

forty third • annual • conference



SCONYC

SCIENCE COUNCIL OF NEW YORK CITY

Science: Transitions & Transformations

SATURDAY, MARCH 19, 2022

Program &
Directory

Conference Info

Science Council of New York City

www.sconyc.org

43rd Annual Conference

Saturday, March 19, 2022

Science Topic

Science: Transitions & Transformation

SCONYC Executive Board

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Member Associations

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United Federation of Teachers Outdoor Environmental Education Committee

AN ASSOCIATED GROUP OF THE NATIONAL SCIENCE TEACHERS ASSOCIATION (NSTA)

In cooperation with the New York City Department of Education - Office of STEM

Workshop Session Info

Simply press the **TITLE** of the session you would like to join,
and the Zoom Channel should automatically open.

Conference Information Center

Conference Information Center - *we are here to assist you with any questions you may have during the conference.*

MORNING SESSIONS

9:30 AM – 11:30 AM

DataClassroom

Data will solve the big problems of tomorrow. Prepare your students today. Learning to work with data is more important than ever. DataClassroom is a web-app for graphing, statistics, and data analysis in the grade 6-12+ science and math classroom. The tool runs on any device that can access the internet. The tool has been designed by teachers to provide the opportunity to integrate next-generation data skills seamlessly with the learning experiences they are already creating. This session with Blake Blaze of DataClassroom will cover the basics of working with DataClassroom from uploading data, to choosing the right visualizations for insights, and even moving on to statistics when students are ready.

HHMI Science in the News

Evaluating Science in the News: A Tool for Science Literacy

Science literacy involves an understanding of how science works and using this understanding in making both personal and societal decisions. Participants will investigate free, classroom ready HHMI BioInteractive resources including a framework for checking the reliability of resources, analyzing the parts of a scientific paper, and critically evaluating the research presented.

MOSA Mack

Mysteries, Labs and Engineering - Challenges for 4th-8th Graders

Mystery, Phenomena, Labs and Engineering: Mosa Mack Science Demo

It's a standards-aligned resource you can use tomorrow in-class. Award-winning animated phenomenon, mysteries, collaborative lab activities, and engineering challenges: all in one teacher-friendly resource. Experience Mosa Mack Science, see real student work and walk away with free lessons.

LUNCH

11:30 AM -12:15 PM

Open Session – *Meet Up to Network with Other Teachers*

Qigong – Coordinated Body – Posture and Movement

Qigong practice typically involves moving meditation, coordinating slow-flowing movement, deep rhythmic breathing, and a calm meditative state of mind.

AFTERNOON SESSIONS

12:30 PM – 2:30 PM

STEMteachersNYC – Climate Change

Climate change is critical for high schoolers to understand because unless we take drastic action now, our planet's future is dire. Climate change works well as an anchor phenomenon for the energy unit in physics. Dive into classroom-tested materials that frame a modeling-friendly energy unit as an exploration of climate change physics. This includes exploring energy bar charts for global processes, the translation of energy forms to energy resources, and flow charts to examine energy use across the US and the world. See how students can model global warming and use scaffolded materials to help students read Eunice Foote's original 1856 paper on carbon dioxide and heat. These activities have been done in 9th grade physics and can be adapted for any middle or high school classroom.

HMI Tuskless Elephants

Engaging All Students in Science Practices through the Phenomenon of Elephant Tusklessness

How can we engage all students in the science practices and make their thinking about evolution by natural selection visible? In this workshop, participants will experience a lesson using a variety of free, classroom ready BioInteractive resources to explore the phenomenon of elephant tusklessness. Through these resources, participants will engage with multiple science practices, such as asking questions, gathering evidence, and developing an explanation of tusklessness based on natural selection. Using best practices in both online and in-person instruction, we will share strategies to support successful student engagement with science practices. The activities include a range of modalities, allowing all students to access and explore the content and show their knowledge of natural selection in a variety of ways.

New Visions Earth Science: Navigating the Transition to NYSSLS

This workshop will provide attendees with an immersive experience from a New Visions Earth Science unit on Weather, designed to support both the transition to the NYSSLS and the current Regents exam. Learn about how the 5E instructional model can engage students meaningfully in student-centered three-dimensional learning and still support success on Regents-aligned skills and content.

STEMteachersNYC – Ecology (Owl Pellet)

A unique activity that allows students to explore and investigate topics such as relationships and interactions within ecosystems, animal structure and function, and much more, owl pellet dissection has become a staple in elementary and middle grade classrooms. In this workshop, participants will learn how to use owl pellets with a range of grade levels (2-8) to teach a wide variety of STEM topics. After learning about owl pellet dissection in student mode, participants will have the opportunity to review the three dimensions of the NGSS as well as their own curricula to identify areas where owl pellets can be used to support instruction.

