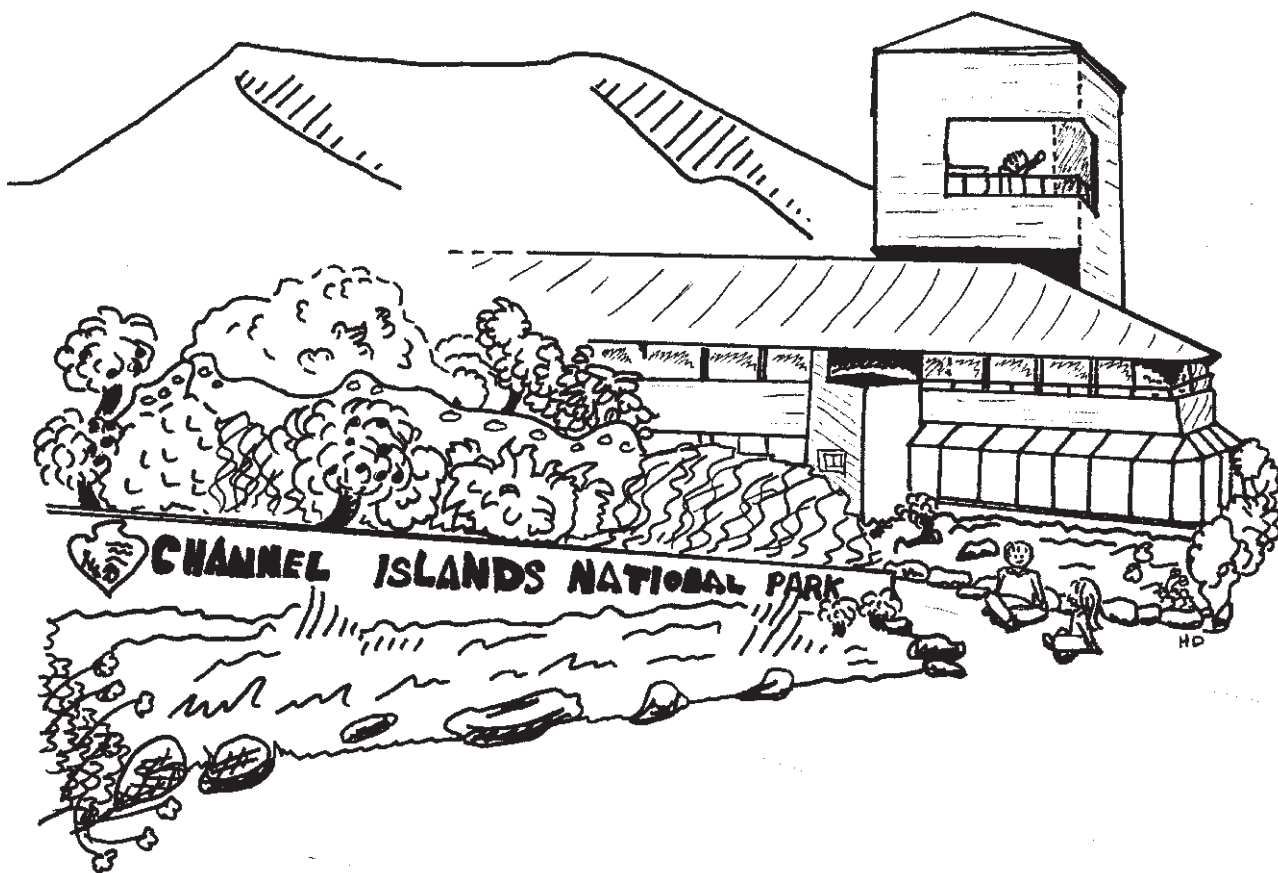


National Park Service
U.S. Department of the Interior

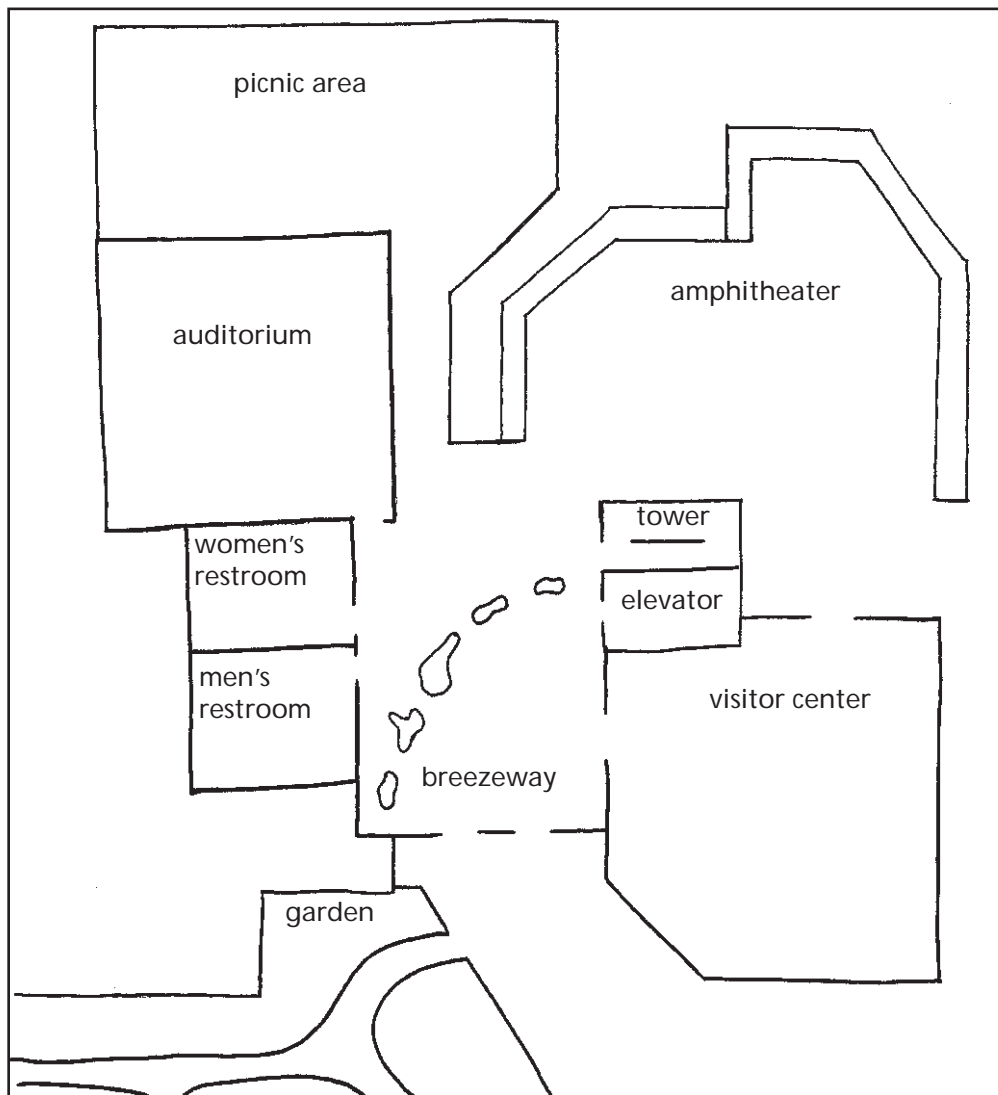
Channel Islands National Park
Ventura, California



Junior Ranger Discovery Program



CHANNEL ISLANDS NATIONAL PARK



Robert J. Lagomarsino Visitor Center
Channel Islands National Park, Ventura Harbor

Use this map to help you find the activity areas in this book.

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 habitat (a home) 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

Discover the wonders of the Channel Islands for yourself 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 need to complete. For example, the animal box on page 2 explains that Blue Whales answer questions 1–2; Brown Pelicans answer questions 1–4; and Island Foxes answer questions 1–5.
- 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 a.m. and 5:00 p.m., or mail your booklet to the address on the back page. **Be sure to fill out the section with your name and address.**



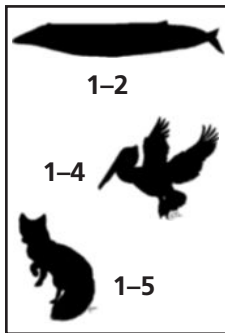
Blue Whale—ages 5 and 6
Complete activities on pages 2 and 3
