

# Cabrillo Adventure

## Activities Guide

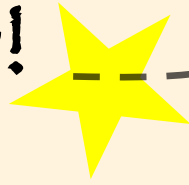


**For Ages 13 and Older**



**Cabrillo National Monument**

# Your Adventure Starts Now!



Thanks for joining us today at Cabrillo National Monument! Here, Rangers and Volunteers work to preserve and protect the many different stories that you will discover on your visit.

After completing the activities in this packet, return to the Visitor Center and talk to a Ranger or Volunteer about what you learned. Then you will be given your **Cabrillo Adventure Badge**.

**Have fun adventurers!**

## **Don't Forget!**

- Always stay on park paths and trails
- Keep plants and animals where they are
- Pack it in, pack it out – everything you brought to the park must leave with you, especially trash



# Biodiversity Hotspot

San Diego is home to a “biodiversity hotspot,” or a particularly high variety of plants, animals, and other living things. Biodiversity is important because plants and animals depend on each other for survival and all life is connected. Every organism has an important job to do in order to keep the community functioning. If an ecosystem loses biodiversity, those jobs won’t get done, causing negative impacts to the entire ecosystem.

**Activity:** As you walk around the park, slow down and observe this biodiversity. Use the space below to create your own Nature Journal by drawing a picture of one (or more) of the plants or animals you see. In addition to your drawing, a good nature journal also includes the name of your organism (it’s okay if you don’t know exactly what it is), where you saw it, when you saw it, and any behaviors that you noticed.

Did you know—scientists use the **scientific names** of plants and animals instead of common names. This allows scientists around the globe to speak the same language because scientific names are binomial (meaning 2 words) and written in Latin. Can you find any scientific names written on signs in the park?

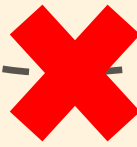
Plant/Animal Name: \_\_\_\_\_

Date & Time Observed: \_\_\_\_\_

Location Observed: \_\_\_\_\_

Notes: \_\_\_\_\_

# Native Plants



San Diego has a Mediterranean climate, which is characterized by a short rainy season and a long, hot, dry season. Native plants have to endure little to no rain and a lot of intense sunlight. Over thousands of years, these plants have developed different adaptations to survive despite these stressors. These adaptations include things like: thick leaves to store water, deep underground roots, small leaves that won't dry up, or light-colored leaves to reflect sunlight.

**Activity:** Choose a plant to observe. Examine its leaves, flowers, and branches. Think about what characteristics make it suitable to this environment. Start by drawing the plant, then answer the questions.

**Drawing:**

**This plant stores or captures water with leaves that are (circle all that apply):**

Spongy/Thick      Waxy      Fuzzy/Velvety

**This plant protects itself from the sun with leaves that are (circle all that apply):**

Fuzzy/Velvety      Taco-Shaped      Light Colored

Vertical

Small

**This plant is in the (circle one):**

Coastal Sage Scrub  
Community (1-5 feet tall)

Maritime Chaparral  
Community (6-12 feet tall)

**This plant spreads its seeds by (circle all that are present):**

Flowers

Pollinators (bees, moths, etc.)

Fruits/Berries

Is the plant in a dormant state (sleeping) with no leaves or flowers?      Yes      No

Are there any young leaves present?      Yes      No

**Name of Plant (if you can find it):** \_\_\_\_\_

The indigenous people living in this area for thousands of years are the **Kumeyaay** (‘Ipay and Tipay). Their ancestral territory extended from the Pacific Ocean as far south as Ensenada, Mexico to as far east as the Colorado River. Where you stand today is called **Mat nilly**. The Kumeyaay have a strong relationship with nature and the land. Just as their ancestors did before them, today’s Kumeyaay use native plants for food, medicine, tools, and more.

