

Schooling

2011 – 2012 New England Aquarium Programs

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New England
Aquarium

Protecting the blue planet

Dear Educators,

Educating is future-oriented work. Like you, New England Aquarium educators strive to have a positive influence on the lives of young people, our community and the wider world. We don't always get clear feedback about the long-term impacts of our programs, but people often tell us that our courses have helped shape their work, lives or understanding of the world. In the following pages you will find such programs, offered for teachers, classes and schools.

Our programs are designed to support curriculum and instruction. We focus on integrating literacy, math and science skills through using inquiry-based approaches and exploration of animals and local habitats to engage students in learning. We can also build programming to support district-wide professional development.

New this year, we completely renovated our Sharks program thanks to a grant from National Grid. Sharks lets students explore biology without getting wet, an excellent pre-visit program before a field trip to The Trust Family Foundation Shark and Ray Touch Tank.

Thanks to all of our sponsors who make our work possible. And thank you for your good work with students and our community.

Sincerely,
John C. Anderson,
Director of Education

Plan your field trip
with the easy-to-use
checklist (page 7).

Make deeper connections
by bringing an Aquarium
educator to your class
before and after field
trips (back cover).

Field Trip General Information and Pricing

Group Admission

A minimum of 10 students is required to receive the group rate. (For special needs, a minimum of six students is required.) Please make reservations at least two weeks in advance. Massachusetts Teachers Association (MTA), Boston Teachers Union (BTU) and Aquarium membership cards may not be combined with group admission rates.

Chaperone Policy

The number of required chaperones is determined by grade level. Teachers are considered chaperones. Chaperones are admitted free of charge. Additional adults pay the group rate.

Pre K:

1 chaperone for every 3 students

Grades K-4:

1 chaperone for every 5 students

Grades 5-8:

1 chaperone for every 7 students

Grades 9-12:

1 chaperone for every 10 students

Special Needs:

1 chaperone for every student

Lunches

Lunch vouchers cost \$8.50 and allow students their choice from each category:

Entrée: Sandwich, pizza, burger or nuggets with fries

Drink: Soda, milk or chocolate milk

Dessert: Cookie, brownie or chips

Place your lunch voucher order when scheduling your field trip by calling 617-973-5206. Please give 72 hours' notice. Seating in the Harbor View Café is available on a first-come, first-served basis.

2011 Group Ticket Prices

Aquarium/IMAX Combo:
Student \$13.95, Adult \$21.95

Aquarium:
Student \$9.95, Adult \$17.95

IMAX:
Student \$6.95, Adult \$8.95

Aquarium/Whale Watch Combo*:
Child (3-17) \$29.95, Adult \$43.95

Whale Watch*:
Child (3-17) \$24.95, Adult \$32.95

**Prices subject to change. Whale Watch prices do not include 5 percent convention tax or a fuel surcharge where applicable. MTA, BTU and Aquarium membership cards cannot be combined with group admission rates.*

Gift Shop

You can arrange to purchase fun and educational souvenirs for your group at a discounted price. They will be ready and waiting for you! Call the Aquarium Gift Shop at 617-973-5266.

Photo Keepsakes

Let your students take home pictures to remember their visit! Group photos taken upon arrival at the Aquarium will be ready by the time you leave. Save when you pre-purchase your photos! For pricing or to buy, call 617-723-5341.

The New England Aquarium thanks Arthur J. Gallagher Risk Management Services, Inc., Associated Grant Makers Summer Fund, The Boston Foundation, Cabot Corporation, Eaton Vance Corporation, Fidelity Investments, Germeshausen Foundation, GDF SUEZ Energy Resources NA, Roy A. Hunt Foundation, The Lowell Institute, The National Oceanic and Atmospheric Administration, PerkinElmer Foundation, Harold Whitworth Pierce Charitable Trust, Polar Beverages, Norman H. Read Charitable Trust, Red Acre Foundation, Saquish Foundation, William E. Schrafft and Bertha E. Schrafft Charitable Trust, State Street Foundation, Inc., The Abbot and Dorothy H. Stevens Foundation, TJX Foundation, Tofias PC and Yawkey Foundation for their ongoing support of education programs.