plus two pages of your choice

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



Island Fox—ages 10 and up
Complete activities on pages 2, 3, 5, 6, and 7
plus four pages of your choice

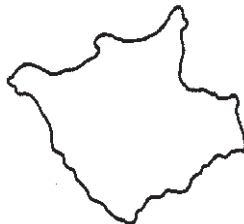
Explore the Islands



Locate the three-dimensional models of the islands in the breezeway. Follow the instructions for each question.



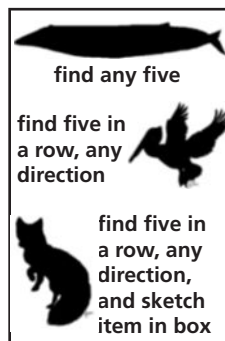
1. Examine the island contours. Notice peaks, valleys, and the shape of each island.
2. Circle the smallest Channel Island below. Draw a box around the largest Channel Island below.
3. Write the name of each island on the line beneath it.
4. What is an island? Write your definition here:
5. List one way these three-dimensional maps are helpful.





Garden Bingo

Find the native plant garden in front of the visitor center. The plants you see here grow on the Channel Islands. Fill in the spaces below as you walk through the garden. Please help take care of this special, living place. Garden manners include: no plant picking, walking only on garden paths, and asking an adult before you touch anything.



