



Marine Science Camp 2019

Parent Handbook

In this Parent Handbook, you will find:

- Introduction and What to Bring
- Drop-off and Pick-up Procedures
- Pick-up list, Carpooling and Extended Care information
- Staff, First Aid Protocol and Discipline Protocol information
- Plankton Pioneer (K-1st grade) Daily themes and follow up questions
- Ocean Explorer (2nd – 5th grade) Daily themes, field trips, and follow up questions
- Wetland Explorer (2nd – 5th grade) Daily themes, field trips, and follow up questions
- Naturalists (returning campers 4th-5th grade) Daily themes, field trips, and follow up questions
- Underwater Investigator (6th – 8th grade) Daily themes and packing list
- Connect with Marine Science Camp: Pictures/Social Media and Open House

The Weekly Schedule will be e-mailed to you two weeks prior to your camp start date, and again one week prior to your camp start date.

Welcome to Marine Science Camp 2019!

We are looking forward to a fun and exciting summer. The following information is very important. Please read over carefully and let me know if you have any questions.

Campers will be divided into groups by grade and buddy requests (maximum 16 campers per group) and each group will be led by an instructor, counselor and volunteer. These staff and volunteers will be with your camper for every part of their experience, and are dedicated to facilitating a safe, interactive, imaginative and cooperative environment for your child to enjoy learning about marine animals and the world's ocean habitats.

Camp runs Monday-Friday (no camp 4th of July) and hours are from 8:30 am to 1:00 pm for Plankton Pioneers, and 8:30 am to 3:00 pm for Wetland Explorers, Ocean Explorers, Naturalists and Underwater Investigators.

DROP-OFF:

Drop off begins at 8:00 am; we do not offer pre-camp care. On field trip days and boat days, it is especially important to be at camp on time (by 8:30 am). The busses and boat depart at 9:00am and are on a tight schedule to make sure that all of the campers get the most out of their experiences. See Drop-off / Pick-up Procedure on following page.

PICK-UP:

The camp pick-up window extends for 30 minutes after the camp. Plankton Pioneer pick-up window is 1:00-1:30 pm and the pick-up window for all other camps is 3:00-3:30 pm. If your child is not picked up within the window then they are automatically added to Extended Care. Extended Care is available until 5:30pm. See Drop-off / Pick-up Procedure and Extended Care information on following pages.

WHAT TO BRING TO CAMP EVERY DAY:

Backpack
Reusable Water Bottle
Trash Free Lunch*
Sunscreen
A Hat
Light Jacket or Sweatshirt

Close-toed shoes

Medication/ Inhalers/ Epi-pens with instructions (if needed)

Please make sure that your camper wears **clothes and shoes that can get dirty!**

***TRASH-FREE LUNCH:**

Each day your child should bring a **lunch and drink** in a reusable lunchbox with their name on it. We encourage no trash lunches with reusable or recyclable/compostable containers (tupperware, foil or paper napkins rather than plastic wrap). A nut-free snack will be provided for them mid-morning.

DROP-OFF / PICK-UP PROCEDURE:

The drop-off window for all camps is 8:00-8:30 am. The pick-up window for Plankton Pioneers is 1:00-1:30 pm and the pick-up window for all other camps is 3:00-3:30 pm. **Please do not park in any of the neighboring lots, these do not belong to us and you may be ticketed.** We use a drive-through system for drop-off and pick-up. This method has been proven to be most efficient and *safe* for campers to enter and leave our facility.

Drop-off:

1. **Check in your camper.** When you arrive between **8:00 and 8:30 am**, a staff member will greet you at the turn-around. Pull around as far as possible.
2. **Ring-around the circle.** Keep those seatbelts on as you proceed all the way around the circle of traffic cones, or you can ask to park and a staff member will guide you to a space.
3. **Unload!** Pull as far forward as possible. A volunteer will assist in unloading when you are in a safe spot. *We do not want campers walking across the lot.*

For safety, please drive slowly and heed the instructions of our staff as they guide traffic.

