Ocean Institute

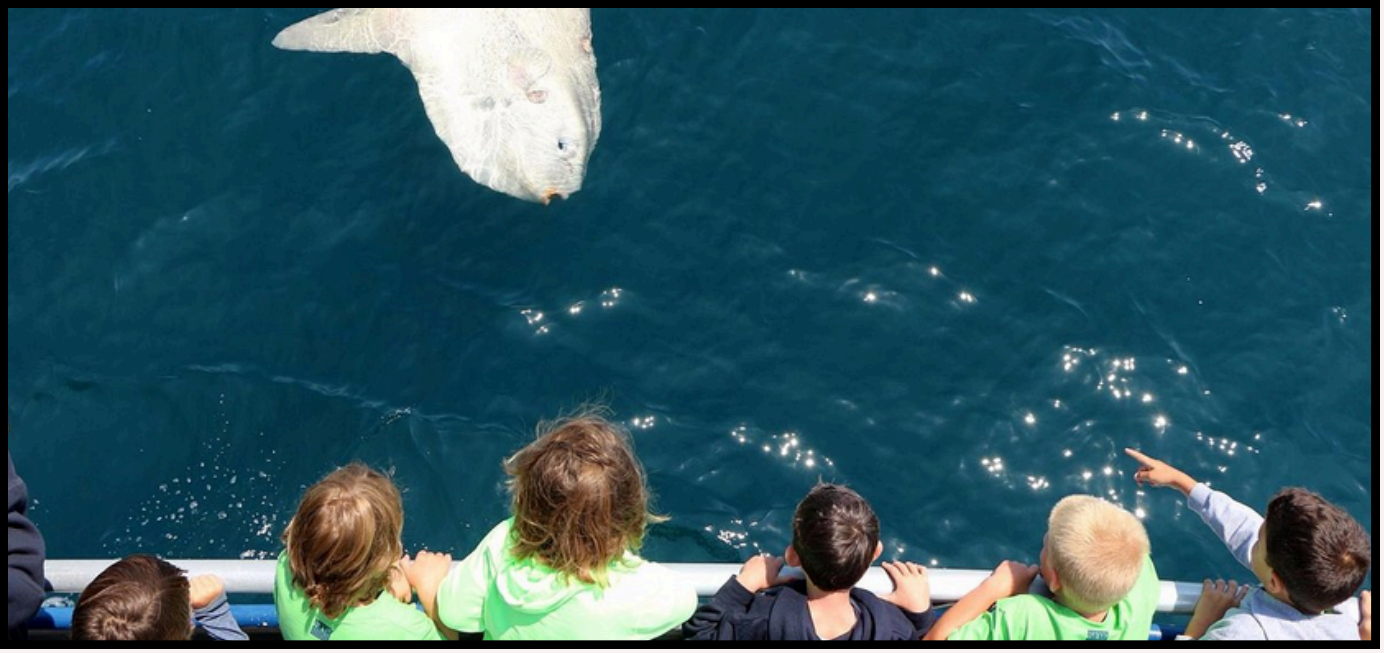
EXPERIENCE IS THE TEACHER

2025-2026 FIELD TRIP GUIDE

ABOUT US

The Ocean Institute, founded in 1977, is a non-profit organization that educates 100,000 children, teachers, parents, and visitors annually through over 30 marine science and maritime history programs. We are located on 2.4 acres in the Dana Point Harbor; adjacent to a Marine Protected Area.

The Institute includes state-of-the-art teaching labs, the spectacular Maddie James Seaside Learning Center, a historic tall ship, and an oceanographic research vessel. Immersion-based field trips range from one-hour science labs to overnight programs. All programs are designed to maximize immersion, spark curiosity, and inspire a deep commitment to learning.



MARINE SCIENCE PROGRAMS

One Hour Labs

These labs are all a part of our LiteraSEA program. Each program is based on a different ocean-themed children's book. Students will learn the difference between fact and fiction by comparing the story to the real marine life found in our aquariums.