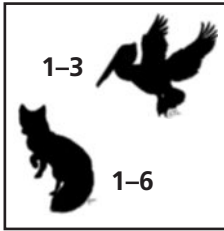
find any five

find five in a row, any direction

find five in a row, any direction, and sketch item in box

smell sage brush	grows in a sand dune	berries	hear a fog horn	spines (cactus)
leaves with prickly edges	see a bird	Santa Cruz Island ironwood	looks like an artichoke (succulent)	low-growing plant
hear a bird	needle-like leaves (pine)	free space!	acorn (oak)	grass
fuzzy leaves (might look silvery)	peeling bark	something as tall as you	flowers	see an insect
giant coreopsis	feathery leaves	pine cone	hear the ocean	shiny or waxy leaves

For more fun, find as many of these as you can.



" A Treasure in the Sea"

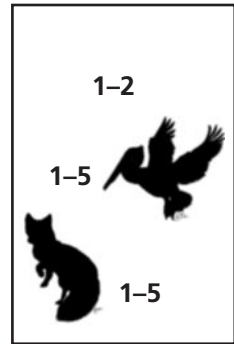
The park film is shown in the auditorium (across the breezeway, near the restrooms). Please ask for show times at the visitor center desk. You may want to read the following questions before you view the film. Record your answer in the space provided.



1. Give an example of a marine species (lives underwater) in the film.
2. Give an example of a terrestrial species (lives on land) in the film.
3. What are lighthouses used for?
4. Give an example of an echinoderm (spiny-skinned animal).
5. The film is titled "A Treasure in the Sea." What does the word treasure mean to you?
6. Give one reason why Channel Islands National Park is compared to a treasure.
Hint: Can you think of something within the park that is highly valued?

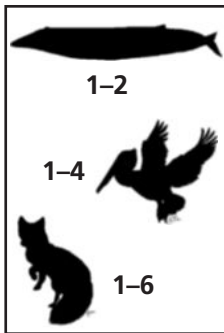
It's Up to You

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.



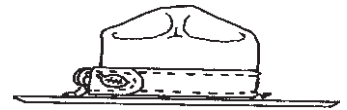
1. You have just finished lunch. The best place for your sandwich wrapper is:
 - a) underneath a stone
 - b) in the ocean
 - c) in your pack until you find a trash can
 - d) in the branches of a tree
2. A raven approaches you as you are eating a snack. The bird is interested in your food. You:
 - a) 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



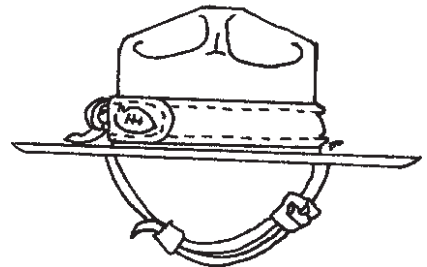


Interview a Park Ranger

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

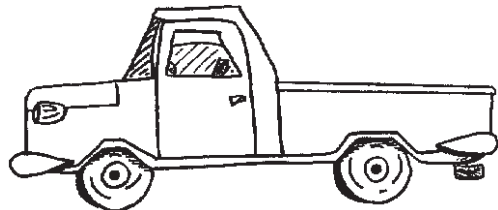
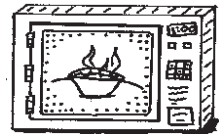
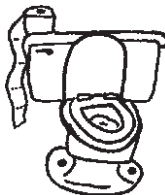
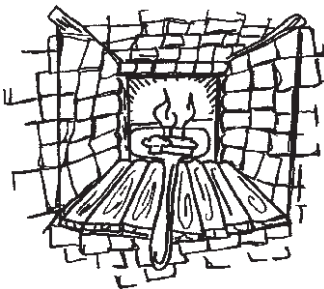
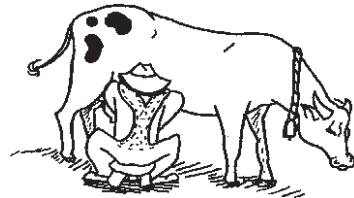
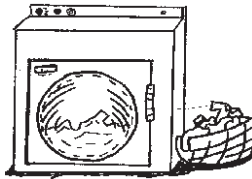
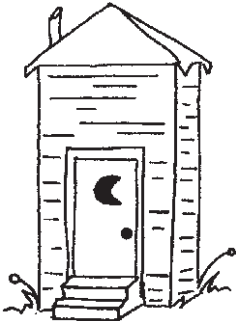
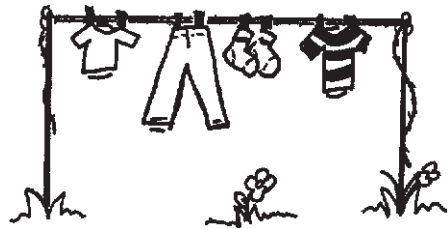
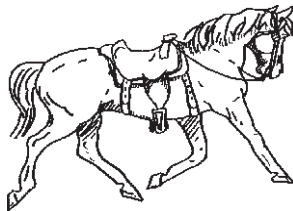
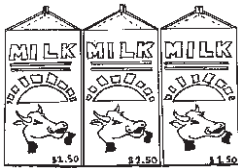
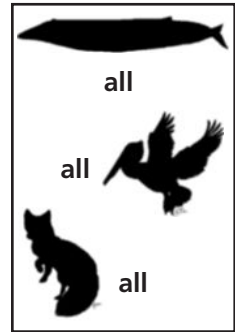


