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Prior to arrival*

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HELPFUL SUGGESTIONS FOR THE GROUP LEADER

We are excited that you are bringing your students to Catalina Island! This will be a trip that the students will remember for the rest of their lives. We will do our best to make your trip an exceptional experience. We would like to offer a few reminders to help make your trip successful.

Medical Forms:

Please check the completed medical forms for any medical conditions that may present a problem on your trip. Notify our Program Coordinator (during our telephone contact) two weeks prior to your groups arrival of any food allergies or medical conditions that may be of concern. Please be sure that all asthmatics bring their prescribed inhalers with them to camp.

We will collect the medical forms upon arrival. The forms will be available to you in our first aid room. We are required to keep the CIMI medical forms on file. Please make copies if you are using the same forms for your transportation purposes.

Co-educational Groups

We require at least one male and one female chaperone to provide safe and adequate supervision in the tent sites.

Chaperones

Chaperones should be chosen very carefully to help you with the supervision and participation duties. Students are directly motivated by the chaperones. Be sure that your chaperones know what is expected of them in regards to participation, supervision and communal living. You will want to assign chaperones to monitor free-time activities. We may ask you to limit your chaperones to a ratio of one chaperone to every 15 students (this would only happen to avoid housing problems).

Program Schedule

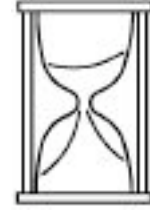
Our Assistant Program Director will phone about two to three weeks prior to arrival for final student and chaperone count. We will discuss your daily schedule, the number of research groups, cabin assignments and other pertinent details for your trip.

General reminders

Drugs or alcohol are not allowed in camp. Students are not allowed to smoke. Chaperones that smoke may only do so in designated areas. We suggest not bringing any radios or valuables.

We appreciate your desire to provide your students with a quality program. We will try to accommodate your individual needs in every way in which we are able. Please feel free to call us with any questions you may have.

TIMELINE OF EVENTS



When you receive this packet

- ✓ Send parent information (application/medical form) to all parents.
- ✓ After reading through your syllabus, **return** “Statement of Understanding/Classroom Prep Sheet” and the “Program Planner” from the Teacher’s Syllabus to CIMI at Cherry Cove (stamped envelope enclosed).

2 Weeks prior to departure

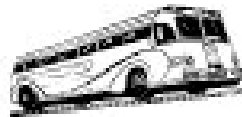
- ✓ Contact CIMI Cherry Cove program office to cover details on telephone contact sheet including the final count of students and chaperones, special dietary requirements, and medical information.
- ✓ Arrange transportation to the Long Beach boat terminal. Call the business office if you need assistance with arrangements.

1 Week prior to departure – final checklist of organizational details

- ✓ Prepare all chaperones and assign their duties. Copy and hand out pages for “Chaperone and Student Information” section, along with copies of the chaperone release forms (neon yellow sheet) for each chaperone to sign and bring with them.
- ✓ Divide students into study groups.
- ✓ Assign students to tent sites and dining hall set-up and clean-up for each meal.
- ✓ Collect all completed medical forms from the students; note all medical needs. **Separate forms by research group. Forms are required upon arrival.**
- ✓ Inform students that they must bring a sack lunch.
- ✓ Send home a copy of our “What to Bring List.”
- ✓ Made sure all luggage will be color tagged and named. ***We request you tag your luggage with yarn. Colored surveyors tape tends to rip off and end up all over the field and in the ocean.

Day or Two prior to departure

- ✓ Remind students to bring sack lunch.
- ✓ Draw final payment check (due upon arrival).



PROGRAM PLANNING

STUDY GROUPS

You will need to divide your class(es) into study groups with 15 students per group maximum. Some suggestions on how to divide your groups successfully:

- Mix boys and girls (unisex groups don't seem to work as well).
- Group ESL students together, with a bilingual adult if possible.
- Try to divide groups by athletic ability (snorkeling, hiking, kayaking- strong vs. weak).
- Assign teachers who know the students to those groups with "challenging students" to help keep discipline in check.
- Keep numbers per group consistent (i.e., 18 in one group and 13 in another creates problems). Don't let students switch into other groups – keep a list.



The experiences we offer students often have a profound positive impact on their lives. This is equally true for the hard to reach, difficult students as it is for the average, responsible students. Teachers often bring difficult students with the hope that this experience will help generate some positive feedback.

If you choose to bring students who may present a challenge with respect to their behavior or discipline, we suggest that you place them in the same group as the Head Chaperone, or that of a teacher, so that some disciplinary leverage is present. If you have questions concerning this please feel free to contact us.

Each school's program is centered around the needs of the individuals of that school. There are a wide variety of activities available at CIMI, certainly more than can be accomplished during a three or five-day session. Each teacher must decide on the program sessions that will best meet the needs of their students. Do not try to pull all of the program components into this experience.

Prior to your arrival at Cherry Cove, CIMI's Program Office will discuss the specifics of the activities with you. There are certain programs that are necessary, many that are optional. The shorter the program, the fewer the optional activities that are available.

Each day has two three-hour program sessions and an evening session. The number of program sessions depends on the length of stay:

Three-day programs: 4 day sessions; 2 evening sessions

Five-day programs: 8 day sessions; 4 evening sessions

MEDICAL FORM ORGANIZATION

In an effort to continue to make CIMI at Cherry Cove the safest environment for your students, we are asking schools to organize their medical forms. We would appreciate it if you could please take a few moments to organize your groups and their forms in the following fashion prior to arrival:

1. Groups should be arranged so that the boys and girls are mixed and there is at least one chaperone per each group. Please try to divide the groups so that they all have about the same number of students.
2. Once you have decided the groups, please make a list and separate the students medical forms by group.
3. Once the medical forms are separated, please attach a sheet of paper to each group's medical forms with the following information on the front:

*Please see example
on the reverse side
of this page*

- Name of School
- Group #
- Students' Names
- Adult Leader(s) Names(s) for that group
- List all outstanding medical needs



4. The medical forms, now separated by group and identified with the above information, should all be brought with you to CIMI and given the Program Coordinator of your school during the orientation meeting when you first arrive at camp.

