

2nd Annual Environmental Sustainability Education Teacher Summit



March 7th
2020

8:30 am - 1 pm
TCNJ

School of Education
Ewing, NJ

Cost: \$15 (\$5 for students)

- *Breakfast & lunch included*
- *Teachers earn 4 PD hours*
- *Exhibitors and a raffle!*

Join p-12 teachers, school administrators, preservice teachers, and college faculty for a day of learning, sharing, and networking!

Select from a variety of workshops, such as:

- Ideas to get kids and teachers outside with NGSS
- Inquiry-based teaching & learning
- SEL and ESE
- Strategies for teaching about climate change
- Farm to school programs
- School garden to table curriculum
- Integrating sustainability and STEAM

Keynote: Dr. Colleen Sears, TCNJ

Earth Song: How music and sonic study can help us understand environmental issues.

Register at: <http://bit.ly/tcnjESEsummit>

For more information: esesummittcnj@gmail.com

2nd Annual TCNJ

Environmental Sustainability Education Summit

March 7th, 2020

Registration and Light Breakfast **8:30 am**

Welcome Remarks **8:50- 9:00**

Speaker: Freeholder Tom Arnone **9:00- 9:15**

Monmouth County Freeholder Tom Arnone will discuss SUSHI (Suburban and Urban School Health Initiative), a program that promotes healthy lifestyles and increase awareness about nutrition and the benefits of physical activity through partnering schools with local farms.

Workshop Session 1 **9:20- 10:00**

1. 10 Quick and Easy Ways to Strengthen Student Problem Solving Skills, Transform Classrooms & Enhance Family Engagement With Outdoor Learning Experiences, *Jeanne Muzi, Slackwood Elementary, Lawrenceville*

In this workshop participants will learn about practical strategies, activities and units that can help bring the power of outdoor learning to every elementary student. Whether your goal is creating a cross curricular outdoor classroom, a student driven action research project or simply figuring out authentic ways to engage students in nature, all attendees will take something back to their school they can immediately implement!

2. Live Cams in the Classroom, *Diane Cook, Flemington Raritan School District.*

Bring nature into the classroom, and nurture a love of our natural world with live cams. Take virtual field trips. Observe life cycles of animals in real time. Compare habitats around the world. Use what students are observing as a vehicle to engage in a variety of writing activities, or spark a research project to find out more. The use of live cams in the classroom connect students to our natural world in a unique way.

3. Sustainability Spins, *Lydia Styles Valleyview Middle School, Denville*

If we're fortunate, we have a curriculum that has embraced and incorporated sustainability into all disciplines. In reality, many of us have curriculum objectives that focus on specific content and struggle to create meaningful connections for us and our students. During this session, you'll learn techniques and gather resources to help students develop essential skills, deepen understanding of content, and successfully link curriculum to the real world. Can you link Cellphones to Mineral Resources? Gardening to Geometry? Sneakers to Ocean Currents and Trade? Connect Sustainability to all Career Options through Personal Interviews? The answer is, "Yes!" because you CAN spin your curriculum!

4. Initiating or Expanding a Farm to School Program in your School or District, *David Friedrich, Hopewell Elementary*

Interested in starting or expanding a Farm to School program in your school or district? Walk away with practical tips on how this initiative can support nutritious options in the cafeteria, school-wide sustainability efforts, and hands-on, relevant instruction aligned to Next Generation Science Standards. Topics such as hosting special school-wide events, partnering with your food provider, and securing grants will be explored.

Workshop Session 2

10:05- 10:45

- 1. School Garden To Table, Eat What You Grow,** *Naomi Montalvo, Elizabeth Public Schools*
Come grow with us! Learn about growing food in a school garden and using it in the classroom with students to cook and promote healthy food habits. Learn how to incorporate NJ Farm To School initiatives and participate in a healthy make and take.
- 2. One Teacher's Journey Integrating Sustainability and STEAM,** *Rachel Van Hazinga, Deal School District*
Come learn about the journey of "STEM to iSTEAM at Deal School" including our shift into a STEAM mindset that supports sustainability. Join me to understand how empowering students to use a STEAM mindset, collaborative problem solving, creativity, solutions-based thinking and innovation in an authentic context can foster essential 21st-century competencies across all grade levels. Participants will learn strategies for designing solutions-based challenges that integrate STEAM and Sustainability in a way that is relevant and meaningful for all learners
- 3. Problem-Based Learning and Environmental Sustainability** *Leslie Trimble, Upper School at The Episcopal Academy*
Environmental sustainability provides an ideal framework to empower students to gather evidence, construct arguments, solve problems and communicate their solutions. In this workshop we will examine a variety of ideas for creating and managing inquiry-based lessons focused on problems in environmental sustainability.
- 4. Greening an Old Building** *Jodi Betterman & Kristen Higgins, Readington School District*
Join us in learning the steps taken to create green and sustainable spaces in an old school building. Ideas will also be shared for how primary students can take the lead in teaching each other and their parents easy ways to help our world.