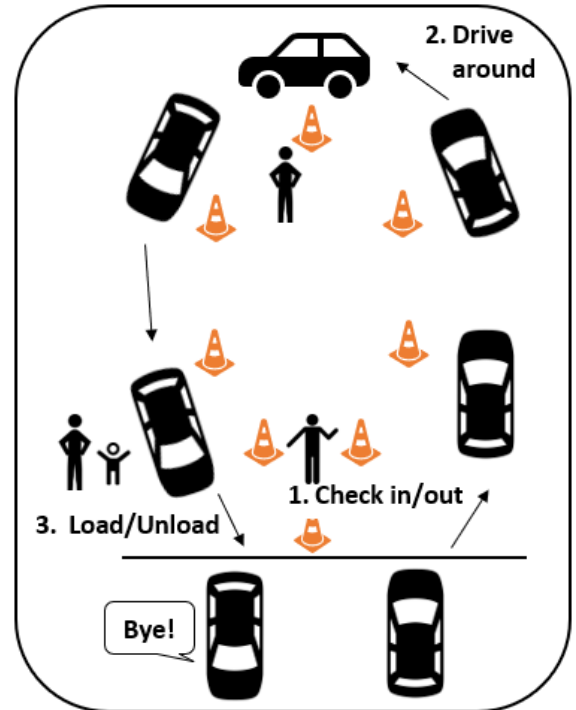
Pick-up:

1. **Check your camper out.** Starting at 1:00 pm for Plankton Pioneers, or 3:00 pm for other camps, staff members will check your camper(s) out. Staff will check that you are on the Pick-up list, and we will call your camper out as you pull around.
2. **Ring-around the circle.** Pull around the circle as far as possible, or you may ask to be directed to a parking spot.
3. **Load up!** As you pull around, your camper will be brought out to meet you. You may ask for assistance with car seats. Don't forget to buckle up!

For safety, please drive slowly and heed the instructions of our staff as they guide traffic.

Please note:

- **Please drive slowly** as you leave the lot; be aware of children, MSI staff, and our neighbors.
- If there is a line pull as far to the right as possible to allow busses returning from field trips, as well as people going to neighboring businesses, to pass.
- **Ensure that your child(ren)'s pick up list is complete and accurate. MSI will not release a camper to a person who is not on their authorized adult pick-up list.**



Thank you for your patience during this process. Expect a short wait when you arrive at MSI in the morning and afternoon. We will do our best to make the process as efficient as possible.

PICK UP LIST:

Your child must be checked out by a camp staff member at the end of every day. **Make sure everyone (including yourself) is on the list of people allowed to check out your camper!** We cannot release your camper to anyone not on this list, so please go online and add any names (including yourself) to your pick up list. Making sure that all names are on this list will make the pick-up process safe and efficient.

CARPOOLING:

If you requested to be a part of carpooling during registration, a list of contacts will be shared in an email prior to camp. It is up to you to contact other parents about carpooling. **Be sure to add these parents to your child's pick-up list and make sure that all drivers have the contact information for each child's parent or guardian.**

EXTENDED CARE:

During extended care campers are given a nut-free snack. They participate in arts and crafts, games, aquarium feedings, fishing, and many other fun activities the Instructors have planned. This care is available after camp **until 5:30 pm**. Campers here after the designated pick-up time are automatically part of Extended Care.

If you know in advance that your camper will be here for Extended Care, you can specify this during drop off time. **The cost for Extended Care is \$15.00 per hour or \$7.50 per 30 minutes** and covers cost of all materials and snacks. If you did not purchase Extended Care at the time of registration, **payment for Extended Care will be collected at the end of each day**. We accept cash or checks made out to Marine Science Institute with "Extended Care" in the memo line. **Prepayment for Extended Care is non-refundable or adjustable.**

CANCELLATION POLICY AND REFUND POLICY:

Marine Science Camp runs at full capacity. The \$100 deposit + processing fees are non-refundable. Tuition minus the deposit is refundable for cancellations made two weeks prior to your camp's start date.

ABSENCES

If you are running late to camp or if your child will be absent please inform the office as soon as possible by dialing **650-364-2760 x9** to reach any office staff member. The Marine Camp Manager is preparing the site in the mornings and will not be at her desk to answer calls or e-mails. The ship and field trip buses leave promptly at 9:00 am and cannot be held. There are no make-up days for missed camp days.

STAFF:

Marine Science Camp is proud to have a well-educated, passionate and fun team of instructors, counselors and volunteers each summer. The foundation of this team of educators and leaders is not only their knowledge of marine science, but also their ability to inspire campers. They spark an appreciation for marine science and local habitats while promoting friendship, teamwork, and curiosity.

