



EXPLORE THE BAY

Education Program Course Booklet

SAVE THE BAY®

NARRAGANSETT BAY

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ABOUT SAVE THE BAY



Founded in 1970, Save The Bay is a member-supported, non-profit organization committed to protecting and improving Narragansett Bay. We take an ecosystem-based approach to environmental advocacy, action and education. We envision a fully swimmable, fishable, healthy Narragansett Bay accessible to all.

The foundation of our education programs is our belief that most people want what's best for Narragansett Bay and its watershed, and that the better people understand this marvelous ecosystem, the better Bay stewards they become. Our **Explore the Bay** program provides experiential, science-based marine science and environmental education for all ages and abilities, reaching more than 50,000 students, teachers and general public each year.

SAVE THE BAY®
NARRAGANSETT BAY

EXPLORE THE BAY WITH US!

Through Save The Bay's K-12, college, and teacher professional development education programs, you can bring to life the concepts you introduce in your classroom.

Our courses address a wide range of environmental and marine science topics, and we can customize any program to fit your curriculum needs.

Depending on your needs, your students can take a hands-on part in our programming at our Education Center in Providence, our Aquarium in Newport, aboard our boats on the waters of Narragansett Bay, along the shoreline or in your own classroom.

All of our programs are linked to Next Generation Science Standards and GEMS-Net kits.

To book a program, discuss options, or learn more about Save The Bay education programs, call **401-272-3540 ext. 133**, visit our website at www.savebay.org/education or email education@savebay.org

HELPFUL INFO

and answers to frequently asked questions



HELPFUL TIPS

Need Bus Funding? We can help!

Depending on funding availability, some transportation support may be available based on need. If available, this money is offered on a first-come, first-served basis to schools participating in any of our shipboard or coastal field trips during the school year. To find out more, please contact **401-272-3540 x133** or visit our website at savebay.org/education.

Programming for your whole School? Absolutely!

Save The Bay offers a wide variety of environmental and marine science topics and can customize to fit your curriculum needs for your entire school. Through our Progressive Programming Package, schools can receive package discounts off all classroom programs and experiences. To learn more, please contact us at **401-272-3540, x133** or education@savebay.org

Bay Adventures Beyond the Schoolyard? So many!

Spy on a seal. Examine a crab. Seine for fish. See Rhode Island from the open water. Save The Bay connects our community members to Narragansett Bay and its watershed throughout the year through a number of public programs that are perfect for families, small groups, clubs and more. Find out more about our week-long summer Bay Camps, seasonal Seal Tours and Lighthouse Tours, and year-round Aquarium at savebay.org/family-fun.

PROGRAM POLICIES

Cancellation Policy

Because of the popularity of our programs, a deposit of 50% of the program cost is required to confirm your reservation. If programs are canceled by the school with at least two weeks' notice, or by Save The Bay for weather or other unforeseen circumstances, every attempt will be made to reschedule. If an alternate date cannot be scheduled, we will issue a refund. Cancellation by the school with less than two weeks' notice may result in forfeiture of the full payment if no reschedule date is available.

Save The Bay reserves the right to cancel a program up to two hours prior to the start of a program. This is mostly as a result of weather. However, most programs can and will run in all types of weather. During your program, you may be interacting with animals and environmental conditions that are not under our control. As such, we cannot guarantee the abundance or appearance of specific animals in the wild. We will, however, do everything possible to maximize our success.

Behavior

Managing students during the program is the responsibility of the participating teacher(s) and school-approved adults.

Medical

All program participants are required to complete and submit a Waiver Form, including medical information, before participating in any Save The Bay education program. Minor injuries that occur during a field program are treated by our First Aid/CPR trained staff. Waiver forms are provided to the coordinating teacher at time of booking.

Qualification of Save The Bay's Education Staff

We are committed to offering the highest quality education programs to your students. Save The Bay education staff participate in regular professional development programs and best practices in the experiential education field. Our boat captains are licensed by the U.S. Coast Guard. All field staff are trained in CPR, First Aid, and participate in U.S.C.G-approved boat training courses.

OUR LIVING CLASSROOMS



Hamilton Family Aquarium, Newport

Our Aquarium is an interactive marine science learning center perfect for exploring native marine life and their adaptations, exploring sandy beach habitat and getting up-close experiences with animals that call Narragansett Bay home.

