

WELCOME TO THE *PASSAGE TO THE MOTHER LODE* OVERNIGHT PROGRAM

The Ocean Institute's maritime programs began in 1980 as an attempt to make history come alive for young people. The objective was simply to recreate as nearly as possible the life of a nineteenth century sailor. Ocean Institute instructors developed the characters based upon Richard Henry Dana, Jr.'s book, *Two Years Before the Mast* and used these characters to immerse participants in the harsh world Dana faced as he rounded Cape Horn on his voyage to Alta California. Authenticity served as the primary guideline.

As the program grew, instructors discovered they could use their characterizations to realize a spectrum of objectives beyond teaching history. They found that as a nineteenth century "first mate," they could demand considerably more from a child than a twentieth century "instructor." They found that children restructured their viewpoint to accept greater challenges, and to demand more of themselves. The experiential aspects of the program were emphasized with a number of interesting outcomes.

Teamwork became a necessity. Crews found that they had to work together and they had to cooperate if they were going to "survive." Crews needed guidance so mates were chosen and forced to develop leadership skills. Crewmembers learned to accept the guidance of one another as well as the ship's officers. A sense of peril was injected into the program, an ever-present possibility for failure that in eighteen hours transforms into an overwhelming sense of success.

In 2006, the Ocean Institute added the *Passage to the Mother Lode* program to its course offerings. The program immerses students the world of the Argonaut, a sea traveler bound for San Francisco Bay and the promise of riches in the great California Gold Rush. For eighteen hours, students experience the adventure and difficulty of life aboard one of the clipper ships sailing the arduous passage around Cape Horn experience by the majority of the early immigrants to California. They will live the early history of the state, learning the skills necessary to sail a tall ship and to find gold in the mother lode—handling sail, moving cargo, rowing longboats and panning for gold. The program is designed so that students must come together as a crew to face the many tasks and challenges.

Through the roles they choose, the students relate the past to themselves. They consider how they can apply the lessons learned to the world of tomorrow. The emphasis is on experience—experience in search of understanding. As well as learning history, the program offers lessons in math, science, language arts, and much more. The curriculum is aligned with the California Content Standards.

In all, the Ocean Institute's maritime programs remain unique. We combine "living history", experiential education, hard work, discipline, and fun in an adventure many children never forget. Aboard our ships, we hope to continue to grow as a place where students can challenge their minds and bodies, where they can discover their heritage and themselves.

Have a Great Voyage!

TABLE OF CONTENTS

I. WELCOME TO THE *PASSAGE TO THE MOTHER LODE* OVERNIGHT PROGRAM

A. ADMINISTRATIVE CHECKLIST	3
B. DESCRIPTION OF THE PASSAGE TO THE MOTHER LODE PROGRAM	3
C. LINKS TO CONTENT STANDARDS	5
D. ADMINISTRATIVE INFORMATION AND PREPARATION	7
Administrative Contact / Introduction	7
Teacher Information: Before the Program / Teacher Information: During the Program	7
Recruitment of Safety Officers	8
Letters to the Sailors	9
Payment / Final Count / Student Aid / Transportation / No Late Arrival/No Early Departure	10
Nametags / Ensign / Information Packets / Forms	11
Student Preparation / Snack	11
Chambers Gift and Book Store	12
<i>Pilgrim</i> T-Shirt Information	13
<i>Spirit</i> T-Shirt Information	14
Directions to the Ocean Institute	15
E. STUDENT PREPARATION	15
Academic Preparation / Crews	15
Role-play / Safety Considerations / Program Scenario / Cast of Characters	16
Vocabulary	17
F. RESOURCE MATERIAL	17
Program Background	17
History of Brig <i>Pilgrim</i> / History of <i>Spirit of Dana Point</i>	19
Maritime Glossary	20
G. CLASSROOM ACTIVITIES	22
Activity #1: Seeing with Different Eyes	22
Activity #2: The Ship's Bell	23
Activity #3: Sailor speak	24
Activity #4: Sea Shanties	25

A. ADMINISTRATIVE CHECKLIST

Immediately upon receiving this package...

- Carefully review the Teacher Preparation Package
- Arrange your transportation

Two months prior to your trip...

- Confirm student and adult numbers with the Ocean Institute

One month prior to your trip...

- Begin student preparation
- Assign students to crews
- Choose student mates
- Recruit your five safety officers
- Copy and distribute Acknowledgement of Risk and Waiver and medical forms to students and adults
- Have parents write the “letters to the sailors”

Two weeks prior to your trip...

- Mail program payment to the Ocean Institute—full payment must be received a minimum of 10 days before your program
- Collect Acknowledgement of Risk and Waiver and medical forms from each student and adult
- Contact parents to remind them to sign and return the Acknowledgement of Risk and Waiver and medical forms
- Fill out and sign the Acknowledgement of Risk and Waiver and Adult Medical Form for yourself

One week prior to your trip...

- Review behavioral expectations with students
- Distribute Information Packets to students and safety officers
- Meet with safety officers; go over the details of the program
- Contact the Ocean Institute with any last minute questions or changes

24 hours to go!!!...

- Be sure all forms have been collected
- Please keep the Acknowledgement of Risk and Waiver separate from the medical forms
- Prepare nametags for students and adults

When you arrive for your program...

- Arrive by 2:15 PM and unload the bus in front of the Ocean Education Center's Student Services Building
- Check in at the Student Services building with a final head count
- Safety officers will meet with the First Mate at 2:30 PM to review their responsibilities
- If necessary, students may use the restroom facilities. Please limit use to 7 girls and 7 boys at a time
- If you plan to shop in the Chambers Gift and Book Store, plan to arrive earlier. All shopping must be completed by 2:45 PM at which time the supervising safety officer will lead the students to the dock for the crew muster, which begins promptly at 3:00 PM

B. DESCRIPTION OF THE *PASSAGE TO THE MOTHER LODE* PROGRAM

The *Passage to the Mother Lode* Overnight is designed to dramatically take the students back in time as they relive the arduous voyage of an early immigrant to the California Gold Rush. Students explore man's relationship with the ocean, gain an appreciation for our maritime heritage, and understand the concept of 'historical perspectives' and 'interpretation'. They develop teamwork, problem solving, critical thinking, and communication skills through challenging hands on activities.

The students who come aboard will be following this scenario:

The year is 1849. The United States, indeed the entire world is abuzz with talk about the discovery at Sutter's mill. Many have already headed off to find their fortunes in California. You know that after the fourth or fifth grade, you will likely have to quit school and go to work, whether on your dreary family farm, in a noisy and dangerous factory, at a dark and poisonous coal mine or at some other awful place. Your best bet might have been to apprentice yourself to a trade—learn carpentry or blacksmithing, but you'd have to work for years for no pay to learn such skills. College in this day and age is for the wealthy. To better you and your family's future, you decide that this gold rush might be your only hope for a better future.

Questions remain. Should you go overland along one of the trails from St. Louis, by wagon and foot through the prairies, deserts and mountains? Should you take a steamship to Panama and hike through the disease-ridden jungles at the isthmus? Should you take a sailing ship, perhaps one of the great clippers headed around the legendary Cape Horn?

Captains claim that they can get you to San Francisco in less than ninety days. On a ship you can take more supplies and equipment. Although the food may be awful, you won't starve or be lost by yourself.

Along Front Street in Boston the finest clippers lie at the best of the docks. None will take you as a passenger for less than three hundred dollars. With nowhere near enough money, you wander the docks of Boston, wondering what to do.

