

SCHOOL IS WHERE THE KIDS ARE

Extraordinary at-sea adventures



Educating Youth For Life

TOPSAIL YOUTH PROGRAM
LOS ANGELES MARITIME INSTITUTE

OUR MISSION

Founded in 1992, Los Angeles Maritime Institute (LAMI) serves to empower youth to discover their greater potential through extraordinary at-sea experiences. We envision a thriving community where every young person can look to the future with confidence.



OUR PROGRAM

TopSail Youth Program is an education and adventure experience aboard a tall ship, designed like an historic vessel from the Age of Exploration. Students raise the sails together, take the helm, and climb the rigging, which nurtures skills such as cooperation, problem solving, decision-making, planning, and self-reliance, and creates life long memories.

TopSail STEM Program includes all of the core components of our traditional program, and adds real world lessons in Science, Technology, Engineering, and Math using the boat and the ocean.

Programs can last part of a day, overnight, or up to a week. The ideal, life changing experience would be a series of day sails over a period of months, each one building on the skills and knowledge from the preceding ones, culminating in a multi-day voyage, sleeping on board, preparing meals, operating the ship, and much more.

Students that sail with us on any program get to experience one of the most active commercial harbors in the world, and the largest, least explored or understood wilderness on our planet... the ocean.

*"TopSail does not train youth for life at sea...
We use the sea to educate youth for life."*

AWARDS AND RECOGNITION

City of Los Angeles

"The Official Tall Ships and Maritime Ambassadors of the City of Los Angeles"

"Angels Over LA" for Youth and Families

California Parks and Recreation Society

"Best of the Best Youth Development Programs"

National Maritime Historical Society

"Walter Cronkite Award" for Education Excellence

Tall Ships America

"Sail Training ship of the Year"



OUR GOAL

Aboard our tall ships, we provide your group with an engaging, active learning environment, and a unique experience that will inspire students to develop confidence, set their goals high, and reach them.

Our programs are aligned with state and national skill and content standards, showing students how classroom learning can be meaningful in the real world, and inspiring them to achieve more in school.



AT SEA, TECHNOLOGY ISN'T A DISTRACTION, IT'S A NECESSITY

- Communicating with other ships
- Locating hazards with sonar and radar
- Determining location and weather



APPLYING ACADEMICS TO THE REAL WORLD

- Mathematical Navigation
- Marine Biology
- Ocean Chemistry
- Sailing Physics
- History of Exploration



PRACTICING LEADERSHIP AND COOPERATION

- Pulling together to succeed
- Sharing with others what you know



OBSERVE A HARBOR AT WORK

Keeping it safe



Moving cargo



Providing seafood



Entertaining people



MEETING OUR NEIGHBORS

Small



Medium



Large



**TOPSAIL YOUTH PROGRAM
TOPSAIL STEM PROGRAM
TOPSAIL SUMMER CAMP PROGRAM**

**EDUCATIONAL
CHARACTER-BUILDING & SCIENCE ADVENTURES
SAIL TRAINING ADVENTURES FOR YOUTH**

**Book your school, youth group
or organization to sail aboard
LA's Official Tall Ships, the twin brigantines
SSV Irving Johnson and SSV Exy Johnson**

**Sailing programs available
by the hour, day or week**

**Call or email to reserve
your time today!**



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tallshipschool



www.lamitopsail.org

*Brigantine
SSV Irving Johnson*

FACING YOUR FEARS

- Pushing your limits
- Trying new experiences
- Seeing a fresh perspective

LEARNING RESPONSIBILITY

- Taking and giving directions
- Driving a 100-ton ship

EXPLORING

- Future marine job opportunities
- Human impacts on the ocean
- Learning about marine life & ecosystems

*Brigantine
SSV Exy Johnson*



Los Angeles Maritime Institute Underway Science Stations NGSS & CC Correlated. Voyage of Discovery on a Cruising Classroom.

