RESTORING OYSTERS TO NYC: A STEM CLASSROOM AND LIFE-CHANGING OPPORTUNITY

IT’S NOT EVERY DAY THAT STUDENTS FEEL OWNERSHIP IN CREATING THEIR CITY.

Through Billion Oyster Project’s curriculum, students become field scientists engaged in a movement to restore oysters to New York City waters. This unforgettable, real-world introduction to STEM inspires engagement in school, encourages stewardship, provides opportunities to experience the outdoors, and demonstrates to students that their voice and work can make a difference.

PROGRAM OVERVIEW

Billion Oyster Project student scientists work independently and collaboratively with one another on the real restoration project of restoring 1 billion oysters to their local waters. Program participation includes:

• Installing and overseeing an Oyster Research Station that lives in the NY Harbor Estuary and contains approximately 300 oysters (an Oyster Research Station per class)
• 2–3 field expeditions per school year to the Oyster Research Station
  • Scientific monitoring of oyster growth
  • Scientific data collection and assessment of water quality, oyster growth, and biodiversity
• After at least six months of field data collection, observations, and inferences: independent applied research projects (one project per student) for presentation at Annual Research Symposium
• Participation in Billion Oyster Project (BOP) Annual Research Symposium, where hundreds of students, teachers, scientists, and community members gather to share data, present research, and celebrate the movement to restore NY Harbor
• Access to scientists and various STEM professionals through Billion Oyster Project’s network
• 8 hours of initial teacher training and the option for an additional 28 hours of ongoing professional development
• Oyster tank in classroom (optional)

“THIS IS THE COOLEST THING I HAVE DONE IN SCHOOL.”

Overheard in a 7th grade classroom
THE ABILITY FOR STUDENTS TO COLLECT ANIMALS THEMSELVES FROM OUR HARBOR, AND BRING THEM BACK TO THE CLASSROOM, AND THEN DO THEIR OWN OBSERVATIONS TO SEE THE IMPACT OF DIFFERENT CONDITIONS ON THEM—THAT’S EXCITING TO MY KIDS. IT’S AN UNPARALLELED OPPORTUNITY.

—Scott Carlson, Billion Oyster Project teacher

*The Billion Oyster Project curriculum is designed to be flexible. After participating in one day of initial teacher training, educators will receive an Oyster Research Station and can begin teaching lessons or units of their choice, selecting from the 15 units or 77 stand-alone lessons.
BILLION OYSTER PROJECT CURRICULUM PACKAGE

Every classroom receives:

• An Oyster Research Station + Starter Kit
  • 10 tagged shell substrates with 100+ live oysters—plus additional oysters as needed
  • Installation equipment
  • A basic monitoring kit with equipment and supplies to measure oyster growth and survival and biodiversity
  • Billion Oyster Project Field Science Manual
• Billion Oyster Project Curriculum
  • 15 units, including 77 lesson plans
  • Access to digital platform for collaboration and sharing curriculum, data, and research
  • Pedagogical and technical support: all participants have direct access to Billion Oyster Project’s education team
• City-wide Learning Opportunities
  • Field season kick-off event
  • Billion Oyster Project (BOP) Annual Research Symposium
  • Invitations to additional related conferences, symposiums, and special events
  • Invitations to oyster restoration work days on Governors Island
  • Educational tours on Governors Island
  • Opportunities to volunteer at Billion Oyster Project Community Reefs

BILLION OYSTER PROJECT TEACHER TRAINING AND NETWORKING, WITH NYC DOE

Every teacher receives:

• Oyster Research Training, 8 hours, live
  • How to monitor oyster growth and identify organisms at Oyster Research Station
  • Billion Oyster Project staff member visit, assisting teachers in hanging their Oyster Research Station in a suitable, permitted location

• Pedagogical Training, 8 hours, live (optional)
  • How to make the most of learning opportunities in the field
  • Practice setting up class at an Oyster Research Station site
  • Safety and logistics strategies

• Advanced Oyster Research Station Training, 8 hours, live (optional)
  • Data collection protocols such as water quality testing and organisms identification and counting
  • Additional equipment to carry out advanced protocols with students

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- Supplementary Topics Training, up to 12 hours, live and digital (optional)
  - Building your Classroom Library, 3–4 hours
  - Setting Up an Oyster Tank in Your Classroom, 3–4 hours
  - Symposium Research Poster Workshop, 3–4 hours
- Access to a network of like-minded teachers, environmental scientists, and maritime professionals to support your curriculum, teaching practice, and student learning outcomes

CONTACT: EDUCATE@NYHARBOR.ORG