A man approaches you, telling you that he is looking for working crew for a vessel sailing to California. You have heard about such crimps, men who trick sailors into working for bad pay and cruel and awful captains. Even if the pay is bad and the captain is cruel, you decide that it would be worth it to get to the Mother Lode.

He brings you and a crew of others to see the vessel, a small two masted tall ship. A businessman in a top hat and tails is walking down the gangway towards you. The crimp says that this is the man who paid him to find a crew, the man that hired the ship to carry his cargo to California.

Divide your students into four groups before you arrive for the program. Each student group will participate in the same activities, just at different times through the evening.

- **Coiling and line handling:** Students learn how to manage and take care of the miles of invaluable rigging shortly after embarking on the 'voyage.'
- **Rowing the longboats:** Students learn to row and maneuver the ship's longboats in preparation for unloading cargo in San Francisco.
- **Sail handling:** Students learn to how to set and furl the enormous sails of a clipper ship.
- **Galley duty:** Every student gets a turn helping to prepare the crew's evening and morning meals.
- **Moving cargo:** Students coordinate the movement of heavy cargoes on and off the vessel using blocks and tackle.
- **Gold panning:** Students learn the basic elements of placer mining by panning for signs of *color* in vats full of *pay dirt*.
- **Anchor watch:** Each of the four groups is entrusted with the responsibility to watch out for the safety of the vessel during the night, standing two hour watches in succession.
- **Morning wash down:** Students take part in the traditional daily morning ritual of keeping the vessel ship-shape and Bristol fashion.

C. LINKS TO CONTENT STANDARDS

Grade Four

History - Social Science Standards

- 4.1.1 Explain and use coordinate grid system of latitude and longitude to determine absolute locations.
- 4.1.2 Distinguish between the North and South poles; the equator and Prime Meridian; the tropics; and the hemispheres using coordinates to plot locations.
- 4.3.1 Identify the locations of Mexican settlements in California and those of other settlements, including Fort Ross and Sutter's Fort.
- 4.3.2 Compare how and why people traveled to California and the routes they traveled (e.g., James Beckwourth, John Bidwell, John C. Fremont, Pio Pico).
- 4.3.3 Analyze the effects of the Gold Rush on settlements, daily life, politics, and the physical environment (e.g., using biographies of John Sutter, Mariano Guadalupe Vallejo, Louise Clapp).
- 4.3.4 Study the lives of women who helped build early California (e.g., Biddy Mason).
- 4.3.5 Discuss how California became a state and how its new government differed from those during the Spanish and Mexican periods.
- 4.4.1 Understand the story and lasting influence of the Pony Express, Overland Mail Service, Western Union, and the building of the transcontinental railroad, including the contributions of Chinese workers to its construction.
- 4.4.2 Explain how the Gold Rush transformed the economy of California, including the types of products produced and consumed, changes in towns (e.g., Sacramento, San Francisco), and economic conflicts between diverse groups of people.
- 4.4.3 Discuss immigration and migration to California between 1850 and 1900, including the diverse composition of those who came; the countries of origin and their relative locations; and conflicts and accords among the diverse groups (e.g., the 1882 Chinese Exclusion Act).

Analysis Skills (Grade K - Grade 5)

The intellectual skills noted below are to be learned through, and applied to, the content standards for kindergarten through grade five. They are to be assessed *only in conjunction* with the content standards in kindergarten through grade five.

In addition to the standards for kindergarten through grade five, students demonstrate the following intellectual, reasoning, reflection, and research skills:

Chronological and Spatial Thinking:

1. Students explain how the present is connected to the past, identifying similarities and differences between the two, and how some things change over time and some things stay the same.
2. Students use map and globe skills to determine the absolute locations of places and interpret information available through a map's or globe's legend, scale, and symbolic representations.

Research, Evidence, and Point of View:

1. Students pose relevant questions about events they encounter in historical documents, eyewitness accounts, oral histories, letters, diaries, artifacts, photographs, maps, artworks, and architecture.
2. Students distinguish fact from fiction by comparing documentary sources on historical figures and events with fictionalized characters and events.

Historical Interpretation

1. Students summarize the key events of the era they are studying and explain the historical contexts of those events.
2. Students identify and interpret the multiple causes and effects of historical events.

English-Language Arts Standards

Literary Response and Analysis

Structural Features of Literature

3.1 Describe the structural differences of various forms of literature, including fantasies, fables, myths legends, and fairy tales.

Narrative Analysis of Grade-Level-Appropriate Text

3.2 Identify the main events of the plot, their causes, and the influence of each event on future actions.

3.3 Use knowledge of the situation and setting and of a character's traits and motivations to determine the causes for that character's actions.

Grade Five

History - Social Science Standards

5.8.3 Demonstrate knowledge of the explorations of the trans-Mississippi West following the Louisiana Purchase (e.g., Meriwether Lewis and William Clark, Zebulon Pike, John Fremont).

5.8.4 Discuss the experiences of settlers on the overland trails to the West (e.g., location of the routes; purpose of the journeys; the influence of the terrain, rivers, vegetation, and climate; life in the territories at the end of these trails).

5.8.6 Relate how and when California, Texas, Oregon, and other western lands became part of the United States, including the significance of the Texas War for Independence and the Mexican-American War.

Analysis Skills (Grade K - Grade 5)

The intellectual skills noted below are to be learned through, and applied to, the content standards for kindergarten through grade five. They are to be assessed *only in conjunction* with the content standards in kindergarten through grade five.

In addition to the standards for kindergarten through grade five, students demonstrate the following intellectual, reasoning, reflection, and research skills:

Chronological and Spatial Thinking:

3. Students explain how the present is connected to the past, identifying similarities and differences between the two, and how some things change over time and some things stay the same.
4. Students use map and globe skills to determine the absolute locations of places and interpret information available through a map's or globe's legend, scale, and symbolic representations.

Research, Evidence, and Point of View:

3. Students pose relevant questions about events they encounter in historical documents, eyewitness accounts, oral histories, letters, diaries, artifacts, photographs, maps, artworks, and architecture.
4. Students distinguish fact from fiction by comparing documentary sources on historical figures and events with fictionalized characters and events.

Historical Interpretation

3. Students summarize the key events of the era they are studying and explain the historical contexts of those events.
4. Students identify and interpret the multiple causes and effects of historical events.

English-Language Arts Standards

Literary Response and Analysis

Structural Features of Literature

3.1 Identify and analyze the characteristics of poetry, drama, fiction, and nonfiction and explain the appropriateness of the literary forms chosen by an author for a specific purpose.

Narrative Analysis of Grade-Level-Appropriate Text

3.2 Identify the main problem or conflict of the plot and explain how it is resolved.

3.3 Contrast the actions, motives (e.g., loyalty, selfishness, conscientiousness), and the appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.

D. ADMINISTRATIVE INFORMATION AND PREPARATION

ADMINISTRATIVE CONTACT

For questions regarding the *Passage to the Mother Lode* Program, please contact

Jake Feuer, Maritime Program Coordinator

Telephone Number: (949) 496-2274, extension 209

e-mail: jfeuer@ocean-institute.org

INTRODUCTION

Thank you for choosing the Ocean Institute as your field trip destination. We appreciate the time and effort it takes to prepare your students for their program, and we will do everything we can to make their experience as rewarding as possible.

Please make sure that all of the participating teachers have a copy of these teacher materials. The information contained here can help you find answers to your questions, develop your preparation timeline, and prepare both your students and chaperones. This packet also contains directions to the Ocean Institute as well as contact phone numbers—please call us at any time with any questions you may have about your field trip.