BIOLOGY, MARINE BIOLOGY

Using microscopes (dissecting & compound), self made slides, pipettes, observation bowls, and identification sheets, observe samples taken right out of the ocean or growing on our dock.
✦ Identifying zooplankton and phytoplankton ✦ Prokaryotes vs eukaryotes ✦ Examining cell structures, organelles ✦ Using a robot vehicle (Remote Operated Vehicle) with camera & sensors to observe sea life

ECOLOGY/ ENVIRONMENTAL SCIENCE, OCEAN PLASTICS

Examine samples of sand taken from local beaches and the stomach contents of deceased Albatross, separating organic matter from plastics like fishing line, bottle caps, etc. ✦ Biodegradation and photodegradation of debris ✦ How plastics and toxins harm marine organisms and humans ✦ Ecosystems: how humans are linked to nature and the ocean ✦ Marine food webs

CHEMISTRY AND WATER CHEMISTRY ANALYSIS

With the ocean as our laboratory, view turbidity (visibility), temperature/thermocline, acidity (pH), salinity, density, dissolved oxygen (DO), and other metrics that affect the ocean, and why they are important.
✦ Photosynthesis and chemosynthesis ✦ Ocean acidification and coral reef impacts ✦ Relationship between temperature, oxygen and depth ✦ Ocean chemical imbalance and impacts on marine plants, animals and humans

MATHEMATICS, GEOGRAPHY, OCEANOGRAPHY

Discover the intricacies and complexities of marine navigational charts, as well as basics such as longitude, latitude, and compass directions. Learn how to use tools to measure and compute distance and direction.
✦ Geometry and algebra ✦ Fractions and ratios ✦ Geography/maps/chart reading skills

PHYSICS OF SAILING AND THE OCEAN

Learn how pulleys are used to create mechanical advantage to lift heavy beams and sails, and how we use wind to move huge, heavy ships through the water. ✦ Simple machines & levers ✦ Bernoulli principle/ lift ✦ Transfer of energy; force and motion ✦ Wave and fluid mechanics

HISTORY

Practice the skills that have been passed down for hundreds of years, used by indigenous pacific populations, Columbus, Magellan, Cook and Cabrillo to travel and chart the world; learn what sailor's lives were like over thousands of years. ✦ Age of Exploration ✦ Advances in marine technology ✦ Anthropology





Los Angeles Maritime Institute

TopSail Single-Day Sail Itinerary

Educator Sail Sponsored by the Port of Long Beach

March 21, 2024

4:00 - 6:00 PM

Ship: *Irving Johnson*

Estimated Number of Participants: **20 passengers, all adult educators**

Sail Captain: **Colt Webster**; Mate & Program Lead: **Gordon Ringberg**

LAMI Contact: **Jemma Kennedy**

Sail Objectives

The goal of the Educator Sail is to showcase elements of our TopSail Youth Program, including activities that help students work together as a team and develop their leadership skills while improving communication, stimulating critical thinking, building confidence and providing them with a safe environment to address a variety of feelings – becoming comfortable with being uncomfortable.

Participants will:

- Experience how our TopSail Youth Program employs sail training to help participants develop teamwork and collaboration, as well as recognize the importance of clear communication and an awareness of others.
- Experience how we introduce nautical and marine-focused activities, such as learning the implications of physics concepts when sailing a ship.
- Understand how we connect students with marine organisms commonly found in Southern California harbors and teach types/characteristics.
- Have the opportunity to challenge themselves through positive, challenge-by-choice activities.

Equipment and Supplies to Prepare:

- Climbing Harnesses
- Items for Navigation Lesson
- Digital and Lens Microscopes
- Items for the Plastics/Pollution Lesson
- Apparatus for Mechanical Advantage Demonstration

Additional Preparation:

- Jemma and Liz prepare Educator Packets, Nametags and Refreshments

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Planned Itinerary:

