



A MINI-CONFERENCE DEDICATED TO SCIENCE, TECHNOLOGY, ENGINEERING, ARTS & MATH

9am-10am – Opening Remarks and Morning Performance

Star Tours: Explore the Mysteries of the Universe

Explore our solar system, the particulars of space travel, the discoveries of Galileo, and more! Join our top notch crew on a hilarious and informative trip through the universe. Their Mission? To seek out new worlds and civilizations, to boldly go where no one has gone before, and to teach kids a whole lot about outer space before school is over.

Session 1 - 10:15-11:45am

A. Making the E in STEAM Easy!

This workshop, geared for grades 5 through 8, will explore hands on activities based on civil, mechanical and chemical engineering. You don't need a degree in engineering! You just need to have fun learning!
Marcia Howard, 21st CCLC Kean University

B. iDiscover STEM

In this training educators will discover how ordinary household items can be used to make an extraordinary STEM experience. This hands on fully engaged class will inspire you to start a STEM club in your programs. From building a crash test dummy car to designing a catapult launcher there's something for everyone's program.

Chris Jorn, iDiscover

C. Bringing STEM to Light: Teaching About Light and Optics

Light is a fascinating and familiar topic for children. But how do you lay the foundation for this exciting topic and teach the youngest would-be scientists about light-based sciences, such as optics and photonics? Starting with a simple kit and some basic activities, we'll work through understanding the basics of light, color, shadows, reflection, and refraction. This hands-on workshop will offer easy to digest science content and engaging activities designed to build your comfort and confidence with light and optics. Participants will receive a free STEM kit as well as guidance on using it to create learning experiences for children.

Lauren Meeum, IEEE Photonics Society

Colette DeHarpporte, Laser Classroom

Sponsored by IEEE Photonics Society

D. Demystifying STEAM....Jersey Style

Do you wonder what the terms "STEAM," "STEM + A," and/or "Arts Integration" mean and look like in action? This workshop will clarify the "What" and the "Why" of this interdisciplinary and integrative teaching approach and provide insights into adapting this teaching practice to your specific needs. Participants will receive a copy of New Jersey's new [Arts Integration Think and Do Workbook](#) and learn how to use this tool to engage colleagues and create robust STEAM initiatives at your organization.

Wendy Liscow, Geraldine R. Dodge Foundation



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E. Teaching in Place: STEAM Outdoors

Teach STEAM Outside! Using New Jersey Audubon's *Bridges to the Natural World*, we will explore ways in which the outdoors can be used to enhance your afterschool program. Learn how to reconnect children with nature and explore how science, technology, engineering, art and math activities can be cultivated into the outdoor classroom. Discover how nature-themed children's books help inspire STEAM Outdoors. This jam-packed workshop offers hands-on-mind-on ideas, resources and playful learning. This program is great for outdoor spaces of any size or location. We will be exploring the outdoors, so dress for the weather and prepare to have fun!

Kelly Wenzel, New Jersey Audubon

Session 2 – 12:45-2:15pm

F. 21st Century Afterschool Science Project (21st CASP)

See a demonstration of a free curriculum funded by NJ DOE. This curriculum is designed to enrich student learning through inquiry-based, interactive science experiences with everyday materials.

Tyneisha Gibbs, NJSACC

G. You Want Me to Do *WHAT* in Afterschool?

High quality STEM programming in after-school centers is a challenge and a gift!. Not only does after-school offer the flexibility of schedule and setting for inquiry-based experiences, but after-school offers the opportunity for students to experience *co-inquiry*—where students experience inquiry along-side informal educators. Participants will also leave with the understanding that after-school staff **do not** have to be science experts to deliver high quality science experiences to students. ***Experience a fun, hands-on STEM activity that builds confidence in educators and curiosity in kids.***

Maryann Stimmer, STEMeducators

H. ALL MORPHED UP!

Mirror Anamorphosis is an art distortion technique developed several hundred years ago in order to hide secret messages and information in paintings. This clever and visually surprising illusion draws on the science and mathematics of light and optics. In this workshop, you'll uncover the secrets of mirror anamorphosis and learn to create your own "morphed up" drawings with a simple grid transfer technique.

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