



AHOY TEACHERS AND GROUP LEADERS!

Thank you for choosing our “***ALL HANDS ON DECK: A Harbor Education Program***” (*AHOD*) field trip. We look forward to working with you and your students on _____.

Our AHOD teacher packet includes important information for your trip. Please read these materials carefully.

The “Port of Call” or terminal for your trip is _____.
Directions are enclosed. Be sure to share these directions with your bus driver.

Your departure time is _____. **THIS IS THE TIME YOUR FERRY WILL LEAVE THE DOCK!** Boarding begins 10 minutes before your departure time. Meet us at your designated terminal 15 minutes *before* your departure time. If you need to change this departure time, please call immediately.

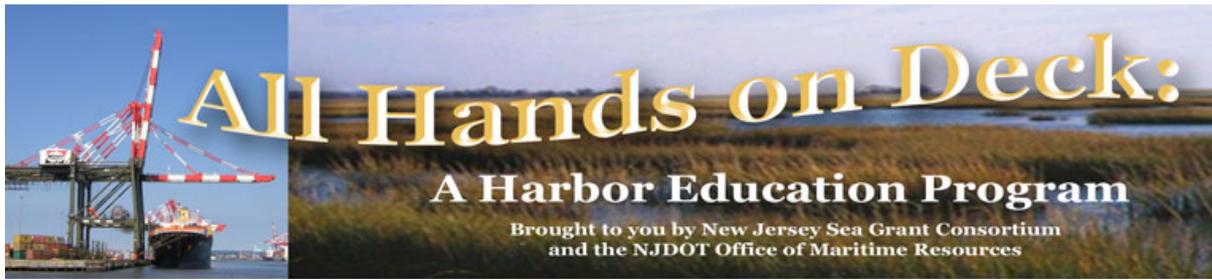
This teacher packet and much more information about NJ’s ports, harbors and estuaries including classroom lesson plan and student worksheets can be accessed at <http://www.njmsc.org/AHOD.html>

During your program we ask your assistance and cooperation in keeping students focused and safe. Rules of conduct for the trip will be explained to your group by NJS GC staff at the beginning of your trip. Please let your NJS GC instructor know if you plan to allow your students to eat lunch or a snack while on-board.

In case of emergency on the evening before or on the day of your trip call 908-414-0090 be sure to have this number with you on the day of your trip. Your *AHOD* instructors will not be available by phone at the NJS GC.

If you have any questions about your program contact NJS GC’s *AHOD* program coordinators Mindy Voss at 732-872-1300 ext. 30 or mvoss@njseagrant.org.

Thanks and see you soon!



DIRECTIONS TO FERRY TERMINALS

IF YOUR “PORT OF CALL” IS LIBERTY LANDING:

Directions to Liberty Landing Marina, Jersey City:

Take the NJ Turnpike to exit 14B, Jersey City, Liberty State Park, turn left after the toll, then at first stop sign turn left onto Bayview Ave. Follow Bayview Ave. downhill, go straight through the traffic circle, and follow the signs to Liberty State Park. When you enter Liberty State Park, Bayview Ave. turns into Morris Pesin Drive. Turn Left onto Freedom Way, go to the end, and make a right and immediate left into the parking lot for Liberty Landing Marina. Buses may drop off students in front of Liberty House Restaurant.

Once You Arrive at Liberty Landing, Jersey City:

NJMSC Instructors will meet and greet you in front of the Liberty House Restaurant. Students will be instructed to gather in front of the restaurant where they will be given a brief introduction to the day. Restroom use may or may not be available to us in the restaurant depending on their schedule. Students will be led to the dock and when permission is granted, students will board the boat. Students must follow instructions of the NJSJC and ferry boat staff at all times and sit in seats indicated to them upon entering the boat. The program will then begin!

Parking is available at Liberty Landing Marina. The cost is \$5.00 per day for cars, \$10.00 per day for buses. There is also parking available in Liberty State Park. **NJSJC is not responsible for parking or parking fees.**

For more information about New York Water Taxi go to www.nywatertaxi.com.



AHOD FIELD TRIP PROGRAM GUIDELINES

It is critical for you to arrive well before your ferry departure time. Ferry boats cannot remain in dock for any extended period of time past stated departure time.

Programs run about 2 hours. If there is heavy boat traffic, the trip can extend for up to 30 minutes.

If program times need adjustment you must contact us at least 48 hours in advance. If you must cancel, you will be responsible for cancellation fees as follows:

2 days of less before trip date:	100% of vessel charter price
2-6 days before trip date:	75% of vessel charter price
7- 89 days before trip date:	50% vessel charter price
More than 90 days before:	\$125

Please note that current vessel charter price is \$1870.00 per trip.

Programs require at least one teacher per class and one adult chaperone per 10 students.