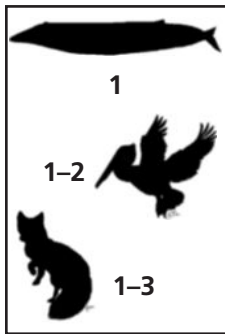
1. What is your name?
2. Name your favorite animal that lives in Channel Islands National Park.
3. How long have you worked here?
4. What do you like about this job? List one reason.
5. Name one reason the Channel Islands are protected as a national park.
6. Think of your own question and write it below. Then write the ranger's answer.



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.





Check It Out!

Find the touch table attached to the visitor center front desk. You are welcome to gently handle everything in this area. Choose at least three objects to explore. Complete the following activities.

1. Ask yourself the following questions about each object.

Share your discoveries with someone else.

Is it light or heavy?

Is it smooth or rough?

Is it large or small?

Was it part of a plant or animal?

Is it stone?

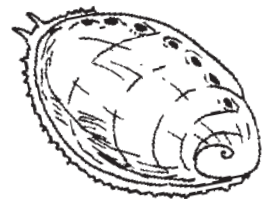
What do you think it is?

2. Write down the names of your three objects in the spaces below. Ask a ranger or a volunteer for help if you are unsure.

3. Create a short story from the perspective of one of your objects. You may use the ideas below to get started.

Before I came to the visitor center I lived...

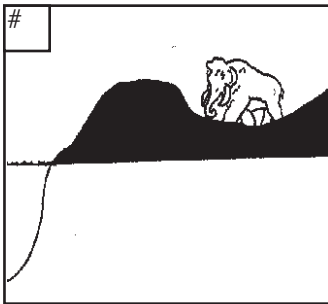
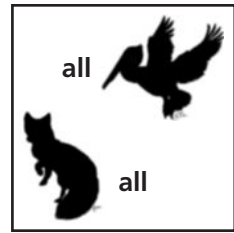
Life here was interesting because...



Mammuthus (Latin for mammoth)

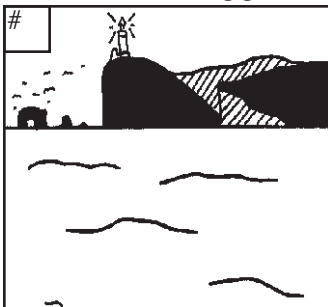
Locate the pygmy mammoth exhibit in the visitor center. Decode the mammoth story by numbering the following events in order from 1 to 6. These clues will help you:

- 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.

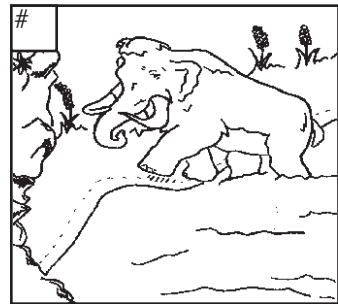
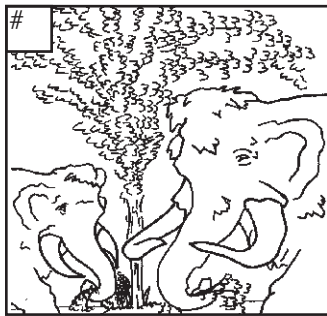


Only pygmy mammoths persist. The sea level rises, separating the peaks of Santarosae and forming the northern Channel Islands.

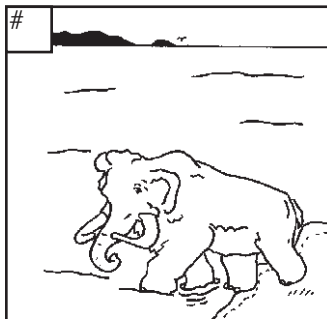
The islands today. Pygmy mammoths are long gone.



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

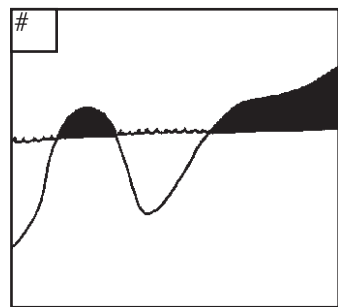


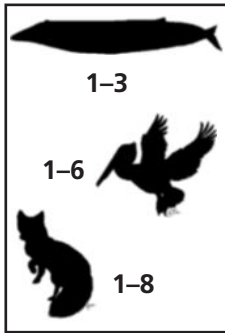
Columbian mammoths live on Santarosae.