Undersea ABCs Lab

Pre-K - K | 25 student max

Come learn the ABC's while exploring life in the ocean! Students will meet tide pool, kelp forest, and sandy bottom animals in our aquariums while learning their letters. Program activities include touching sea stars in our Discovery Pool and listening to ocean sounds like crashing waves and dolphin squeaks. This lab is modeled after the book *Into the A, B, Sea* by Deborah Lee Rose.

Tidepool Junior Naturalist Lab

Pre-K - K | 25 student max

This lab program is ideal for small groups including homeschooling, scout troops, and special education groups. During this program students will study animals in the Discovery Pool and discover how they move, why they attach to rocks, what they eat and why disturbing them could injure them or worse! While this program does not go to the tide pools, students will learn how to be Good Tide Poolers for future self-guided tidepool excursions.

A House for Hermit Crab

1st - 2nd

This program is based on the book *A House for Hermit Crab* by Eric Carle, which illustrates the year-long journey of a growing hermit crab traveling across the ocean floor where he meets friendly ocean creatures along the way. Students will have the chance to hold hermit crabs, touch animals in our Discovery Pool, and explore the different types of crabs and their shells.

Smiley the Shark Lab

1st - 2nd

Smiley the Shark is a popular story by Ruth Galloway that illustrates a shark who loves to smile yet finds that his scary teeth frighten all the other sea creatures away. Students will learn about the different jaws and teeth of sharks and how sharks are important to the food chain, as well as touching our resident sharks and other animals in our touch tanks.

Big Al in the Lab

2nd - 3rd

In *Big Al* by Andrew Clements, Big Al the fish engages students as he searches for friends! Students will learn about the habitats of Big Al and his ocean friends, and even meet a few of them in our Discovery Pool touch tank. They'll also learn about the different feeding strategies of fish and how humans effect the ocean through commercial fishing.

Marine Mammal Lab

3rd - 4th

Students will read *The Snail and the Whale* by Julia Donaldson and Axel Scheffler, and try to answer the question, would a snail really ride on a whale? They will learn about what makes a mammal a mammal, and how marine mammals like whales and dolphins eat and communicate by examining plankton and krill under a microscope and listening to underwater sounds with a hydrophone. They'll also meet some real sea snails and stars in our Discovery Pool touch tank.

We also offer a Big Al Goes to Sea Cruise and a Marine Mammal Cruise on the *R/V Sea Explorer*, which can be done separately or in addition to the lab.

Two Hour Labs and Cruises

Each of these lab programs can be combined with an additional two-hour boat cruise onboard our research vessel, the *R/V Sea Explorer*. Cruises can also be done separately from labs.

The 65-foot research vessel is an educational floating lab equipped with underwater cameras, an acoustic hydrophone, onboard computers, video microscopes, touch tanks, and a viewing aquarium. A bowsprit over the water provides any passenger with a breathtaking view of dolphins, whales, and sea lions.

Junior Scientist Lab/Cruise
3rd - 4th

Students learn how to be a marine scientist in various fields. In the lab, students will dissect a squid, study adaptations in our Discovery Pool, measure and graph different marine artifacts, and examine plankton and their life cycles under the microscope. Aboard the *R/V Sea Explorer*, they will search for marine life, analyze a benthic mud sample, and collect and view a plankton sample.

Watershed Lab/Cruise
4th - 5th

In this program, students explore the science of watersheds. In the lab, students perform a fish dissection, conduct water chemistry tests, and use an aquifer model to discover potential sources of pollution. On the *R/V Sea Explorer*, they will analyze a benthic mud sample, collect and view a plankton sample, and build their own watershed model.