TEACHER INFORMATION: BEFORE YOUR PROGRAM

You can do several things before you arrive to help make your program run as smoothly as possible:

- Review the program goals, station activities, and expected behaviors with the students before you arrive. Complete the classroom activities with your students, and make sure they have a clear understanding of the educational concepts they will explore during the program
- Spend some time choosing and preparing your safety officers. It is vital that the safety officers are prepared for the program. Review the program goals, station activities, and expected student behaviors with them before you arrive. Make sure that they have a clear understanding of their role as a safety officer.
- Have a signed Acknowledgement of Risk and Waiver and signed medical forms for each student and safety officer before boarding the bus.
- Notify the Ocean Institute staff of students with any special health or behavioral considerations when you meet with the First Mate prior to the program.
- Send program payment to the Ocean Institute at least 10 days before the scheduled date of your field trip. Please mail a single check for the total amount of the program minus the deposit you have already paid. **Please make checks payable to Ocean Institute.**

TEACHER INFORMATION: DURING YOUR PROGRAM

Ocean Institute instructors are all well trained to work with students of different ages and abilities. Both you and the safety officers can help the instructor to monitor student behavior and safety. There are several things that you can do to help facilitate the smooth running of your educational program:

- Work cooperatively with Ocean Institute instructors and your safety officers to manage students during the program.
- Work cooperatively with Ocean Institute instructors and your safety officers to solve student and safety officer management problems.

- Report any problems (including facilities and management) to the Ocean Institute staff as soon as possible.

RECRUITMENT OF SAFETY OFFICERS

A minimum of four adults (maximum of seven), including the teacher, is to accompany the participants on their voyage. We cannot stress enough the extent to which the attitude of the adults influences the success of the voyage. We strongly recommend that you begin the recruitment of the safety officers early. Each adult will be assigned to a crew, and each crew must have a safety officer. The safety officers will be responsible for keeping an eye out for potential safety problems and assist in keeping discipline. No more than one adult should be taking pictures or video, since this becomes a distraction. All adults should be prepared to participate in every aspect of the program, including role-play and taking orders from the student mates.

The main responsibility of the safety officers is to assist their crew in standing night watch. The Captain will give all the safety officers instructions after the evening's activities—it is their job to maintain the safety of the watch and to motivate the students during their duty.

Teachers / Group Leaders: Please note that it is vital that your safety officers also be prepared for this program. Take time to go over the resource materials (provide them with copies) and make sure they understand the nature and scenario of the program. Please make sure that your safety officers understand that they will not be permitted to leave the vessel to smoke, make telephone calls, or for any other reason. Safety officers must remain with their assigned crew unless given orders by a ship's officer. Should a safety officer need to leave the crew, they must inform a ship's officer. In addition, your safety officers need to:

- Know the scenario of the program and familiarize themselves with the resource materials included in the teacher preparation package
- Understand the basic terminology used on board: Aye, Avast, Carry-on, etc.
- Stay onboard for the entire length of the program—no late arrivals or early departures. The safety officers must be able to make the full commitment for the entire program—2:30 PM until 9:00 AM
- Keep cell phones and pagers off the ship during the program
- Refrain from smoking onboard, on the dock, or on Ocean Institute property
- Be assigned to a different crew than their child

The safety of all participants is our first priority. To assure your safety officers, you may want to inform them of the following:

- Our instructors are certified in CPR and first aid
- We do have a phone onboard to make outgoing calls should an emergency arise
- We follow all Fire Marshal, Health Department, and United States Coast Guard regulations

LETTERS TO THE SAILORS FOR THE *PASSAGE TO THE MOTHER LODE* PROGRAM

When the after-dinner activities have concluded, the crew will spend time below decks with the Captain and the Agent. These characters will spend an hour spinning yarns and discussing the glories and heartaches of the California Gold Rush. Students become much more personally involved when, as the original *Argonauts* did, receive mail from 'back home'.

Encourage the parents to write letters to their children as if they were living in the year 1850. These should be secretly delivered to the teacher or group leader who will secretly bring them the day of the program and hand them to the Captain. Imagine the amazement of the sailors when the Captain gives them their letter telling them of life back home!

These letters should incorporate news items of the times so that the students can build upon the lessons they have learned (as well as provide some entertainment). The Captain and Agent will use the letters to begin a discussion of history.

Teachers - please be sure the parents understand that the letters should not refer to or reflect modern times. The year is 1850, and the students have signed aboard a merchant ship for a job as a sailor in order to work their way to California. Remember, the sailor has been away from home for months. Tell the parents that they are writing from back east—either from their farm or from their humble dwelling in the city. They can write about how life on the farm has been or the difficult times in the city, what is happening in the world, or exciting new inventions. The letters can be from the "parents," "children," "wife," "suitor," "friend," or whomever, but should attempt to recreate the atmosphere of the times.

Remind the parents:

- The discovery of gold was announced by President Polk in December of 1848
- Since the start of the gold rush, over 90,000 people have migrated to California.
- Regular steamship service between the east and west coast has just been established by the Pacific Mail Steamship Company.
- Men outnumber women in California ten to one.
- The first women's rights convention in the United States was held in 1848. Women still have no right to vote.
- Zachary Taylor, the president and a hero of the recently ended Mexican American war is serving his first term. In July of 1850, he dies and is replaced by his vice president Millard Fillmore.
- California applies for statehood in October 1849 and is admitted to the Union in September 1850.
- Samuel Brannan, publisher of *The California Star*, entrepreneur and storekeeper is credited with starting the gold rush frenzy by frenetically publicizing the find in California in May 1848 and sending news of the discovery east. By selling supplies to new arrivals, he becomes the richest man in California (and eventually its first millionaire).
- Sacramento, only first surveyed in December 1848 has over 6000 inhabitants by December 1849.
- In April of 1850, the state begins taxing foreign miners in an attempt to drive away Peruvian, Chilean and Mexican immigrants. This and the rampant bigotry and abuse drive as many as forty thousand out of California by the end of the year.
- By the laws of the new state's constitution, Native Americans have no rights.

- The question of slavery is already tearing the country apart as the abolitionist movement grows stronger by the day. The question of admitting new states like California as free states (upsetting the balance in congress that the south had worked for with the Missouri Compromise) is a factor in making several southern states threaten to secede from the union. Another compromise is arrived in September of 1850, appeasing the South.
- Women traditionally had never been allowed to work on merchant ships. Women in the gold rush begin to upset tradition by filling roles that they had not been allowed before.
- Even for passengers on a ship headed around Cape Horn, life is arduous. For crews, harsh captains and *bucko* mates make sailors lives miserable.
- The gold fields of California are a wild and sometimes lawless place. Vigilante justice prevails in many towns and often in large cities like San Francisco. Accusations of claim jumping or theft often lead to hangings.
- The price of basic goods needed for a miner's survival is incredibly inflated. Some items are sold for ten or twenty times what they go for on the east coast. Common food items like eggs and potatoes are sold at a premium—most miners subsist on unhealthy fare that was little better than sailor's food: dried and salted meat and rock hard ship's bread. A miner in 1850 could often easily find half an ounce of gold a day in the streams of the mother lode, worth over two weeks of an average man's wages back east, and still not have enough to survive.