Student discipline is the responsibility of the teacher, not the staff of the NJS GC. Specific safety measures and a code of conduct for the day will be explained to students by NJS GC staff at the onset of the program. These measures will then be strictly enforced.

A snack may be eaten during the ferry program; however you must notify NJS GC in advance if you plan to have students bring a snack.

It is NOT recommended to eat lunch on the ferry, however you may choose to picnic near the dock or inside Liberty State Park immediately after their AHOD program.

Students or schools must bring their own lunch including beverages and snacks.

Lunch trash removal is your responsibility. The ferry boats supply trash cans but if you opt to picnic near the dock area, please bring a trash bag.

Students must remain seated unless directed otherwise by the NJS GC. Students can not wander the boat unsupervised at anytime and must sit in the seating assigned for students.

Programs are, for the most part, conducted in a totally enclosed space aboard the ferry. If conditions permit, students may be invited by the NJS GC to go onto the outdoor decks. Safety precautions will be strictly enforced at all times. Students should be dressed accordingly.

Bus pick-up time is at your discretion. Busing arrangements and parking is your responsibility.

In case of emergency on the day of your trip call 908-414-0090. Be sure to have this number with you on the day of your trip. Your AHOD instructors will not be available by phone at the NJS GC.

WEATHER CANCELLATION NOTICE:

At our discretion, we reserve the right to cancel a program anytime up to and including sail time. THIS WILL BE DONE FOR SAFETY REASONS ONLY, such as a forecast of rough seas or bad weather. The cancelled trip will be rescheduled as soon as possible.

TEACHERS & GROUP LEADERS: To ensure that your *ALL HANDS ON DECK (AHOD)* field trip is a pleasant experience for all, please review the following information with your students and chaperones before your scheduled field trip.

SEASICKNESS:

Seasickness is normally NOT a problem on *AHOD* trips. However, in advance of any boat trip, the possibility of seasickness can be lessened by:

1. ALWAYS eating breakfast prior to the trip! We cannot stress this enough! A healthy meal and a full stomach is the BEST way to prevent seasickness. An empty stomach is a HUGE mistake. Try not to eat greasy or acidic foods.
2. Getting plenty of rest the night before a boat trip. Weariness and exhaustion make you more susceptible to seasickness.
3. Drink plenty of water. Even partial dehydration can bring on seasickness.
4. Use over-the-counter seasickness medications if you have had a history of motion or seasickness and have had positive experiences with these medications. Be certain to follow all manufacturers' package directions exactly.

Despite these precautions, should one find they are feeling seasick perhaps due to unexpected rough seas, the following tips are provided to help prevent and/or lessen seasickness during a boat trip:

5. Do not focus on objects inside the boat. Instead, look outside the boat to the horizon (where the sky meets the sea).
6. Cease looking at any reading materials.
7. DO NOT close your eyes or put your head down. This makes seasickness worse.

During your *AHOD* program, if you truly begin to feel ill:

8. Inform NJMSC, your teacher or ferry boat crew if you think you are getting seasick. They will do their best to make you feel more comfortable and provide for your needs.
9. Keep looking outside of boat towards the horizon.
10. DO NOT close your eyes or put your head down. This makes seasickness worse.
11. If possible, go outside on deck for fresh air. Students can NEVER do this without an adult chaperone.
12. Ask for and drink a glass of water.

EXPECTATIONS FOR STUDENT BEHAVIOR:

Be polite with proper manners and behavior.

Listen intently while any instructions are given.

Listen attentively and courteously to NJSGC staff and guest speakers.

Obey all safety rules.

Follow all directions and requests made by your teacher or NJSGC or ferry staff.

Stay seated unless permission is granted by NJSGC staff to move about the ferry.

Only when permitted to do so, walk with great care on the boat or dock– NO RUNNING! Hold onto handrails when going up or down stairs. You are on a moving vessel!

Take notes to use later in your classroom.

Raise your hand if you wish to ask or answer a question.

Leave at home or turn off and put away all music devices, cell phones or other distractions.

Relax, enjoy, learn and have fun!

If you have any questions or concerns regarding these guidelines contact Mindy Voss, NJSGC's *AHOD* program coordinator at 732-872-1300 ext. 30 or mvoss@njseagrant.org.



AHOD FIELD TRIP OVERVIEW: NY/NJ HARBOR ESTUARY

Our *AHOD* field trip of NY/NJ Harbor Estuary is intended for students in grades 4-8. The following information is offered to help you prepare your students.

Conditions permitting, our route takes your group through Lower New York Harbor, the Kill Van Kull and Newark Bay past the Ports of Newark and Elizabeth. These locations will be fully interpreted to your students by the NJSGC staff on-board. This provides your students with the opportunity to directly observe and learn about the Harbor's ability to simultaneously support commerce, recreational use and a vital ecosystem. In most cases, a Harbor-related guest speaker or two will be on-board to discuss their career and how their work keeps the Port and Harbor vital.