Living Systems Lab/Cruise
5th - 6th

This program explores the interactions between marine organisms and their ecosystems. In the lab, students will investigate food chains, life cycles, adaptations, and habitats. The lab includes a fish dissection, testing water samples, exploring the habitats of our aquarium animals, and investigating the moon jelly life cycle. On the *R/V Sea Explorer*, they will search for marine life, analyze a benthic mud sample, and collect and view a plankton sample.

We also offer a more in-depth version of this program for older students in 6th and 7th grade.

Sea Floor Explorer Lab/Cruise
6th - 8th

In this program, students study the sea floor through the investigation of sediment cores, underwater archeology, and seismology. On the *R/V Sea Explorer*, they will use side scan sonar to map the sea floor, collect a sediment core, and learn about hydrothermal vents.

Human Impacts on Coastal Ecosystems Lab/Cruise
9th - 12th

This lab takes a closer look at ocean imbalance caused by humans. Students will examine fouling plates, perform a fish necropsy, and test water quality. On the *R/V Sea Explorer* students will study fish biogeography with a benthic trawl, fluorometry, and a plankton sample.

Science Overnight Programs

Our science overnight programs give students the chance to spend the night here at the Institute! Students will do lab rotations in the evening, sleep in our open-air Surf Deck, and go on an early-morning boat cruise. Dinner and breakfast are included.

Watershed Overnight
4th - 5th

In this program, students explore the science of watersheds. In the lab, students perform a fish dissection, conduct water chemistry tests, take and analyze soil samples, and use an aquifer model to discover potential sources of pollution. On the *R/V Sea Explorer*, they will analyze a benthic mud sample, collect and view a plankton sample, and build their own watershed model.

Life in the Abyss Overnight
5th - 6th

This overnight program features activities from our popular Living Systems Lab, including a fish dissection, water testing, habitat exploration, and the moon jelly life cycle. They will also perform a cow eye dissection, and study the food chains of the deep sea, hydrothermal vents, and bioluminescence. On the *R/V Sea Explorer*, they will search for marine life, analyze a benthic mud grab, collect a plankton sample, and participate in a hands-on demonstration of pressure and depth.

Sea Floor Explorer Overnight
6th - 8th

In this program, students study the sea floor through the investigation of sediment cores, underwater archeology, and seismology. They will get the chance to drive our real ROV and build their own ROV models. On the *R/V Sea Explorer*, they will use side scan sonar to map the sea floor, collect a sediment core, and learn about hydrothermal vents.

Engineers Wanted: Renewable Energy
7th - 12th

This overnight highlights the usage of renewable energy sources, such as wind, sun and water. Students will learn about tidal energy and the pros and cons of different energy sources. They will design and engineer their own wind turbine, solar-powered car, and wave energy buoy. In the morning, they will learn about wind power firsthand sailing on our tall ship, the *Spirit of Dana Point*.

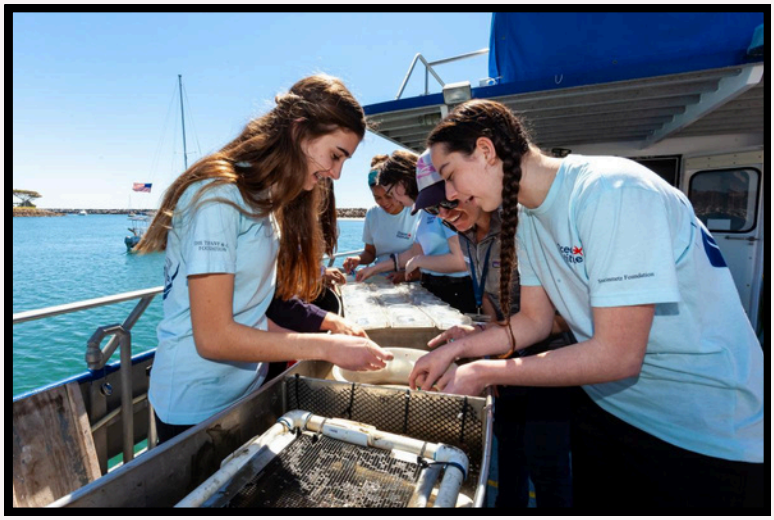
Catalina Island Ecology Safari
4th - 12th

Students will journey to the nearby Catalina Island and back on the *Fury*! On the island, they will explore the coastal mudflats, snorkel in one of the many coves, and fish. The learning doesn't stop when students get off the island. On board the *Fury,* students will participate in a dissection, learn about bioluminescence, and much more!