PAYMENT

Payment must be received 10 days before your program date. Please mail a single check for the total amount of the program minus the deposit you have already paid. **Please make checks payable to Ocean Institute.**

FINAL COUNT

Call the Ocean Institute at (949) 496-2274, extension 0 two days before your program if the number of students or adults changes. When you arrive at the Ocean Institute for your program, you must have an accurate count of total students and adults participating in the program. If the number of participants listed on your Confirmation Form is not accurate, call the Ocean Institute immediately.

STUDENT AID

The Ocean Institute maintains a student aid fund for students who are unable to obtain sufficient funding to attend the program. Please call (949) 496-2274, extension 0 for more information and to receive the necessary forms for student aid.

TRANSPORTATION

Student transportation should be arranged well in advance. It is important that you arrive on time. Please schedule yourself to arrive at least 45 minutes before your scheduled program start time. If you arrive late, your program time may need to be shortened.

Buses can unload in front of the Student Services building.

NO LATE ARRIVAL / EARLY DEPARTURE

Please note that neither students nor adults will be allowed on board the *Pilgrim* or the *Spirit of Dana Point* after the start of the program. All participants must be in attendance from the initial muster at 3:00 p.m. To ensure the safety and integrity of the program there will be NO EXCEPTIONS to this rule. Group leaders; please make sure all of your participants understand that they are committed to stay for the entire program. If any adult or child cannot stay for the whole program, they will not be able to participate.

NAMETAGS

Each student needs to wear a sturdy nametag throughout the voyage. The tag should have only the student's last name and the crew to which he/she belongs. If he/she is a mate, remember to put a "Mr." before his/her name. Adults should have a nametag that reads "S.O."(safety officer) and the last name.

For the student's safety, the nametag should attach to the clothing and not hang around the student's neck, as the tag could become entangled with a line the student is using.

ENSIGN

It is not required, but some crews like to prepare their own class ensign or flag to fly along with the Captain's personal flag and the American flag. The ensign should be about the size of a pillowcase with two one-inch grommets on the left corners.

INFORMATION PACKETS

We have included packets with information and forms for the teachers, chaperones, and parents. They contain copies of information and forms that must be completed by parents, chaperones, and teachers before arriving for the program. **IT IS IMPORTANT THAT YOU ARE FAMILIAR WITH ALL THE INFORMATION AND FORMS FOUND IN EACH PACKET.** These packets are ready to be copied and distributed to the appropriate participants. Information on each of the forms is in the next section.

Please make sure that you provide safety officers with copies of the Safety Officer Information Packet and the Parent Information Packet.

FORMS

All of the following forms can be found in the Information Packets. Please make sure to have all the completed forms with you upon arrival for your program.

Medical Forms

You will find **medical forms** in the packets. You must have a completed and signed medical form for each student and adult (including the teacher) participating in the History and Social Science Overnight programs. In order for a child to receive any prescription or non-prescription medication during program, the Administration of Medication forms must be completed and signed by the parent or guardian and the child's physician.

Acknowledgement of Risk and Waiver

Each student must have this form signed by a parent or guardian to participate in the program. Please make sure that you have one signed form for each student, adult safety officer, and teacher when you check in with the Ocean Institute staff. Please keep these forms separate from the medical forms when you give them to the Ocean Institute staff. **Participants without a signed form will not be permitted to participate.**

Crew Forms

Your class must be divided into five crews before your arrival. We have provided a Crew Form to help you.

STUDENT PREPARATION

We have found that the more familiar the students are with program concepts and content before they arrive, the more they will benefit from and enjoy their experience. We have included background information and classroom activities to introduce important concepts to your students before they arrive for their program.

SNACK

The students will not eat until 7:15 PM. Due to the nature of the program, which requires a lot of energy from the "crew," we strongly recommend that they be served a simple snack upon arrival at the Ocean Institute before the start of the program. Please arrive at the Ocean Institute no later than 2:15 PM.

Recommended snacks include granola bars, cheese and crackers, fruit, beef jerky and boxed juices.

CHAMBERS GIFT AND BOOK STORE

The Chambers Gift and Book Store is a non-profit museum store open daily from 9:00 AM to 5:00 PM. The revenue is directed toward lowering tuition for schools that participate in Ocean Institute programs. You and your class are encouraged to visit the store. To help accommodate all of the schools that would like to shop each day, please have one teacher from your school check-in with a store staff member before your students begin shopping.

There will be a limit on the number of students allowed to shop at one time as well as a three-minute time limit for each student. This is to ensure that all of your students will have time to shop. Please have two or three adults in the store to help supervise your students. One adult should stand at the door to monitor the students waiting in line. The other two adults should supervise the shoppers and remind them that they must make their selections quickly. Please ask the students to leave food, drinks, and backpacks outside with a friend while they are shopping.

Please remind your students that sales tax will be added to their items.

If your crew wishes to purchase merchandise, they are welcome to do so, but please observe the following:

1. Plan to arrive early so that the students have sufficient time to shop. All shopping must be completed by 2:45 p.m., at which time the supervising safety officer will lead the students to the dock for the crew muster, which begins at 3:00 p.m.
2. All purchases should be stowed safely away in the participants' gear and must not be taken out or seen for the entirety of the program or they will instantly become the First Mate's property!
3. Please allow only one crew in the Chambers Gift and Book Store at a time. Remaining crews should be finishing their snack outside in a manner that does not interfere with traffic in and out of the building.
4. Please send a fax to the Chambers Gift and Book Store Manager for any large orders, such as 30 T-shirts, 30 patches or books etc. Please make sure to include your phone number so we can contact you about your order. Orders are required at least 6 weeks in advance to assure availability. The fax number for the store is (949) 496-4296.
5. Below is a list of items and current prices, which are subject to change without notice.

<u>Two Years Before the Mast</u> (unabridged paperback)	\$ 6.95
<u>Two Years Before the Mast</u> (unabridged paperback)	\$11.95
<u>Carry On, Mr. Bowditch</u> (unabridged paperback)	\$ 6.95
Pilgrim Poster	\$ 7.95
Pilgrim Patch	\$ 2.25
Pilgrim Postcards (horizontal and vertical view)	\$ 0.75
Pilgrim coin from the Collector Coin Series	\$ 4.95
Spirit of Dana Point coin from the Collector Coin Series	\$ 4.95
Pilgrim T-shirt or Spirit of Dana Point T-shirt	\$12.00 (tax included)
Pilgrim Sweatshirt (seasonal)	\$18.00

Please add 7.75% sales tax to the total cost.

The abridged copy of Two Years Before the Mast can be purchased through Globe Fearon at (800) 848-9500. The cost is \$7.50 per copy or \$6.95 for ten or more copies. The ISBN is 0-8224-9235-0.

PILGRIM T-SHIRT INFORMATION

Take home more than just knowledge and memories!

Pilgrim T-shirts are available for both students and adults. This comfortable T-shirt features the **Pilgrim** logo in full bright colors. Individuals interested in purchasing a T-shirt must place an order with their teacher or group leader before attending the program. The Ocean Institute must receive the T-shirt order **SIX WEEKS** before your program.

**FAX YOUR GROUP ORDER TO:
(949) 496-4296**

School Name _____

Contact _____

Program Date _____ Phone _____

Number of Shirts by Sizes (**adult sizes only**):

Small _____

Medium _____

Large _____

X-Large _____

Total number of shirts (small - X-large) _____ @ \$12.00 each, including tax

AMOUNT DUE: \$ _____

Please make checks payable to the Chambers Gallery and include your driver's license and telephone numbers

ORDERS MUST BE RECEIVED SIX WEEKS PRIOR TO YOUR TRIP



SPIRIT OF DANA POINT T-SHIRT INFORMATION

Take home more than just knowledge and memories!