The Aquarium offers:

- Dozens of exhibits and more than 100 marine animals from Narragansett Bay
- Touch tanks that give students the chance to touch dogfish sharks, little skates, horseshoe crabs, moon snails, urchins, sea stars, and more
- A Bay of the Future exhibit, featuring tropical fish swept into local waters by the Gulf Stream currents
- A Deeper Waters exhibit, featuring some of the larger game fish of Narragansett Bay
- Unique and rare species, such as a rare lobster, octopus, the endangered Northern Diamondback Terrapin, Northern puffers and more.
- Space for classroom activities such as science experiments, seal programs and crafts

Save The Bay Education Center, Providence

Located at the southern tip of Fields Point, Save The Bay's Education Center is an urban gateway to Narragansett Bay and a "living classroom," exposing students to green design features and providing safe access to a rocky shore coastline and the upper Narragansett Bay. The Education Center is an ideal location for combining a boat program with a coastal program in a laboratory-classroom environment.



The Education Center offers:

- Two classrooms equipped for up to 30 students each, with microscopes and iPads for in-depth study of plankton, marine plants and animals
- Touch tanks with live bay animals
- Green building program that includes such design features as our vegetated roof, stormwater management system and photovoltaic panels
- A dock with on-site education vessels available for shipboard or combination programs
- Rocky shore, coastal buffer and ongoing salt marsh restoration site for explorations and discoveries
- Outdoor amphitheater to take learning outdoors

OUR FLOATING CLASSROOMS

Your students can enjoy a floating classroom aboard any of our three U.S. Coast Guard-certified Small Passenger Vessels. Though each vessel is different, combined, our fleet is equipped with plankton nets and student microscopes for our "plankton TV," trawl nets, water quality testing tools, touch tanks and everything needed for an up-close experience with the Bay.

Our entire fleet is custom-built to meet or exceed rigid U.S.C.G. regulations for strength, stability, rail height and engineering. Each vessel is inspected annually by U.S.C.G. personnel for seaworthiness, safety equipment and crew training. Our captains are licensed by the U.S.C.G. to operate small passenger vessels after rigorous courses, testing and experience, and our crew perform drills quarterly. All students wear a life jacket while onboard our vessels.



M/V *Elizabeth Morris*

Built: 2013 by Chesapeake Boats

Hull: Fiberglass

Length: 46'

Beam: 15'

Draft: 4'

Cruising Speed: 18 knots

Capacity: 38 passengers, 2 crew

Built and equipped for partially protected waters, M/V Elizabeth Morris is equally at home in the Bay or on Rhode Island Sound. Its Chesapeake Deadrise design provides great stability, shallow draft and efficient fuel economy. Twin davits allow for deployment of water quality testing equipment off either side or the stern. Elizabeth carries student microscopes for our "Plankton TV." This vessel has the ability to do year-round programming throughout southern New England.



M/V *Alletta Morris*

Built: 2001 by Newport Shipyard

Hull: Aluminum

Length: 45'

Beam: 14.5'

Draft: 4'

Cruising Speed: 20 knots

Capacity: 33 passengers, 2 crew

M/V Alletta's speed makes her an ideal vessel for exploring the Bay islands. A roof covers 2/3 of the vessel's length and provides protection from rain. In colder months, curtains fully enclose this section to shelter passengers from the wind and cold. A side davit allows for deployment of water quality testing and other equipment, such as for a bottom grab. Alletta is equipped with a trawl net, water quality testing equipment, plankton nets and a microscope video camera for our "Plankton TV."



M/V *Rosemary Quinn*

Built: 2021 by Viking Marine Welding

Hull: Aluminum Catamaran

Length: 31'

Draft: 2'

Cruising Speed: 20-21 knots

Capacity: 30 passengers, 2 crew

M/V Rosemary Quinn is equipped with a multitude of water sampling tools, plankton nets, microscopes, lobster and fish traps, making her an ideal 21st century education platform. Rosemary Quinn's speed, stability, and shallow draft design are ideal for visiting secluded Bay islands and Beaches. A bimini provides for protection from the sun and rain, and her marine head ensures comfort for all-day trips. Rosemary Quinn is an educational workhorse for all but the coldest winter months.



COURSES

Land or Bay, we have things to learn

SHIPBOARD PROGRAMS

ALL HANDS ON DECK!

Through our shipboard programs, students explore Narragansett Bay aboard one of our three educational vessels (described on page 6). Marine science labs can depart from Providence, Newport, Westerly, Fall River, North Kingstown and Bristol.

Half-day Marine Science Learning Lab

May 1 - Middle November

Grades: 3-Adult

Length: 2.5 hours

Cost: \$800 (up to 30 students and 2 adults)

Location: Boat-based

Next Generation Science Standards | GEMS-Net Kits:

Grade 2- LS4, ESS2

Grade 3- LS2, LS4, ESS2, ESS3, Water & Climate, Structure of life

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, LS2, ESS2, ESS3, Living systems

Middle School- LS1, LS2, ESS2, ESS3

High School- LS1, LS2, ESS3

During this 2½-hour lab, students play the role of marine ecologist, examining the Bay through a variety of hands-on activities. They'll test water chemistry for salinity, dissolved oxygen, thermoclines, and turbidity, and talk about the human impacts that affect these water quality indicators. They'll trawl for animals from the Bay floor, getting up close with the likes of various crabs, fish and marine plants. And they'll use microscopes to examine the Bay's tiniest animals – plankton.