Our qualified team of highly motivated instructors, counselors and volunteers are outside with the campers every day. Instructors and counselors facilitate hands-on learning and teambuilding in a safe and fun environment. **They are CPR and First Aid certified, background checked and fingerprinted by the Department of Justice, and undergo an extensive two week training period prior to camp.**

- **Instructors:** Instructors have a minimum of a bachelor's degree in fields varying from biology and marine science to education and environmental studies or other similar fields, or they have commensurate experience with MSI programs. Most teach with MSI throughout the year; they are dedicated, experienced and have taught a variety of programs to grades from pre-kindergarten through college. Instructors at Marine Science Camp lead camper learning, supervise campers and are primarily in charge of safety. They are the crew of our 90 foot research vessel and undergo extensive training and regular safety drills to comply with Coast Guard safety standards. Many have field research experience and relate it to topics learned at camp. Our fantastic instructors are role models who inspire and share their passion for marine science with campers of all ages.
- **Counselors:** Counselors are in college or have already received their degrees. They work closely with the instructors helping with activities, assist in overall supervision and aid in providing an understanding of marine topics. Many of our counselors are pursuing degrees in the sciences and are interested in marine science or education as a career.

The instructors and counselors work in pairs to lead each group of campers (**maximum of 16 campers per 2 MSI staff**), and each small group can have 1-3 volunteers. The **"Rule of Three"** is required at Marine Science Camp at all times: this states that there are a minimum of three individuals present at all times for a camper. This policy includes two staff and one camper or one staff and two campers. In extreme cases such as an emergency bathroom run, injury or other outstanding situation in which two additional people with a camper is not possible, a visual or auditory connection to others is absolutely mandatory.

FIRST AID:

All Marine Science Camp staff hold a current First Aid and CPR certification. First aid will be administered only by trained adults or camp instructors or counselors. **Staff are not permitted to provide nor administer any degree of medication to campers, including Neosporin, isopropyl alcohol, Benadryl, or over-the-counter anti-inflammatory medication.** Any medicine needed by campers must be provided by the parent. Staff can remind campers to take medication if needed, but are not legally permitted to administer it. With cuts, scrapes and removed splinters, only soap and water may be used.

Camp staff are aware of all allergies and medications within their camper group (staff receive a written report of their group's health and learning needs prior to the camp start on Monday morning). Medications for life-threatening conditions are carried by campers, and staff are aware of the medication whereabouts at all times; these may include inhalers, bee sting medication, EpiPens, etc. In regard to allergies to nuts, Marine Science

Institute is not a nut-free facility but there are various nut-free tables and zones next to the general snack and lunch area.

All staff carry a miniature first aid kit carrying essentials in their backpacks at all times. Additional full-size first aid kits are brought on field trips. First aid kits are in each building at Marine Science Institute, and the office has first aid supplies for resupply. A record of first aid care is documented in the Marine Camp Manager's office. A completed "Ouch Report" detailing the injury, first aid given and by whom is given to the camper to take home so parents are aware of the injury.

Aside from first aid situations, camp staff are not permitted to directly touch the campers in any way other than high-5s, fist bumps, or a side hug only initiated by the camper. MSI provides sunscreen for campers who do not bring their own, and can assist with application **indirectly**. Staff cannot directly touch a camper's face or any other part of their body at any time, including during sunscreen application. Should a camper need help applying sunscreen, staff can place sunscreen in the camper's hands and guide the camper's hands over their face or shoulders, therefore the camper is rubbing their own face or shoulders with the sunscreen.

DISCIPLINE AND SAFETY:

We want everyone to have a fun, positive and safe experience at Marine Science Camp. The Marine Camp Manager and our instructional staff strive to create a supportive learning climate while paying close attention to the behavioral needs of all campers. All of our instructional staff are experienced educators, many of which teach at MSI or at a school throughout the non-summer camp months.

At the beginning of the week each group will create a "community agreement" (essentially the camp rules), which will remain posted throughout the week. Should disciplinary issues arise staff will implement the following discipline protocol: 1) give the camper a verbal reminder of the agreement, 2) implement a warning system, then 3) visit with the "Principal" (Marine Camp Manager). If further disciplinary action is required, we may request a conversation with a camper's parent or guardian. Unresolved disciplinary issues and acts of violence may result in expulsion. If you have suggestions or feedback about your child's specific needs, please inform the Marine Camp Manager as soon as possible to ensure that the instructors are adequately prepared to accommodate all types of learning. Please prepare your child to participate in a friendly, positive and collaborative setting with a diverse group of campers.