2011 Signature Education Sponsors:



Teacher Resource Center (TRC)

Teachers are our number one priority.

Professional Development Workshops for Teachers



A Closer Look: Integrating Inquiry, Science Skills and Literacy

Sharpen your understanding of how to facilitate inquiry-based learning activities and design simple science investigations. Discover ways to help students write and develop their observational skills with artifacts, live animals and Aquarium exhibits.

Grade levels
K-1-2-3-4-5-6-7-8

Credits
PDPs or 1 graduate credit with project work

Location
The Aquarium or off-site at a school

Session time
2 to 15 hours

Massachusetts Curriculum – Standards
Life Science; Technology and Engineering



Field Trip Preparation Workshops

Curriculum-based activities, personalized tours and orientations to help you plan an Aquarium visit with your class, grade level or school. This program is free.

Grade levels
K-1-2-3-4-5-6-7-8-9-10-11-12

Credits
None

Location
The Aquarium

Session time
2 hours

Massachusetts Curriculum – Standards
Life Science; Integrating English Language Arts and Mathematics standards



Ocean Animals and Ecosystems

Choose from a number of topics ranging from tidepool animals and coral reefs to penguins, marine mammals, local coastal ecosystem and much more! A focus on the unique characteristics, adaptations, habitats and human impacts of each topic includes hands-on activities for the classroom and additional lessons to use both in the Aquarium and in the field.

Grade levels
K-1-2-3-4-5-6-7-8

Credits
10 PDPs with project work

Location
The Aquarium or off-site for select programs

Session time
2 to 7 hours

Massachusetts Curriculum – Standards
Life Science; Integrating English Language Arts and Mathematics standards

Watersheds: Windows to the World

Learn ways to investigate your local watershed through the use of simple mapping activities, data collection and classroom activities with a focus on human impacts.

Grade levels
3-4-5-6-7-8-9-10-11-12

Credits
PDPs and graduate credit available with project work

Location
The Aquarium or off-site at a school

Session time
7 to 25 hours

Massachusetts Curriculum – Standards
Earth and Space Science; Life Science; Physical Science

Aquarium Set-up and Maintenance

Learn how to set up and maintain a freshwater aquarium tank by understanding water quality, nitrogen cycle, scientific observations and data collection.

Grade levels
K-1-2-3-4-5-6-7-8-9-10-11-12

Credits
PDPs with project work

Location
The Aquarium or off-site at a school

Session time
2 to 7 hours

Massachusetts Curriculum – Standards
Life Science; Technology and Engineering

Ocean Exploration — National Oceanic and Atmospheric Administration (NOAA)

Join NOAA education staff as they introduce the new Explorer education materials, *Why do we explore?* During this professional development offering, participants will learn how to use standards-based lessons and other online resources that guide classroom inquiries into modern reasons for ocean exploration, including climate change, energy, human health and ocean health. This program is free.

Grade levels
5-6-7-8-9-10-11-12

Credits
PDPs with project work

Location
The Aquarium

Session time
8 hours

Massachusetts Curriculum – Standards
Life Science; Mathematics

More than 3,000 educators use our teacher services each year. Come see how we can help meet your aquatic and environmental education needs!

Teaching Tools for Loan

Teachers may borrow materials for free from our collection:

- Kits containing specimens, books and activities
- Samples of shark jaws, sea turtle shells, corals and much more
- Hands-on inquiry and standards-based curricula, activities and lesson plans
- Multimedia resources
- Colorful puppets and games



Summer Graduate Courses

Climate Science and the Ocean

This program covers the relationships among the climate, ocean ecosystems and ocean animals, highlighting climate science, coastal systems and renewable energy teaching resources.