So that we are best able to deal with potential medical problems, each CIMI instructor will review the medical forms for his or her own research group. This system will allow our staff, and yours, to be aware of any potential medical conditions. Thank you for taking the time to go through the forms; let us know if you have any questions.

Please remember that we are required by law to keep these medical forms on file. You should keep your school district forms separate from these for your return trip.

*Please use discretion if you are presented with a student or chaperone arriving on your trip's departure day sick (i.e. fever, flu, or a cold). We understand that your students (and their parents) are looking forward to this trip, but due to its rustic and active program, Cherry Cove is NOT an ideal place to recover (or suffer through) an illness. **DO NOT** bring sick participants. We ask that you consider the affected person's comfort and the health and well being of the remaining students and CIMI staff.*

Examples of Group Medical Form Sheets

(this would be paper clipped to group # 1's med. forms)

Name of School: Happy Day Elementary

Group #: 1

Kids Names:

John Smith	Ross Brindle
Jessica Jones	Heather Lawry
Tom Baldacci	Annie Shaw
Lisa Lenon	Joel Contardi
Hillary Howl	Robby Smith
Mike Brazill	Claire Hew

Adult Leader of Group: Mr. Lawson (John)

Outstanding medicals:

John Smith -- mild epileptic
Claire Hew -- migraines
Heather Lawry -- severe bee sting reaction

Example #2

(this would be paper clipped to Group 4's med. forms)

Name of School: Happy Day Elementary

Group #: 4

Kids Names:

Blake White	Tom Jones
Zack Smith	Henry Lawry
Brenda Jones	Alice Shaw
Susie Lenon	Bob Shew
Yonnie Howl	Robbie Smith
Willie Jones	Dave Hew

Adult Leader of Group: Mrs. Burton (Linda)

Outstanding medicals: Willie Jones- asthma

TRAVEL, ARRIVAL AND DEPARTURE PROCEDURE

If this is your first trip to CIMI, please read carefully!

CIMI has made your boat reservations aboard The Catalina Classic Cruises, Long Beach, from the Queen Mary location (see map). If you have any questions regarding the Cruises please call the Mainland Office @ 909.625.6194. Group leaders **MUST** call the Cherry Cove office @ 310.510.0071 with a final count of students and adults at least **TWO WEEKS PRIOR** to arrival. A drop in numbers after that time will result in a loss of deposit.

Have the students mark all of their luggage with your assigned school color and school tags that state: name of school, students' name, and CIMI Cherry Cove. Thick pieces of yarn or tape work well. Color will be specified by CIMI.

Plan to arrive at the boat terminal one hour before your actual departure time. Upon arrival at the ferry terminal, the group leader needs to check in with the Cruises representative and give the total number in your group. It is also helpful to have a copy of the manifest with you as well.

Everyone should have closed toed shoes on for the 1^{1/4} mile hike into camp. If it is raining when you get to the terminal, make sure that everyone takes their rain gear on the boat because they will not be able to get into their bags until they are back at camp.

The boat crew will give instructions for the loading of your group. **LISTEN CAREFULLY!** The students will carry their luggage and give it to the deck hands that will place the luggage onto the boat. Please be aware that once the ferry has your luggage onboard, you will be unable to get to it until you are back at camp. Please remember to keep your medical forms with you so that you can give them to the PC when you arrive at Two Harbors.

For an optimal voyage aboard the ferry, please advise your students of the following:

- No running or rough housing while on the boat.
- Stay seated whenever possible.
- Eat lunch on the boat (there is a snack bar on the boat, open only while the boat is underway).
- Pick up any trash and do not to feed the gulls.
- If a very early morning is planned, have big eaters pack two lunches to eat on the boat.
- Seasickness medication should be taken at least one hour prior to travel.

Remember: The students should eat their lunches on the boat. Have students keep any personal items they will need during the boat ride on their person (i.e. inhalers, lunches, water, etc.) in their daypacks.

UNLOADING PROCEDURE TIPS:

- ☛ Stay seated until the captain calls your school over the loud speaker.
- ☛ Students should grab any two pieces of luggage (NOT THEIR OWN!).
- ☛ We will meet your group on the dock and lead them to the luggage truck to load the gear.

IMPORTANT: If you think you are going to be late for any reason, please call our mainland office at 909.625.6194 with your anticipated time of arrival in Long Beach. We will do our best to have the ferry hold the boat, however, this cannot be guaranteed. **Any group who misses their scheduled boat may be disqualified from the CIMI group fare.**

**Directions to
Check-in for
Catalina Island
Marine Institute**

Take the 710 fwy South into Long Beach. Stay in the right lane, follow all signs to Queen Mary which will lead you to the Catalina Express terminal inside the Queen Mary gate.

Parking is \$15.00/Day (first 30 min. is free)