Break

10:45 - 11:00

Workshop Session 3

11:00 - 11:40

- 1. Nature Based STEM: Using the Outdoors as your Classroom,** *Helen Corveleyn, Hopewell Elementary School*
Join me to understand how inquiry based NGSS can be integrated as students are outside learning concepts and converting practices into lifelong learning. We will also discuss ways nature-based learning develops SEL competencies, such as responsible decision making and social awareness through specific environmental activities. Specific lessons will be highlighted to demonstrate plastic waste awareness outside, creating a book based on measurement and tech tools, and ecosystem studies that mimic real world science.
- 2. Combating Climate Change Through Local Action,** *Morgan Pistorius, Valley View Middle School, Watchung*
Students often feel that they are unable to combat climate change individually. In this workshop, we will discuss strategies for empowering middle school students to create change in their local communities.
- 3. Aquaponics 101: Science Based Farming through Symbiotic Ecosystems,** *Cody Parker, Drop The Beet Farms*
Aquaponics could be the most sustainable method of farming. It is also a powerful tool for student amazement and engagement. Delve into the world of classroom aquaponics and see how Drop The Beet Farms transformed the largest aquaponics system in New Jersey into an educational hub for future generations to learn about science-based farming and agricultural ecosystems. Our virtual farm tour will help you learn the basics of aquaponics, and how classroom aquaponics systems can be used to teach symbiotic ecosystems, water chemistry, nutrient cycling, plant systems and structures, sustainability, and community involvement.
- 4. Raising Monarchs in an Early Childhood Classroom,** *Faith Hann, Harmony Township Schools*
Monarch butterflies are engaging, exciting and beautiful! Techniques and tips on finding and raising monarch caterpillars and butterflies in the classroom will be shared along with resources for expanding learning and handling potential problems. We will be making a raising cage as part of the workshop.

Keynote

11:45- 12:15pm

Dr. Colleen Sears: *Earth Song: How Music and Sonic Study Can Help Us Understand Environmental Issues.*

How can music and the study of sound enhance our understanding of environmental issues? This talk will focus on the relationships between music, sound (human and non-human), and environmental topics including sustainability, recycling, climate change, pollution, and deforestation. The talk will acquaint attendees with the field of sonic studies and will highlight a variety of music that focuses on environmental themes. Ideas for how to incorporate sonic studies and music in the teaching of environmental topics will also be discussed.

Bio:

Dr. Colleen Sears is an associate professor and the coordinator of music education at The College of New Jersey where she also leads curriculum development and interdisciplinary programming for the Institute for Social Justice in the Arts which she co-founded in 2014. Her current projects engage students and K-12 educators with issues of social justice through innovative collaborations, music performance, and interdisciplinary aesthetic experiences. She also enjoys exploring existential themes as they relate to music education in multi-media presentations. She has published in Music Educators Journal, Action Criticism and Theory for Music Education, Music Education Research, and recently authored a chapter in Marginalized Voices in Music Education. She frequently presents work at regional and national conferences including the New Directions in Music Education Conference, the Society for Music Teacher Education Conference, the Midwest Band and Orchestra Clinic, and the CBDNA (College BandDirectors National Association) West/Northwest and National Conferences. She holds a Bachelor of Music from The College of New Jersey, a Master of Arts from the Eastman School of Music and a Doctor of Education in music education from Teachers College, Columbia University.

Lunch & Exhibitors

12:20- 1:00

Our Summit will conclude with lunch, exhibitor tables, a raffle and the opportunity to network with educators, school administrators and environmental education leaders from throughout the state. Exhibitors include local and statewide environmental education organizations and farms, such as Sustainable Jersey for Schools and Drop the Beet Farms, as well as tables with curriculum materials, books and other resources.

Presenter Bios

Tom Arnone - Thomas A. Arnone is serving his fourth, three-year term, on the Monmouth County Board of Chosen Freeholders. In 2020, he was elected by his colleagues to serve as Director of the Board. Director Arnone oversees the County's Department of Public Works and Engineering and also serves as the liaison to Public Information and Tourism, Economic Development, the Office of Shared Services, the Environmental Council, the Improvement Authority and the Shade Tree Commission. Active in statewide organizations, Director Arnone currently represents the County on the North Jersey Transportation Planning Authority. He is a board member of the Salvation Army New Jersey Division and organized the inaugural Pound the Pavement for Purple in 2014 to support pancreatic cancer research. Director Arnone served as the 2010 president of the New Jersey Conference of Mayors and has been an active member of the New Jersey League of Municipalities.

Jodi Bettermann has been the Readington School District's Energy Efficiency Coordinator for five years. She works with the students and staff of all four district schools to monitor energy usage, improve energy conservation, and implement green initiatives. Jodi has a degree in Chemical Engineering and worked for Merck & Co., Inc. for several years before starting her family.

Diane Cook is a graduate of TCNJ, majoring in elementary education. Currently, she teaches Technology Literacy in the Flemington Raritan School District. She earned a Master of Arts in Science from FDU, holds a certificate as a master ecologist from Duke Farms, is a National Geographic Certified Educator, and volunteers for NJ's Endangered and Nongame Species Program.