Full-day Marine Science Learning Lab

May 1 - Middle of November

Grades: 3-Adult

Length: 5 hours

Cost: \$1,100 (up to 30 students and 2 adults)

Location: Boat-based

Next Generation Science Standards | GEMS-Net Kits:

Grade 2- LS4, ESS2

Grade 3- LS2, LS4, ESS3, Water & Climate, Structure of life

Grade 4- LS1, ESS2, ESS3, Environments

Grade 5- LS1, LS2, ESS2, ESS3, Living systems

Middle School- LS1, LS2, ESS2, ESS3

High School- LS1, LS2, ESS3

This full-day adventure includes a stop and exploration of Prudence Island, part of the Narragansett Bay National Estuarine Research Reserve, a branch of the National Oceanic and Atmospheric Administration. While on Prudence Island, students have opportunities to walk pristine shorelines, collect and classify coastal animals and explore undisturbed salt marshes. During the other half of the day, students play the role of marine ecologist, examining the Bay through a variety of hands-on activities. They'll test water quality for salinity, dissolved oxygen, thermoclines and turbidity and talk about the human impacts that affect these water quality indicators. They'll trawl for animals from the Bay floor, getting up close with the likes of various crabs, fish and marine plants. And they'll use microscopes to examine the Bay's tiniest plants and animals – plankton. Additional activities for this program can include a sediment grab and checking lobster traps. *Please note: activities are boat-dependent.*

Harbor Seal Adaptation & Migration Program

Middle of November - End of April

Grades: 2-High School

Length: 3 hours

Cost: \$500 (up to 30 students and 2 adults)

Location: Newport

For curriculum connections, please see "Seals of Narragansett Bay," p. 13

This 3-hour combination program begins in our classroom where students learn about local seals, their adaptations, habitats and migration patterns. Students then board one of our education vessels to search for seals in their natural habitat.

COASTAL EXPLORATION PROGRAMS IN THE FIELD

Students will discover the beauty of Narragansett Bay's diverse habitats in a series of distinct coastal exploration field experiences. Each program is focused on a single unique coastal habitat at various sites throughout the Narragansett Bay watershed and engages students in hands-on exploration and scientific concepts, such as life cycles, diversity, adaptations and geology, presented through age-appropriate teaching.



May 1 - Middle of November

Grades: All

Length: 3 hours

Cost: \$500 (for up to 30 students and 2 adults)

Location: Talk to us about options.

Some of our most popular field sites are: Colt State Park in Bristol, Lonsdale Marsh in Lincoln and Conimicut Point and Rocky Point in Warwick, and Brenton Point in Newport.

Next Generation Science Standards | GEMS-Net Kits:

Grade K-LS1, LS2, ESS3, Animals two by two

Grade 1-LS1, LS3, Plants & Animals

Grade 2-LS4, ESS1, Insects & Plants

Grade 3-LS2, LS4, ESS3, Structures of life

Grade 4-LS1, ESS2, ESS3, Environments

Grade 5-LS2, ESS3, Living systems

Middle School- LS1, LS2, ESS3

High School- LS2, ESS3

Rocky Shore

Search among the rocks for signs of life along one of New England's most common coastal environments. Explore the rocky shore and learn how plants and animals have adapted to survive the continuous flushing of the tides. Students learn the advantages of this habitat and how different adaptations help both plants and animals live in this tough environment.

Sandy Beach

Look for what the tide left behind and explore wrack lines along the sandy beach. Sandy beaches are the most popular shoreline habitat for people to visit, but few humans ever really discover the animals that make this habitat their home. Hands-on activities include seining, species collection, plankton studies and water analysis.

Salt Marsh

Don a pair of boots to investigate one of the most productive, yet dwindling, habitats along the eastern coast, and discover why nearly 50% of the Bay's original marshes have disappeared. Learn why so many animals and plants call the marsh home, and see how this habitat serves as an environmental buffer, animal nursery and feeding ground for marine life

Introduction To Habitats

This program introduces students to rocky shores, sandy beaches, and salt marshes, through activities that include seining, species collection, plankton studies, water analysis and more, depending on time and location.

Urban Rivers

Get to know your local river ecosystem and its connection to Narragansett Bay. Students learn what the watershed is and what part their local waterway plays in the health of the Bay. They'll collect and test fresh water, examine the variety of organisms that make these habitats home, and learn the effects of human development.