President's Message



Dr. Elisa Margarita

President

president@sconyc.org

New York City teachers and guests, welcome to the 43rd Annual Science Council of New York City! These are changing times for STEM educators as we continue to grow and adapt, remaining motivated and responsive to new ideas. Our profession and professional organizations are confronting a time of many transitions both nationally and internationally. The world of STEM is an exciting area in which to work, study, and play. We will continue to meet and bring inspired people together in forums like this to ensure that STEM teachers remain on the cutting edge.

I want to give you an idea of what you can expect and what we hope to achieve today. Our theme this year is *Science: Transitions and Transformations* in 2022. Are YOU realigning? If you are anything like me, you are more than ready to transition to spring and the fresh start that it always seems to bring. Today, there are two workshop sessions, the morning and afternoon sessions. Check out the relaxing Qigong experience during the lunch break or network with your fellow teachers. Earning up to **four** Continuing Teacher and Leader Education (CTLE) credits will be available for selected workshops. CTLE is a part of the 100 PD hours required by the NYSED. CTLE certificate holders are required to maintain records of their CTLE hours for eight (8) years – the five (5) year registration cycle plus three (3) additional years.

Let me give you a brief update on where we are today. According to the New York State Science Learning Standards (NYSSLS), Grades P-3 and 6, June 2022, the last administration of Grade 4 science test aligned to the 1996 Standards. September 2022, for Grades 4, June 2023 no Grade 4 science test; these students will take a new science test in grade 5 in 2024. Grade 7, June 2023, the last administration of Grade 8 science test aligned to the 1996 Standards. Grades 5 and 8, Spring 2024, the first administration of new Elementary Grade 5 and Intermediate Grade 8 science tests. September 2022, continue Phase III transition toward full implementation of the NYS 9-12 Science Learning Standards at the local level. June 2025, first administration Biology, and Earth and Space Science Regents Exams. June 2026, first administration Chemistry and Physics Regents Exams.

We are transforming our teaching methods to continuously improve our ability to apply scientific and engineering practices, disciplinary core ideas, and crosscutting concepts. Our teachers and stakeholders are transitioning to 3D learning and continuing this new curriculum. We should all be very proud of today and excited about where we are headed.

Before I close, I'd like to thank each of you for attending our conference and bringing your expertise to our gathering. As teachers and leaders, you have the wherewithal, experience, and vision to help us pave our way into the future. You are our most significant assets today and tomorrow. We could not accomplish what we do without your support and leadership. Throughout this conference, I ask you to stay engaged proactive and help us shape the future of STEM education. My respect and thanks go out to all of you. Enjoy the conference!

Organization Contacts

Chemistry Teachers Club of New York

Membership: Send \$15.00 to:
Chemistry Teachers Club of NY
P.O. Box 702
East Meadow, NY 11554
Email: ChemClub@sconyc.org

New York Microscopical Society

18-04 Hillery Street
Fair Lawn, NJ 07410
www.nyms.org
Make Payments to NYMS
c/o Mel Pollinger, Treasurer
One Prospect Village Plaza, Clifton, NJ 07013

Educators for Gateway

Membership:
Robert Newmark, President
7022 Perry Terrace, Brooklyn, NY 11209
Email: robnewmark@aol.com

STANYS – NYC

Membership: \$44.00 (1 year) / \$82 (2 years)
STANYS Office
P.O. Box 2121
Liverpool, NY 13089
www.stanys.org

Elementary School Science Association

Membership:
Dawn Campbell
1264 Sterling Place, Brooklyn, NY 11213
Email: dlaessany@gmail.com

Physics Club

Membership: Send \$15.00 to:
John Roeder
17 Honeyflower Lane
West Windsor, NJ 085510
Email: jlroeder@aol.com

New York Biology Teachers Association

Membership: \$10.00 per year
NYBTA
www.nybta.org
Payment by PayPal

Science Supervisors Association

Membership: Send \$25.00 to Beth Burg
SSA Treasurer
67 Manchester Dr.
Staten Island, NY 10312
Email: bburg@schools.nyc.org

New York State Marine Education Association

Membership: \$20.00 per year
Contact Person: Lane Rosen
146 Suffolk Hall, Stony Brook, NY 11794
www.nysmea.wildapricot.org

SCONYC is an associated member of National Science Teachers Association

Membership: Send \$75.00
Student Rate: \$35.00
1840 Wilson Blvd., Arlington, VA 22201
www.nsta.org

Conference Feedback

*We hope you enjoyed
SCONYC's
43rd Annual Science Conference!*

Please take some time to complete this survey.

This will be used to issue CTLE certificates.