

WELCOME TO THE *MARINE MAMMAL LAB* PROGRAM

Welcome to the Ocean Institute's *Marine Mammal Lab* program! *The Snail and the Whale* is a story that captures the interest and imagination of young readers. The snail sees the world while traveling on the tail of the whale and saves the whale when it swims too close to shore. During this one-hour program, students learn about adaptations that marine mammals have to help them survive in the sea. We have developed this program to assist second and third grade teachers in meeting Language Arts and Science Content Standards through the attraction of popular children's literature and the excitement of marine mammal artifacts.

Please take a few moments to familiarize yourself with the materials we have included, and share them with other teachers and chaperones who will be joining you. These materials contain important information to prepare you, your chaperones, and your students for your visit. Make sure to link to the 'Required Forms' found just under this 'Prep Pack' link on the web site to find the required Acknowledgement of Risk and Waiver form.

We are excited to present to you our *Marine Mammal Lab* program and are pleased that you'll be joining us. If you have any questions before your program, please do not hesitate to contact our program director, Linda Blanchard at (949) 496-2274, extension 314. If you have questions on scheduling, please contact Alexis Honens at (949) 496-2274, extension 610.

Sincerely,
Rick Baker
Vice President of Education

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A. ADMINISTRATIVE CHECKLIST FOR PROGRAM

This preparation package contains information for the *Marine Mammal Lab* program that takes place in the Ecology Learning Center. Please review the package carefully to ensure that you will be prepared for your program.

Immediately upon receiving your program agreement...

- Carefully review the Teacher Preparation Package
- Arrange your transportation
- Return your signed program agreement and deposit to the Ocean Institute in order to confirm your reservation

Two months before your trip...

- Confirm student and adult numbers with the Ocean Institute
- Arrange for parent chaperones—please limit the number to 2 adults for every 12 students

One month before your trip...

- Begin student preparation
- Copy and distribute Acknowledgement of Risk and Waiver to each student and adult participant

Two weeks prior to the 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 from each participant
- Contact parents to remind them to sign and return the Acknowledgement of Risk and Waiver
- Contact the Ocean Institute with any changes in the number of participants. We cannot guarantee our ability to accommodate changes in numbers of students or adults within two weeks of your program date.

One week prior to the trip...

- Review behavioral expectations with students
- Read the book, *The Snail and the Whale*, to your students**
- Distribute Student Clothing and Supply List
- Contact the Ocean Institute with any last minute questions or changes

24 hours to go!!!...

- Prepare nametags for students and adults

When you arrive for your Marine Mammal Lab program...

- Unload the bus in front of the Ocean Institute
- Check in at the Student Services building with a final head count and all Risk and Waiver forms
- If necessary, students may use the restroom facilities that are located within the teaching complex. Please do so quietly so as not to disturb other programs. Return to the front of the Student Services building to wait for our staff.

B. DESCRIPTION OF PROGRAM

Marine Mammal Lab

Students will be divided into groups and rotate through three stations. Per teacher request, stations can be shortened to add an optional fourth station at our discovery pool to gently observe and touch animals.

- **What Do Whales Eat?**

Students use microscopes to examine plankton and krill, learning about the feeding habits and adaptations of some of our local whales, including observing and touching baleen. Students learn about ocean food chains, and identify different species of plankton under the microscope.

- **Marine Mammal Artifacts**

Students examine flipper bones from a humpback whale and a California sea lion and compare them to the bones in our own hands. Students match up the different bones to diagrams and determine whether the whale and the sea lion were adults, based on size and development.

- **Sounds in the Sea**

Students learn about echolocation and examine a bottlenose dolphin skull and listen to sound recordings of various marine mammal species off our coast. Students then use hydrophones and tuning forks to create and listen to sounds underwater.

- **Discovery Pool (optional fourth station)**

Students determine whether a snail would really travel around on the back of a whale and examine some of the characteristics of sea snails and barnacles, which actually would be whale companions! Students observe and gently touch organisms in our Discovery Pool.

C. LINKS TO CALIFORNIA CONTENT STANDARDS

Grade Two

Science Standards

Physical Sciences

1.g. Students know sound is made by vibrating objects and can be described by its pitch and volume.

Investigation and Experimentation

4.a. Make predictions based on observed patterns and not random guessing.

4.c. Compare and sort common objects according to two or more physical attributes (e.g., color, shape, texture, size, weight).

4.f. Use magnifiers or microscopes to observe and draw descriptions of small objects or small features of objects.

4.g. Follow oral instructions for a scientific investigation.

English-Language Arts Standards

Reading Comprehension

Comprehension and Analysis of Grade-Level-Appropriate Text

2.4. Ask clarifying questions about essential textual elements of exposition (e.g., *why, what if, how*).

2.5. Restate facts and details in the text to clarify and organize ideas.

Grade Three

Science Standards

Physical Sciences

1.a. Students know energy comes from the Sun to Earth in the form of light.

1.b. Students know sources of stored energy take many forms, such as food, fuel, and batteries.

1.d. Students know energy can be carried from one place to another by waves, such as water waves and sound waves, by electric current, and by moving gas.

Life Sciences

3.b. Students know examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.

Investigation and Experimentation

5.e. Collect data in an investigation and analyze those data to develop a logical conclusion.

English-Language Arts Standards

Reading Comprehension

Comprehension and Analysis of Grade-Level-Appropriate Text

2.2. Ask questions and support answers by connecting prior knowledge with literal information found in, and inferred from, the text.