BAY PROGRAMS IN THE CLASSROOM

We bring the Bay to you! The classroom programs listed below emphasize hands-on exploration inside the classroom, and are available year-round for schools, community groups and camps.

Grades: Varies

Length: 45-60 minutes

Location: Your classroom or school

Cost: \$150; discounts are available for multiple programs on the same day (**up to 30 students per program**)

Bay Experience

A perennial favorite, this program teaches students about the anatomy and adaptations of Bay animals through observation of live animals that we bring into your classroom. Save The Bay educators arrive at your classroom with three or four species for the class to study, along with other teaching tools. After an age-appropriate introduction to Narragansett Bay, students are introduced to the animals one at a time, with special attention paid to the unique adaptations and anatomy of each animal.

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, ESS 1, ESS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Structures of life

Grade 4- LS1, Environments

Grade 5- LS1, LS2, Living systems



Beachcombers

We create a miniature version of a beach right in your classroom. Students use it to search for and identify shells and other beachcombing treasures and learn about the animals that left them behind.

Next Generation Science Standards | GEMS-Net Kits:

Grade K- ESS 3

Grade 1- LS3, Plants & Animals

Grade 2- LS4

Grade 3- LS4, Structures of life

Grade 4- LS1, Living systems

Habitats of Narragansett Bay

Narragansett Bay is more than just a watery wonderland; it has different habitats, or homes, that provide food, water and shelter to animals. Students learn about four of the most important Bay habitats: eelgrass beds, salt marshes, rocky shores and sandy beaches.

Next Generation Science Standards | GEMS-Net Kits:

- Grade K-** LS1, ESS3, Animals two by two
- Grade 1-** LS1, LS3, Plants & Animals
- Grade 3-** LS4, Structures of life
- Grade 4-** LS1, Environments
- Grade 5-** LS1, Living systems

Life In Your Watershed

How are you linked to Narragansett Bay? Using a watershed model, students build a town and then pollute it, to see how our actions on land affect our rivers and the Bay. Students define a watershed, locate their place within the Narragansett Bay watershed and discuss various pollutants that impact their local waterways.

Next Generation Science Standards | GEMS-Net Kits:

- Grade K-** ESS3
- Grade 2-** ESS2, Solids & Liquids
- Grade 3-** Water & Climate
- Grade 4-** ESS1, Environments
- Grade 5-** ESS2, Living systems
- Middle School-** LS1, ESS3
- High School-** LS1

Plankton: Tiny Building Blocks of the Bay

Students immerse themselves in the minuscule world of plankton and use microscopes to observe specimens and identify the differences between phytoplankton and zooplankton. They also explore the role of plankton in Bay food webs and life cycles.

Next Generation Science Standards | GEMS-Net Kits:

- Grade 2-** LS2
- Grade 3-** LS4, Structures of life
- Grade 4-** LS1, ESS3, Energy, Environments
- Grade 5-** LS1, LS2, Living systems
- Middle School-** LS2, ESS2
- High School-** LS1, LS2, ESS3

Climate Change and Ocean Acidification

Climate change affects plants, animals and ecosystems locally in many ways. Through hands-on activities, students learn the basic concepts of climate change and its effects on the Bay, what a carbon footprint is and how humans impact fragile ecological cycles.

Next Generation Science Standards | GEMS-Net Kits:

- Grade 2-** ESS1
- Grade 3-** ESS2, Water & Climate
- Grade 4-** LS1, Environments
- Grade 5-** ESS2, Living systems
- Middle School-** ESS2
- High School-** ESS3

Science of Seawater

Play with water! Through simple experiments, students learn about the unique properties of water, such as cohesion and adhesion, and why it is so important to life in the Bay and on Earth.

Next Generation Science Standards | GEMS-Net Kits:

- Grade 2-** ESS2, Solids & Liquids
- Grade 3-** ESS3
- Grade 4-** ESS3, Energy
- Grade 5-** LS1, LS2, ESS2, ESS3
- Middle School-** LS1, LS2, ESS2, ESS3
- High School-** LS2, ESS3

Bayside Stories for Early Childhood Education

A perfect introduction to environmental education for children aged 3-7, this program includes a story about a Bay animal and a range of hands-on activity stations, such as live animal encounters, and Bay-related crafts. BaySide Stories is offered at our Education Center in Providence, our Aquarium in Newport, or we can bring this program to your classroom.

