

Plastic Pollution and You: An Interdisciplinary Curriculum

The National Oceanic and Atmospheric Administration (NOAA) defines marine debris as persistent solid materials that are manufactured and disposed of into the marine environment or the Great Lakes. This includes land-based debris that is littered into rivers or enters the watershed through stormwater discharges and improper waste management practices. One of the most common forms of marine debris is plastic pollution, adversely affecting wildlife, habitat, and humans.

To build upon and supplement existing efforts to educate students on the ecological impacts of plastic pollution, New York Sea Grant (NYSG), in partnership with the New York State Department of Environmental Conservation, designed Plastic Pollution and You: An Interdisciplinary Curriculum to Explore Our Role in Plastic Pollution with 5-lesson units on Plastic Pollution, Plastic Reduction, and Plastic Pollution in Our Water. Activities incorporate the social, economic, and public context of plastic pollution and marine debris; are flexible and versatile enough to accommodate changing learning environments; and can be adapted to meet individual classroom needs. The curriculum increases students' environmental literacy and deepens their understanding of the climate-related inequities that communities contend with and how people can play a role in addressing them.

In April of 2022, NYSG released the curriculum in conjunction with a webinar workshop for teachers and educators. Thirty individuals (74% from NY) participated live; more than 140 individuals have watched a recorded version on YouTube. In a post-webinar survey, 93% of participants reported increased knowledge of plastic pollution educational resources and 80% agreed they will be comfortable using the curriculum lessons. More than 100 people, representing 25 states and three countries, have downloaded the curriculum from the NYSG website. NYSG presented the curriculum and demonstrated lessons at the National Marine Education Association Conference at Hofstra University in July (30 attendees) and the Trout in Classroom Conference in Hyde Park in October (25 attendees). The WPBS Weekly television series featured the curriculum in September, including a spotlight on its implementation by Central Square School District teacher Fred Kowanes. Kowanes is one of several teachers who provided review of the curriculum draft.

This NYSG educational resource focuses student attention on plastic pollution as one of today's most pressing environmental pollution issues.

Partners: • Suffolk County Legislator Sarah Anker • New York State Department of Environmental Conservation
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Plastic Pollution and You Curriculum:
<https://www.nyseagrant.org/plasticpollution>

The Sea Grant Focus Areas for this project are Resilient New York Communities and Economies and Environmental Literacy and Workforce Development in NY.

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA.
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