2.6. Extract appropriate and significant information from the text, including problems and solutions.

Literary Response and Analysis

Narrative Analysis of Grade-Level-Appropriate Text

3.4. Determine the underlying theme or author's message in fiction and nonfiction text.

D. ADMINISTRATIVE PREPARATION FOR PROGRAM

ADMINISTRATIVE CONTACT

For questions regarding the *Marine Mammal Lab* program, please contact:

Linda Blanchard, Director of Lab Programs and Volunteers
Telephone Number: (949) 496-2274, extension 314
E-mail: lblanchard@ocean-institute.org

For questions regarding scheduling, please contact:

Alexis Honens, Program Reservation Coordinator
Telephone Number: (949) 496-2274, extension 610
E-mail: ahonens@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 THE 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 student behaviors with the students before you arrive. Read the book, *The Snail and the Whale*, 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 parent chaperones. 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 chaperone.
- Have a signed Acknowledgement of Risk and Waiver for each student and chaperone before boarding the bus.
- Notify the Ocean Institute staff of students with any special health or behavioral considerations.
- Send program payment to the Ocean Institute at least 10 days before the scheduled date of your field trip.

TEACHER INFORMATION: DURING THE PROGRAM

Ocean Institute instructors are all well trained to work with students of different ages and abilities. Both you and the adult chaperones can help the instructors 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 parent chaperones to manage students during the program.
- Work cooperatively with Ocean Institute instructors and your parent chaperones to solve student and chaperone management problems.

- Report any problems (including facilities and management) to the Ocean Institute staff as soon as possible.
- Spend a few minutes completing a program evaluation at the end of the program.

CHAPERONE INTRODUCTION AND INFORMATION

Adult chaperones play a significant role in safety and the educational quality of the program. We request that you bring no more than 2 adults per 12 students. We ask your chaperones to help us in the following ways:

- Work cooperatively with Ocean Institute instructors and classroom teacher to enforce all safety rules.
- Work cooperatively with Ocean Institute instructors and classroom teacher to keep students on task at the stations.
- Guide students to different stations throughout the program.
- Act as a positive role model for the students by exhibiting enthusiasm for learning without answering questions directed at students.
- The rooms are crowded and noisy. Please make sure your chaperones know that the instructors need a certain amount of teaching space in order to distribute materials to students and effectively teach. Please ask your chaperones to turn off their cell phones and to not carry on conversations with each other that add additional noise.

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 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. **We cannot guarantee that changes in numbers of students or adults can be accommodated if requested within two weeks of your program date.**

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 15 minutes before your scheduled program start time. If you arrive late, your program time will be shortened.

Buses can unload in front of the Student Services building. After the students have unloaded, the drivers will be notified of where to park the buses and must retrieve an Ocean Institute Bus Parking Permit.

STUDENT BEHAVIORAL EXPECTATIONS

Please take time to discuss the academic nature of their field experience with your students before arriving at the Ocean Institute. While at the Ocean Institute, we expect your students to follow the same behavioral rules you have in your classroom.

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. **Please make sure that the students are familiar with the book, *The Snail and the Whale*.**

FORM FOR THE MARINE MAMMAL LAB PROGRAM

Please make sure to have all the completed forms with you upon arrival for your program.

Acknowledgement of Risk and Waiver

Each participant must have this form signed by a parent or guardian to participate in the *Marine Mammal Lab* program. Please make sure that you have one signed form for each student and adult chaperone when you check in with the Ocean Institute staff in the Student Services building. This form is available under 'Required Forms' on the program web page.

STUDENT CLOTHING AND SUPPLY LIST

For safety reasons, students participating in the *Marine Mammal Lab* program need to have and/or wear the following clothing. The weather is often cooler at the Ocean Institute than it is inland, so make sure your students are prepared.

- Jacket
- Rubber-soled, closed-toe shoes

Optional Items:

- Money for the gift and book store

LAURENA G. CHAMBERS GALLERY BOOK AND GIFT STORE

Chambers Gallery Book and Gift Store is a fun and unique non-profit museum store open daily from 9:00 AM to 5:00 PM and definitely worth the visit. The revenue is directed toward lowering tuition for schools that participate in Ocean Institute programs.

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 and we encourage you to organize them so that they all have time to enjoy the shop. Please have one or two adults in the store to help supervise your students. We ask that all food, drink, and backpacks be left outside while they are shopping. Teachers receive a 15% discount in the shop if members of the Teachers Club and 10% normally.

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

In order to ensure a positive experience, we recommend the following:

1. Plan sufficient time before or after your program to shop.
2. All purchases should be stowed safely away and out of sight for the program.
3. Please allow only 10-12 students in *Chambers Gallery* Book and Gift Store at a time. Remaining students should remain outside in a manner that does not interfere with traffic in and out of the building.

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 Pacific Coast Highway
- 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 Pacific Coast Highway
- Turn left onto Dana Point Harbor Drive
- The road ends in the Ocean Institute parking lot

E. BACKGROUND INFORMATION ON THE BOOK

The Snail and the Whale, written by Julia Donaldson and illustrated by Alex Scheffler

A tiny snail longs to travel to far away lands, and climbs onto the tail of a passing humpback whale. The two of them journey through many parts of the sea, and as they approach a busy beach, the whale is confused and frightened by the sounds of boat engines and jet skis. The whale soon becomes beached, and the tiny snail goes to get help! The townspeople spray the whale with water until the tide comes back in, and the snail and whale swim back into the sea.

About the Author:

Julia Donaldson is the award-winning author of several children's books. She has also written children's plays and songs and runs regular storytelling workshops. Ms. Donaldson lives in Glasgow, Scotland.