If you get lost please call our office at:
1-800-645-1423 or
909-625-6194

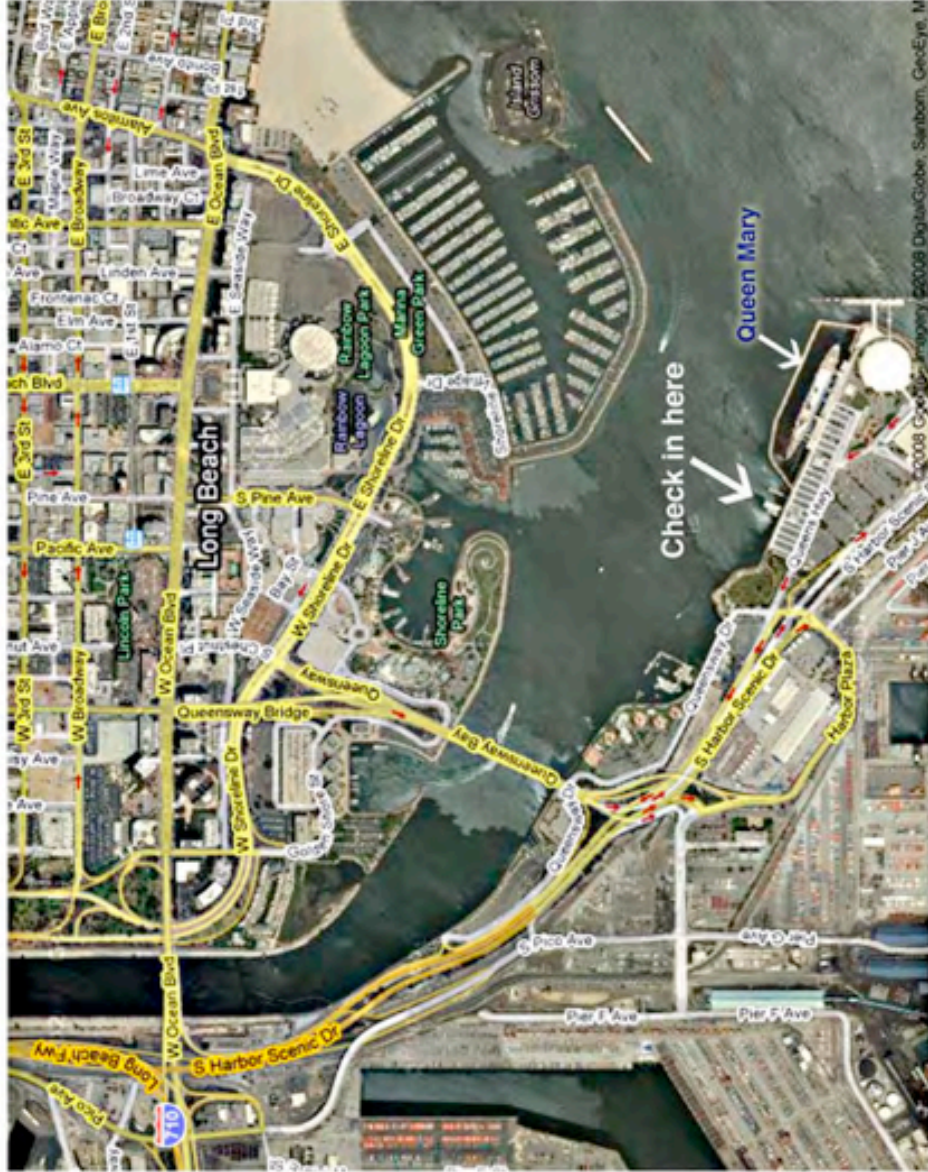
- CIMI at**
- Toyon Bay
 - Fox Landing
 - Cherry Cove
 - YMCA Camp Fox

Catalina Classic Cruises

Located next to the Queen Mary at the Catalina Express Terminal

CIMI Check-in

1046 Queens Hwy, Long Beach Ca 90802



TEACHER AND CHAPERONE INFORMATION

Please copy for your chaperones

TEACHER AND CHAPERONE INFORMATION

CIMI programs are educational in focus. Although we strive to make them fun and interactive, this is not done at the expense of the learning environment. A CIMI instructor has at least a BS or BA degree and her or his energies are directed toward program activities. **They do not fulfill the role of a 'counselor' by supervising students during their free time, at meals, or in the dorms. Participating adults supervise students during these times.**

We respect and encourage the adults who choose to participate with their school, group and/or child. Our program would not function at the level it does without their active involvement. We believe there are many rewards, both personal and group related, which will result from their efforts.

Chaperones should come prepared to participate in all program activities, including snorkeling and kayaking. This is an expectation of our program. Chaperones will also be in charge of the control, discipline and overall safety of the students both during program time and free time.

CIMI is not logistically in a position to accommodate 'free agents,' individuals who would like to do their own thing while at Cherry Cove. Examples include SCUBA diving or going off by oneself to explore other aspects of the program or island. Although adults are here to support the school's trip, individuals have arrived, on occasion, prepared to entertain themselves. We hope to avoid any disappointment by providing an overview of adult responsibilities and the procedures that will influence your visit to Cherry Cove.

Role of Chaperones

Program: Be an active part of program, including snorkeling and kayaking. This sets the appropriate example for the students and provides support for the instructor. Help supervise during program. Our instructors' energy should go into teaching, not disciplining.

*First Aid: If a student has a minor injury or illness, a chaperone escorts the student to CIMI's first aid room. This room is stocked with medication and supplies. Chaperone must consult the student's medical form before administering first aid.

*Keep students on time to programs and meals. This will maximize time in program and ensure warm food for all. Sit at tables with students and supervise meals. This will help reduce noise and facilitate a pleasant dining experience.

Facility: Supervise students during free time and in the tent sites. To curtail rough horseplay, keep students within their boundaries. **Students should always be with a chaperone.**

Tent Sites: Chaperones will stay in the same tent sites with the students and may stay in the same room. Schools supervise the tents. Help water conservation by reminding the students only one shower per day.

*Damages: Schools are held responsible for any property or building damages done by their students during their stay.

*Quiet hours are 9:30 pm to 6:45 am for all participants. It is the chaperones responsibility to help the students respect the Quiet Hours. Our program is energy intensive. Everybody will need and want their sleep.

DAILY SCHEDULE

7:00 am	Rise and shine (stay in cabin area until then)	1:00	Free Time
7:30	<i>Breakfast</i>	1:30 / 2:00	Afternoon program
8:00	Free time	5:30 / 6:00	Dinner
9:00	Morning program session	7:00 / 7:30	Evening program
12:30 pm	<i>Lunch</i>	9:00 pm	Quiet Hours (all ages)
		9:30 pm	Lights out

*****Please copy for your chaperones*****

SUPPORT THE PROGRAM IN THE FOLLOWING WAYS:

- Always wear shoes.
- No hiking, tide pooling or water activities without CIMI supervision.
- Comply with all instructions of the CIMI staff.
- Be courteous to the CIMI staff and encourage it in the students.
- Keep students out of restricted areas.
- Keep noise to an acceptable level.
- Do not litter and encourage students to pick up any litter.
- Curb general horseplay. A simple X-ray or stitch is at least a *four-hour round trip*.
- Keep the dorms and restrooms clean. Do not put anything but toilet paper in the toilets. **Please instruct the females in your group NOT to dispose of sanitary napkins or tampons in the toilets. Receptacles for that purpose have been provided.**
- Motivate all students to be on time for all programs sessions and meals.
- Students may not smoke. Adults please smoke only in designated areas.
- **No alcoholic beverages and no illegal drugs.**
- Tent quiet hours are 9:30 pm-6:45 am.
 - **To help you wake up, it is suggested chaperones bring an alarm clock.**
- No rock throwing.
- No shell or animal collecting. We wish to preserve our marine environment.
- **Students may not use the telephone. If there is an emergency, the group leader will be able to call the appropriate people.**
- Conserve water. One shower a day.
 - There is no email or fax access available at CIMI

"FREE TIME"

Recreational "free time" gives the students a break from taking in information and allows them to let out energy stored up during the previous learning session. Because students are not typically used to being engaged in structured activities all day and evening, free time is important. Volleyballs, footballs, and Frisbees are available.