Grade levels
6-7-8-9-10-11-12

Credits
3 graduate credits with project work

Location
The Aquarium or off-site at a school

Session time
35 hours

Massachusetts Curriculum – Standards
Life Science; Earth and Space Science; Physical Sciences

On the Waterfront/Worlds of Water

Learn about ecosystems at various ocean depths and understand the impacts of human activities on oceans, climate and human health with a focus on field and hands-on classroom investigations.

Grade levels
3-4-5-6-7-8

Credits
4 graduate credits with project work

Location
The Aquarium

Session time
49 hours

Massachusetts Curriculum – Standards
Life Science; Technology and Engineering; Integrating English Language Arts and Mathematics standards

Check It Out!

Visit our website for a complete list of available resources, upcoming programs and to sign up for our e-newsletter.

www.neaq.org/teachers

To contact the TRC, email trc@neaq.org or call 617-973-6590.

Please note: Prices vary based on duration, location and group size.

Programs for Students

Shark, Fish and Whale Programs



Sharks

Sharks play an essential role in the ocean ecosystem. In this class, students begin to understand more about the life history of sharks, examine an inflatable shark and then explore science cases that reveal how sharks survive in the marine environment. Created with support from National Grid, this program can take place at the Aquarium or at your school or community center.

Grade levels
3-4-5-6

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science; Mathematics



Go Fish!

Students explore the complex world of fisheries through interactive exhibits and games. Focusing on tools and technology, this program helps students gain understanding on topics such as biodiversity, fish identification, resource management and the often forgotten adventure that lies between the ocean and the dinner plate. Program can take place at the Aquarium or at your school or community center.

Grade levels
3-4-5-6-7-8

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science; Mathematics; Technology and Engineering; Social Science

Please visit www.neaq.org/curriculumstandards for more information on alignment with curriculum standards.

Please note: In addition to all the above costs there will be a \$5 booking fee added to each reservation and, for Outreaches, a mileage fee depending on your location.



K. Doohar

Whale Day

Using interactive exhibits, students learn about the intelligence and biology of marine mammals, as well as how researchers study them. The program's centerpiece is a life-sized inflatable right whale. The cost of this program includes Right Whale Sponsorship for your school for one year. This program takes place in a large meeting area such as a gymnasium, cafeteria or auditorium. Consider combining this program with our Whale Game Show assembly program.

Grade levels
1-2-3-4-5-6-7-8

Session time 45 min. **Students per session** up to 60

Cost \$825 for up to four sessions and \$150 for one additional session

Massachusetts Curriculum – Standards
Life Science; Mathematics; Technology and Engineering

Whale Game Show

Students compete as game show contestants in this interactive theater program to answer questions about right whales. At the end of the show, students watch a life-sized right whale inflate before their eyes. An activity kit is available to prepare students before we arrive. This program takes place in your school or community center's auditorium or other large space.

Grade levels
K-1-2-3-4-5

Session time 45 min. **Students per session** up to 150

Cost \$400 for one session and \$150 for one additional session

Massachusetts Curriculum – Standards
Life Science; Mathematics

Teachers Love Go Fish!

"I liked the hands-on stations, and the activities align with state standards."

Teachers Love Sharks

"A great, eye-grabbing, crowd-pleasing workshop. Lots of hands-on activities. Great for kids."

Reserve Today!

To book your field trip or program, call Central Reservations at 617-973-5206.

For more information visit us online. www.neaq.org/schooling

Savings Tip:

Save on busing costs! Ask us to come to you.

Tidepool Programs



Tidepools for Tots

Toddlers, age 12 months to 3 years, explore textures, shapes and movements of different live tidepool animals. Program can take place at the Aquarium or at your school or community center.

Grade levels
Under 3-PreK

Session time 20 to 30 min. **Students per session** 10 to 20

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science



Tidepools Alive!

Using guided imagery, a child-sized costume and live animals, students explore and interact with tidepool animals while learning basic biology and anatomy. Program can take place at the Aquarium or at your school or community center.