Grades: Preschool age 3 through Grade 1

Length: 1.5 hours

Cost: \$250 (up to 30 students)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, ESS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Seals of Narragansett Bay

Through our life-sized, stuffed harbor seal model, Sealia, students learn the basics of marine mammalogy. By unzipping Sealia and examining her organs, participants learn about a seal's internal anatomy and special adaptations that allow these furry animals to thrive in the cold winter waters of Narragansett Bay. This program pairs well with a boat-based harbor seal migration and adaptation program.

Next Generation Science Standards | GEMS-Net Kits:

Grade K- ESS3, Animals two by two

Grade 1- LS1, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Water & Climate, Environmentals

Grade 4- LS1





BAY EXPERIENCES AT OUR AQUARIUM

Animals of Narragansett Bay

In a series of rotational stations, students see and feel how animals use their adaptations to survive in several Bay habitats, including sandy beach bottom, eelgrass beds, and the most biologically productive habitat in Narragansett Bay, the salt marsh.

Grades: All

Length: 90 minutes

Location: Aquarium, Newport

Cost: \$250 (up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, ESS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Structures of life, Water & Climate

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, ESS3, Living systems

Middle School- ESS2, ESS3

Ecology of Narragansett Bay

Take a deeper dive into the relationship between our bay organisms and the habitats they live in. In this program, students will have a guided exploration of our aquarium and the habitats of Narragansett Bay, hands-on animal encounters, and an in depth lesson on topics pertaining to the Bay.

Grades: All

Length: 2.5 hours

Location: Aquarium, Newport

Cost: \$500 (up to maximum of 50 students and maximum of 8 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, ESS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Structures of life, Water & Climate

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, ESS3, Living systems

Middle School- LS2, LS4, ESS2, ESS3, Populations and Ecosystems, Heredity and Adaptations

High School- LS2, LS4



Shark and Skate Exploration

In this program that demystifies the shark, students learn about general characteristics and unique adaptations of the shark family that make them different from many other fish. We'll also bring attention to the important role sharks play in the ecosystem and how conservation will affect their future populations. The program includes interactive presentation and live shark/skate handling.

Length: 2.5 hours

Location: Aquarium, Newport

Cost: \$500 (up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, LS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Structures of life

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, ESS3, Living systems

Middle School- ESS2, ESS3

Bayside Stories for Early Childhood Education

A perfect introduction to environmental education for children aged 3-7, this program includes a story about a Bay animal and a range of hands-on activity stations, such as live animal encounters, and Bay-related crafts. BaySide Stories is offered at our Education Center in Providence, our Aquarium in Newport, or we can bring this program to your classroom.

Grades: Preschool age 3 through Grade 1

Length: 1.5 hours

Location: Aquarium, Newport; Education Center, Providence; your classroom

Cost: \$250 (up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- LS1, ESS2, ESS3, Animals two by two

Grade 1- LS1, LS3, Plants & Animals

Harbor Seal Adaptation and Migration

During this combination program, students will learn the ins and outs of Narragansett Bay's migratory marine mammal residents, the Harbor Seal! At Save The Bay's Hamilton Family Aquarium, students discuss marine mammal adaptations and anatomy with a Harbor Seal model and explore their habitat and migration patterns. Then boarding one of our education vessels, students explore the unique opportunity of searching for seals in their natural habitat!

Grades: 3-Adults

Program Length: 3 hours

Location: Boat-based, Newport Seasonal: Mid-November - end of April

Program Cost: \$500 (up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade K- ESS3, Animals two by two

Grade 1- LS1, Plants & Animals

Grade 2- LS4

Grade 3- LS2, LS4, Water & Climate, Environmental

Grade 4- LS1

Grade 5- LS1, LS2, ESS2, ESS3, Living systems

Middle School- LS2, LS4, Heredity and Adaptations

High School- LS2, LS4

Explore Your Estuary Combination Program

Based out of our Aquarium in Newport, this program offers a guided exploration of the Hamilton Family Aquarium along with a hands-on lesson of Narragansett Bay and the organisms that inhabit it. This is combined with a 1 hour boat excursion aboard M/V Rosemary Quinn out of Newport Harbor. This program can be tailored to your teaching needs.

Grades: 3-Adults

Program Length: 4 hours

Location: Education Center, Providence & Aquarium, Newport

Program Cost: \$800 (for up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade 3- LS2, LS4, ESS2, ESS3, Structures of life, Water & Climate

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, LS2, ESS2, ESS3, Living systems

Middle School- LS1, LS2, ESS2 ESS3, Weather and Water, Populations and Ecosystems, Heredity and Adaptations

High School- LS1, LS2, ESS3



BAY EXPERIENCES AT OUR EDUCATION CENTER



Explore Your Estuary Combination Program

Build your own Bay curriculum by combining a range of programs for a unique ship-to-shore or coastal-lab experience. This customized field experience program allows you to blend coastal and shipboard programs with land-based programs at our Providence Education Center.