- 4:00 PM Passengers board from Pine Avenue Pier, Long Beach (Floating Dock)
- 4:15 PM Brief Welcome (Jemma)
Introduction and Safety Muster (Gordon leads; all hands)
Crew assigns participants to three watches
- 4:30 PM Underway - Initial Activities, including **Sail Training Demonstration**
- Safety Protocols
 - Raise small boat with participants demonstrating the need to work together
 - Embarkation
 - Setting sails – line handling, working together as a team and leadership opportunities
- 4:45 PM Crew introduces passengers to station rotations, inviting educators to participate in the following experiential activities:
- **Boat Tour and Navigation** - Participants explore the systems and spaces on the ship to learn about the history of the ship, the importance of communication, and the interdependency of all members of a crew. If time allows, participants use a chart, compass, and other navigational tools to determine where the ship is and how to get to a different location.
 - **Climbing the Bowsprit** - Participants see the vessel and the world from a new angle, inspiring wonder and allowing them to step outside their comfort zone. This activity also allows participants to get a closer look at and connect with the ocean.
 - **Plastics/Pollution** - Participants analyze local beach sand samples and albatross boluses to show the impacts of microplastics and other pollutants on the environment. The crew explains what they're looking at and provides guidance/ suggestions on making better choices for the environment.
- 5:30 PM Final Activities:
- Taking in sails – line handling, working together as a team and leadership opportunities
 - Reflective discussion on lessons learned (typically, with students, this is “Ocean appreciation and silent reflection activity”)
 - Return to dock; pass out packets; highlight post-event survey (Jemma)
- 6:00 PM Participants disembark

Los Angeles Maritime Institute | Children's Maritime Institute

TopSail STEM Program - Day Sail Itinerary



Educator Sail - Sponsored by the Port of Long Beach

October 20, 2024

3:00 - 5:00 PM

Ship: **American Pride**

Number of Participants: **26 passengers RSVPed, all adult educators (K-12 school or youth org)**

Sail Captain: **Jonah Warshay**

LAMI Contact: **Jemma Kennedy**

Sail Objectives

The goal of the Educator Sail is to showcase elements of our TopSail Youth and STEM programs that take place in both Los Angeles and Long Beach, including activities that help students work together as a team and develop their leadership skills while improving communication, stimulating critical thinking and building confidence. The demonstrations also include ways we introduce STEM concepts in a real-world setting.

Participants will:

- Experience how our TopSail Youth and STEM programs employs sail training to help participants develop teamwork and collaboration, as well as recognize the importance of clear communication and an awareness of others.
- Experience how we introduce nautical and marine-focused activities, such as learning the implications of physics concepts when sailing a ship.
- Understand how we connect students with marine organisms commonly found in Southern California harbors and teach types/characteristics.
- Have the opportunity to challenge themselves through positive, challenge-by-choice activities.

Preparation Note to Crew:

Please set and feed the trap the afternoon of Friday, October 18 to be prepared for marine observations.

Equipment and Supplies Needed:

- Items for navigation lesson
- Live critters (set up trap in advance)
- Items for marine animal lesson
- Digital and lens microscopes
- Lengths of rope for knot tying

Additional Preparation:

- Jemma and Liz prepare informational packets, name tags, refreshments, sign-in sheet, signage, etc.
- Refreshments will be set up just prior to the sail and available throughout the sail.

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Program Itinerary:

2:30 - 3:00 PM	Passengers board <i>American Pride</i> from Pine Avenue Pier, Long Beach (Floating Dock)
3:15 PM	Brief welcome and introduction to our program (Jemma) <i>Includes thank you to the Port of Long Beach</i> Safety Muster (Jonah)
Underway:	Initial activities, including Sail Training Demonstration <ul style="list-style-type: none">● Safety protocols● Raise small boat with volunteers● Embarkation● Setting sails – line handling, working together as a team and leadership opportunities
3:45 - 4:30 PM	Activity Stations – Split participants into three groups; cycle through each activity: <ul style="list-style-type: none">● Historical Navigation – Participants learn about the navigation tools that were used during the Age of Exploration and compare them to the tools that are used now. Students use these charts and tools to determine the ship's location and how to get to a different location. They can also try their hand at the helm and stand lookout. (Lead: Aaron)● Knot Tying – Participants learn about and practice knots commonly used on board sailing vessels and on land. (Lead: AJ)● Marine Organism Observations – Participants explore invertebrate marine life structure and examine marine organisms under a microscope, learning about the life cycle and different roles within the ocean community. As they hold specimens in their hands to investigate them, they make connections about why and how different animals have adapted to live in various parts of the ocean. (Lead: Ronan)
4:30 PM	Taking in sails – line handling, working together, leadership opportunities Reflective discussion on lessons learned
4:55 PM	Thank participants; pass out informational packets and highlight key items; highlight post-event survey; additional thank you to the Port of Long Beach (Jemma)
5:00 PM	Return to dock; Participants disembark