Grade levels
Age 3-PreK-K-1

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science



Tidepool Revue

Students become the stars of the show as they create a larger-than-life tidepool with animals, seaweed and the stresses they face. This program takes place in any large meeting area such as a cafeteria or auditorium. Combine with other tidepool programming to add a live animal experience.

Grade levels
K-1-2-3-4-5

Session time 45 min. **Students per session** up to 150

Cost \$400 for one session and \$150 for one additional session

Massachusetts Curriculum – Standards
Life Science



S. Cheng

Tidepool Adaptations

Students interact with live animals and discover coastal animal adaptations in three different shoreline habitats. Program can take place at the Aquarium or at your school or community center.

Grade levels
2-3-4-5-6

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science



Intertidal Ecology

Students interact with live intertidal organisms and explore ecological topics such as niche theory, intertidal zonation and animal identification. Program can take place at the Aquarium or at your school or community center.

Grade levels
6-7-8-9-10-11-12

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)
Cost at your location \$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science; Earth Science; Mathematics; Technology and Engineering



Tidepool Open House

Aquarium educators bring a hands-on exhibit of tidepool animals to your family night, festival or other community event. Combine with other tidepool programming listed above. Call 617-226-2123 for details.

Grade levels
PreK-K-1-2-3-4-5-6-7-8-9-10-11-12

Session time 2 to 5 hours **Students per session** varies

Cost at your location \$400 for up to three hours and \$550 for up to five hours



Dockside Explorers

Use the ocean in our backyard as your lab. Take a closer look at what lives in Boston Harbor, both large and small, and learn about how we are connected. Students will practice close observation and get a taste of what it means to be a marine biologist. This program is offered September to November and April to June. Program takes place at the Aquarium rain or shine.

Grade levels
3-4-5-6-7-8-9-10-11-12

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium \$5 per child (minimum of 10 students)

Massachusetts Curriculum – Standards
Life Science; Earth Science

Penguin Programs



Rockhopper Hop

Using activity kits, masks and music, students turn an Aquarium educator into a giant rockhopper penguin in this interactive stage program. An activity kit can be sent to your school for use in your classroom before we arrive. This program takes place in any large meeting area such as a cafeteria or auditorium.

Grade levels
K-1-2-3-4-5

Session time 45 min. **Students per session** Up to 150

Cost at your location
\$400 for one session and \$150 for one additional session

Massachusetts Curriculum – Standards
Life Science



Penguins

Turn your students into penguins! Aquarium educators will teach children how to act like penguins, and how to collect and analyze data like scientists. In addition to learning about penguin behavior, students will discover the variety of penguin species found at the New England Aquarium and throughout the Southern Hemisphere. Program can take place at the Aquarium or at your school or community center. This program was developed in collaboration with TERC to fulfill national Council of Teachers of Mathematics standards.

Grade levels
1-2-3-4-5

Session time 45 min. **Students per session** 10 to 30

Cost at the Aquarium
\$5 per child (minimum of 10 students)
Cost at your location
\$400 for up to three sessions and \$75 per additional session

Massachusetts Curriculum – Standards
Life Science; Mathematics

Additional Programs

In addition to our core programs, we will be happy to address the topics listed here. Call the Education Programs Coordinator at 617-226-2147 with questions or to book these programs.



Turtle Trek

Grade levels
Age 3-PreK-K

S. Cheng



Water Properties

Grade levels
2-3-4-5



H2O!

Grade levels
6-7-8-9-10-11-12



Squid: Inside and Out

Grade levels
5-6-7-8-9-10-11-12



Fish Anatomy

Grade levels
6-7-8-9-10-11-12

Custom Programs



Field Experiences

New England Aquarium educators will help you arrange a field trip to a local tidepool habitat or salt marsh. Trips in the past have included Quincy Salt Marsh/Beach, Belle Isle Marsh and trips to the Boston Harbor Islands. Experiences can include a pre-visit to the school to prepare the students and a post visit to wrap up the experience. Costs vary.