CHAPERONE SUPERVISION

Since "Free time" is the CIMI instructor's time off, the school's chaperones are to be responsible for supervision and general discipline during this time.

**Since the majority of injuries, scrapes, bruises, etc. occur during "free time", adult supervision helps facilitate a safe and continued experience for students.*

TENT SITES

Adults will stay in the same tent sites as the students. Quiet hours, from 9:30 pm to 6:45 am, must be enforced. Arrival days are long and the program is very active. All participants should be allowed the necessary rest in order to enjoy the program. Horseplay in and around the tents should be discouraged. Food and drink will attract insects and animals in the tent sites, so all food must be brought to the dining hall where it will be accessible during free time.

Tents are off limits to the opposite sex and other groups. Make sure students know which tent is an adult's in case a problem arises during the evening.



\$\$\$\$ MONEY MATTERS \$\$\$

During your stay at Cherry Cove there is only one time you will have the opportunity to spend money.

The second day of your stay will be "CIMI Store Day" when T-shirts, hats and sweatshirts are for sale.

To avoid the aggravating problems of lost money or theft we suggest that teachers hold the students money or that students bring a check in order to ensure security. Checks can be made out to CIMI.

*****please copy for the student and chaperones*****
CAMPING AT CHERRY COVE

Students and adult leaders visiting Cherry Cove will be housed in 2-person, canvas tents placed on wooden platforms. The tents open with flaps on the front and back and tie closed. Each person will be provided with a cot and mattress inside the tent.

BATHROOM AND SHOWER FACILITIES

The restroom and shower facilities are located near the tent sites and will be shared amongst all the visiting schools. Students should use their flashlight for evening trips to the restroom. The restrooms need to be kept clean by the students on a daily basis. The toilets will be sanitized daily by maintenance staff.

Student bathrooms have individual stalls and sinks. Showers are open air, there are no private stalls in the general showering area. Students generally shower in the swim suits they wore for their previous activity. There is a separate coed bathroom/shower room for adults only. There are four private shower and toilet stalls. This facility is for adults only, please keep the students out.

WHAT TO BRING

There are many items that students will want to bring to CIMI at Cherry Cove, some necessary and some may just be extra baggage that they may never use. This is a camping experience and the students should pack appropriately. Remind students that they will have to carry their own bags several times (to the boat, to the luggage truck, to their tents, etc.) and they should leave unnecessary items behind. Everyone's arms will get enough of a workout just from the kayaking and snorkeling!

Be sure to mark all clothing before arrival on the island.

Essential items:	Not essential but desired:	Not allowed:
Old shirts and shorts	Extra swim suit	Knives
Sweatshirt and pants	Sunhat	Spearguns
Jeans or old slacks	Sunglasses	Firecrackers
Long sleeved shirt or sweater	Flip flops or water socks	Waterguns
Raincoat or poncho	Camera and film	Water Balloons
Underwear	Pillow	Curling irons
Bath towel	Personal mask, snorkel and/or fins	Valuables
Toothbrush and toothpaste	Day-pack	Alcohol or drugs
Swim suit	Contact lenses	TV's, radios, etc.
Large beach towel	(glasses cannot be worn under masks)	Video games
Warm sleeping bag	(some prescription masks available)	Gum, candy, etc.
Flashlight		
Tennis shoes or boots for hiking		
Sunscreen		
Warm clothing		
Water bottle (important)		

***If students have walkmans/CD players, iPods etc. used on the trip over, please collect these and leave them in the program office at Cherry Cove until departure. Student cell phones should be collected as well. CIMI does not assume responsibility for lost/stolen items.**

Please pack personal gear in a suitable container. Soft luggage or duffel bag is best. **Also, tying the bag to the rest of the luggage will make it harder to load the luggage.** Advise students to keep their pieces separate and well marked.

INCLEMENT WEATHER

The weather on Catalina Island is usually very good. However, it is possible to have rain, fog, wind or a combination of these conditions at any time. Programs will occur as planned or will be altered to meet the conditions. **ALL STUDENTS AND CHAPERONES MUST HAVE RAIN GEAR. Plastic trash bags can function effectively as an inexpensive rain poncho.** If there are bad winds, it is possible that your boat transportation will be canceled until the winds have died down. Be prepared for all types of weather.

It is prudent to pack a plastic bag for wet articles (from rain or last morning activities) being packed on the morning of departure.



water

DEPARTURE PROCEDURE

Prior to departure from Cherry Cove, students will sweep out their tents, clear the sand off the mattresses and pick up any debris around the tent site. Instructors will check each tent for cleanliness and damages before dismissing the group. Luggage will be loaded on the luggage truck and the group will assemble for departure to Two Harbors.

Following the walk to Two Harbors, students will move their luggage to the pier where the group will wait for the boat. The kitchen will pack sack lunches for your school, sometimes they will be eaten in town prior to departure or otherwise they can be eaten once on the boat on your voyage back to Long Beach. The store and restaurants in Two Harbors are OFF limits to all CIMI participants.

SAFETY INFORMATION

EMERGENCY PROCEDURES

In the event of a fire or other facility emergency adults are responsible for moving students to an appropriately safe location. This procedure will be covered during the teacher's meeting upon arrival. Students should not tamper with fire fighting equipment.