Spirit of Dana Point T-shirts are available for both students and adults. This comfortable T-shirt features the **Spirit of Dana Point** logo in full bright colors. Individuals interested in purchasing a T-shirt must place an order with their teacher or group leader before attending a **Spirit of Dana Point** program. The Ocean Institute must receive the T-shirt order **SIX WEEKS** before your program.

**FAX YOUR GROUP ORDER TO:
(949) 496-4296**

School Name _____

Contact _____

Program Date _____ Phone _____

Number of Shirts by Sizes (**adult sizes only**):

Small _____

Medium _____

Large _____

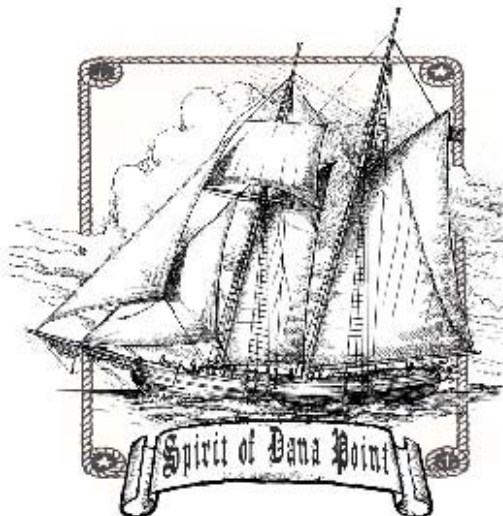
X-Large _____

Total number of shirts (small - X-Large) _____ @ \$12.00 each, including tax

AMOUNT DUE: \$ _____

Please make checks payable to the Chambers Gallery and include your driver's license and telephone numbers

ORDERS MUST BE RECEIVED SIX WEEKS PRIOR TO YOUR TRIP



DIRECTIONS TO THE OCEAN INSTITUTE

The address of Ocean Institute:
24200 Dana Point Harbor Drive
Dana Point, CA 92629
(949) 496-2274

Directions from Los Angeles:

- Travel south on Interstate 5
- Exit on the Pacific Coast Highway Exit
- Stay in the right lane of the exit ramp and go north on P.C.H.
- Turn left onto Dana Point Harbor Drive
- The road ends in the Ocean Institute parking lot

Directions from San Diego:

- Travel north on Interstate 5
- Exit on the Beach Cities Exit
- Stay in the left lane of the ramp and go north on P.C.H.
- Turn left onto Dana Point Harbor Drive
- The road ends in the Ocean Institute parking lot

D. STUDENT PREPARATION FOR THE *PASSAGE TO THE MOTHERLODE OVERNIGHT*

Preparing your students for this program is extremely important. We want the students to have fun as they learn, but they must understand that their tasks are not always easy. They need to know that they will be expected to work hard, work together, and listen to and follow orders. They must understand that the success of their voyage depends on them—their attitude, their willingness to take this adventure seriously, and most of all, their willingness to learn. You, as the leader, must take the time to prepare them using the following materials. The better the students are prepared, the more they—and you—will gain from the program. Please take advantage of the instructions, resource materials, and information provided in this package.

ACADEMIC PREPARATION

The students must know why they are coming on this voyage. Be sure they have a solid understanding of the scenario of the program and the experiences of the typical immigrant to the California Gold Rush. Books like *By the Great Horn Spoon* make a fine introduction to the life of the forty-niner. The students should spend some time studying California history and the gold rush.

CREWS

Divide your class/group into four groups or “crews.” Many of the activities aboard the tall ship are designed as group-problem solving exercises and team-building activities. Each crew will participate in all the activities, albeit in different orders throughout the program. The crews should give themselves names appropriate to a company of gold seekers (students should be encouraged to name their own groups). Each

crew needs to have a student leader, known on board as a 'mate.' The mates serve as junior officers aboard the vessel to relay orders and make certain that his or her crew is safe and working together. Choose a mate any way that you wish, but try to select a student that is capable of the added demands of leadership. The mates will be guided by the staff. Each crew should include one of the adults as a "safety officer."

ROLE-PLAY

The students need to thoroughly understand the concept of role-playing. The students should know that they will be pretending to be sailors in the year 1849. *From the moment the Agent musters the crew on shore, the students will be expected to participate in the role-play for the entirety of the voyage. Our staff will also be pretending, and they will take their characterizations very seriously!*

SAFETY CONSIDERATIONS

We will teach you all you need to know upon your arrival. Wear rubber-soled shoes long pants. Stay out of the rigging, follow orders, stay away from the rails, walk, and stay onboard the ship. Most dangers aboard will become readily apparent once the program has begun. For anyone who does not see them, the officers will enthusiastically identify them.

Should an emergency arise, please remain calm. All of our staff members are certified in First Aid and CPR and have been trained to handle emergencies. Additionally, the ship has excellent communication equipment and help is only a few minutes away.

PROGRAM SCENARIO

The year is 1849. The United States, indeed the entire world is abuzz with talk about the discovery at Sutter's mill. Many have already headed off to find their fortunes in California. You know that after the fourth or fifth grade, you will likely have to quit school and go to work, whether on your dreary family farm, in a noisy and dangerous factory, at a dark and poisonous coal mine or at some other awful place. Your best bet might have been to apprentice yourself to a trade—learn carpentry or blacksmithing, but you'd have to work for years for no pay to learn such skills. College in this day and age is for the wealthy. To better your and your family's future, you decide that this gold rush might be your only hope for a better future.

Questions remain. Should you go overland along one of the trails from St. Louis, by wagon and foot through the prairies, deserts and mountains? Should you take a steamship to Panama and hike through the disease-ridden jungles at the isthmus? Should you take a sailing ship, perhaps one of the great clippers headed around the legendary Cape Horn?

Captains claim that they can get you to San Francisco in less than ninety days. On a ship you can take more supplies and equipment. Although the food may be awful, you won't starve or be lost by yourself.

Along Front Street in Boston the finest clippers lie at the best of the docks. None will take you as a passenger for less than three hundred dollars. With nowhere near enough money, you wander the docks of Boston, wondering what to do.

A man approaches you, telling you that he is looking for working crew for a vessel sailing to California. You have heard about such crimps, men who trick sailors into working for bad pay and cruel and awful captains. Even if the pay is bad and the captain is cruel, you decide that it would be worth it to get to the Mother Lode. He brings you and a crew of others to see the vessel, a small two masted tall ship. A businessman in a top hat and tails is walking down the gangway towards you. The crimp says that this is the man who paid him to find a crew, the man that hired the ship to carry his cargo to California.

THE CAST OF CHARACTERS

- **The Captain** is the commander and absolute master of the ship at sea. He is used to being obeyed without question. To him, the voyage to California is just another opportunity to use his vessel to make money carrying people and cargo. He has no desire to seek his fortune on land—his fortune is to continue command his ship and crew wherever the wind may take him.
- **The Agent** is a businessman, an ex sailor who was in California at the start of the rush. Having made some money mining, he has decided to seek his fortune by modeling himself after entrepreneurs like Samuel Brannan. He returned to the east coast and used his gold to buy Supplies to be sold at a vast profit in the gold field. Having spent all his money buying the cargo and hiring the ship and Captain, he

is in need of a crew and has nothing with which to pay them. Being the sort to make bold (and sometimes rash) decisions, he will even hire children as a needed crew if they are willing to work for passage. He embodies the 'can-do' attitude of the era, and does not stand by traditions and the old and expected ways of doing things.