**Activity:** Find the following plants in the park. Then, match the plant with its common Kumeyaay use by drawing a line between them. Plants with strong fibers or woody branches are often used for weaving or creating tools. Most fruits or berries can be eaten, and many leaves and flowers, especially those with strong scents, are used for medicine.  
*Note: Some plants may have more than one use.*



Mojave Yucca



Lemonade Berry

## Food



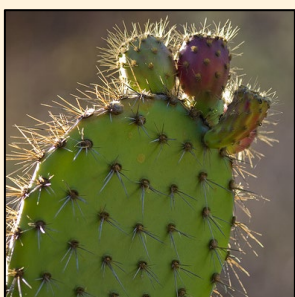
Bush Sunflower

## Tools



California Sagebrush

## Medicine



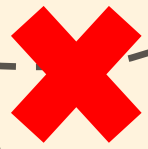
Prickly Pear Cactus



Toyon

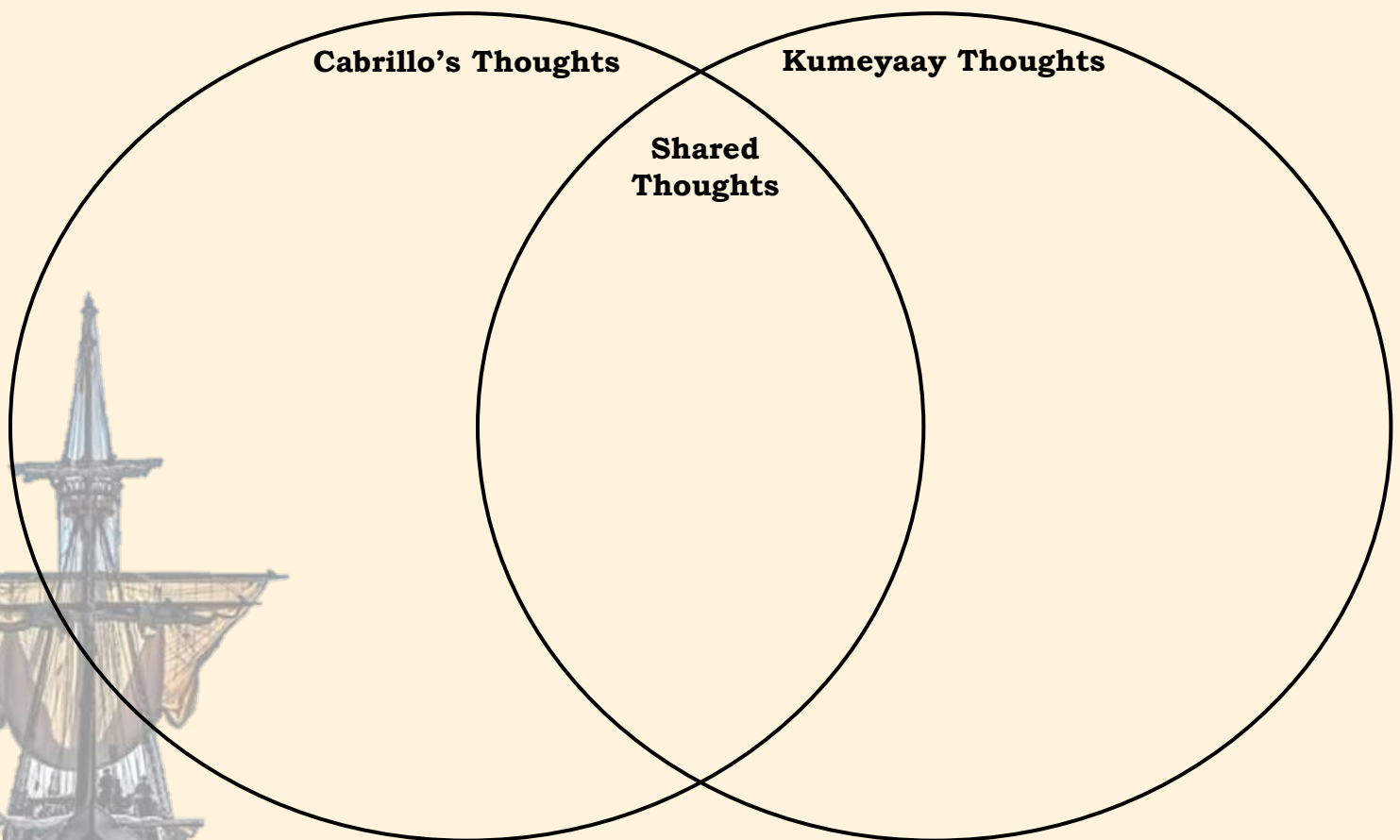


# Juan Rodríguez Cabrillo



Juan Rodríguez Cabrillo was a Spanish explorer and the first European to explore the West Coast of what is now the United States. His flagship, called the San Salvador, sailed from Navidad, Mexico to San Diego Bay (and further north) in 1542. When he reached this area, Cabrillo met the Kumeyaay, and