Fire: If any person spots a fire, report to the main office and explain the situation to CIMI staff who will sound the alarm immediately. Upon hearing the alarm, all guests at Cherry Cove are to report to the beach area. The teachers are to *account for all their students*. Students who discharge fire extinguishers without just cause will have to pay a \$100.00 recharging fee.
DO NOT ATTEMPT TO FIGHT THE FIRE!

Lost child: The CIMI staff has been instructed as to the proper procedure for a lost child. Baywatch and the Sheriff are available for emergency situations.

MEDICAL PROCEDURES

If an accident of any type occurs, report it immediately to a CIMI staff member. If first aid is required, it will be administered by a qualified individual. All CIMI program staff are certified in First Aid / CPR and Waterfront Lifeguarding. Baywatch (paramedics) will be contacted for major accidents. Problems requiring a doctor's attention, other than accidents handled by paramedics, will have to go to Avalon or the mainland for attention.

Student Medication: The school group leader will be responsible for all prescription medication required by their students.

STUDENTS WITH COMMUNICABLE ILLNESSES

During the course of a visit, any student or other guest at Cherry Cove, that shows symptoms of chicken pox, measles, or any other communicable disease will, following consultation with the paramedics or a doctor, be restricted from program participation and sent home at the earliest opportunity. This policy is in consideration of the affected student's comfort along with the health and well-being of the remaining students and CIMI staff.

MEALS

We eat 'family style', meaning that a tray of food is brought to each table and shared amongst everyone at that table. There will be a salad bar at lunch and dinner. Set-up and clean-up crews will meet to set the table and clean up after their group. Each person is to bus their own plates, cups, bowls and utensils. Food throwing and horseplay are not tolerated. Meal procedures will be outlined for the students before their first meal.

General Guidelines:

- A set up crew is required 15 minutes before each meal.
- All students are to meet outside the dining hall prior to meals for announcements.
- Students should enter the dining hall in an orderly fashion.

As soon as everyone is seated in the dining hall, each table will send one 'runner' to pick up a tray of food. The tray will contain food for the entire table. There will be seconds on most food. Students need to be courteous and take only what they can eat. Because trash space on the island is limited, students will be asked to place all food scraps and garbage into specified containers and their "food waste" will be tracked during their stay.

SAMPLE MENU



Breakfast:

- pancakes and sausage or scrambled eggs and hash browns or sausage; fruit juice, milk, coffee, tea (these latter items are for chaperones only)
- fruit bar: cereal selection, yogurts, fresh fruit, strawberry preserves, Danish, bagels or English muffins



Lunch:

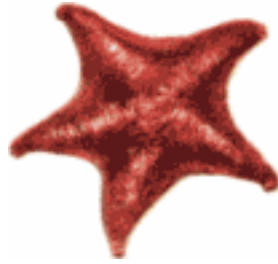
- pizza, hamburgers, corn-dogs or cold-cut sandwiches (one entree per lunch); fruit drink, water
- salad bar: mixed greens, chopped veggies, cheese, raisins, croutons, apple sauce, canned fruit, 3-4 salad dressings, potato salad, pasta or soup, bread and p. b. and j.

Dinner:

- lasagna (meat and veggie), turkey, chicken or Mexican (tacos, burritos, etc.) (one entree per dinner); milk, fruit juice
- salad bar: same as lunch with vegetarian side-dish
- dessert: cake, cookies, pudding, or rice crispy treats



Note: This is a sample menu only. Food items are subject to change and vegetarians are accommodated at each meal. Please notify the Cherry Cove office for any special dietary needs (i.e. food allergies, vegetarians, vegans, etc.). Food is of high quality and there is plenty of it. Please refrain from bringing extra food and snacks as these are often not eaten and therefore wasted.



CIMI CHERRY COVE PROGRAM DESCRIPTIONS



WATER ACTIVITIES

SNORKELING

Each student will have the opportunity to demonstrate basic snorkeling skills, as taught by the CIMI instructors, and to utilize these skills in exploring and discovering the marine environment. Students do not have to be great swimmers as the wetsuit acts as a floatation device. Non-swimmers or poor swimmers may thoroughly enjoy the experience if they have confidence in themselves.

Everyone will be doing at least one snorkeling session while at Cherry Cove. All participants in our snorkeling program will use snorkeling equipment consisting of a full-length three-piece wetsuit, hood, booties, mask, snorkel and fins. The proper use of this equipment ensures greater safety and a more pleasant experience. Likewise, proper care and maintenance of equipment is essential. Both of these topics will be covered thoroughly by CIMI instructors during the first snorkel introduction and students will be reminded during subsequent snorkels.

*** If any of your students have personal equipment that they wish to bring make sure that it is well-marked. For those students with impaired vision, contact lenses have not presented problems when worn under a properly fitted mask. Glasses **cannot** be worn under a mask. CIMI does offer optical masks for students in need.

ORIENTATION SNORKEL (required of all groups regardless of age or ability)

Pre-snorkel: Discussion of care and use of snorkeling equipment, safety and the importance of the buddy system will be emphasized.

Snorkeling skills: The basic skills covered are adjustment of equipment, clearing mask & snorkel, and breathing through a snorkel. This will be followed up by swimming with fins and snorkeling along the surface. Time to explore Cherry Cove!

Post-snorkel: There will be a wrap-up discussion of the snorkel and review of what was seen.

BASIC SNORKEL

After the first snorkel, the objective is to look at the various marine habitats of Cherry Cove (sandy bottoms, rocky shorelines, and kelp) and observe the animals in these environments. It usually begins with the instructors describing various fish and animals that are commonly observed. Depending on student's ability, they may have the option to wear weight belts. The second snorkel is usually a more exciting and rewarding experience. The students are more comfortable and recognize many of the animals that they have been learning about in the labs. This dive usually ends with a post-dive discussion before cleaning up.

OCEAN KAYAKING



One of the most exciting aspects of the program at Cherry Cove is the chance to go sea kayaking. Students will learn basic safety and paddling while exploring Catalina's scenic coast and beaches. Students do not need to have any previous kayaking experience. The "Scuppers" are easy to paddle and safe to use. Two storage compartments in the kayak make longer excursions possible.

Prior to the first paddle, groups will discuss paddling techniques, safety, entering and beaching techniques, equipment care and handling and clean-up procedures. On completion of the kayak session, students will be able to maneuver and stop the kayak as well as right and enter an overturned kayak.