Columbian mammoths swim to Santarosae from the mainland.

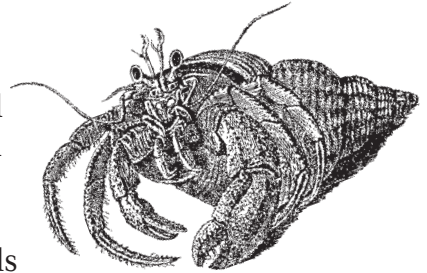
Volcanic land mass rises from the sea.



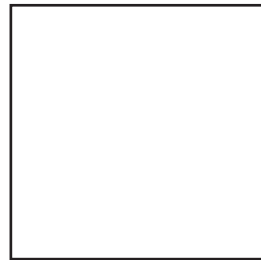


Wet and Wild

Find the marine life exhibit in the visitor center. People who snorkel or scuba dive around the Channel Islands often see these animals. Opportunities to observe wildlife are special. To protect wild animals and yourself, do not touch, tease, or attempt to feed wildlife.



1. How many seastars can you find? _____
2. Count the number of rays (arms) of at least two seastars. Record your numbers here:
(a) _____ (b) _____
3. Draw a seastar in the box on the right.
4. How many different types of animals do you see?
I see _____ different species.
5. Name an animal that clings to a surface in the marine life exhibit.



6. Name an animal that swims freely.



This exhibit has some of the characteristics of a rocky shoreline. Look carefully for clues to help you answer the following questions.

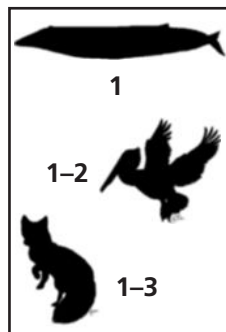
7. What is a tidepool? Describe it.
8. The splash zone catches water at high tide. This area experiences little water and a lot of sun. Name a species that is able to live in this environment? How does it avoid dessicating (drying out)?



cut here

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 in the visitor center complex (this includes the native plant garden, breezeway, observation tower, film, and visitor center room). 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 (animals, plants, cultural history, etc.) do you think are important to protect at Channel Islands National Park?

cut here

Cut this page out of your book and hand it to a ranger or mail it.

CHANNEL ISLANDS NATIONAL PARK

cut here

fold in half

your name and address

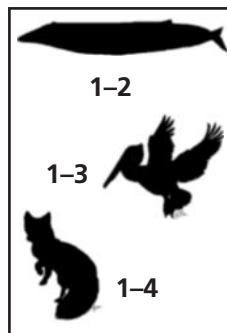
place stamp
here or turn
in to the
visitor center

Superintendent
Channel Islands National Park
1901 Spinnaker Drive
Ventura, California 93001

cut here

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 what they left behind, 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. Locate the mortar and pestle in the visitor center. *Discuss your answers with someone.*

Can you figure out how they work together? Can you think of something the Chumash might grind with this tool? How would you use this tool?



2. Find the archeology site near the mortar and pestle. Looking through this “window into the past,” how many of the following can you identify? Circle the ones you find.

fishhook cordage fragment shell bead money jawbone chert drill charcoal

3. By observing sites like this one, archeologists can form ideas about the ancient Island Chumash. Pretend you are an archeologist and answer these questions:

What do you think the Island Chumash ate? _____

Assume this site has three layers—top, middle, and bottom.

Which layer is the oldest? _____ Which is the most recent? _____

4. 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)

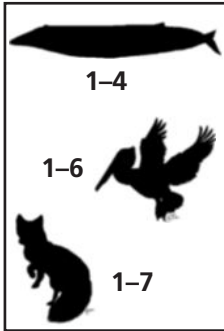
rabbit

steatite bowl
(stone)

hematite
(red mineral)

deer

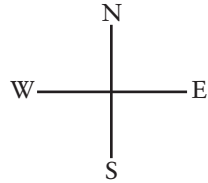




Towering Above

Climb the stairs or use the elevator to reach the highest point in the visitor center. Complete the following activities in the observation tower, weather permitting.

1. Can you see the islands? yes no
2. Can you feel any wind? yes no
3. What does the sky look like? clear partly cloudy cloudy
4. Use the telescope to get a better look at something.
What did you see? *Show someone in your group.*
5. In what direction is north? Hint: If you are looking in the direction of the islands you are looking south. 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

From which direction is the wind blowing? _____

7. From this viewpoint find something that interests you. Fill each space below with one word about your subject to create your very own cinquain (a 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.