Helen Corveleyn is a K-5 STEM Facilitator at Hopewell Elementary School and an avid conservationist. She is currently pursuing a graduate degree in Conservation Biology, and was recently named Mercer County Teacher of the Year.

David Friedrich is principal at Hopewell Elementary School (@HopewellES). Hopewell Elementary was just named 2018 Best New Jersey Farm to School program by the Department of Agriculture. Last year, David was recognized as a “Top Tomato” by the NJDA for promoting local and healthy produce in his cafeteria. He is proud that Hopewell Elementary School is the first public school in New Jersey to offer organic, homemade lunch infused with vegetables and herbs grown in their state-of-the-art hydroponics vertical farm (@HESVerticalFarm) through a partnership with Princeton University. One of his most rewarding experiences has been hosting Top Chef, an after school enrichment class for aspiring chefs featuring local chefs from the community.

Faith Hann has been an educator for over 30 years and the inclusion preschool teacher at Harmony Township School since 2003. She holds Bachelor’s and Master’s degrees from Bloomsburg University and is a National Geographic Certified Educator. She created an outdoor classroom at Harmony School and has been raising monarchs in her classroom for the past 4 years.

Kristen Higgins is a graduate of the University of Pennsylvania and holds two master’s degrees in education. She has worked to earn a Green Ribbon and the Champion award two times from Sustainable Jersey. She has served as the Principal of Three Bridges School since 2006.

Naomi Montalvo is a 2002 TCNJ Alumna working as a teacher in the Elizabeth Public School District for 17 years. She works with students to maintain and further develop the school garden while incorporating lessons on growing food and creating habitats for local wildlife in an urban environment.

Jeanne Muzi is the principal of Slackwood Elementary, a culturally rich K-3 school in Lawrence Township. She has served as a National Geographic Teacher Fellow, NOAA Teacher At Sea, NJ State Teacher of the Year and Smithsonian Teaching Ambassador. Jeanne’s passion is providing young students with creative problem solving experiences and opportunities to learn far beyond the walls of a classroom or school.

Cody Parker is Founder of Drop the Beet Farms, and currently operates the largest aquaponics farm in New Jersey. With a B.S. in Agroecology from Rutgers University, Cody has personally taught 14 college level 3-credit internships. His group educational tours have guided hundreds of students and advocates through his 20,000 gallon aquaponics facility. As an Aquaponics Consultant, Cody builds custom indoor aquaponics systems across multiple school districts in New Jersey and Philadelphia, and works with teachers to teach sustainable agriculture and curriculum.

Morgan Pectorius is a 2017 graduate of the College of New Jersey, where she studied Elementary Education, iSTEM, and Environmental Sustainability Education. Morgan is in her third year of teaching at Valley View Middle School in Watchung, NJ. She teaches Gifted and Talented and STEM classes to students in grades 5-8 and advises the Environmental Club.

Lydia Styles is ANJEE’s Formal Educator of the Year for 2019. She teaches science at Valleyview Middle School in Denville, and serves as the District Sustainability Coordinator. Lydia has helped strengthen connections to the community, through the TREX Plastic Recycling Challenge with the Township’s Green Sustainability Committee, “Sustainable Sunday” with the Denville Farmers Market, providing School-grown produce for the Food Pantry, and improving Public Use at the neighboring public park. Through multiple grants, her programs related to energy use, local foods, pollinator gardening, waste, and staff eco-challenges continue to expand and improve. Outside of Valleyview, Lydia works as an instructor for NJ Audubon’s Island Explorers Program, teaching middle schoolers how to live sustainably and explore the environment through activities in the Barnegat Bay. She’s a Teacher Scholar with Montclair University’s School of Conservation partnership with National Geographic, working to improve teaching methods for use in and out of the classroom.

Leslie Trimble is a National Geographic Certified Educator who has taught environmental science at the high school level in both public and private schools, as well as leading outdoor classes in both urban and rural settings. She currently teaches in the Upper School at The Episcopal Academy in Newtown Square, PA, as well as teaching organic gardening to adults as a Penn State Master Gardener. Her article “Creating Science Websites” appeared in the December 2017 issue of *The Science Teacher*.

Rachel Van Hazinga, teaches in Deal, NJ which has embraced STEaM and with it the vision of a school with a fluid cross-curricular integration of technology in all subject areas, especially mathematics, arts, engineering, and science. Her day to day includes facilitating STEAM classes for K-8, supporting iSTEAM and Sustainability integrated lessons, facilitating the Navigators Program (G&I) and leading the school-wide student Green Team. Her strengths include designing real-world, problem-based learning experiences both within the classroom and out in the local community. Her ISTE 2018 Presentation [Nikola Tesla-Linked PBL Challenges](#), showcased the stellar work of her STEAM students. Rachel earned her Masters in Education (M.Ed.) Problem Based Learning- Critical Skills Classroom and is currently completing her STEAM Certificate from Antioch University New England. You can find her at Deal School <https://www.dealschool.org> and follow her at [@MrsVanSTEaM](#)