We also offer a day version of this program.

California Coastal Ecology Overnight
4th - 12th

Come explore our local coastline with our CA Coastal Ecology Program! Students will explore what makes this area so unique during a snorkeling adventure at Shaw's Cove, fishing on board the *R/V Sea Explorer* in Wheeler Reef North, and whale watching. This educational program offers participants an opportunity to explore our local coastal habitats and the animals that call them home.



Large Group Options

The following programs are designed for groups of over 90 people.

Ocean Adventure
3rd - 6th
Our Ocean Adventure program is perfect for large groups! This program is a sneak peek into all that Ocean Institute has to offer. The program layout is in hour-long sessions with students rotating around and experiencing different parts of the program. Students will go out to sea on our research vessel, the *R/V Sea Explorer*, and discover marine mammal adaptations and habitats in our labs, including an examination of specimens from our collection. In addition, students will visit the Dana Point Marine Protected Area (MPA) for a tidepool exploration, during which they will examine the way humans, plants, and animals interact with extreme natural forces in the intertidal and surf zones.

Sustainability Adventure
7th - 12th
Our Sustainability Adventure program is perfect for large groups! This program highlights renewable energy sources, such as wind, sun, and water. The program layout is in hour-long sessions with students rotating around and experiencing different parts of the program. Students begin to understand the pros and cons of harnessing different energy sources and engineer their very own wind turbines and solar-powered cars. On our research vessel, students will learn how the movement of water in the ocean, in the form of tides and currents, can also be harnessed for energy usage. They learn how to read tide charts and understand the needs and implications of harnessing power from water. This program is full of engineering and formulating forward-thinking ideas for a more sustainable future.

Additional Science Programs

Tidepool Exploration
4th and up | 2 Hours
This adventure into the Dana Point Marine Protected Area (MPA) explores the complex relationships between intertidal organisms and the harsh physical environment in which they live. Students will learn what an MPA is and the importance of them. At the MPA, students will measure physical factors, identify adaptations and conduct population studies on hermit crabs, turban snails, and barnacles. Students will also learn to be “Good Tidepoolers” and practice low-impact exploration techniques.

Advanced Floating Lab
9th - 12th and up | 4 Hours
During the Advanced Floating Laboratory Cruise aboard our research vessel, the *R/V Sea Explorer*, students will participate in executing a number of scientific collections and data analysis. Equipment available includes an otter trawl net, plankton net, benthic grab sampler, water capture bottles, a Secchi disk, Forel-Ule scales, and a weather navigation station. This program's activities are customizable.

MARITIME HISTORY PROGRAMS

Sailing Programs

The *Spirit of Dana Point* is a traditionally built replica of a 1770s privateer schooner used during the American Revolution.

Formerly the *Pilgrim of Newport*, the re-named *Spirit of Dana Point* is an excellent teaching platform where students directly experience life at sea as it has been for hundreds of years. The 118-ft. schooner is used for living history and at-sea maritime programs throughout the year.

Helm's Alee
4th and up | 2.5 Hours
Head out to sea aboard the tall ship *Spirit of Dana Point!* This maritime sailing adventure includes activities such as raising sail, helmsmanship, and firing of the ship's cannon.

Sailor's Life and Helm's Alee
4th - 5th | 5.5 Hours
This is a combination of A Sailor's Life living history program and a tall ship sailing adventure. Students are introduced to the hardships of being sailors in the 1830s, and then sail out to sea aboard the *Spirit of Dana Point*.