Trip Objective:

Following participation in this program, students will gain understanding and appreciation for the many dimensions of the New York/New Jersey Harbor Estuary. The Port is an essential part of our lives, making a crucial contribution to the well-being of our region's economy. The Harbor Estuary is a vital natural ecosystem of great beauty and diversity. By combining instruction on both of these facets, we hope to foster new respect for this "urban estuary" and get students to think about how they can act today to protect this resource for themselves and for generations to come.

Go to <http://www.njseagrant.org/AHOD.html> for lesson plans, student worksheets and fact sheets all designed to help your students get the most from their on-board experience.

Key Concepts:

Through discussion, direct observation and other learning activities, your NJSGC guides and guest speakers will cover the following concepts during your *AHOD* program:

1. Geographic Orientation
2. History of the Harbor and the Port
3. Boat and Ship Identification
4. Importance of International trade
5. Trade Economics
6. Port functions and facilities
7. Port and Harbor Career Options

This program also seeks to increase student awareness and appreciation of the local ecosystem. For that reason, the following scientific concepts will be discussed during your *AHOD* program.

1. Structure, function, and importance of an estuary.
2. Overview of the NY/NJ Harbor Estuary ecosystem, including its native plants and animals.
3. Typical local marine food webs
4. Water quality
5. Stewardship of the Estuary – How you can help!

Students will participate in the following activities while on board the ferry:

1. Guided Cruise: Students travel through Lower New York Bay and the Port of NY/NJ participating in discussion, interactive games and hands-on activities facilitated by NJSGC staff and guest speakers. Each student will receive their own Harbor Estuary map.
2. Career Awareness: Students will dialog with guest speakers with jobs directly related to the Estuary (typical guest speakers include scientists, engineers, harbor pilots and other Port experts).
3. Harbor Estuary Animal Identification: Touch tanks with live animals will be set up on board to introduce students to the native animals of the Harbor.
4. Port Bingo: This “full-card” version reinforces the sights of the Harbor as students see them and learn about them.

***Optional Activities** (must be arranged in advance with NJSGC staff):

1. Water Quality Testing: Students test the salinity, temperature and dissolved oxygen of the Harbor and learn how these parameters relate to the Harbor Estuary from the snails, worms and fish that live in its waters to the super tankers that enter its port. Teachers opting for this activity are urged to perform specific pre-visit activities with their students using materials that provided by the NJSGC.
2. Port Pictionary: Student play this interactive game following their field trip to assess and reinforce what they have been learned about the Harbor.
3. Harbor Estuary in a Box: This activity uses common objects to suggest metaphors for concepts learned during the AHOD field trip of NY/NJ Harbor.

PLEASE NOTE: Time constraints, weather, and last minute schedule changes may alter the inclusion of requested optional activities

Your AHOD program meets the following NJ Core Curriculum Standards

Science Indicators:

5.1 Grade 4: A1, A2, A4, B1, Grade 8: A4, B1, Grade 12: B2. **5.2** Grade 4: B1, Grade 12: A1. **5.3** Grade 4: A1, A2, B2, C1. **5.4** Grade 4: A1, B1, Grade 12: A1, B1. **5.5** Grade 4: A1, A2, A3, B2, Grade 8: B2 **5.6** End of Grade 4: A1. **5.7** Grade 4: A1, Grade 6: B1, Grade 8: B3. **5.8** Grade 4: B2, B3, Grade 6: B1, D1, Grade 8: B1, D2. Grade 12: B1. **5.10** Grade 4: B1, Grade 6: A1, A2, B1, B2, Grade 8: B1, Grade 12: B1, B2.

Social Studies

6.3 Grade 4: B5, B7, Grade 8: E5, Grade 12: G2. **6.4** End of Grade 4: A2, A3, A4, A5, A7, A8, B1, B5, Grade 8: A2, A5, A7, B6, End of Grade 12: A1, A5, A6, B2, B3. **6.5** Grade 4: A1, A2, A4, C2, C4, D1, E1, E2, E4, End of Grade 8: A1, A4, A6, B1, C2, D1, E1, E2, E6, Grade 12: A2, B2, E2, E3, E6, E7, **E9**.

Language Arts

3.3 Grade 3: A1, A2, A3 Grade 4: A2, B2, B4, Grade 5: A2, A5, B2, Grade 6: A2, A5, Grade 7: A7, B3, C2, Grade 8: A2, C2, Grade 12: B1, B7. **3.4** Grade 3: A2, Grade 4: A1, A2, B2, Grade 5: A1, A2, A3, A6, Grade 6: A1, A2, A3, A6, Grade 7: A1, A3, A5, B1, Grade 8: A1, A3, A5, B1, Grade 12: A1.