- **The Cook** is an experienced sailor, knowledgeable in the ways of the sea. He has served with the captain on many voyages and followed his orders blindly and without question. The passage to California makes him question his career. Being a practical and realistic soul, he tells himself that his is a noble and respectable position, but one with little future and little chance of promotion. He is almost tempted to gamble away what he has for the slim chance of riches in California .
- **The Miner** is a paying passenger, one of the thousands upon thousands that chose to change their dull, dead-end lives by risking the perilous trip to a gold rush at the ends of the earth. He has sold everything he owns for a miserable bunk aboard the ship. He knows that danger awaits him all along the voyage, but is hopelessly optimistic that plentiful gold of California will make his life better.

VOCABULARY

The students should know the following nautical vocabulary before they arrive:

AVAST: Stop

AYE: Yes

AYE, AYE: Yes, I understand and yes, I will carry out your orders

CARRY-ON: Get started. Students will often be given a series of orders; they must wait for the command "carry-on" before they begin

SIR: The Captain. Always call the Captain *Sir* (and nobody else)

E. RESOURCE MATERIALS

PROGRAM BACKGROUND

Gold rushes had happened before. In the 1830s there was a gold rush along the border of Alabama and the Carolinas. Not much came of it—the amount of gold present was not nearly of the scale of the deposits in California. The richness of the California find was of such magnitude that it did not need to be exaggerated. The streams and rivers of Northern California were chock full of the metal, so plentiful that almost anyone could mine it.

The news of the discovery spread like wildfire across the United States in late 1848. It was said that a miner could easily take half an ounce of gold from the streams every day, worth some seven or eight dollars. Most workers on the east coast could not make that much in two weeks, much less a single day. Rumors were spread about huge finds, nuggets weighing not ounce but pounds. California held the promise of riches to anyone who could make it there.

California was at the very ends of the earth. At the beginning of the rush, two options existed for emigration to California. Few people save trappers and adventurers had braved the prairies, mountains and deserts of the overland trails. The dangers of starvation, frost, thirst and disease were compounded by the massive numbers of travelers on the trails. Over twenty thousand left St. Louis in spring of 1849. Encountering hostile natives, bad weather and outbreaks of cholera, they hoped to make it to the mother lode before the first snows of winter. Animals were needed, wagons and supplies. Emigrants often took everything they owned with them, only to abandon their belongings by the trailside to lighten their load.

The only other way, initially, was by sea. Conservatively, there were seventeen thousand miles of ocean to cross to get from the Eastern seaboard to San Francisco Bay and sailing ships had to voyage around the dreaded Cape Horn to get there. Merchant ships were quickly adapted and filled with bunks to carry passengers. Some vessels promised that the voyage would take less than three month, although it was

rarely less than four, often more than five. Conditions were cramped and filthy. Food was bad and rates for passage were incredibly high. To make money from the emigrants, many rotten old hulks were converted to carry passenger, some barely seaworthy. Many failed to make it to California.

The clippers were often ruled over by hard driving captains and cruel “bucko” mates. Sailors were overworked and treated harshly so that the vessels could arrive in California quickly. Many vessels went lost along the way, some were found adrift with their passengers and crews dead or dying from disease. From New York or Boston, the voyage covered over seventeen thousand. Much of this was through dangerous and uncharted waters.

The water route still held many advantages. It was quicker than the land route, and passengers could carry more belongings with them on ships than on wagons. There was no need to wait for the grasses to sprout in spring so that pack animals could eat. The first ships left in November of 1848 and were in San Francisco before the first wagons left St. Louis in April. The water route was the easy choice for most forty-niners. With regular steamship service between San Francisco and Panama began in June of 1849, a third option appeared. Travelers went by boat to the Caribbean coast of Panama, traveled by river and trail through the swamps, jungles and mountains of the isthmus, then by ship to San Francisco. This route ideally could be traveled in just over a month’s time. As easy as it sounded, there were many hidden dangers. Malaria and yellow fever infected travelers as they crossed, and continued to plague them as they waited for a position on a boat leaving Panama City for San Francisco. There was only limited space aboard the Pacific Mail Steamship Company’s vessels, and few other boats that made it to San Francisco Bay came back down to pick up more passengers.

Upon arrival in the bay, crew often deserted their poorly paid positions to go hunt gold. The harbor’s shallows and beaches were littered by the hulls of abandoned shipping.

On their voyages to California, immigrants often experienced a bittersweet conflict of emotions in relationship to the ocean, their ships and new lives in the wilderness—the beauty of the ocean and experiences of the voyage, the hardships of life at sea, the backbreaking work for little reward in the streams of California and the fleeting promised of undreamed of riches. One goal of the overnight program is to create a delicate yet dynamic balance using the characters and activities of the program. We hope to present both the beauty of the ocean and adventures at sea and the harsh reality of shipboard life during the gold rush. We want the students to experience the same duality of emotions experienced by *the Argonauts* of 1859. Our goal is to create an atmosphere that allows the students to compare and contrast their encounters on board with their own life, while learning and growing from those experiences.

The men who sailed these great tallships came from all over the world, and they often did not even speak the same language. The sailors knew that they had to work together and communicate with each other to survive. On board the *Pilgrim* or *Spirit of Dana Point*, the students will be presented with many of the same challenges that these men and women faced. Through these shipboard activities, the students gain important skills in problem solving, responsibility, communicating, and teamwork. The students learn that they must pull together in order to accomplish a common goal.

Each character that the students encounter has been developed to present a different perspective of life at sea—from the practical captain to the exuberant and optimistic agent, the average miner to the common seaman and cook. In turn, each of the students develops their own perspective of the voyage, which is influenced by his/her personal experiences aboard.

HISTORY OF THE BRIG *PILGRIM* AND THE SCHOONER *SPIRIT OF DANA POINT*

It is important to note that both vessels are used for our maritime programs, and each vessel lends a unique perspective to the sailors. The *Spirit* and *Pilgrim* are rigged differently and because of this, they are used differently.

HISTORY OF THE BRIG *PILGRIM*

"One by one the few remaining sailing ships are disappearing. They drop away, and are heard of no more. With them goes much that is worthy and incalculable. It passes like a high squall sinking beyond the horizon, wind and sea, motion and color, romance and inspiration, a whole range of human endeavor, all vanishing to leeward with the tall ships in their midst. . . The sailing ship stood for a means whereby men were brought to their fullest development. She stood for a profession in which only merit could endure. She stood for things the world cannot afford to lose."

Master Mariner, Lincoln Colcord

The *Pilgrim* is a full size replica of the hide brig immortalized by Richard Henry Dana, Jr. in his American seafaring classic novel Two Years Before the Mast. Dana said of the *Pilgrim*, "The vessel I am going on is small, but strong and a remarkably fast sailor having been built for the smuggling trade."

The original *Pilgrim* was built in 1825 at a cost of \$50,000. Her length was a mere 90 feet compared to the average 110 feet for other vessels of the same class. The purpose of its 1834 voyage was to participate in the California cattle hide trade for her Boston owners, Bryant and Sturgis. It is not known in what other trades the *Pilgrim* engaged after her voyage to Alta California, Mexico. However, it is recorded that she was lost in a fire at sea in 1856. By this time the hide trade had also suffered its demise.