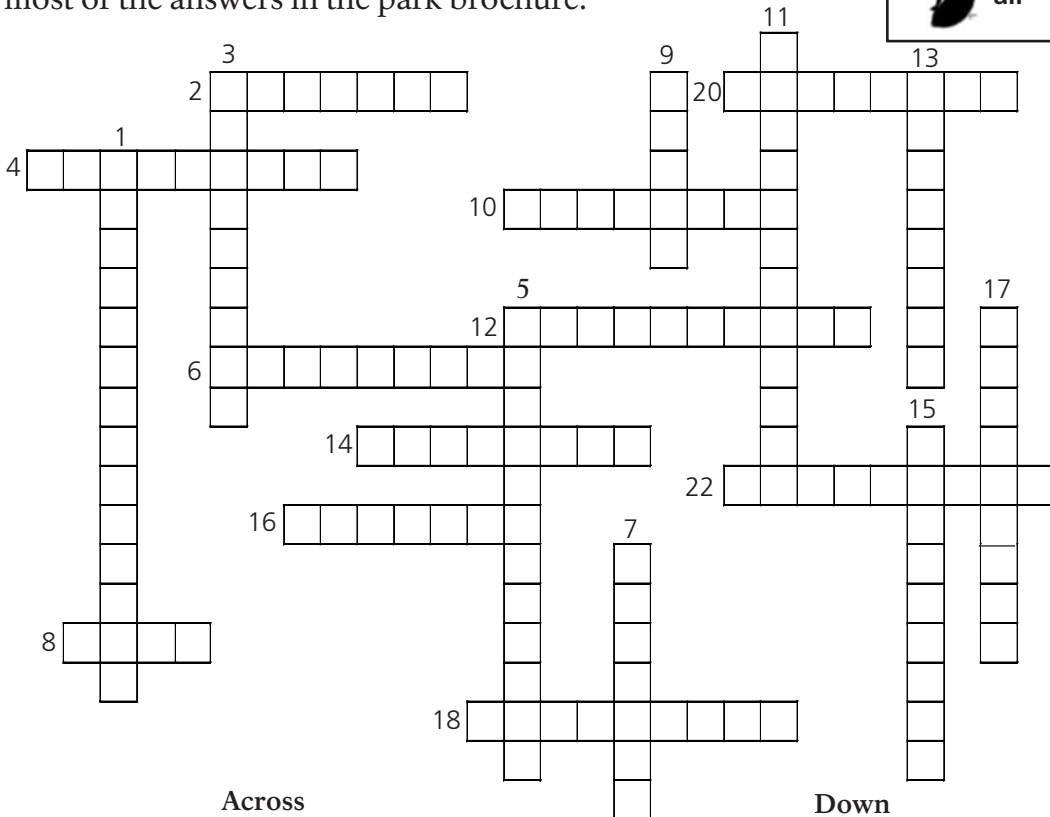
Write one new word to name the subject or describe your feelings about it.

Puzzle words for page 15

Anacapa island scrub jay Santa Cruz
 buckwheat olivella Santa Rosa
 camp poison oak
 Chumash ranching
 Roosevelt San Miguel
 elephant seal San Barbara
 endangered Santa Barbara
 Vancouver
 tidepool
 snorkel
 sheep
 snorkel

Park Puzzle

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



Across

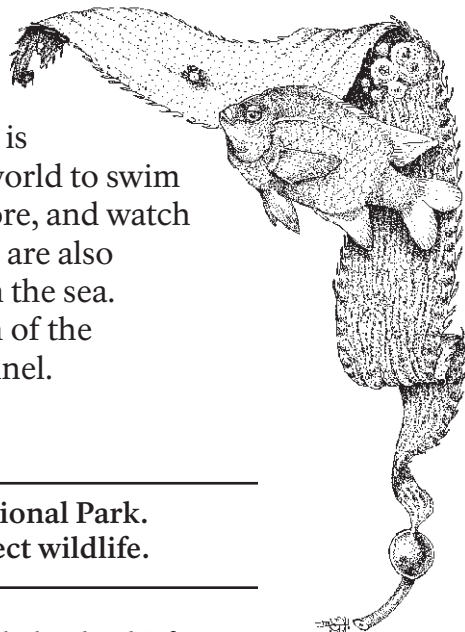
2. a way to see the park underwater
4. plant that may give you a skin rash
6. island features a monument to explorer Juan Rodriguez Cabrillo
8. when you spend the night at the park
10. shell used to make Chumash money
12. species in danger of extinction
14. small pool left behind by tide
16. island has a light station
18. name of largest Channel Island
20. island economy 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 non-native species at some point
11. home of the island night lizard
13. non-native plant species
15. five types of this plant occur on the park islands (can you find it in the garden?)
17. president who created Channel Islands National Monument in 1938 (national park status awarded in 1980 by President Carter)



Take Charge



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 ...