Revenue Cutter
5th | 3 Hours
This three and a half hour living history sail is set in the 1790s. Students join the revenue cutter service and participate in hands-on activities of raising sail, navigation, helmsmanship, bow watch and learning gunnery. While at sea, the ship's gunner (OI staff) will demonstrate firing the ship's cannon.

Maritime Leadership Academy
4th and up | 6 Hours
Maritime Leadership Academy utilizes traditional sailing skills to help youth develop life-long leadership skills. Students visit the Ocean Institute where they learn about the mechanics of sailing by completing the rigging challenge and other hands-on activities. Students use their communication, leadership and teamwork skills as they row in Dana Point Harbor and sail out to sea aboard the *Spirit of Dana Point.*

Patriots, Pirates, and Privateers
5th | 6 Hours
In this combination dockside/sailing living history program, students step back in time to the height of the American Revolution to become privateers at the behest of the Continental Congress. The program starts off dockside with students participating in a colonial town hall meeting. While dockside, they prepare the schooner *Spirit of Dana Point* to go out to sea with hands-on activities such as loading cargo and learning navigation. In the afternoon, students participate as crew aboard the *Spirit*, raising sail, steering the ship, holding bow watch and determining the ships speed. The ship's gunner (OI staff) will demonstrate firing the cannon at sea.

Dockside Programs

During the following programs, the *Spirit of Dana Point* remains at the dock. Students will still do activities onboard the ship while docked, as well as utilizing our other facilities.

Gold Digger's Express
4th | 5 Hours
Have gold fever? Learn about the California Gold Rush as you work for your passage to San Francisco to make your fortune in the gold fields. During the voyage students interact with different characters trying to convince them to stay as crew on the ship or to try their luck in the gold fields when they arrive. At the end of the program students learn about making life choices as they choose between a miner's or a sailor's life.

Sailor's Life
4th - 5th | 3 Hours
In this dockside living history program, students are introduced to the life of a sailor in the 1830s and the California hide trade. Students participate in hands-on activities of raising sail, ship exploration and moving cargo..

Round the Horn
4th - 5th | 5 Hours
Students learn what life was like for merchant sailors in the 1830s. The experience is based on Richard Henry Dana Jr.'s book, *Two Years Before the Mast*. In this hands-on living history program students raise sail, tour the ship, move cargo and learn how to furl the sails, while being immersed in maritime history.

Revolutionary Voyage
5th | 5 Hours
This is a 5-hour day version of Ocean Institute's overnight Revolutionary Voyage experience, which teaches about the American Revolution. Students will sign aboard the schooner *Spirit of Dana Point* as privateers and participate in hands-on activities such as navigation, moving cargo and learning the ship's gunnery.

Maritime History Overnight Programs

These amazing overnight history programs are a local tradition and will be the most memorable field trip of students' lives! They will get the chance to sleep belowdecks on the *Spirit of Dana Point*, stand dog watch during the night, and even help cook their own hearty sailor's dinner and breakfast.

Revolutionary Voyage

5th

Step back in time to 1777 and sign aboard as privateers to deliver supplies to General Washington at Valley Forge. In this hands-on living history program, students get a taste of what life was like during the American Revolution from different perspectives. As part of their training, students participate in a battle drill against the British, as well as a variety of interactive activities, including rowing long boats, taking depth soundings, moving cargo, learning bell time and navigation, raising sail, cooking, colonial medicine, singing sea shanties, night watch and swabbing the decks.

Before the Mast

4th - 5th

In this program, students sign aboard as greenhands for a two-year voyage from Boston to Alta California in the 1830s, recreating Richard Henry Dana, Jr.'s experience in his book, *Two Years Before the Mast*. In this hands-on living history program, students are immersed in California history while developing critical thinking, teamwork, communication and leadership skills. Students participate in a variety of hands-on activities, including rowing long boats, working the sails, rigging, moving cargo, collecting hides, taking a turn in the bosun's chair, cooking, night watch, singing sea shanties and swabbing the decks. It's an experience not soon forgotten!

