

## Hands-on Ocean Science Activities with NEOSEC Member Institutions

NEOSEC session at NMEA Conference, July 20 2024

Monday, at 3:30 pm

Presenter Name	Organization	Hands-on Activity	Link to lesson plan or resource	Description/ Add'l Details
Nicki Rosenfeld	The Maritime Aquarium at Norwalk	Sound Resilience	<a href="https://www.maritimeaquarium.org">https://www.maritimeaquarium.org</a>	Coastal resilience activity - beach in a bin - modelling erosion and methods for mitigating (ex. salt marsh, sea wall, etc.)
Jen Kennedy	Blue Ocean Society for Marine Conservation	Microplastics and microfibers	<a href="https://www.blueoceansociety.org/mpworkshop/">https://www.blueoceansociety.org/mpworkshop/</a>	Learn about microplastics through two activities: discover microplastics in sand samples, and learn about microfibers and how they release from our fabrics in the wash.
Holly Morin	University of Rhode Island, Graduate School of Oceanography	Biolumescence acivity	<a href="https://oceanexplorer.noaa.gov/edu/themes/bioluminescence/welcome.html">https://oceanexplorer.noaa.gov/edu/themes/bioluminescence/welcome.html</a>	Shows how light changes at different water depths- this is a NOAA Ocean Exploration activity that is a great outreach resource and we have been using with our Ocean Exploration Cooperative Institute exhibit (which will also be at NMEA).
Sierra Munoz	Northeastern University Marine Science Center	Echinodermania	<a href="https://cos.northeastern.edu/marinescience/outreach/educator-resources/">https://cos.northeastern.edu/marinescience/outreach/educator-resources/</a>	We'll demonstrate several activities from our Educator Resource Portal related to echinoderms, including Case Studies on Northeastern research on sea star wasting disease and urchin kelp forest ecology (Grades 6-8) and echinoderm origami (Grades 4-6).
Kristen Smith	Atlantic White Shark Conservancy	Shark Teeth Identification	<a href="https://www.atlanticwhiteshark.org/education-resources">https://www.atlanticwhiteshark.org/education-resources</a>	I will bring in minatiure sand boxes with shark teeth that participatns will dig thorough, and learn how to identify shark teeth based on shape and size. I will also go into based on tooth shape, scientists can also learn what sharks eat.
Kate Leavitt	Seacoast Science Center	Coastal Field science skill-building stations	<a href="https://www.seacoastsciencecenter.org/educators/">https://www.seacoastsciencecenter.org/educators/</a>	Greening STEM with coastal participatory (citizen) science: lessons, resources and case studies
Meredyth Sullivan	Gulf of Maine Research Institute	Invasive Crab Modeling Game	<a href="https://teach.gmri.org/curriculum/activity/13-intertidal-ecosystem-game/">https://teach.gmri.org/curriculum/activity/13-intertidal-ecosystem-game/</a>	Group game to model how biodiversity can be effected in the intertidal ecosystem with and without the presence of invasive crab speceis.
Carolina Bastidas	MIT Sea Grant	Ocean acidfication	<a href="https://seagrant.mit.edu/ocean-acidification/">https://seagrant.mit.edu/ocean-acidification/</a>	We will be exploring these questions: How carbon dioxide in the atmosphere might dissolve and change the pH of seawater? Is the CO2 flux from atmosphere to sea always the same?; What are the most common effects of acidification on marine organisms?
Aimee Bonanno	UMass Boston	Plankton Races	<a href="#">Lesson plan</a>	Explore buoyancy, density, and surface area while designing and racing a plankton that you design. <a href="http://www.cosee.net/files/coseenet/IdentificationofCommonMarinePlankton.pdf">http://www.cosee.net/files/coseenet/IdentificationofCommonMarinePlankton.pdf</a>
Cassie Stymiest	Educational Passages	Miniboat tracking activity	<a href="https://educationalpassages.org">https://educationalpassages.org</a>	Come see the miniboat "Lancer" which has sailed unassisted around the Atlantic since 2018. We'll also share links and resources to help you actively track it in realtime when it is relaunched the week after the NMEA Conference!