this was the first contact between the native people and Europeans. Records suggest that encounters between Cabrillo and the Kumeyaay were peaceful, but this first contact was the beginning of Spanish colonization of the West.

**Activity:** When Cabrillo and his men met the Kumeyaay, and vice-versa, both parties likely experienced fears and questions, but also curiosity and excitement from this new encounter. Think about what this first contact may have felt like – the emotions, questions, or other thoughts both parties would have had. Then fill out the Venn Diagram below.



# Military History

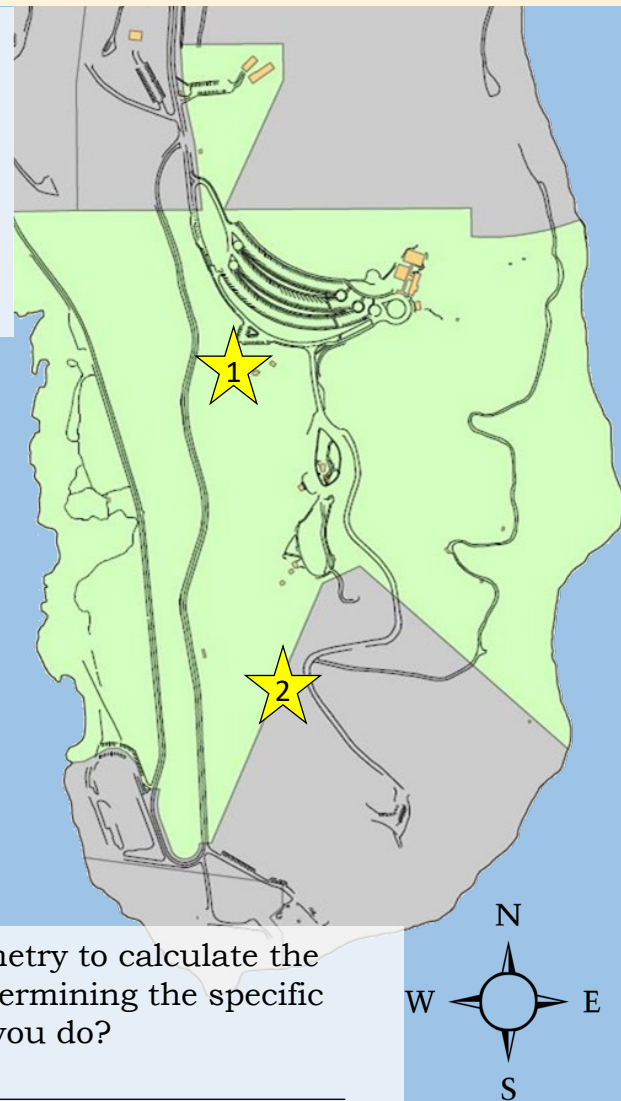


When Pearl Harbor was attacked by the Japanese Navy on December 7, 1941, soldiers stationed here at Fort Rosecrans were the first to receive the call. This event put the United States Military and nearby civilians on high alert. Cabrillo National Monument closed to visitors soon after, becoming a full-time military base until the end of World War II.