Length of Deck:	98'
Beam:	24.6'
Mainmast Height:	98'
Net Tonnage:	64
Built:	1945, Denmark

HISTORY OF THE SCHOONER *SPIRIT OF DANA POINT*

The *Spirit of Dana Point* is a full size replica of a Baltimore Clipper schooner once used as a patrol vessel against smugglers, pirates and the British navy. The Baltimore Clipper was a hull design that developed over several hundred years of Dutch and English history and culminated around the 1760's in and around the waters of Virginia. The marriage of a bow-shaped hull, a heart-shaped midsection, short keel, and a raking stern, with the large schooner-style fore and aft sail rig and one or two square top-sails, provided for one of the fastest ships of the era.

Due to the narrowness of the hull, cargo space was limited, yet as a Letter of Marquee, naval support craft, fleet supply ship, coast-guard cutter, or exploratory vessel, the Baltimore Clipper was prime. The first vessels ordered by George Washington at the outbreak of hostilities with England were clipper schooners, and privateer schooners of this design were easily found and commissioned into the Continental Navy when extra vessels were needed.

Between the Revolutionary War and the War of 1812, there were a number of small conflicts that required U.S. naval presence. These conflicts centered around the suppression of pirates along the Gulf of Mexico, the removal of the threat on merchant shipping from the Barbary pirates in the West Indies, and the protection of U.S. merchants from the French and British, who were unreliable allies at best. In all of these conflicts, Baltimore schooners were employed for service to supplement the few frigates capable for action.

After the conflicts were resolved, the navy typically sold the schooners to merchants where they carried nearly 9/10th of all American foreign borne trade. Most trade was with China and the Indies for products such as spices, rare cloths, slaves, and opium. These exotic, and sometimes illegal goods, were suited for the small cargo capacity of the clipper schooner, since they resulted in a high payoff. When it was time for the

US government to enforce laws against the slave and opium trade, it was the Baltimore Clippers that were employed by the Revenue Service, since it took a fast ship to catch a fast ship.

Although the Baltimore Clipper schooner design was replaced by larger clipper ships, brigs, and barques for the larger cargo capacities, the navy, smugglers, and coast guard retained the famous design well into the 19th century.

Length Overall:	118'
Beam:	24'
Draft:	9'6"
Design by:	Howard Chapelle
Built by:	Dennis Holland, Costa Mesa, CA
Launched:	Nov. 19 th , 1983

MARITIME GLOSSARY

"Unintelligible orders were so rapidly given, and so immediately executed...that I was completely bewildered."

Two Years Before the Mast, Richard Henry Dana Jr.

"I wish you could hear Mr. Peters' language. It's perfectly elegant. He will give an order to the men just filled with the loveliest nautical terms all run together. I can't make out a word of it. Every mast has about a thousand ropes, the mainmast has sixty that I counted and each rope has a different name. The men all say, when he gives an order, 'Aye, aye, sir,' and run to the top of the rigging where they hang in mid-air by their feet."

By Square-Rigger, the log of Shirley Hyatt

Shipboard Directions

Aft - (Afterward or abaft) In rear to, or towards the stern.

Fore - (Foreword) In front of, or towards the bow, as in before the mast.

Port - The left side of a vessel, as one stands facing the forward.

Starboard - The right side of a vessel, as one stands facing forward.

Bow - The whole forward end of a ship or boat.

Stern - The backward end of a ship or boat.

General Terminology

Aloft - Above the deck, in the rigging.

Amidships - In the middle of the ship (main deck).

Avast - Stop, quit what you are doing, hold your work and await further instructions.

Aye - Yes.

Aye, Aye - "Yes, I understand your orders and yes, I will carry out your orders."

Bight - A bend or loop in a rope.

Bilge - The lowest internal part of the hull where ballast is kept and bilge water collects.

Bitter End - The very end of a piece of rope.

Block - A pulley. A wood or metal case for one sheave (wheel) or more.

"Carry On" - Indication that an order is finished being given and must be carried out.

Chantey - Song sung by sailors to coordinate work.

"Doctor" - Nickname for the ship's cook because he has the knives.

Forecastle - The crew's quarters in the bow, also called fo'c'sle.

Furl - To raise or roll up a sail.

Galley - The ship's kitchen.

Greenhand - Inexperienced hand on a vessel.

Hatch - An opening in the deck, provided with a hatch cover and a box trim built around it.

Halyard - Any line used for hoisting (raising) sails, cargo, flags, etc. Short for haul to the yard.

Hold - Cargo storage area of the ship.

Kanaka - Hawaiian word for man.

Leeward - Downwind. Pronounced "lou-ward."

Line - A sailor's word for rope that has a purpose.

Mast - A vertical spar for supporting sails and rigging.

Quarter Deck – Raised aft deck on ship; place from where the Captain commands.

Reeve - To pass a line through a hole, as in a block and tackle system.

"Salt" - An experienced seaman on a vessel.

Sheave - The grooved pulley wheel in a block.

"Slack away" - To let out line, hand over hand, without losing control of the line.

Spar - Any support for sails or rigging - a mast, yard, boom, or gaff.

Stow - To put away in its proper place; applied to anything loose.

Tackle - Line rigged through and around pulleys (blocks) to increase the effect of pull applied.

Windward - Towards or into the wind.

Yard - Horizontal spar that holds the sails.

"Salt water produces nothing petty, nothing insignificant. The sea always has demanded from man his greatest courage, endurance, and ingenuity."

Falls of Clyde / A Merchant Ship of the Past, Hawaii Maritime Center

H. CLASSROOM ACTIVITIES

Activity #1: Seeing With Different Eyes

Description

People aboard a Yankee clipper on its way to California came from many walks of life. The story of a miner would reflect different opinions, dreams and experience than a captain or businessman. Each perspective would show the Gold rush in a different light.

The Challenge

Gather in your crew, and read the Character Sketches and the list of Seaward Situations listed below. Choose one of the situations and discuss how each of the characters might react to it. Choose one of the situations and role-play how two of the characters might react to it. How did your interpretation differ from that of the other crews?

<u>The Captain</u>	<u>The Agent</u>	<u>The Cook</u>	<u>The Miner</u>
<p>The captain is responsible for the ship and the lives of everyone aboard. Because he alone shoulders this responsibility, he requires his crew and passengers to follow his orders without question or delay. He looks to the gold fields as just another destination in his life as the master of a merchant ship.</p>	<p>The agent is part of the new breed of Americans willing to risk everything to better their lives. He has paid the Captain to take his goods to around Cape Horn with all the money he made in the early days of the gold rush. He is willing to break traditions and try new things so that his venture is successful—perhaps at the risk of his life and others’</p>	<p>The cook is an experienced sailor. He has spent his life knowing that the crews of sailing ships must work together with one purpose. He understands the danger and beauty of the sea. He understands that it is the duty of everyone aboard to obey the captain and will follow his orders even if it leads to the bottom of the sea</p>	<p>The miner is a typical example of the average Argonaut—willing to risk life and limb for a slim chance to better his life. He has given up everything for this one chance to make a fortune. His life was not easy before, and he expects this adventure to be even more difficult.</p>

SEAWARD SITUATIONS

1. One of the masts has been damaged in a storm. Setting sails on it might break it completely. Not setting them slows the boat down. It can only be fixed by spending weeks in a port along the way.
2. As the moon lights the open ocean, you walk toward the bow and see a sailor sleeping during his assigned watch.
3. The ship is becalmed—there is little wind in the doldrums near the equator. Wind might come today, tomorrow or weeks from now. You know that you are already running out of food and water.
4. A sailor lying in his bunk complains that he is too sick to go up on deck to work.
5. On the open ocean, you come alongside a huge merchant ship headed to California with a valuable cargo. The crew is dying from cholera. The captain offers jobs to everyone aboard to help bring his vessel safely to port.