MARINE LAB PROGRAM OPTIONS

Students will have the opportunity to experience at least one program session in the labs. Rarely, in the case of very large groups, not all research groups will be assigned to the same labs. The Cherry Cove Program Office will do their best to try to accommodate all your program needs. Due to the limited availability of space, however, it is possible that you will not always get your first choice. Please have a second choice on hand.

FISH - INVERTEBRATE - MARINE ALGAE ROTATION

Fish lab: Several aquariums are part of the fish lab experience. The students will be exposed to the fish found commonly around Catalina Island. They will also be introduced to the classification, anatomy, behavior and other adaptive features of fish. This lab compliments the snorkeling experience, wherein the students become more familiar with fish they will be seeing.

Invertebrate lab: Familiarization with a variety of marine invertebrates is fun and easy when students can get a close up look, through our touch tank aquaria, of species common to Catalina. This laboratory includes touch tanks with live animals from the phyla Porifera, Echinodermata, Annelida, Mollusca, Cnidaria, and Arthropoda. Students' participation facilitates the study of classification, species identification, adaptation and natural history by closely examining animals and getting hands wet!

Algae lab: As a major habitat and food source for marine animals of Catalina, algae (seaweed) merits special consideration. Students will be introduced to the many uses of algae, characteristics of different divisions of algae and the principal adaptive differences between algae and terrestrial plants. They will also prepare a pressed sample of common species of algae for use back at school.

TIDEPOOL - PLANKTON ROTATION

Tidepool: Students discuss the lunar cycle, currents, tides, and the interaction between land and water which creates this unique habitat. Using direct observation students learn about the abundance and types of algae and animal species in the area. Discussion of the unique characteristics of tidal zones and their inhabitants further demonstrate adaptations, physiology, and ecology of tidepool biota.

Plankton Lab: In this laboratory, the students are introduced to the world of plankton. Using "videomicroscopy", the students will divide into teams and identify their live plankton sample. Each team has its own video microscope and monitor. The CIMI instructor has a central monitor that can show any student's sample to the entire class. Students will discuss the "food web" and some affects pollution has on the world's oceans.

TERRESTRIAL LAB OPTIONS

GEOLOGY AND MINI HIKE

Students will be introduced to geological forces, Catalina Island formation, and have the opportunity to explore Catalina's cultural history on a short hike and adventure into the Cherry Cove silver mine.

ISLAND ECOLOGY - HIKE

This hike will give the students an opportunity to explore the island and gain an appreciation of the environment. Hiking exposes students to the unique island environment and allows them to learn about as well as touch and see plants, animals and insects that inhabit the island. We will also discuss Native Islanders that resided on Catalina and their lifestyles.

DAY TRIP - FOR FIVE DAY GROUPS

Five-day groups will have the chance to kayak and hike to explore an adjacent part of the island. During the day-long excursion, the group will eat a picnic lunch and snorkel or tidepool in the area before returning to Cherry Cove.

EVENING PROGRAMS

These programs are especially important to the total CIMI experience and there are several options. We are very flexible and if you have a different evening option, let us know.

Schools with long travel times on the day of arrival should think carefully about evening program selection. Students can either be overly 'wound up' or very tired in response to the long trip.

Astronomy Walk: Students will walk to a suitable location for star gazing. Instructors focus on various mythologies of the stars, planets, sun or moon to highlight peoples personal/cultural relationship with the night sky in addition to the earth's physical relationship to the universe. This activity is subject to change, requiring clear night skies.

Deep Sea: This evening activity is designed to explore different ways in which living organisms cope with the deep sea environment. Games, activities, slides and demonstrations can highlight marine adaptations to the dark. Preserved bioluminescent animals are included in this program. **30** students maximum.

Squid Dissection: This activity explores the general biology of the squid. Students start the activity by developing an information base of what is known within the group about squid, and adding to this knowledge by engaging in a simple dissection of a squid (one squid per 2 students).

Discovering Sharks: This evening program is designed to dispel the myths and rumors surrounding sharks. Presentations and student involved activities, including a pet and feed of the sharks, are used to lead students to a better understanding of these amazing marine creatures. **30** students maximum.

Night Snorkel: Night snorkeling is an exciting activity. Students will use underwater lights to observe the nocturnal life in our cove. Students must do a day snorkel first in order to be qualified for a night snorkel. Due to the cost of batteries for lights and glow sticks for snorkels, there is an additional cost of **\$5.00** per person. Numbers may be limited due to demand (**30 max**), we will try to accommodate all your students. Another activity should be planned for those students who choose not to participate.

Campfire: Recommended for 5-day groups. Your school staff will be responsible for planning and conducting campfire. Skits, songs, stories and/or wrap-up activities work well for campfires as long as they are planned for ahead of time. **All campfires must be structured by the school leaders**, CIMI staff will set up the fire and remain to put out the fire.

Environmental Awareness Activities: A variety of 'critical thinking' games, demonstrations and/or interactions designed to highlight human, individual and cultural impacts on our natural resources. In conclusion, we highlight what positive actions can be taken in our every day lives. Best suited for small groups who have demonstrated group interaction skills.

Videos and Slide Presentations: We have a variety of "home-made" educational videos your students might enjoy as well as slide presentations. A list of these programs are on the program planner at the beginning of this syllabus. Topics are: Catalina Introduction and Marine Mammals of Catalina.

Sleep option: After a long day, certain children may be too tired to attend evening program. For those campers who wish to do so, sleep is always an evening program option. An adult must be in the tent site with the campers.

Five-day groups: For groups staying five days, we are open to ideas you may have for an alternative evening program. Some schools enjoy doing skits or other activities that exercise their students' creative energies and develop school spirit.

BACKGROUND ON SANTA CATALINA ISLAND

CATALINA ISLAND HISTORY

Santa Catalina Island is one the eight Channel Islands stretching along the Southern California coast. Most of the island is mountainous. In fact, the Mainland Native Americans called Catalina, "Mountain ranges that rise from the sea". The island is visible from the mainland because of the mountainous terrain and proximity. At its closest point, Catalina is 19 miles from the mainland coast.