Creature Feature

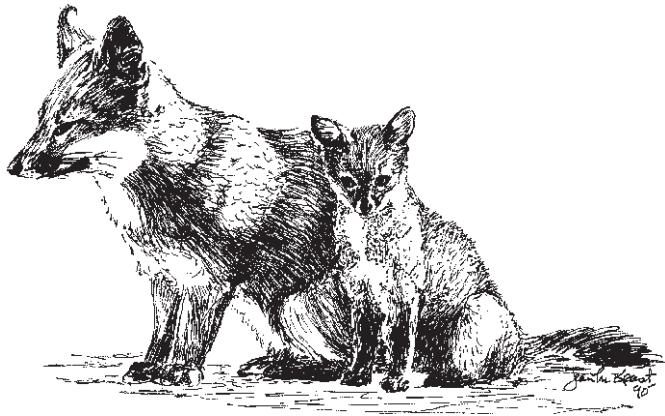
Enjoy this activity at home.

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?* Island foxes are 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.

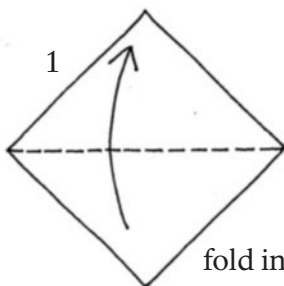


Turn the page to find origami fox instructions.

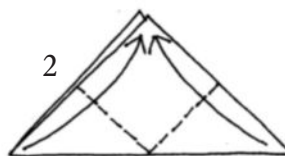
Enjoy this activity at home.

Fox Fun

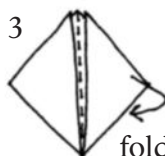
Follow the pattern below to make an island fox. To make a fox family, begin the first step with different sizes of square-shaped paper.



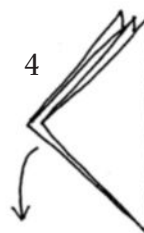
fold in half



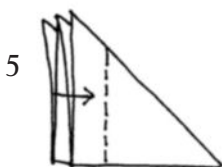
fold corners up



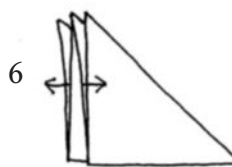
fold behind



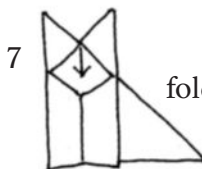
rotate 45 degrees



fold end to center



separate flaps



fold center point down for head

Pattern published with permission from Dover Publications.

Crossing the Channel

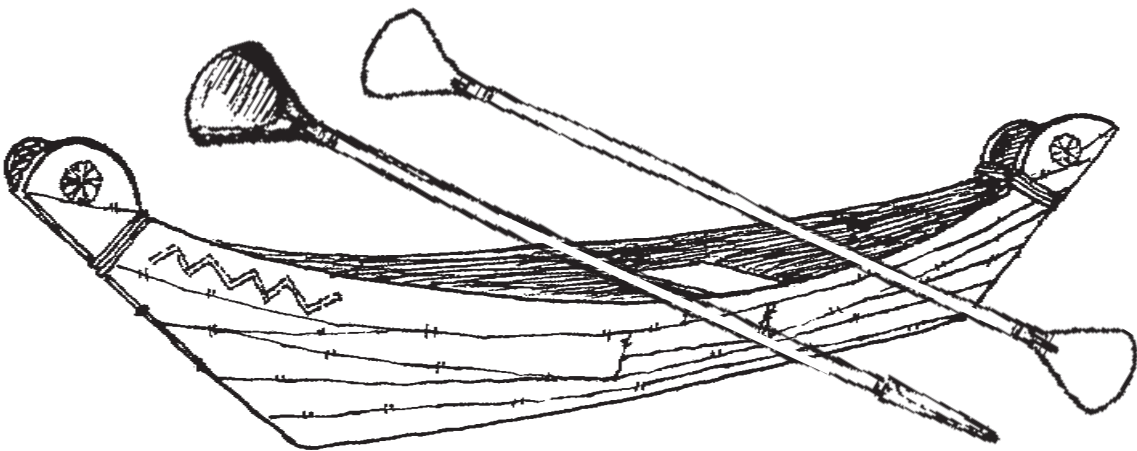
Enjoy this activity at home.

