Junior Ranger Explorer Program
Meet the Islands

Santa Barbara Island
• about one square mile
• the smallest island

Anacapa Island
• five miles long
• three islets

Santa Cruz Island
• twenty miles long, up to six miles wide
• the largest island

Santa Rosa Island
• fifteen miles long, ten miles wide
• 53,051 acres

San Miguel Island
• eight miles long, four miles wide
• the westernmost island
A Special Place

Located off the coast of southern California, Channel Islands National Park is made up of five islands and the waters that surround them. This park provides habitats (homes) for about 30 threatened and endangered species (a scientific name for plants and animals) and almost 150 species found nowhere else on Earth. North America’s oldest human bones were found on one of the park islands, suggesting that humans have been using these islands for the last 13,000 years.

Become a Channel Islands National Park Junior Ranger
Explore the wonders of the Channel Islands and help park rangers protect this unique place by completing this junior ranger booklet. To get started, please carefully read all of the instructions below.

• Find the animal on this page that matches your age group.
• To earn your junior ranger badge, you must complete your required activity pages and the pages of your choice.
• Animal boxes on each activity page of this booklet identify the questions you must answer. For example, the animal box on page 2 explains that Blue Whales answer questions one and two, Brown Pelicans answer questions one through four, and Island Foxes answer questions one through six.
• Enjoy the take-home activities later. They are not required.
• Turn your booklet in to the Robert J. Lagomarsino Visitor Center in Ventura any day, except Thanksgiving and December 25, between 8:30 am and 5:00 pm, or mail your booklet to the address on the back page. Fill out the section with your name and address.

Blue Whale—ages 5 and 6
Complete activities on pages 2, 3, and 5 plus three pages of your choice

Brown Pelican—ages 7 to 9
Complete activities on pages 2, 3, 5, and 6 plus four pages of your own choice

Island Fox—ages 10 and up
Complete activities on pages 2, 3, 5, 6, and 7 and five pages of your choice
Interview a Park Naturalist

Locate a park ranger, volunteer, or crew person. Introduce yourself and ask the following questions. Record the answer for each question in the space below.

1. What is your name?

2. Name your favorite animal that lives in Channel Islands National Park.

3. How long have you worked here?

4. What do you like about this job? List one thing.

5. Name one reason the Channel Islands are protected as a national park.

6. Think of your own question and write it below. Then write the person’s answer.
Island Bingo

Play bingo island style—use all of your senses as you discover this remarkable place. Fill in the spaces below as you walk around the island. Please help take care of this special, living place. Island manners include no plant picking, treading lightly (avoid stepping on plants and harming animals), and asking an adult before you touch anything.

<table>
<thead>
<tr>
<th>smell a plant</th>
<th>touch a rock</th>
<th>something the size of your hand</th>
<th>trail marker or sign</th>
<th>spines (cactus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>leaves with prickly edges</td>
<td>see a bird</td>
<td>building</td>
<td>something beautiful</td>
<td>low-growing plant</td>
</tr>
<tr>
<td>hear a bird</td>
<td>grass</td>
<td>restroom</td>
<td>something old</td>
<td></td>
</tr>
<tr>
<td>fuzzy leaves (might look silvery)</td>
<td>bark</td>
<td>something as tall as you</td>
<td>flowers</td>
<td>see an insect</td>
</tr>
<tr>
<td>something green</td>
<td>feathery leaves</td>
<td>sign of an animal</td>
<td>hear the ocean</td>
<td>shiny or waxy leaves</td>
</tr>
</tbody>
</table>

For more fun find as many of these as you can.
Ten Essentials

When venturing into the wilderness, it is a good idea to be prepared. Unexpected events may change your route or keep you out longer than you had planned. Taking a little extra time to pack the essentials may guarantee a safer, more pleasurable outdoor experience.

1. Circle the ten most useful items for a day hike.
2. Cross out the ten least useful items for a day hike.
3. Name something else (not listed here) that would be useful for a day hike.

your pet    food    notebook
ice cream   electronic toy    snorkel
map         chapstick    first aid kit
skateboard  pencil    sunglasses
basketball  stereo    dress shoes
compass     swimsuit    perfume
binoculars  flashlight    water
walking shoes extra clothing  hula hoop
hairspray  camera    pocket knife
laptop      sunscreen    hat
ski boots  backpack    emergency blanket
Take Only Photographs

The mission of the National Park Service requires the preservation of natural and cultural resources. One way to preserve something is to protect it. Visitors are welcome to gently observe animals, plants, historic buildings, artifacts, rocks, shells, sticks, and feathers. However, nothing may be impaired or taken home. Help keep the Channel Islands pristine by memorizing and practicing the following motto: Take only photographs and leave only footprints.

Use the space inside the camera to draw a “photograph” of something you saw or a special place you visited in the park.
It’s Up to You

Junior rangers have many opportunities to care for the environment, animals, and cultural history. The following scenarios could take place in a neighborhood or a national park. Demonstrate your knowledge about resource protection by circling the best answer for each question.