Grade levels
1-2-3-4-5-6-7-8-9-10-11-12

Students per day
10 to 60



Ocean Program Series

Enhance your after-school, scout or homeschool program by having an Aquarium educator help your students explore the wonders of the ocean for six to eight weeks. We will work with you to choose from a selection of topics covering ocean animals, habitat and conservation. Program can take place at the Aquarium or at your school or community center. Costs vary.

Grade levels
K-1-2-3-4-5-6-7-8

Session time 45 min. **Students per session** 10 to 30

Field Trip Checklist



Protecting the blue planet

When booking a field trip with us, you will need the following information:

School name

School address

City

State, Zip code

Phone

Fax

Email

What do I want my class to experience?

- Aquarium/IMAX Combo
- Behind-the-Scenes Tour
- Aquarium/Whale Watch Combo
- IMAX
- Aquarium
- Onsite Education Program
- Classroom Connections (pre- and post-field trip visits)
- Whale Watch

On what date do I want to schedule the field trip or program?

We recommend having a first and second choice of dates. The Aquarium is at its busiest at the end of the week from 9 a.m. to 12 noon. Please make your arrangements at least two weeks in advance.

First choice

Second choice

Number of students

Number of chaperones

What time do I want my class to arrive?

Eat lunch? (Bringing or buying lunch?)

Visit Gift Shop?

Attend other programs?

Depart?

After your field trip or program is scheduled you will receive a **Confirmation Number:**

This number is important, please refer to it when calling the Aquarium.

You will be mailed a confirmation packet. Please review this packet carefully. Make sure the date, time and program match your records.

Payment Policies

- **For Aquarium-only reservations:** No deposit is required. Final payment is due upon arrival.
- **For Combination Programs (Aquarium, Whale Watch, IMAX and Education Programs):** A 50% non-refundable deposit will be due 30 days prior to your arrival date and can be paid via school check or credit card. The final payment and headcount will be due one week prior to visit.
- **Cancellation policy:** The deposit will be available for use 90 days from the date of cancellation/exchange/refund request. If the group doesn't apply this deposit to a trip within 90 days, the deposit is forfeited.

Things to Remember

- Contact the Teacher Resource Center at trc@neaq.org for field trip preparation materials and visit www.neaq.org/preview to check out the orientation video.
- A reservation must be made at least two weeks in advance to receive the group rate.
- **Chaperones are required to stay with their group at all times.**
- **Lunches:** Please put all lunches together in one bin and bring them to the information desk in the Main Lobby of the Aquarium where they will be stored in the stroller room. Lunch space is not guaranteed.
- **Coats:** The Aquarium does not have space to store coats for groups.
- **Bus parking** is not available at the Aquarium. Please display bus permit while dropping off and picking up students. The bus driver will be directed to an offsite lot upon arrival. Parking costs vary per lot. Please budget \$9 to \$25 for a whole day.

New England Aquarium Simons IMAX Theatre Programs

IMAX films will take your students where they've only dreamed of going!

The Aquarium's Simons IMAX Theatre offers educational and engaging film presentations on the largest screen in New England. Take your students into the deep, dark sea, let them watch endangered species thrive or let them swim alongside their favorite ocean creatures by making an IMAX film presentation part of your curriculum.

Visit www.neaq.org for a current list of available films and showtimes.

At www.neaq.org, you can view educational concepts and download free Teacher Resource Guides for most IMAX films. The Teacher Resource Guide is consistent with the National Education Science Standards and is meant to be a supplement to each grade level. The guides can be easily adapted to your curriculum and include discussion topics, exercises and hands-on group projects. IMAX films have a suggested targeted age group in the Teacher Guides, but the activities can be modified to fit your grade level.



Now playing



Born to Be Wild 3D

Orphaned orangutans and elephants flourish and return to the wild with the help of inspiring human caregivers in *Born to Be Wild 3D*. The film highlights the heartwarming bonds between orphaned animals and their human foster mothers. From lush rainforests to the rugged savannah, watch as endangered species are saved one life at a time.