Guidelines we encourage campers to come up for the community agreement include but are not limited to:

- Walk at all times (unless playing games on the lawn)
- Stay with the group
- Respect others, both space and property
- Keep your hands to yourself (high-5s and fist bumps are okay)
- Practice active listening
- No put downs
- Keep feet dry (no going into the water at all!)
- Stay off railings, posts or tables
- If you see something, say something
- Do not throw rocks, shells or sand
- Have fun!

PLANKTON PIONEERS (grades K-1):
Daily Themes and Activities

Every day at MSI will be full of fun, hands-on activities that introduce a different theme. Each day includes games, stories, songs, crafts and live animals that will make marine science come alive. **The daily rotation of themes varies from week to week, and your camper may not experience them in the order listed below.** A weekly schedule will be sent prior to your child's camp start date.

DAY A at MSI: "Pacific Party"

Campers are introduced to animals that live in the nearby Pacific Ocean. As they hold live animals, they will learn what these creatures do to survive in their habitats.

Topics to discuss at the end of the day: What animals did you touch today? What *adaptations* or special things help those animals live? What is a *habitat*?

Plankton Pioneers daily schedule on site

8:00 – 8:30	Drop-off
8:30 – 8:45	Free-time and group games
8:45 – 9:00	Good Morning Gathering
9:00 – 9:30	Small group time
9:30 – 9:45	Snack
9:45 – 10:30	Station 1
10:30 – 11:15	Station 2
11:15 – 11:45	Lunch
11:45 – 12:30	Station 3
12:30 – 12:45	Small group wrap up
12:45 – 1:00	Camp Closing
1:00 – 1:30	Pick-up

DAY B at MSI: "Outstanding Ocean"

We journey across the sea as we study amazing creatures that live in the open ocean including sharks and marine mammals. Campers will also explore the base of the ocean food web as they capture and identify plankton!

Topics to discuss: What animals did you touch today? What is a *mammal*? How are sharks different from bony fish? What is *plankton*?

DAY C at MSI: "Bay Bonanza"

Time to take a look at a nearby habitat! Marshes and mudflats are important parts of the Bay. This habitat and the animals that call it home are quite different from what we find along the coast!

Topics to discuss: What animals did you touch today? Where do they live? What is an *invertebrate*? How are Bay animals different from Ocean animals?

DAY D at MSI: "Super Scientists"

Campers take a look at creatures and features of other habitats including the deep sea and the channel and docks right in front of MSI! Campers will even work together as a group to fish using a giant seine net

Topics to discuss: What are some features of different *habitats* we have seen this week? What is life like in the deep sea? How did we catch animals today?

Day E aboard **Discovery Voyage**: Campers will spend one day aboard the R/V *Robert G. Brownlee* (between the San Mateo and Dumbarton Bridges). The ship boards at the beginning of camp **and departs promptly at 9:00 am**. During this exciting trip campers will catch fish, collect mud and look at plankton under a microscope. They will have an opportunity to use scientific equipment and to touch live animals.

Topics to discuss at the end of the day: What animals did you catch? How does plankton move through the water? What lives in the mud? Why is the Bay a special *habitat*?

OCEAN EXPLORERS (grades 2-5): Daily Themes and Activities

Every Explorer camp includes 2 days at MSI, 1 day on our ship and 2 field trips. **The days of these trips and themes may vary from week to week, and your camper may not experience them in the order listed below.** A weekly schedule will be sent prior to your child's camp start date.

DAY A at MSI: **"Big Blue"**

There are many different habitats within the world's ocean, from coastal habitats to deep sea, and even similar animals have different *adaptations* to help them to survive different conditions. Learn how these habitats are connected through the study of oceanography.
Topics to discuss: What animals did you touch today? How does their habitat influence their adaptations? How are these habitats connected (what are *currents* and *gyres*)?

DAY B at MSI: **"Coastal Concepts"**

Journey along the Pacific coast to learn about some amazing animals and habitats. Explore how these habitats may be near one another but are wildly different.
Topics to discuss: What animals did you touch today? How does their habitat influence their adaptations? How can humans impact these habitats and animals?