1. You have just finished lunch. The best place for your sandwich wrapper is:
   a) underneath a stone
   b) in the ocean
   c) in your pack until you find a trash can
   d) in the branches of a tree

2. A raven approaches you as you are eating a snack. The bird is interested in your food. You:
   a) feed the bird from your hand
   b) throw bits of food to the bird
   c) leave food behind for the bird
   d) keep wildlife wild by not sharing any of your food

3. You find an ancient arrowhead. You:
   a) put it in your pocket
   b) leave it exactly where you found it and alert an adult
   c) smash it
   d) see how far you can throw it

4. You see a living tree. How will you care for it?
   a) carve your name in its trunk
   b) admire it gently
   c) chop it up for firewood
   d) break off branches to take home

5. You find an injured animal. After you have checked to make sure you are not in any danger you:
   a) write down a description of the animal including its appearance, location, and activity—give this to an adult
   b) throw rocks at the animal
   c) try to fix the animal’s injury yourself
   d) take the animal home
Park Puzzle

Use the list of words on the next page. You can also find most of the answers in the park brochure.

Across
2. way to see the park underwater
4. plant that may give you a skin rash
6. island features a monument to explorer Juan Rodriguez Cabrillo
8. when you spend the night at the park
10. shell used to make Chumash money
12. species in danger of extinction
14. small pool left behind by tide
16. island has a light station
18. name of largest Channel Island
20. island way of life that depended on cows, horses, sheep, and pigs
22. name of captain who gave islands their present names

Down
1. bird only occurs on Santa Cruz Island
3. island home of Torrey pines
5. name of a large seal
7. early human island residents
9. all of the park islands were home for this nonnative species at some point
11. home of the island night lizard
13. nonnative plant species
15. five types of this plant occur on the park islands
17. president who created Channel Islands National Monument in 1938 (national park status awarded in 1980 by President Carter)
Weather

Find a place where you can easily observe the sky, the wind, and the view across the Santa Barbara Channel. Complete the following activities from your observation station.

1. Can you see the mainland? yes no
2. Can you feel any wind? yes no
3. What does the sky look like? clear partly cloudy cloudy
4. Is there anything interesting you notice about the weather today? Share your answer with someone in your group.
5. In what direction is north? Hint: If you are looking in the direction of the mainland you are looking north. Now find east and west.
6. Complete the following weather report.
   - What is the date? ________________
   - What is the time? ________________
   - Where is the sun in the sky? rising midpoint falling
   - Which direction is the wind blowing from? ________________
7. From this place find something that interests you. Fill each space below with one word about your subject to create your very own cinquain (five-line poem).

___________
Name your subject in one word.

___________    ____________
Write two words to describe it.

___________    ____________    ____________
Write three action words about it.

__________________________
Write a four-word phrase about it.

__________________________
Write one new word to name the subject or describe your feelings about it.
Mammuthus  (Latin for mammoth)

Did you know that mammoths have a role in the history of the Channel Islands? Decode the mammoth story by numbering the following events in order from 1 to 6. Use the clues below to solve the puzzle.

- During the last ice age sea levels were considerably lower.
- The northern Channel Islands were a single large island.
- This super-island is referred to as “Santarosae.”
- At that time the Santa Barbara Channel was, at its closest point, about five miles across.
- Today it is twice as wide.

• Only pygmy mammoths persist. The sea level rises, separating the peaks of Santarosae, forming the northern Channel Islands.

• Columbian mammoths adapt to limited resources—the pygmy mammoth appears.

• The islands today. Pygmy mammoths are long gone.

• Columbian mammoths live on Santarosae.

• Volcanic land mass rises from the sea.

• Columbian mammoths swim to Santarosae from the mainland.
The First Inhabitants

The Island Chumash used and occupied the northern Channel Islands for thousands of years. We learn about what life was like for them by studying archeological sites, reading accounts from early anthropologists, and consulting contemporary Chumash people. Today many people of Chumash descent live in Ventura, Santa Barbara, and San Luis Obispo counties.

1. One way to pass along information and record history is to tell a story. The Island Chumash shared many stories including daily activities, important events, religion, and love. Can you think of a story someone has shared with you? *Share this story with someone in your family or group.*

2. The Island Chumash may have relied on rock art to pass along information as well. While some rock art tells a story, other images may be purely decorative. After you have examined the art on this page create your own design below.

3. The Island Chumash manufactured money using chert drills and olivella shells. Shell bead money was traded for goods not available on the northern Channel Islands. Imagine you have enough shell money to purchase two of the following. Circle your choices and list two ways you could use each item.

   dogbane (fibrous plant)  obsidian (volcanic glass)  rabbit  steatite bowl (stone)  hematite (red mineral)  deer
The Islands’ Ranching Past

About 150 years ago people began ranching and farming on the Channel Islands. If you lived on one of the islands back then, life would be different than it is today. To find out how, draw a line from each modern day item to its historic island equivalent.
Food Chain

There is no waste in nature. All plants and animals, dead or alive, are potential sources of food for other organisms (forms of life). A food chain is a series of organisms that eat or decompose each other. Study the simplified food chain below.

1. Circle the herbivore in this food chain (animal that eats plants). Draw a box around the carnivore (animal that eats other animals).