This program allows you to choose up to two land-based or lab activities and combine them with a one-hour boat excursion aboard M/V Elizabeth Morris, M/V Alletta Morris, or M/V Rosemary Quinn. The program can be tailored to your teaching needs, and is recommended for large groups of up to 60 students, and program length can vary from two to four hours, with a 30-minute lunch break.

Grades: 3-Adults

Program Length: 4 hours

Location: Providence Education Center

Program Cost: \$800 (for up to 30 students and 4 adults)

Next Generation Science Standards | GEMS-Net Kits:

Grade 3- LS2, LS4, ESS2, ESS3, Structures of life, Water & Climate

Grade 4- LS1, ESS3, Environments

Grade 5- LS1, LS2, ESS2, ESS3, Living systems

Middle School- LS1, LS2, ESS2 ESS3, Weather and Water, Populations and Ecosystems, Heredity and Adaptations

High School- LS1, LS2, ESS3

Coastal Resources: Sustainable Design and Development

Introduce your students to green design features and sustainable building methods demonstrated at our Education Center in Providence. This program focuses on relevant and local community issues and engages students in discussions about the science, social concerns and politics of land use and coastal development. Students are encouraged to creatively address ecological challenges through design of their own coastal development sites.

Grades: 3-College

Length: 1 hour

Location: Education Center

Cost: \$200 (up to 20 students)

All of our programs are aligned to Next Generation Science Standards. Since this is a customized program, connections can be found in the Next Generation Science Standard Connections section (see page 22).

CUSTOMIZED PROGRAMS

Save The Bay can design programs just for you



CUSTOMIZED PROGRAMS

Afterschool Programs

Working together with a variety of partners, we provide after-school programs to students both on-site at their own school, or at either of our education centers. Most of our afterschool programs are offered on a long-term basis over multiple weeks and provide interesting, fun, science-based activities that can be tailored to any grade level. Programs can incorporate boat based experiences.

Narragansett Bay Field Studies

We partner with area high schools to provide year-long, field-based scientific research and inquiry-based programs at various locations around the Bay. Each program is tailored to a specific site and to the goals of the teacher, often incorporating end-of-session presentations of student data. Activities may include longitudinal monitoring of water quality, flora and fauna. Narragansett Bay Field Studies allows students to learn in-depth about an ecosystem and to gain experience collecting, analyzing and presenting data year-round.

Grades: All

Length: 1-2 hours

Cost: Call for pricing

Location: Your school; Education Center, Providence; Aquarium, Newport

Grades: 7-12

Program Length: School year

Cost: Varies. Please call for pricing.

Location: Varies

Next Generation Science Standards Connections:
Programs are customized in collaboration with you.





Salt Marsh Nursery

This year-long, project-based program engages students in a hands-on experience with one of the most vital plants from one of the most important habitats of Narragansett Bay. From seed collection to seedling care to replanting *Spartina alterniflora*, students play a direct and critical role in restoring important salt marsh habitat and saving the Bay. This program is especially popular among middle schools and high schools.

Grades: All

Program Length: School year

Program Cost: Varies. Please call for pricing.

Location: Your classroom and a local salt marsh

Next Generation Science Standards | GEMS-Net Kits:

Grade 2- LS 2

Grade 3- LS1, LS2, Structures of life, Water & Climate

Grade 4- LS1, SS 2, ESS3, Environments

Grade 5- LS1, LS2, Living systems

Middle School- TBD

High School- TBD

Bay Schools Program

Focusing on the local environmental resource, Narragansett Bay, our educators work with participating elementary schools to provide standards-based science enrichment to every class in multiple grades. Programs are tailored to the grade level, and each year's program builds on the previous year of instruction. By the time students move into middle school, they have an in-depth background in the science of Narragansett Bay.

Grades: K-5 or K-6

Program Length: Varies. Please call.

Program Cost: Please call for pricing.

Location: Varies



Professional Development for Teachers

Save The Bay offers day-long workshops two to three times per school year, focusing on Bay diversity, Bay math and science, and climate change, while introducing them to the experiential learning model. **Contact us at 401-272-3540, x133** to discuss a customized professional development program for you.