Career Education

9.1 Grade 4: A2, Grade 8: A3, B1, Grade 12: A2.

Mathematics

4.1 Grade 3: A5, C2, Grade 4: A1, A4, Grade 5: A1, Grade 6: A1, Grade 12: A1. **4.2** Grade 3: A1, D1, D3, Grade 4: A1, D1, D3, D4, Grade 5: D4, Grade 6: D2, D5, Grade 8: D3, Grade 12: D1, D2. **4.3** Grade 4: A1, Grade 5: A1, Grade 6: A1. **4.4** Grade 3: A1, A2, Grade 4: A1, A2, Grade 5: A1, A3, Grade 6: A1, A3. **4.5** A1, C3, D1, D2, F1.



PORT VOCABULARY TO KNOW

Barge- A flat bottomed boat built mainly for calm water (rivers and canals) for the transport of heavy goods. Most barges are not motorized and must be moved by tug boats. This mode of transporting goods is considered the safest, cleanest and most efficient way to move goods inland.

Cargo and Freight- Goods carried and transported in large quantities, usually by ship, train or truck..

Channel - A strait or narrow sea between two land masses. Channels are often carved and dredged into waterways to allow boats and ships to pass through. They must have at least a depth and berth of 40 feet to allow oceanic ships to enter and exit.

Containers- Standard-sized boxes for the shipping of cargo that can be loaded on container ships, freight trains and the backs of tractor trailers. They come in two standard sizes - 20 feet and 40 feet long. The container, invented by New Jersey resident Malcom McLean in 1956, vastly improved the efficiency of ocean shipping.

Container Ships- Cargo ships that carry their entire load divided amongst truck size containers. In these handy boxes goods are transported around the world.

Dredging- Deepening a waterway through the use of large drills, backhoes, buckets and underwater explosives to excavate the seafloor or sediment and/or debris that have collected over time. The removed sediment is often recycled into useful products, such as pavement for parking lots, or dumped at specially designated sites.

Dock- An enclosed site for the reception of ships, often with a platform for the loading and unloading of goods.

Dry Dock- The place where ships come to be serviced and/or repaired, or where the final stages of ship-building takes place. It is usually in an area below sea level. After a ship enters the dry dock, hydraulic gates close off the dock and the ship from the sea. The ship is stabilized on support blocks and any water is pumped out of the dock so the ship can be serviced in a dry area. When work is finished, water is allowed to re-enter the dry dock and the ship is carefully re-floated out to sea.

Export- Domestic goods and services that are sold and sent to places abroad—for example: apples grown in the U.S. that are sold and shipped to France.

Foreign trade zone- An area within the United States that the government regards as outside of the country, or at least, outside of U.S. Customs territory. That way, certain types of merchandise can be imported into a port without going through formal customs entry procedures or paying import duties.

Freighter- A ship used for transporting large quantities of goods or people. These goods are not always packed in containers.

Freight Forwarder- A contracted agency that handles the shipping of cargo overseas. They ensure that cargo is safe, has proper paperwork and is arranged to arrive at the proper facilities.

Import- Goods and services that are brought in from a foreign country—for example, The United States receives Toyota Cars from Japan.

Inter-modal Transport- The coordinated passage of goods in which two or more modes of transport are used—for example, when containerized goods are loaded from truck to ship and back to truck again to arrive at their port of destination.

Longshoremen/women or Stevedores - Laborers who work in the port running the cranes that load and unload cargo upon containerized ships, handling ship's lines, and moving cargo within the marine terminal for distribution.

Marine Terminal- Facilities for a shipping line with yards, docks and offices for cargo handling. The terminal has space for vessels to dock, to unload and load cargo, to store cargo and to access inter-modal transportation systems (railroad, trucks).

Seaport- This is a major city or facility able to import and export a large tonnage of cargo around the world by means of ocean-going ships. Seaports generally are protected from high winds, strong currents and wave action. They are also located near major inter-modal transportation (trains and trucks) hubs.

Ship – A large vessel designed for passage or transportation across water. It is usually large enough to carry its own boats, such as lifeboats. A rule of thumb is “a boat can fit on a ship, but a ship cannot fit on a boat”. The exact size when a boat becomes a ship is often defined by local laws.

Tanker- A ship carrying a large amount of liquid fuel. Tankers are the only method of transporting large quantities of oil around the world.

TEU- Twenty foot equivalent unit. This measure expresses a container's capacity equal to the length of one standard 20 foot container. Example: A 20 foot container holds 1 TEU, a 40 foot holds 2 TEUs.

Trade- The commercial exchange of goods and services. To buy and sell, usually for profit.

FOR ADDITIONAL HARBOR EDUCATION MATERIALS:
Go to njseagrant.org/AHOD.html for lesson plans, student worksheets and fact sheets all designed to help your students get the most from their on-board experience.