HOW TO BOOK

1. Fill out the Field Trip Request Form at oceaninstitute.org/fieldtrips, or email fieldtrips@oceaninstitute.org with the following information:
   - Your Name
   - School or Organization Name
   - The program(s) you are interested in
   - # of students
   - # of adults
   - Grade/Age of students
   - Preferred dates and times
2. The Field Trips Team will respond to your request with more information and available dates.
3. Once a date has been selected, our team will send you an invoice and program agreement.
4. You must sign and return the agreement to secure your reservation.

Please note, while you can call to inquire about field trips, bookings cannot be made over the phone. They must be made through email.

PAYMENT POLICY

Full payment will be due 45 days before the date of your field trip. The exact date will be given on your program agreement.

The deposit is 30% of the total cost, and will be due 30 days from receipt of invoice.

The deposit is NON-REFUNDABLE. If a program is cancelled over 45 days ahead from the program date, any payment amount over the deposit will be returned. If the program is cancelled under 45 days out, the full payment of the program is NON-REFUNDABLE.

Programs are weather dependent. In the case of unfavorable weather conditions, program activities may be altered for safety. Alterations to programming due to weather related changes do not qualify for a prorated refund.

ADOPT-A-CLASS

Adopt-a-Class was founded by the Ocean Institute Board twenty two years ago to enable underserved students from primarily Title I schools in low-income communities to visit the Ocean Institute for no or reduced fee. To this day, generous sponsors provide unique opportunities for hands-on learning both in-person and virtually to broaden the horizons and open new pathways to successful futures.

For more information or to apply for Adopt-A-Class funding, please visit oceaninstitute.org/fieldtrips/adopt-a-class

WHAT TO EXPECT

On the day of your trip, please arrive 15 minutes before your program start time to check in and have the following forms completed:

- **Risk Waiver** - Every individual coming on the field trip, including both students and adults, will need to have a risk waiver filled out.

- **Manifest** - This is a list of everyone who is coming on the field trip, including both students and adults. If you are doing multiple sessions, please make a separate manifest for each group.

Please be aware, your group will not be able to enter Ocean Institute before your allotted start time. Public restrooms are available on the other side of our parking lot.

Ocean Institute provides carts to store lunch boxes on during the field trip upon request. The Old Cove Native Plant Garden behind our facility has a picnic area for lunch, as well as the nearby public park at Baby Beach.

DIRECTIONS

24200 Dana Point Harbor Dr. Dana Point, CA 92629

From the I-5 freeway to Dana Point
Traveling south from Irvine:
Exit the Pacific Coast Highway off ramp & veer right. Turn left onto Dana Point Harbor Drive and follow it to our parking lot.

Traveling north from San Diego:
Exit the Beach Cities off ramp & veer left. Turn left onto Dana Point Harbor Drive and follow it to our parking lot.

From the Pacific Coast Highway (PCH – Hwy 1) to Dana Point
Traveling south (from Laguna Beach):
Turn right on Golden Lantern, then turn right onto Dana Point Harbor Drive and following it to our parking lot.

Traveling north (from San Clemente):
Turn left onto Dana Point Harbor Drive and follow it to our parking lot.

Parking is free and conveniently located directly in front of the Ocean Institute. Unfortunately, we cannot reserve parking spaces, however, overflow parking is located directly adjacent to the Ocean Institute in the Cove Road Parking lot (free). Overnight parking is not permitted. Chaperones may request an overnight pass from our Guest Services team.

Bus parking is located on Dana Point Harbor Drive next to the Pier parking lot. Busses need to check-in with the Guest Services team to receive their bus parking pass.