2. Draw and label a food chain that includes the sun, phytoplankton, zooplankton (plankton are small organisms in water ecosystems), and a fish.

3. Think of something you like to eat. Draw and label a food chain that includes you.
What Do You Think?

Your opinions are very important. Ideas from people like you help the park staff make decisions about the park. Take a moment to consider the following questions.

1. Describe something you like or find interesting on the island you are visiting. What do you like about it?

2. Do you think setting places aside as national parks is a good idea? Why or why not?

3. What resources do you think are important to protect at Channel Islands National Park?

Cut this page out of your book and hand it to a ranger or mail it.
Superintendent
Channel Islands National Park
1901 Spinnaker Drive
Ventura, California 93001
About half of Channel Islands National Park is underwater. People come from all over the world to swim in the kelp forest, kayak along the rugged shore, and watch whales. Marine resources around the islands are also important for people who make a living from the sea. Fishermen and women depend on the health of the marine ecosystems in the Santa Barbara Channel.

**Your Mission**

Imagine you are in charge of Channel Islands National Park. Your mission is to describe one way you will protect wildlife.

1. I would protect marine wildlife (sea lions, seals, whales, birds) from human disturbance by...

2. I would protect fish and other species in the kelp forest by...
Free Page!

Use this page to write, sketch, collect autographs, and anything else you can think of.
Creature Feature

The island fox lives on six of the eight Channel Islands and nowhere else in the world—San Miguel, Santa Rosa, Santa Cruz, Santa Catalina, San Nicolas, and San Clemente. *Do you recognize the names of the islands within Channel Islands National Park?* The island fox is the largest native mammals on the Channel Islands, but one of the smallest foxes in the world. It averages about 12 inches in height, 25 inches in length, and four pounds in weight. This housecat-sized fox is 20 percent smaller than its closest relative, the mainland gray fox.

Geologists believe the northern Channel Islands were never connected to the mainland, yet the fossil record shows the arrival of foxes at least 16,000 years ago. How did they cross this water barrier? During the last ice age, 10–20,000 years ago, ocean levels were 400 feet lower than today. The channel between the islands and mainland was considerably smaller, perhaps just five miles across at its closest point. Gray foxes could have “rafted” over on driftwood, propelled by a storm or ocean currents.

The foxes adapted to their new island home, evolving into a dwarf, or smaller, form of the gray fox. Environmental and ecological factors such as overcrowding, reduction in predators, food limitations, and genetic variations could have contributed to the natural selection for a smaller size. To learn more about the island fox visit the park website listed on the back page of this book.

*Turn the page to find origami fox instructions.*
Fox Fun

Follow the pattern below to make an island fox. To make a fox family, begin the first step with different sizes of square-shaped paper.

1. Fold in half
2. Fold corners up
3. Fold behind
4. Rotate 45 degrees
5. Fold end to center
6. Separate flaps
7. Fold center point down for head

Pattern published with permission from Dover Publications.
Imagine you have stepped back in time, 1,000 years before present. You would like to visit the Channel Islands. Motorized boats have not been invented yet, and the Santa Barbara Channel is too wide to swim. How will you reach the islands?

The Chumash used *tomols* for travel to and from the islands and to fish from. Tomols are plank canoes made of redwood (collected as driftwood) or pine. Planks were carefully cut to fit, joined with twine, and sealed with asphaltum (tar). Tomols might be painted red and decorated with shells.

Only certain people knew how to build tomols. Tomol carpenters guarded their secret skills from everyone but other members of the canoe brotherhood. *Altomolich*, or makers of canoes, were also fisherman. Their important contributions to the Chumash economy were highly respected and rewarded.

Make your own tomol with the pattern on the back of this page.
To make a tomol 
follow these directions

1. Cut out two side pieces and one bottom piece for each canoe.
2. Color the pieces before assembling. Draw the outlines of the planks in black on the sides of the canoe. Color the canoe red.
3. Arrange the side pieces so there is one tab at each end of the canoe. Fold along the dotted lines to make tabs.
4. Tape, glue, or staple the two side pieces together at each end. Do not attach the “ears” to each other; there should be V-shaped spaces between them.
5. Set the bottom in place between the sides and bend the sides gently to fit. Tape or glue the bottom in place with the tabs underneath.

Pattern published with permission from JASON Foundation for Education.
Congratulations! Junior Ranger [Name] has successfully completed the Channel Islands National Park Junior Ranger Explorer Program.

Signed by: [Signature]
Place your left hand on this page.

Raise your right hand and recite the following:

As a Channel Islands Junior Ranger, I pledge to:

- Help protect island plants, animals, and cultural history,
- Keep the air, water, and land clean,
- Look for other opportunities to learn more about parks, preserves, and cultural history,
- Help protect island plants, animals,
- Become a junior ranger and friend.

Place your left hand on this page.
Junior ranger, please fill out in order to receive your badge:

Name ________________________________
Address ________________________________
City/State/Zip ________________________________
Phone ________________________________

Channel Islands National Park
Attention: Junior Ranger Program
1901 Spinnaker Drive
Ventura, California 93001
(805) 658-5730
www.nps.gov/chis/

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