Activity #2: The Ship's Bell

Description

Since someone must be sailing the ship twenty four hours a day, the entire crew cannot rest at the same time. Sailors stand watches—shifts of work that are four hours long. Half the crew works for four hours and half rests. After the four hour watch is over, the working crew rests and resting crew works. A sailor stands these alternating watches night and day for the length of the voyage. The Ship's Bell tells a sailor how much longer he has to work or sleep. Each ring of the bell counts off a half hour that has gone by. Watches start at 12:00, 4:00 and 8:00, a.m. and p.m. A single bell could mean 12:30, 4:30 or 8:30, two bells could mean 1:00, 5:00 or 9:00. Each half hour, another bell is added until eight bells is reached. Eight bells means that the watch is over and a new one begun. Bells are always rung in distinct pairs so that they are easily counted.

The Challenge

Find a bell (or make one from an empty can) and ring it the correct number of times each half-hour. The following charts will help you determine how many times to ring the bell. Do this for an entire day. Remember that the bell is struck in pairs.

1 bell	12:30
2 bells	1:00
3 bells	1:30
4 bells	2:00
5 bells	2:30
6 bells	3:00
7 bells	3:30
8 bells	4:00

1 bell	4:30
2 bells	5:00
3 bells	5:30
4 bells	6:00
5 bells	6:30
6 bells	7:00
7 bells	7:30
8 bells	8:00

1 bell	8:30
2 bells	9:00
3 bells	9:30
4 bells	10:00
5 bells	10:30
6 bells	11:00
7 bells	11:30
8 bells	12:00

An Extension

Once the students are familiar with bell time, write some of the day's activities on the board next to the time (in bell time) they should be completed. Make sure that the classroom clock is covered and that students are not wearing watches. Have the students keep bell time throughout the day so that they can determine when they complete different school activities.

Activity #3: Sailor speak

Description

A sailor's first day can be full of confusion, as life on board is a world of its own. Even the language of the sea has its very own vocabulary. To work as a sailor, you have to speak like one.

The Challenge

Since you are going to play the character of a sailor, you must learn to talk like one. Aboard the *Pilgrim* and *Spirit* we say:

Aye	to mean, "yes"
Aye Aye	to mean "yes, I understood your orders and yes, I will carry them out"
Avast	to mean, "stop"
Sir	every time we speak to the Captain
Carry on	when an officer or mate wants you to begin an order you have been given
Mr.	before the last name of a mate or officer

To practice, gather into your crews. Select someone to be the "mate." This person should always be called Mr. (his/her last name). Select someone else to be the Captain (the teacher might be a good choice) and remember that when you speak to him the last word you say must always be "Sir." Now, for a period of time (an hour, a day, a week) all crews should speak like sailors. They should always say "aye" instead of yes, "avast" instead of stop, and so forth.

Activity #4: Sea Shanties

Description

When sailing ships such as the *Pilgrim* and the *Spirit* traveled the oceans, shipboard work relied on the human back, unassisted by mechanical power. Shanties were used to coordinate the necessary muscle power into single pulses of concentrated energy that could raise and lower the many tons of canvas and wood necessary to propel a sailing ship through the oceans.

Work shanties can be found in most cultures and time periods. They tend to reflect the nature of both the work and culture. Whether on land or at sea, their primary use was for work that tended to be laborious and repetitive. The sea shantey, reflecting the cosmopolitan nature of the sailor, revealed a magnificent array of human endeavor. On a single vessel, one could hear songs that reflected opinions concerning Hong Kong, New Orleans, cotton plantations, railroads, Irish emigration, wars, national heroes, and political trends. The most popular of all topics was, naturally, the plight of the maltreated sailor. The shantey, being part of the folk tradition, was ever evolving. One can find vulgarity and crudeness mixed side by side with literacy, sophistication, and compassion—all due to the various types of sailors (Harvard student, farm boy, blacksmith apprentice, and emigrant) who found their way to the seas.

Improvisation was a hallmark of the shantey, since the verses always ran out before the work was complete. It is this necessity that imbues shanties with their richness of cultural heritage. Cargo handling, weighing anchor, pumping bilges, line handling, setting sail and working the capstan are some of the jobs sailors do that require the use of a sea shantey.

The Challenge

Learn the verses to the attached sea shanties, and practice them for your voyage aboard the *Pilgrim* or the *Spirit*.

- John Kanaka: Halyard Shantey
- Gloucester Girls: Capstan Shantey
- Leave Her Johnny: Pumping and Windless Shantey

Please note that other shanty resources are available in the Institute's gift shop, including the book with sheet music Songs of a Sailor. A web search for "sea shanties" will provide with more lyrics, many with midi files to play the tune for you!

*"Windship sailors lived with music...a rough kind they made themselves, more often than not."
Christmas at Sea, Captain Fred K. Klebingat*

John Kanaka: Halyard Shanty

C **F** **C**
 I thought I heard the Old Man say,
G7 **C**
 Johnm Ka - na - ka - na - ka, tu-lai - e! We'll work to -
F **C**
 mor - row but no work to - day John Ka - na - ka - na - ka,
G7 **C** **F**
 tu - lai - e! Tu - lai - e Oh Tu - lai -
C **G7** **C**
 e! John Ka - na - ka - na - ka tu - lai - e!

A Yankee ship with a Yankee crew
 And we're the buckos to push her through

Oh, haul away, oh haul away
 Oh, haul away and make your pay

A Yankee ship with a Yankee mate
 If you stop to walk, he'll change your gate

Gloucester Girls: Capstan Shanty

C **G7** **C** **Am** **G7**

Glouce-ster girls, they have no combs. Heave a - way! Heave a - way! They

C **G7** **C**

comb their hair with cod-fish bones. We're bound for Cal - i -

G7 **C** **F** **C**

for-ni - a! Heave a - way, my bul - ly, bul - ly boys! Heave a -

Am **G7** **F** **C** **F**

way! Heave a - way! Heave a - way and don't you make a noise, we're

C **G7** **C**

bound for Cal - i - for - ni - a!

Gloucester boys, they don't have sleds
They slide down hills on codfish heads

Gloucester doctors don't use pills
They prescribe their patients codfish gills

Gloucester cats, they don't have tails
They got blown off in southeast gales

Leave Her Johnny: Pumping and Windlass Shanty

The musical score is written in treble clef with a common time signature (C). It consists of six staves of music. The lyrics are written below the notes. Chords are indicated by letters (C, G7, F) above the staff lines. The piece ends with a double bar line and the words 'LAST TIME' written above the final staff.

Chords: C, G7, F

Lyrics:
 I thought I heard the Old Man say,
 "Leave her, John - ny, leave her!" You can go a - shore and
 draw your pay, It's time for us to leave her!
 Leave her, John - ny, leave her, Oh leave her John - ny,
 leave her. The voyage was long and the winds don't blow and it's
 time for us to leave her.

Oh, our ship is old and she's sinking fast
 Our ship is old and she will not last

Aye the work was hard and the wages low
 The grub was bad and the ship was slow

Yes, it's rotten meat and weevily bread
 If you moan too hard, they break your head

The Mate was a bucko and the old
 Man a Turk

And the bosun was a devil with the
 Middle name o' work

Now the mates have gone and we the crew
 It's time we lads that we went too