Ocean Explorers daily schedule on site

8:00 – 8:30	Drop-off
8:30 – 8:45	Free-time and group games
8:45 – 9:00	Good Morning Gathering
9:00 – 9:35	Teambuilding
9:35 – 10:15	Station 1
10:15 – 10:30	Snack
10:30 – 11:10	Station 2
11:10 – 11:50	Station 3
11:50 – 12:30	Lunch
12:30 – 1:10	Station 4
1:10 – 1:50	Station 5
1:50 – 2:30	Station 6
2:30 – 2:45	Small group wrap up
2:45 – 3:00	Camp Closing
3:00 – 3:30	Pick-up

Day C aboard **Discovery Voyage**

Aboard the R/V *Robert G. Brownlee* campers will spend the day on the water (between the San Mateo and Dumbarton Bridges), using equipment to collect specimen and samples to study the Bay.

Topics to discuss: What animals did you catch? How does plankton move through the water? What lives in the mud? Why is the Bay a special *habitat*?

Day D Field Trip: **Bean Hollow State Beach, Pescadero**

Campers will explore Pebble Beach and tide pools at Bean Hollow. They will learn to find and identify animals and identify relationships between the living members of that community and their environment.

Topics to discuss: What animals did you find? How does their environment affect them? What would that area look like at a higher tide?

Day E Field Trip: **Francis Beach, Half Moon Bay**

Campers will learn about beach and dune habitats, study wildlife in the area, and work with Park rangers on an ongoing habitat restoration project. Wear long pants! - We will be along the coast, in beach dunes, and walking through plants that may house ticks.

Topics to discuss: What animals did you see today? What did you do as an *environmental steward* for this habitat? Compare this site to a different beach or to the beach at MSI.

Field trips: Campers will be brought to and from the field trip sites by school bus (provided by CYO Transportation). While on their field trips they will be supervised by a staff member at all times. Staff carry spare water, snacks and first aid kits, but it is important that campers bring a reusable water bottle, layers and a lunch. Campers must arrive on time in the morning to get on the bus and to their field trip! We will prepare for each trip and board the busses and boat at the start of camp and they will **depart promptly at 9:00 am.**

WETLAND EXPLORERS (grades 2-5):
Daily Themes and Activities

Every Explorer camp includes 2 days at MSI, 1 day on our ship and 2 field trips. **The days of these trips and themes may vary from week to week, and your camper may not experience them in the order listed below.** Campers work together to go fishing on their first day using a seine net! A weekly schedule will be sent prior to your child's camp start date.

DAY A at MSI: "Marsh Madness"

Campers are introduced to the habitats in our Bay and see how close we are to some amazing creatures and their homes. Learn about the importance of the Bay as a part of the watershed.

Topics to discuss: What animals did you touch today? What *adaptations* did they have? What is a *habitat*? How are Bay animals different from Ocean animals?

DAY B at MSI: "Shoreline Science"

Study more Bay animals and explore the adaptations that help these animals survive in this nearby habitat. They will also explore the functions of a wetland and how they help humans.

Topics to discuss: Why are *wetlands* important? What animals did you study today? What did you use to catch fish? To catch invertebrates? How are we connected to these animals and habitats?

Wetland Explorers daily schedule on site

8:00 – 8:30	Drop-off
8:30 – 8:45	Free-time and group games
8:45 – 9:00	Good Morning Gathering
9:00 – 9:35	Teambuilding
9:35 – 10:15	Station 1
10:15 – 10:30	Snack
10:30 – 11:10	Station 2
11:10 – 11:50	Station 3
11:50 – 12:30	Lunch
12:30 – 1:10	Station 4
1:10 – 1:50	Station 5
1:50 – 2:30	Station 6
2:30 – 2:45	Small group wrap up
2:45 – 3:00	Camp Closing
3:00 – 3:30	Pick-up

Day C aboard *Discovery Voyage*

Aboard the R/V *Robert G. Brownlee* campers will spend the day on the water (between the San Mateo and Dumbarton Bridges), using equipment to collect specimen and measuring samples to study the Bay.

Topics to discuss: What animals did you catch? How does plankton move through the water? What lives in the mud? Why is the Bay a special *habitat*?

Day D Field Trip: San Francisco Maritime National Historical Park, San Francisco

Campers will learn how the San Francisco Bay became one of the world's greatest seaports and a center of American settlement. They will examine non-native invertebrates transported by ships and compare the sessile invertebrates to those at MSI.