SPANISH HISTORY TO PRESENT

The first European to visit the island was Juan Rodriquez Cabrillo, the leader of the first Spanish expedition to explore the California coast. In 1542, he stopped at the island for a short time and named it San Salvador, after his flagship. Their contact with the Natives was friendly. In 1602 General Sebastian Vizcaino, on an expedition from Acapulco to California, arrived at the Channel Islands on the feast day of Saint Catherine of Alexandria. He named Santa Catalina in honor of Saint Catherine. He recorded the Natives as being handsome, friendly and decent people. They stayed on Catalina for four days before sailing north.

The island was infrequently visited by mariners for the next 150 years and no attempts were made at colonization. It wasn't until 1769 that the colonization of California began through an expedition by Spanish missionaries attempting to claim all of California for Spain. Catalina was considered as a possible mission location but the shortage of missionaries and the islands proximity made this impractical. Consequently, Catalina was not a central part of the Spanish missionaries system of converting native Californians to Christianity.

Over the next few years, epidemics due to European diseases, destruction of hunting and trading activities, and violent attacks by other hunters from the Aleutian Islands and Russian fur traders virtually eliminated Catalina's native population. By 1795, the total population was estimated to be 150. The last Natives had disappeared from the island around 1835.

From the beginning of the 1800's to 1850 when California became a state, Catalina was used primarily as a center for smugglers who were avoiding payment for custom duties. Sailors from other nations used Catalina for this purpose as well and hid contraband, including Chinese immigrants, in secret bays and coves. During the 1920's, it was used for sheep and cattle ranching as well as for a backdrop for several Hollywood movies.

The first person to own Catalina was an American from Santa Barbara by the name of Thomas Robbins who received it as a land grant from the Mexican government in 1848. Robbins sold the island to Jose Maria Covarrubias in 1850. In the intervening years, Catalina had several owners, endured a brief gold rush and was occupied by Union soldiers during the Civil War at the Isthmus, specifically the old Isthmus Yacht Club building.

In 1887, George Shatto bought the island for \$200,000 with the intent of turning it into a resort. He then began to build the town of Avalon, but soon ran out of money. William Banning purchased the island in 1892 and with family members formed the Catalina Island Company as a commercial management corporation. Roads were built through the interior of the island and glass-bottom boat cruises were begun. Avalon was developed further and promoted as a sport fishing paradise.

A disastrous fire destroyed most of Avalon in 1915 and brought financial problems to the Bannings who sold the island in 1919 to William Wrigley, Jr., a Chicago chewing gum tycoon. After William's death in 1932, Philip K. Wrigley assumed responsibility and control of the Catalina Island Company. The influences and investments of the Wrigleys essentially created the Catalina Island of today.

Today Catalina is a popular tourist location and it was only during World War II (1941- 1945) that the Island was closed to the public and it became a military training ground. After the war, a great deal of money was spent in order to restore the facilities and the island was once again opened to the public.

In 1972, the Santa Catalina Island Conservancy was formed as a non-profit organization dedicated to the preservation of native wildlife, geographical features and open-space lands. In 1975, the Conservancy received from the Wrigley family, through the Catalina Island Company, a gift of approximately 42,135 acres valued at 16 million dollars. An Open-Space Easement Agreement was reached at the time between the Conservancy and Los Angeles County, allowing the county to share the use of the island for public access and recreation for the next 50 years.

NATIVE INHABITANT HISTORY

Artifacts and relics found at several sites indicate that Catalina has been inhabited for at least the last 4000 to 5000 years. The Native Islanders called themselves the Pimugnans and referred to Catalina as "Pimu". European settlers to California took the remaining Pimugnans from Catalina to the San Gabriel Mission and thus call them the Gabriellinos. About 900 Pimugnan sites have been found and population estimates range from 2000 to 3000 individuals.

The largest settlements were located on the shoreline near Avalon, Little Harbor, the Isthmus and Johnson's Landing (Camp Emerald Bay). Smaller settlements existed in most of the coves and canyons around the island where arrowheads, digging and hunting implements and "shell midden" material have been discovered.

Prior to contact with the Spanish, these aboriginal tribes lived at a hunting and gathering level of existence, utilizing both marine and terrestrial resources. Their diet included many fruit-producing plants (oaks, cherries, Toyon berries, etc.), small herbs and roots, abalone, turban snails and other shellfish, a variety of fish, marine mammals and some land animals (bats and squirrels).

Catalina Natives were quite industrious and quarried steatite or soapstone (a type of serpentine) out of which they made mortars, bowls, axes and other objects. Bone was used to make fish hooks, flutes, pipes, money and jewelry. These items were not only for personal use, but were also traded with tribes on the mainland for food, hides and obsidian. This was accomplished with large 20-man canoes made of wood and deerskin. Trade was probably a necessity because of the limited resources available on the island.

The Natives worshipped the sun god, Chinig-Chinch, and believed that their souls transmigrated to animals. There are still some rock paintings visible at Torqua caves in the middle of the island.

GEOLOGIC HISTORY

The geologic history of Catalina as well as the other Channel Islands has been disputed for quite some time and the exact mechanisms that contributed to the formation of the island are still not fully understood. However, within the last decade, technology and research methods have improved and added considerably to our knowledge and resolution of some of these problems.

In general, Catalina can be described as the upper part of an elevated northwesterly-trending fault block approximately 1500m (5000ft.) above the adjacent ocean basin floor. The top 619 m above sea level forms the island. Much of the island is dissected by faults where much slippage and uplift have occurred in the past. Plate tectonic activity of submersion and uplifting were probably the main factors that formed what is now Catalina.

The island's basement rock is metamorphic in origin and is exposed in several places along the NW and SW sides. Some of the oldest rock known to Catalina (Catalina schist) is late Mesozoic, approximately 120,000,000 years old, and had to form under extreme pressure deep within the Earth's crust. Since that time, it has been uplifted from the ocean floor above sea level.