SCIENCE STANDARDS

Next generation science standards





NEXT GENERATION SCIENCE STANDARDS CONNECTIONS

Grade K Life Sciences and Earth and Space Sciences

Classroom Programs	K-LS1	K-ESS-2	K-ESS3
Bay Experience	X	X	X
Beachcombers			X
Climate Change			X
Crabs and their Kin	X		X
Habitats of Narragansett Bay	X		X
Horseshoe Crabs	X		X
Life in your Watershed			X
Plankton/Foodwebs			X
Seals of Narragansett Bay	X	X	X
Salt Marsh Nursery			

Coastal Programs	K-LS1	K-ESS-2	K-ESS3
Salt Marsh	X	X	X
Rocky Shore	X	X	X
Sandy Beach	X	X	X
Urban Rivers	X	X	X

Shipboard Programs	K-LS1	K-ESS-2	K-ESS3
Animal Trawl			
Plankton Tow and Lab			
Water Chemistry			
Weather			

Aquarium Programs	K-LS1	K-ESS-2	K-ESS3
Animals of Narragansett Bay	X	X	X
Ecology of Narragansett Bay	X	X	X
Sharks of Narragansett Bay	X	X	X
Bayside Stories	X	X	X
Harbor Seal Adaptation and Migration			X

Grade 1 Life Sciences and Earth and Space Sciences

Classroom Programs	1-LS1	1-LS3
Bay Experience	X	X
Beachcombers		X
Climate Change		
Crabs and their Kin	X	X
Habitats of Narragansett Bay		
Horseshoe Crabs	X	X
Life in your Watershed		
Plankton/Foodwebs		
Seals of Narragansett Bay	X	
Salt Marsh Nursery		

Coastal Programs	1-LS1	1-LS3
Salt Marsh	X	X
Rocky Shore	X	X
Sandy Beach	X	X
Urban Rivers	X	X

Shipboard Programs	1-LS1	1-LS3
Animal Trawl		
Plankton Tow and Lab		
Water Chemistry		
Weather		

Aquarium Programs	1-LS1	1-LS3
Animals of Narragansett Bay	X	X
Ecology of Narragansett Bay	X	X
Sharks of Narragansett Bay	X	X
Bayside Stories	X	
Harbor Seal Adaptation and Migration	X	



Save The Bay is committed to empowering teachers and students to be successful in and out of their classrooms. To support that success, our programming was created with Next Generation Science Standards in mind. The connections are outlined in the grids below, but if you don't see something you need, please contact us for other options. We are happy to design a program that suits your needs.

Grade 2 Life Sciences and Earth and Space Sciences

Classroom Programs	2-LS2	2-LS4	2-ESS1	2-ESS2
Bay Experience		X		
Beachcombers		X		
Climate Change			X	
Crabs and their Kin		X		
Habitats of Narragansett Bay				
Horseshoe Crabs		X		
Life in your Watershed				X
Plankton/Foodwebs	X			
Seals of Narragansett Bay		X		
Salt Marsh Nursery	X			

Coastal Programs	2-LS2	2-LS4	2-ESS1	2-ESS2
Salt Marsh			X	
Rocky Shore			X	
Sandy Beach			X	
Urban Rivers			X	

Shipboard Programs	2-LS2	2-LS4	2-ESS1	2-ESS2
Animal Trawl			X	X
Plankton Tow and Lab			X	X
Water Chemistry				X
Weather				X
Seals of Narragansett Bay			X	

Aquarium Programs	2-LS2	2-LS4	2-ESS1	2-ESS2
Animals of Narragansett Bay			X	
Ecology of Narragansett Bay			X	
Sharks of Narragansett Bay			X	
Bayside Stories			X	
Harbor Seal Adaptation and Migration			X	

Grade 3 Life Sciences and Earth and Space Sciences

Classroom Programs	3-LS2	3-LS4	3-ESS2	2-ESS3
Bay Experience	X	X		
Beachcombers		X		
Climate Change			X	
Crabs and their Kin	X	X		
Habitats of Narragansett Bay		X		
Horseshoe Crabs	X	X		
Life in your Watershed		X		
Plankton/Foodwebs				
Seals of Narragansett Bay	X	X		

Coastal Programs	3-LS2	3-LS4	3-ESS2	2-ESS3
Salt Marsh			X	
Rocky Shore			X	
Sandy Beach			X	
Urban Rivers			X	

Shipboard Programs	3-LS2	3-LS4	3-ESS2	2-ESS3
Animal Trawl			X	X
Plankton Tow and Lab			X	X
Water Chemistry				X
Weather			X	X

Aquarium Programs	3-LS2	3-LS4	3-ESS2	2-ESS3
Animals of Narragansett Bay			X	
Ecology of Narragansett Bay			X	
Sharks of Narragansett Bay			X	
Bayside Stories			X	
Explore Your Estuary	X	X	X	X
Harbor Seal Adaptation and Migration			X	



Grade 4 Life Sciences and Earth and Space Sciences

Classroom Programs	4-LS1	4-ESS1	4-ESS2	4-ESS3
Bay Experience	X			
Beachcombers	X			
Climate Change	X			
Crabs and their Kin	X			
Habitats of Narragansett Bay	X			
Horseshoe Crabs	X			
Life in your Watershed				
Plankton/Foodwebs	X			X
Seals of Narragansett Bay	X			
Salt Marsh Nursery	X		X	X