Topics to discuss: How has shipping influenced the animal species in the Bay? What kinds of invertebrates did you find? How did these compare to invertebrates found on the docks at MSI?

Day E Field Trip: Martin Luther King Jr. Regional Shoreline, Oakland (Garretson Point Staging Area)

Campers will learn how to do science in the field and explore the interesting waterways and marshes along the shoreline. This trip features a special program hosted by the Save The Bay native plant nursery.

Topics to discuss: What kinds of plants did you transplant? Why do you think marshes are special or important?

Field trips: Campers will be brought to and from the field trip sites by school bus (provided by CYO Transportation). While on their field trips they will be supervised by a staff member at all times. Staff carry spare water, snacks and first aid kits, but it is important that campers bring a reusable water bottle, layers and a lunch. Campers must arrive on time in the morning to get on the bus and to their field trip! We will prepare for each trip and board the busses and boat at the start of camp and they will **depart promptly at 9:00 am.**

NATURALISTS (returning campers grades 4-5):
Daily Themes and Activities

The Naturalist camp includes 2 days at MSI, 1 day on our ship and 2 field trips. **The days of these trips and themes may vary from week to week, and your camper may not experience them in the order listed below.** A weekly schedule will be sent prior to your child's camp start date.

DAY A at MSI: "Form and Function"

Examine the direct relationship between the structure (or form) of an organism and the way it functions. Explore how organisms have evolved these well-adapted structures over time through natural selection.

Topics to discuss: What is *morphology*? How are *form* and *function* related? What are some *adaptations* we looked at today?

DAY B at MSI: "Inspiration from Nature"

Examine adaptations of animals and explore how these forms and functions can inspire humans to have a more sustainable and efficient lifestyle in a process called *biomimicry* ("*bio*"=life, and "*mimic*"=to imitate). Biomimicry is a way of learning from nature in action and using that knowledge to inspire new ideas.

Topics to discuss: What is *biomimicry*? How have humans been inspired by nature? What adaptations can be used as inspiration for our Friday project aboard the R/V *Robert G. Brownlee*?

Naturalists daily schedule on site

8:00 – 8:30	Drop-off
8:30 – 8:45	Free-time and group games
8:45 – 9:00	Good Morning Gathering
9:00 – 9:35	Teambuilding
9:35 – 10:15	Station 1
10:15 – 10:30	Snack
10:30 – 11:10	Station 2
11:10 – 11:50	Station 3
11:50 – 12:30	Lunch
12:30 – 1:10	Station 4
1:10 – 1:50	Station 5
1:50 – 2:30	Station 6
2:30 – 2:45	Small group wrap up
2:45 – 3:00	Camp Closing
3:00 – 3:30	Pick-up

Day C aboard **Discovery Voyage:** Aboard the R/V *Robert G. Brownlee* Campers will spend the day on the water (between the San Mateo and Dumbarton Bridges), using equipment to collect specimen and measuring samples to study the Bay.

Topics to discuss: What animals did you catch? How does plankton move through the water? What lives in the mud? Why is the Bay a special *habitat*?

Day D Field Trip: San Francisco Maritime National Historical Park, San Francisco

Campers will explore the docks and compare the sessile invertebrates to those found at the MSI docks. They will investigate the beach habitat during an in-depth sandy beach activity.

Topics to discuss: What kinds of invertebrates did you find? How did these compare to invertebrates found on the docks at MSI? What are some adaptations of organisms found in the sandy beach habitat?

Day E Field Trip: Pillar Point, Half Moon Bay

Campers will explore the beach and tide pools at Pillar Point. They will locate, identify and examine rocky intertidal organisms and beach birds.

Topics to discuss: What animals did you find? How does their environment affect them? What would that area look like at a higher tide? A lower tide?

Field trips: Campers will be brought to and from the field trip sites by school bus (provided by CYO Transportation). While on their field trips they will be supervised by a staff member at all times. Staff carry spare water, snacks and first aid kits, but it is important that campers bring a reusable water bottle, layers and a lunch. Campers must arrive on time in the morning to get on the bus and to their field trip! We will prepare for each trip and board the busses and boat at the start of camp and they will **depart promptly at 9:00 am.**

UNDERWATER INVESTIGATORS (grades 6-8):
Daily Themes and Activities

The Underwater Investigators have an exciting week to look forward to! The 2019 theme is **Biomimicry**. Biomimicry (“*bio*”=life, and “*mimic*”=to imitate) is a way of learning from nature in action and using that knowledge to inspire new ideas. Through the course of their camp week, campers will learn how engineers often imitate nature in the design of innovative new products and solutions to human problems. Campers will spend 2 days at MSI, 1 day canoeing through the local slough, and 2 days on board the ship during an exciting overnight voyage where they will explore the flora and fauna of the Bay. On Friday, campers will use biomimicry to design a self-sustaining research vessel inspired by adaptations investigated during the week.