Extensive volcanic activity commenced about 12-16 million years ago (mid-Miocene) and also contributed to the island's formation. Lava ash falls and ancient mud flows are visible on many of the ridges and hilltops, apparently flowing eastward from the Blackjack and Mt. Orizaba area. Pieces of igneous rock and quartz outcroppings found around the island are also indicative of volcanic activity. Some fossiliferous mid-Miocene shallow water marine deposits are present at the NE end of the island and some late Miocene deposits (5-7 million years ago) occur on top of Mt. Banning and Bald Peak (430 m). The absence of post-Miocene sediments suggests that by the beginning of the Pliocene (5 million years ago) the offshore area of southern California looked approximately like it does today. Little is known about the Pliocene strata of the island because of their inaccessibility on the deep water slopes. However, during the Pliocene (2-5 million years ago) uplifting and subsidence occurred along with the lowering of the sea level during glaciation.

Up to about 500,000 years ago, Catalina had probably been submerged and re-emerged several times due to block faulting and the changing sea levels. The effects of the raising and lowering of the sea level can be seen by the surf-cut terraces and the surf-carved cobble present at Little Harbor, on the windward side, well above the current surf zone. It is not known just how much of the island was exposed during the emerging and submerging processes.

Complete lack of shallow-water fossils from the floor of the San Pedro basin, the extreme depth of the basin (3000 ft.) and the depauperate fauna are pretty convincing evidence that Catalina was never connected to the mainland during any part of the last 12-15 million years. What happened prior to that is not well understood. The majority of the current terrestrial biota probably arrived entirely over water during the last 500,000 years with some species of lizards colonizing the island as recently as 7000-8000 years ago.

NATURAL HISTORY

The large size of Catalina and its close proximity to the mainland can account for the tremendous diversity of plant and animal life present here. The high variation and topographic relief and the occurrence of fresh water on the island have allowed the survival of nearly 400 species of native plants and 170 species of introduced plants.

Plant communities include maritime desert, grassland, coastal sage-scrub, chaparral, oak-woodland, and riparian woodland. Estimates of the number of insect species range in excess of 2000, many of which are new, undescribed species and subspecies. Spiders and their relatives, also relatively unstudied, are probably just as numerous. The Channel Island Insect Survey is currently assessing research that has been done on all terrestrial arthropods of the Channel Islands and accumulating specimens and locality records for insects and spiders.

Approximately 35-40 species of land birds are known to breed on Catalina. Many more are spring and winter migrants. When these are added to the number of marine birds that are present on the island, there are probably about 200 species on Catalina during the year. The bird populations change continuously on all of the islands with some species disappearing after a few years of residence. At the same time, others are recolonizing from the mainland and adjacent islands.

Amphibians, reptiles and mammals are scarce on Catalina and they reflect the degree of isolation the island has been exposed to during its brief history. One species of frog, two salamanders, three lizards, five snakes, three rodents, one fox and five or six species of bats are known from Catalina. A very small number when compared to coastal southern California. This disharmonic fauna is further emphasized by the absence of any large mammalian predator, but its small size limits its prey to mice and insects.

HOW DID THOSE ANIMALS ARRIVE?

Some animals were introduced to the island either accidentally or deliberately during the last 150 years. The disastrous introduction of goats to Catalina in the early 1800's has done extensive damage to native plants and soil. Pigs were brought over in 1932 and are as destructive as goats. About the same time, mule deer were introduced by California Fish and Game from the Sierra Nevada Mountains. American bison were used to make a movie in 1924 and 14 individuals were released after completion of the film. More were added by the Wrigleys a few years later. A hunting program was initiated by the Catalina Conservancy many years ago in order to control the number of deer, goats and pigs. Other introduced animals include rats, house mice, feral cats, dogs, bullfrogs, Starlings and English Sparrows.

Bald eagles have recently been reintroduced to Catalina with hopes of establishing a permanent population. Since most evidence suggests that Catalina and some of the other Channel Islands were not connected to the mainland during their geologic history, the only way terrestrial organisms could colonize them would have been by over-water dispersal. It is easy for most plants, insects, birds and bats to traverse a barrier of water, thus explaining why they are more abundant than other groups. If an organism cannot fly or be carried by the wind and other animals, it must be carried on or in debris drifting randomly out to sea from the mainland and possibly other islands. Only the hardiest of animals can survive such methods of travel.

FLORA AND FAUNA



Most islands have endemic plants and animals and Catalina is no exception. There are approximately 30 species and subspecies of plants endemic to Catalina or the Channel Islands in general. Some that are endemic only to Catalina are:

ENDEMIC PLANTS:

- Catalina Ironwood (*Lyonothamnus floribundus floribundus*)
- St. Catherine's Lace (*Eriogonum giganteum giganteum*)
- Catalina Mahogany (*Cerocarpus traskiae*)
- Wild Tomato (*Solanum wallacei*)
- Catalina Manzanita (*Artostaphylos catalinae*)
- + 5 others



In addition, there are many native animals on Catalina. Some of the most common are listed below:

NATIVE AMPHIBIANS & REPTILES

- Slender Salamander (*Batrachoseps pacificus*)
- Arboreal Salamander (*Aneides lugubris*)
- Pacific Tree Frog (*Hyla regilla*)
- Side-blotched Lizard (*Uta stansburiana*)
- Alligator Lizard (*Gerrhonotus multicarinatus*)
- Western Skink (*Eumeces skiltonianus*)
- Gopher Snake (*Pituophis melanoleucus*)
- King Snake (*Lampropeltis getulus*)
- Ringneck Snake (*Diadophis punctatus*)
- Western Rattlesnake (*Crotalus viridis*)
- Garter Snake (*Thamnophis couchi*)



NATIVE MAMMALS

- California Ground Squirrel (*Spermophilu beecheyi*)
- Deer Mouse (*Peromyscus maniculatus*)
- Big-Eared Harvest Mouse (*Reithrodontomys megalotis*)
- Island Gray Fox (*Urocyon littoralis*)
- Ornate Shrew (*Sorex ornatus*)
- Long-Eared Bat (*Myotis evotis*) 4-5 other species reported.

As you now know, several animals found on Catalina are introduced.

INTRODUCED ANIMALS

- American Buffalo (*Bison bison*)
- Mule Deer (*Odocoileus hemionus*)
- European Rat (*Rattus rattus*)