Located at the entrance to San Diego Bay, Point Loma is the perfect place to stand guard. Soldiers stationed here were constantly on the lookout for enemy ships and submarines coming toward the shore.

**Activity:** A method known as **triangulation** was used to locate the position and distance of an offshore ship. Triangulation involves drawing triangles and using math to determine an unknown point from two known points. Follow the steps below to determine the location of a suspicious watercraft.

1. You are a soldier manning a bunker near Star #1 on the map. You receive an incoming radio signal from the south-west. Draw a line from the star in that direction.
2. Another soldier manning a bunker near Star #2 receives the same signal from the west. Draw a line from the star in that direction.
3. Draw a dark circle where the two lines intersect. This is the likely location of the unknown ship!



The next step for these soldiers would be to use trigonometry to calculate the distance of the ship (but we won't do that here). After determining the specific location of the unknown ship, what would you do?





# Life in the Ocean

Cabrillo National Monument protects 1.5 miles of Rocky Intertidal. Rangers, scientists, and volunteers survey the area to record the different species that live there. By collecting this data and comparing it to years past, we can monitor the health of this important ecosystem and the individual species within it. This kind of study allows us to make decisions about how this area should be managed, such as where people are allowed to visit.

Scientists conduct these studies by using a **quadrat** (a square usually made of PVC pipe) to take a small sample of a known size. The quadrat is set down and the scientists record which species are there. Then, using math and statistics, they can estimate the total number of different species in the area and come back to the same spots every year to see if anything has changed.

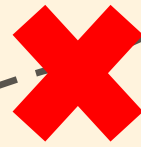
**Activity:** Conduct your own tidepool survey! To the right is a photo of the intertidal zone with a “quadrat” above it. Use the chart at the bottom of the page to record which species you see within the square.



Species	Present? Yes/No	Species	Present? Yes/No
Barnacles (pink “volcanoes”)		Green Algae	
Anemones (look like a bunch of shells)		Brown Algae (may look like a tar spot)	
Owl Limpets (tan, oval-shaped shells)		Red Algae (may look like a pink stain)	

**Total Number of Different Plants and Animals in the quadrant:** \_\_\_\_\_

# Preserve & Protect



The role of the National Park Service is to preserve and protect America's special places for generations to come. But, it's not just the Rangers' job to protect these beautiful places and stories – we need your help, too! There are many things you can do to help protect places like Cabrillo National Monument.

**Activity:** Some ways you can help protect the park are listed below. With the help of your group, try to think of three more ideas. Then, circle one thing your group will promise to do today.



1. Pick up ten (or more) pieces of trash.
2. Make a plan to visit other National Parks.
3. Tell someone what you learned. Use the postcard on the next page to send a letter.

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_



# Congratulations Adventurer!

You completed your journey and learned so much! Make sure to stop by the Visitor Center to pick up your Cabrillo Adventure badge. And remember, now that you're an official Cabrillo Adventurer, it's your job to:

- **Enjoy and learn more about your National Parks.**
- **Reduce your impact on the environment.**
- **Help protect Cabrillo National Monument and other National Parks so that kids in the future can enjoy them too.**



Cut here

**California Sunflowers (*Encelia californica*)  
and the Old Point Loma Lighthouse**  
Cabrillo National Monument  
San Diego, CA

*Place  
Stamp  
Here*

*Recipient's Name & Address*



# Connect With Us!

**Website:** [www.nps.gov/cabr](http://www.nps.gov/cabr)

**Facebook:** CabrilloNPS

**Instagram:** @cabrillonps

Share your photos using the hashtag  
**#CabrilloAdventure**

Hello From

# Cabrillo National Monument!