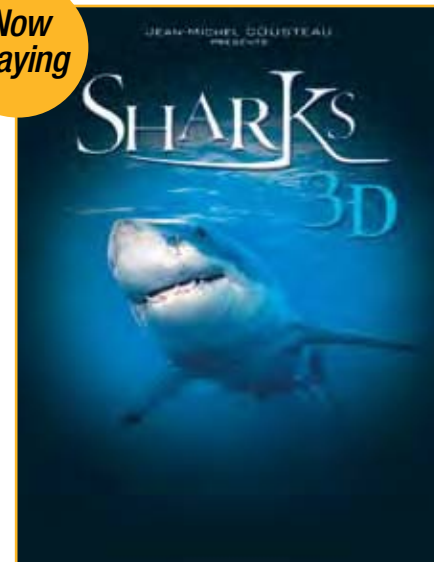
Now playing



Under the Sea 3D

Under the Sea 3D will transport moviegoers to some of the most exotic and isolated undersea locations on Earth, including Southern Australia, New Guinea and other places in the Indo-Pacific region, allowing them to experience face-to-face encounters with some of the most mysterious and stunning creatures of the sea.

Now playing



Sharks 3D

Brace yourself for an in-depth exploration of the oceans' ultimate predators—sharks. Come face-to-face with great white and hammerhead sharks, witness feeding frenzies and swim alongside the biggest fish on earth, the whale shark. Presented by Jean-Michel Cousteau, *Sharks 3D* will help you overcome your deepest fears and change how you think about sharks forever.

Also Available

Hubble 3D

Let your students experience the majesty and mystery of outer space on the largest screen in New England. Reach out to grab a handful of stardust on an awe-inspiring journey to dazzling distant galaxies, and get to know some brave NASA astronauts along the way.



Dolphins and Whales 3D

Stunning imagery of dolphins and whales in their natural habitats helps to educate your students about the critical need to protect the Earth's oceans from pollution and destruction. The film shows small and giant cetaceans, such as humpback and sperm whales, orcas and dolphins.



IMAX® is a registered trademark of IMAX Corporation.

IMAX films are subject to change and may not be available.

Reserve Today!

By signing up for the IMAX Educator's Connection, you'll receive free invitations to educator-only events and film sneak previews, as well as a complimentary newsletter! Email: groupsales@neaq.org

Aquarium Highlights

Add any of these programs to your Aquarium field trip.

Behind-the-Scenes Tours

(Limited to 10 people, available to grades 3-12)
\$15 per person, plus Aquarium admission
See what it takes to run the New England Aquarium. Join an educator for a personalized tour of one of our many galleries and learn what the animals eat, how their tanks are maintained and more.

Simons IMAX Theatre

Many of our exciting IMAX films are the perfect way to engage, enlighten and inspire young minds!

See pages 8 and 9 for details.

Whale Watch

Whale Watch season is from April through October. Let our high-speed catamaran whisk you to see the largest animals on Earth.

Visit www.neaq.org or call 617-973-5206.

Classroom Connections

(Available PreK-12)
Planning a field trip to the Aquarium? Invite the Aquarium to your classroom to strengthen curriculum connections. An experienced educator will visit your classroom before and after your scheduled trip. The educator will coordinate with participating teachers to provide an orientation, hands-on activities and curriculum support to help your students discover more from their Aquarium experience.

Contact the Education department at 617-226-2147.

Connect your students to the Aquarium online!

The live blue™ Initiative

www.liveblueinitiative.org

Connect your classroom to ocean conservation around the world.

Blue Impact Tour

www.neaq.org/blueimpact

Watch the Aquarium's new climate change tour.

NEAq Insider Tour

www.neaq.org/neaqinsider

View the Aquarium's behind-the-scenes video tour.



**New England
Aquarium**

Central Wharf
Boston, MA 02110-3399

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