Coastal Programs	4-LS1	4-ESS1	4-ESS2	4-ESS3
Salt Marsh	X		X	X
Rocky Shore	X		X	X
Sandy Beach	X		X	X
Urban Rivers	X			X

Shipboard Programs	4-LS1	4-ESS1	4-ESS2	4-ESS3
Animal Trawl	X			X
Plankton Tow and Lab	X			X
Water Chemistry				X
Weather				X

Aquarium Programs	4-LS1	4-ESS1	4-ESS2	4-ESS3
Animals of Narragansett Bay		X		X
Ecology of Narragansett Bay	X			X
Sharks of Narragansett Bay	X			
Bayside Stories				
Explore Your Estuary	X	X		
Harbor Seal Adaptation and Migration	X			

Grade 5 Life Sciences and Earth and Space Sciences

Classroom Programs	5-LS1	5-LS2	5-ESS2	2-ESS3
Bay Experience	X	X		
Beachcombers				
Climate Change			X	
Crabs and their Kin				
Habitats of Narragansett Bay	X			
Horseshoe Crabs	X			
Life in your Watershed			X	
Plankton/Foodwebs	X	X		
Seals of Narragansett Bay				
Salt Marsh Nursery	X	X		

Coastal Programs	5-LS1	5-LS2	5-ESS2	2-ESS3
Salt Marsh		X		X
Rocky Shore		X		X
Sandy Beach		X		X
Urban Rivers		X		X

Shipboard Programs	5-LS1	5-LS2	5-ESS2	2-ESS3
Animal Trawl	X	X	X	X
Plankton Tow and Lab	X	X	X	X
Water Chemistry	X	X	X	X
Weather	X	X	X	X

Aquarium Programs	5-LS1	5-LS2	5-ESS2	2-ESS3
Animals of Narragansett Bay		X		X
Ecology of Narragansett Bay	X			X
Sharks of Narragansett Bay				X
Bayside Stories				
Explore Your Estuary	X	X	X	X
Harbor Seal Adaptation and Migration	X	X	X	X



Grade MS Life Sciences and Earth and Space Sciences

Classroom Programs	MS-LS1	MS-LS2	MS-ESS2	MS-ESS3
Bay Experience				
Beachcombers				
Climate Change			X	
Crabs and their Kin				
Habitats of Narragansett Bay				
Horseshoe Crabs				
Life in your Watershed				
Plankton/Foodwebs		X	X	
Seals of Narragansett Bay				
Salt Marsh Nursery				

Coastal Programs	MS-LS1	MS-LS2	MS-ESS2	MS-ESS3
Salt Marsh	X	X		X
Rocky Shore		X		X
Sandy Beach		X		X
Urban Rivers		X		

Shipboard Programs	MS-LS1	MS-LS2	MS-ESS2	MS-ESS3
Animal Trawl	X	X	X	X
Plankton Tow and Lab	X	X	X	X
Water Chemistry	X	X	X	X
Weather	X	X	X	X
Squid Dissection	X			

Aquarium Programs	MS-LS1	MS-LS2	MS-ESS2	MS-ESS3
Animals of Narragansett Bay				
Ecology of Narragansett Bay				
Sharks of Narragansett Bay			X	X
Bayside Stories				
Explore Your Estuary	X	X	X	X
Harbor Seal Adaptation and Migration				

Grade HS Life Sciences and Earth and Space Sciences

Classroom Programs	H5-LS1	H5-LS2	HS-ESS3
Bay Experience			
Beachcombers			
Climate Change			
Crabs and their Kin			
Habitats of Narragansett Bay			
Horseshoe Crabs			
Life in your Watershed			
Plankton/Foodwebs			
Seals of Narragansett Bay			
Salt Marsh Nursery			

Coastal Programs	H5-LS1	H5-LS2	HS-ESS3
Salt Marsh		X	X
Rocky Shore		X	X
Sandy Beach		X	X
Urban Rivers		X	X

Shipboard Programs	H5-LS1	H5-LS2	HS-ESS3
Animal Trawl	X	X	X
Plankton Tow and Lab	X	X	X
Water Chemistry		X	X
Weather		X	X
Squid Dissection		X	

Aquarium Programs	H5-LS1	H5-LS2	HS-LS4	HS-ESS3
Animals of Narragansett Bay				
Ecology of Narragansett Bay				
Sharks of Narragansett Bay				
Bayside Stories				
Explore Your Estuary	X	X		X
Harbor Seal Adaptation and Migration		X	X	

SAVE THE BAY®

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