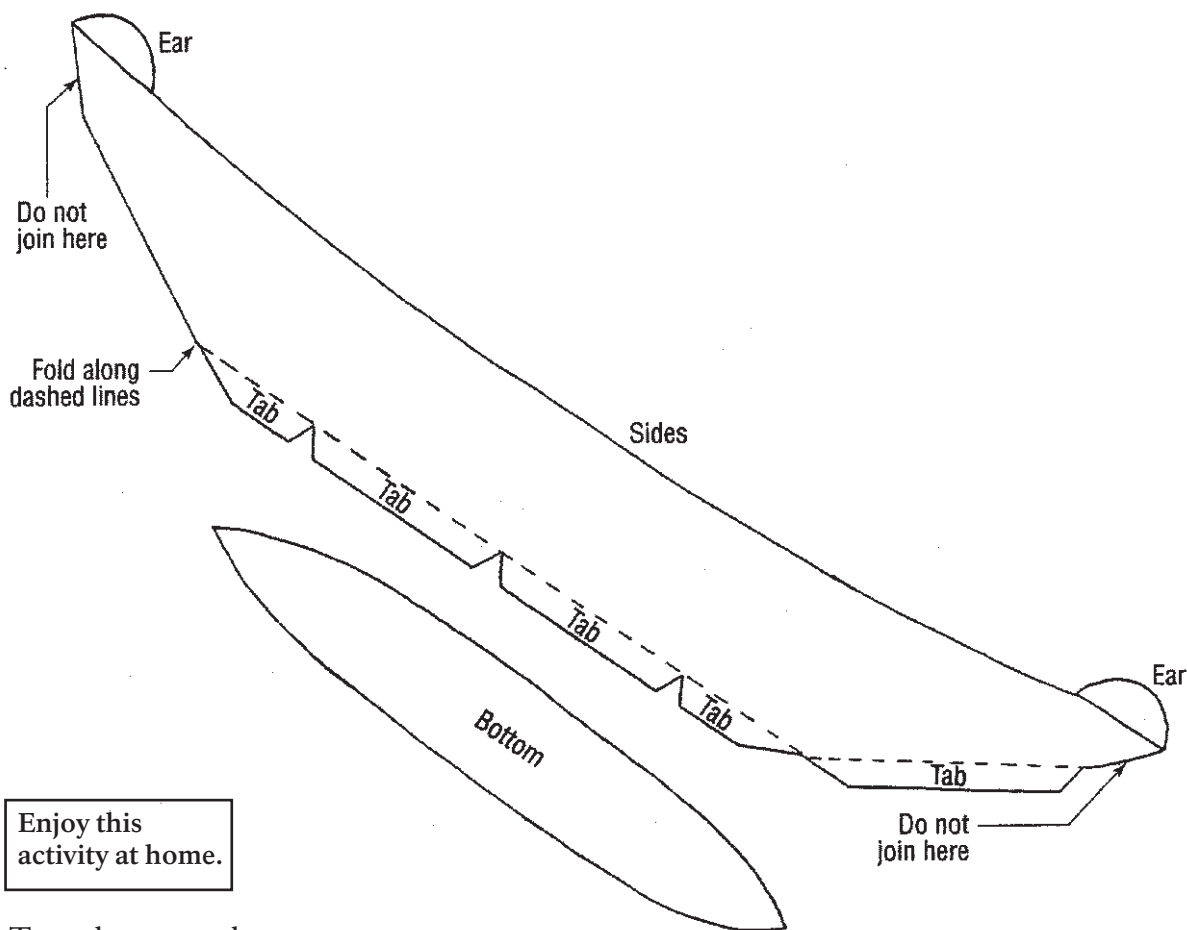
Imagine you have stepped back in time, 1,000 years before present. You would like to visit the Channel Islands. Motorized boats have not been invented yet and the Santa Barbara Channel is too wide to swim across. How will you reach the islands?

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 fishermen. 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.

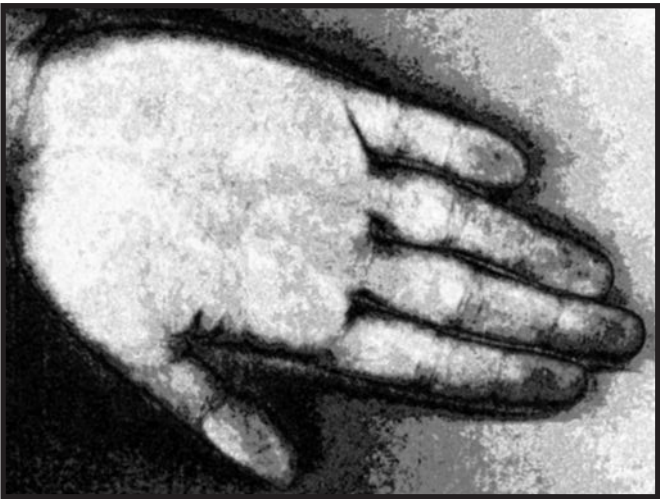




To make a tomol
follow these directions:

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.



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
become a junior ranger and friend
of the environment
learn more about parks, preserves,
and my community so that I can help
protect them for all the years to come

Congratulations! Junior Ranger _____ has successfully
completed the Channel Islands National Park Junior Ranger Discovery
Program. Signed by: _____ date: _____

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/



Written and designed by Desiree M. Holzer.
Art contributions by Heather DeWitt. Edited
by the interpretive staff at Channel Islands
National Park.