Monday at MSI: Adaptations

Campers will explore animal adaptations, paying special attention to structure and function, and gather information to apply to a project. Begin exploring the connection between biology and engineering, and how humans can mimic nature’s functions and efficiency as we design our own solutions to problems.

Topics to discuss: What are some adaptations we learned about today? Can any of these functions inspire new ideas to help humans?

Tuesday/Wednesday at MSI: Canoes in Sloughs/Biomimicry

For two days, the groups will be divided: one group on site, and one group exploring sloughs in canoes.

Canoes in Sloughs: Rowing together through the sloughs near MSI, campers will examine organisms and test the water, learning more about their study site and discussing conservation issues surrounding the wetland.

Topics to discuss: How well did you row with your canoe group? What animals did you see?

Biomimicry: Today we will continue our investigation of adaptations, and we will gather information in a series of design challenges to apply it to a project.

Topics to discuss: Why is nature a good resource for inspiration to solve problems? What lessons have humans applied from nature’s solutions? What animals have we learned from?

Thursday/Friday aboard Discovery Voyage: Overnight Adventure

On Thursday our campers set sail aboard the R/V *Robert G. Brownlee*. They will continue their in-depth investigation of marine life form and function, and dive into the biomimicry process. Field Trip location and activities will take place at **Angel Island State Park**. They will board the ship for the night* after a fun group BBQ and games. On the voyage home they study fish, plankton and mud samples and present their biomimicry projects. *Campers will sleep on the ship, which will be docked at **Marina Bay Yacht Harbor**.

Meals provided: snack every day, dinner and dessert Thursday, breakfast and lunch Friday.

What to bring on the overnight:

Lunch for Thursday
Sleeping bag
Sleeping mat or pad
Pillow
Reusable water bottle
Warm sweater and/ or jacket
Change of clothes
Comfortable CLOSED-TOES SHOES (no sandals or flip flops!)
Jacket for the evening

Clothes to sleep in
Hat
Sunscreen
Medications (We cannot provide ANY type of oral medication, including Dramamine or Ibuprofen)
Toiletries
Camera, if desired
******iPods and electronic games are not permitted!** Please leave these at home

GET INVOLVED:

There are a couple ways that you can enjoy photographs of your child at camp and share in some of their experiences:

- **Facebook:** MSI has a Facebook page! Visit our page for updates during camp and throughout the year: <https://www.facebook.com/marinescienceinstitute>
- **SmugMug:** This is a secure website that allows us to share full size photographs with you. After camp we will send you a link and password to access and download these photos from the site.
- **Open House:** At the end of the week we will open our facility to families explore and check out what their campers did all week! (See below for more information)

OPEN HOUSE:

Marine Science Institute staff likes to celebrate each week of camp with an Open House. Join your child on Friday of your camp week from **1:00-2:00 pm (Plankton Pioneers)**, or **3:00-4:00 pm (all other camps)**. Your camper will lead you on a tour through our facilities, introduce you to the animals they have learned about during the week, share their exciting new knowledge, and assist you in touching animals. This is a great time for campers to share their experiences with their families!

Parking for Open House will begin at 1:00 pm (Plankton Pioneers) or 3:00 pm (all other camps). When you pull into the parking lot let a staff member know you are here for Open House and they will direct you to a parking spot. If you do not wish to stay, you will be instructed to drive through the pick-up circle as usual. After your car is parked, join us in our Marine Science Center to locate your camper.

Thank you for reviewing this information. Feel free to get in touch with me with any other questions or concerns you may have! Your child's day-to-day camp schedule will be e-mailed to you two weeks prior to their camp start date, and again one week prior to their camp start date. Please let me know if there is any day your child cannot attend Marine Science Camp. I look forward to meeting all of you soon!

Thank you,
Alexandra Lee
Marine Camp Manager
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