian at <a href="mailto:jkazigian@crec.org">jkazigian@crec.org</a> . For assistance with registration, contact MaryJanet Candeias at <a href="mailto:mcandeias@crec.org">mcandeias@crec.org</a> or 860-524-4022
9/23/19	111 Charter Oak Ave, Hartford, CT	
11/22/19	06106	
2/3/20		
5/8/20	<b>Price</b>	
<b>Time</b>	\$300	
12:00PM - 3:00PM		

[Register](#)

CREC | 111 Charter Oak Avenue, Hartford, CT 06106

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**National  
Science  
Teaching  
Association**

## Mark Your Calendar Fall 2019

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Wednesday <b>September 25</b> 7:00 p.m. ET	Wednesday <b>October 2</b> 7:00 p.m. ET	Wednesday <b>October 9</b> 7:00 p.m. ET	Wednesday <b>October 23</b> 7:00 p.m. ET	Wednesday <b>November 6</b> 7:00 p.m. ET
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## Start Your School Year Off Right!

### [Register for a Picture-Perfect Online Course](#)

Don't miss out on this great professional learning opportunity!

Learn to combine elementary-level science and literacy instruction—and technology, engineering, and math, as well—with a [Picture-Perfect STEM Online Course](#).

**Register Online**

A Picture-Perfect STEM Online Course includes:

- 10 hours of live training using Zoom Video Conferencing. *Note: This course is a real-time, interactive learning experience requiring attendance and participation at each session.*
- 3 two-hour sessions with the authors and 2 two-hour sessions with a trained facilitator
- 1 e-book of choice from either *Picture-Perfect Science STEM Lessons K–2* or *Picture-Perfect Science STEM Lessons 3–5*
- A digital learning packet containing the first 5 chapters of *Picture-Perfect Science Lessons*, lessons modeled during the webinars, and relevant articles
- Graduate credit if purchased separately—information will be available during the first session



# PROFESSIONAL DEVELOPMENT WORKSHOPS

All workshops engage educators in the use of materials and provide, small group work and applications to NGSS and Common Core implementation, materials support, educator planning initiatives, and direct use in classrooms through investigations and real world explorations. Fee for each workshop is \$40.00 per educator with discounts for 2 or more educators from the same school/organization, \$35.00 or \$30.00 for three or more. **Some workshops are supported by DEEP grant funding and are offered free and can also provide a stipend for schools or educators. All workshops take place at Kellogg Environmental Center located at 500 Hawthorne Ave, Derby CT 06418, unless otherwise noted. Details found on the registration link. [Register here!](#)**

For questions and additional information please contact  
[susan.quincy@ct.gov](mailto:susan.quincy@ct.gov) or [susan.d.robinson@ct.gov](mailto:susan.d.robinson@ct.gov)

## **Aquatic WILD Workshop**

**October 2, 2019**

**Wednesday, from 9am-2pm**

Attend an Aquatic WILD workshop at the Kellogg Environmental Center in Derby. Dive into NGSS and STEM and do field investigations (weather permitting) and hands-on activities to help students learn about aquatic habitats and develop the necessary skills to prepare them for higher education, careers, in an ever-changing world. Registration Fee is \$40 per person with discounts for 2 or more educators from the same school or organization. To register, call the Kellogg Environmental Center at 203-734-2513 or email [susan.d.robinson@ct.gov](mailto:susan.d.robinson@ct.gov)

## **Weather, Outdoors, and NGSS**

**October 10, 2019**

**Thursday, from 9am – 3pm**

Special look at understanding weather and applications to NGSS for elementary grades. Using Project WET and additional resources, we will provide the science behind weather and how it differs from climate change using classroom ready simulations and lessons.

Activities are designed to help the elementary educator feel comfortable with the topic and introduce methods to integrate this into your curriculum. Focus grades K -5. This workshop is supported by DEEP grant funds. It is free and provides a \$100.00 stipend.

## **On the Move with Water**

**October 25, 2019**

**Friday, 9am- 3pm**

Everybody loves water and the ecosystems it supports. Let's look at the dynamic system of water and its movement using State Parks as Models for student activities. See how to bring students to outdoor spaces and use the natural resources to understand water systems and the impacts we have on them. Appropriate for grades 4-10. Applications to understanding climate change on water systems and human impacts. Dress for outdoors. This workshop is supported by DEEP grant funds. It is free and provides a \$100.00 stipend.

## **Natural Phenomena and Matter Interactions for Physical Science**

**November 13, 2019**

**Wednesday, 10am – 3pm**

**Marine District Headquarters, 333 Ferry Rd., Old Lyme CT.**

Using the outdoors we will explore activities to help bring the physical science of matter interactions come alive. This workshop will connect the standards for K -5 using NGSS standard PS1-A. Take a look at natural phenomena using water and plants to help awaken curiosity in students. Registration is required. This workshop is supported by DEEP grant funds and is free with a stipend for \$100.00.

## **Getting Little Feet WET**

**November 20, 2019**

**Wednesday, 10am – 1pm**

Do you work with Preschool or provide Early Childhood Education programming? This workshop is designed just for you and your age group. Learn methods to engage the young child in exploration and skill building using water. Natural water play and hand on activities provide a learning experience that builds concepts of understanding and basic physical skills and language. Take part in this hands on workshop and receive classroom ready materials and kits. Fee for workshop is 40.00 per person, discounts for 2 or more from same location. Registration is required.

## **The Problem with Pollinators**

**December 10, 2019**

**Tuesday, 10am – 2pm**

Let's take a look at the relationship between plants, pollinators and humans. Using a wide variety of pollinators we will take a look at how structure/function is developed and reasons for decline of many species. Materials and resources expand school gardens and habitat areas using more curriculum connections. Registration is required. Fee for the workshop is 40.00 and provides you with a collection of lessons and resources. Free for Green LEAF Schools.

**Workshops may also be arranged for school or district professional development days. Call Kellogg Environmental Education Center, 203-734-2513 to discuss your school or district needs. We would be happy to tailor make a workshop for your educators. There may be a fee to cover cost of materials that is flexible, based on your goals and resource supplies.**



**CT DEEP State Parks  
Public Outreach  
Kellogg Environmental Center  
500 Hawthorne Ave  
Derby, CT 06418  
203-734-2513  
[Susan.quincy@ct.gov](mailto:Susan.quincy@ct.gov)**



## KEYS TO SCIENTIFIC ACHIEVEMENT CONNECTICUT SCIENCE EDUCATORS ANNUAL CONFERENCE 2019

### SAVE THE DATES FOR OUR ANNUAL CONFERENCE!

**November 8th and 9th, 2019**  
**Heritage Hotel & Conference Center**

**Friday, November 8th: Special Session with Entertainment & Refreshments**

**Saturday, November 9th from 8:00 - 3:30 featuring:**

Workshops

Exhibitors

Networking

Giveaways

Light breakfast

Lunch Buffet

Beautiful Venue

Modern Meeting Rooms

President's Reception with Desserts & Door Prizes



### **Keynote Speaker: Okhee Lee**

Okhee Lee is a professor in the Steinhardt School of Culture, Education, and Human Development at New York University. She is currently leading collaborative research between New York University and Stanford University to develop instructional materials aligned with 3-Dimensional Learning to promote effective science education for all grades, K-12.





***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.***