



# **STEM and Solutions:**

## **Integrating Climate Change Education into Cross Curricular Problem Based Learning**

This professional development program will explore how to connect climate change related topics with existing STEM curriculum and engage and empower students by integrating problem based learning.

Separate sessions for elementary, middle school and high school educators will focus on grade level appropriate applications and promote collaboration.

### **Participants will:**

- Enhance existing STEM curriculum to address the NJ Climate Change Education Student Learning Standards
- Review a wide range of resources and materials to support their teaching and learning
- Identify opportunities for problem based learning
- Collaborate with peer and share ideas
- Develop innovative lessons and unit plans to engage and inspire students.
- Gain confidence to become leaders on climate change education in their district
- Earn six professional development credits

### **The sessions will be held at:**

Rutgers Inn and Conference Center  
178 Ryders Lane  
New Brunswick, NJ 08901

- **Elementary School Educators: July 25, 2023, 8:30am - 3:30pm**
- **Middle School Educators: July 26, 2023, 8:30am - 3:30pm**
- **High School Educators: July 27, 2023, 8:30am - 3:30pm**

**Registration is FREE. Space is limited. Breakfast and lunch included.**



# Session Speakers

**Rosalie Morillo,**  
**Program Manager, Sustainable Jersey for Schools**  
**Sustainability Institute**  
**The College of New Jersey**

Rosalie Morillo leads Sustainable Jersey Schools' efforts to support the implementation on the New Jersey Climate Change Education Student Learning Standards. She has over 13 years of experience as a high school teacher and is one of the founding educators for the Perth Amboy High School's Communication Academy, a NJSPRA School Communications Award Winner. She also worked with the New York University's Department of Media, Culture, and Communication in developing dual-credit courses, including Designing Media for a Global World and Journalism for her district. During the pandemic, Rosalie served as a teacher leader and supported educators in implementing digital tools to enhance remote learning and instruction. Rosalie holds a B.A. in English Secondary Education from The College of New Jersey and a Master's in English from Arizona State University.

**Dr. Edward Cohen**  
**Assistant Director**  
**Center for Mathematics, Science and Computer Education**  
**Rutgers University**

Dr. Edward Cohen is the Assistant Director at CMSCE. He has 18 years of experience in innovative pedagogy in K-16 education. His experience has been in designing, implementing, and leading data-driven curriculum as a teacher, professor, Middle School Vice Principal/Supervisor of Instruction, District K-12 Science Supervisor, and District STEAM Specialist across multiple districts. Eddie started his career as a middle school science teacher where he became interested in pedagogy for makerspaces and teaching climate change. During a Fulbright scholarship in Japan following the 2011 Tsunami, the link between climate change and the need for engineered solutions to environmental problems became extremely apparent. Eddie has designed and presented an original climate change curriculum from his missions aboard the US premier research drill ship, the JOIDES Resolution, at the National Science Teachers Association, the National Academy of Research in Science Teaching, and the American Geological Union. He was the Eastern United States Outstanding Earth Science Teacher winner for NAGT. The award is given for "exceptional contributions to the stimulation of interest in the Earth Sciences at the pre-college level." Dr. Cohen is certified in elementary education, middle school science, k-12 Earth Science, Supervision, Principalship, and Superintendency. He has presented and consulted internationally in pedagogy specifically on the Nature of Science, technology education, and climate change. His current research and professional development support combine these three passions with design thinking and makerspace education pedagogy.

**Dr. Brielle Kociolek**  
**Center for Mathematics, Science and Computer Education**  
**Senior iSTEM Education Coordinator**  
**Rutgers University**

Dr. Brielle Kociolek is currently the Senior iSTEM Education Coordinator at the Center for Math, Science, and Computer Education. She is interested in ways to support teachers with implementing iSTEM in their classrooms. Her dissertation focused on researching how to support teachers with technology integration. This led her to create the technology support and innovation site for teachers in her school district to use as a way of gaining support and resources as well as creating opportunities for collaboration among colleagues. Dr. Kociolek has 13 years of experience in K-12 education including designing, implementing, and leading science and technology professional developments and curriculum. She started her career as a middle school science teacher in Charleston, South Carolina. She is certified in early childhood, elementary, special education, middle school science, and middle school social studies. Combining her love for science and technology has brought her to iSTEM education and research.

