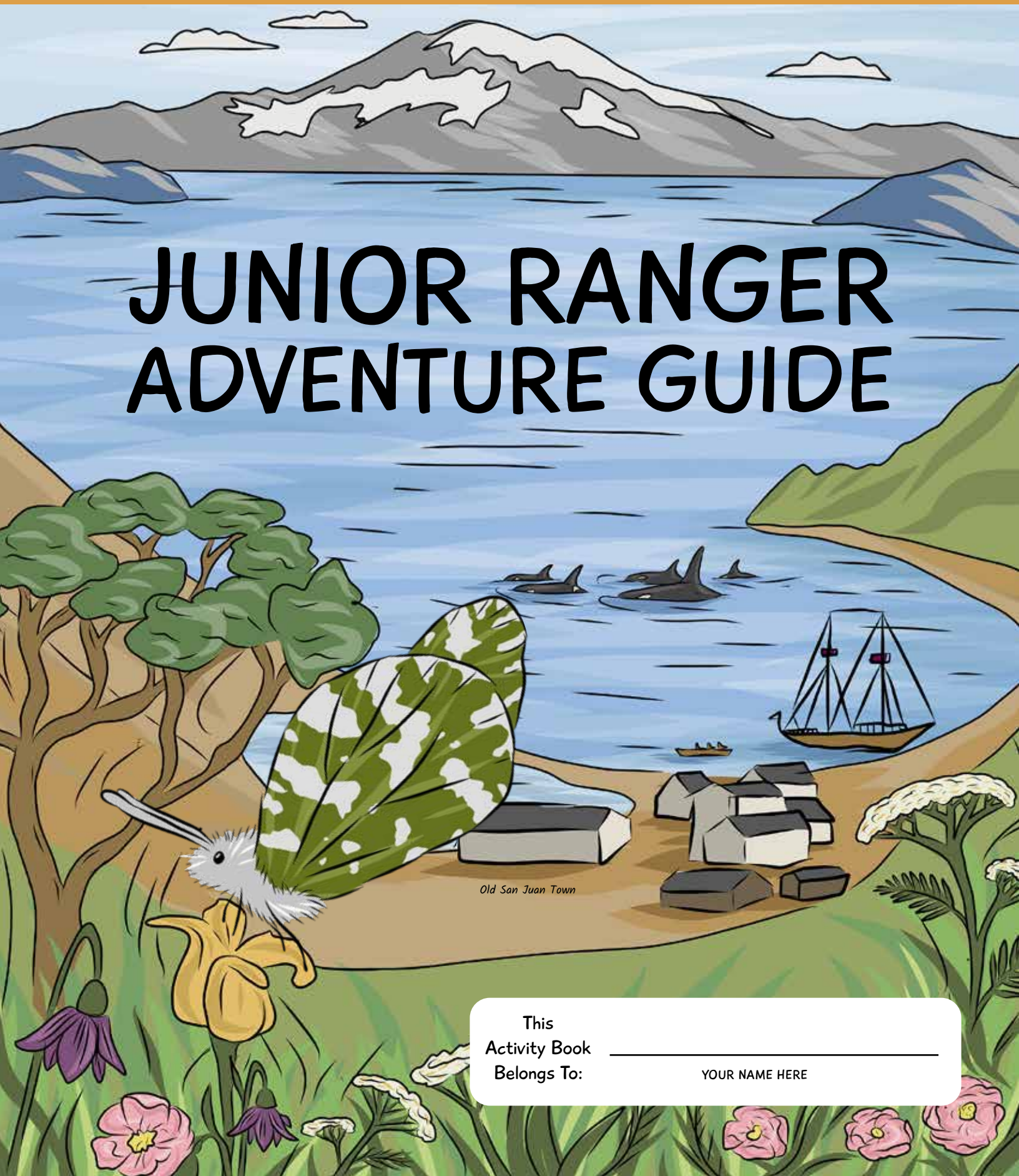




# JUNIOR RANGER ADVENTURE GUIDE



This  
Activity Book  
Belongs To:

YOUR NAME HERE

WELCOME TO

# San Juan Island National Historical Park



Use the activities in this book to become  
an official Junior Ranger!



## WHAT'S A JUNIOR RANGER?

As a Junior Ranger, you:

**Explore** the land around you.

**Learn** about plants, animals, and people of San Juan Island.

**Protect** land and water through your words and actions.



## HOW TO BECOME A JUNIOR RANGER

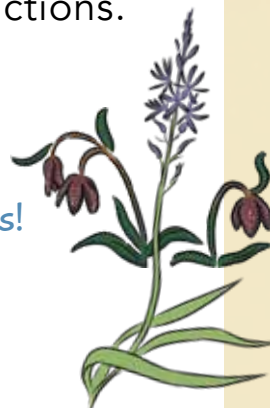
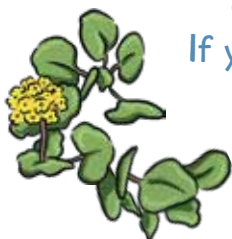
Complete as many activities as your age. For example:

**If you are 6 years old, complete at least 6 activities!**

When you are done, bring it to a ranger to sign.

Or return by mail to receive your badge:

San Juan Island NHP - Junior Ranger  
PO Box 429, Friday Harbor, WA 98250



The Park is the homeland of  
Indigenous Coast Salish peoples.

Two hands raised up is a way to show appreciation among Coast Salish people. San Juan Island National Historical Park recognizes that the Park was created within the traditional homeland of local Coast Salish Tribes and First Nations. We extend our gratitude to Coast Salish people for sharing these special places preserved in the Park for future generations.

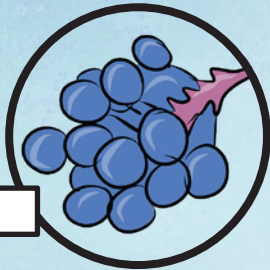


# Park Seek & Find

There are many things to see in the Park!  
What can you discover here? Can you find...



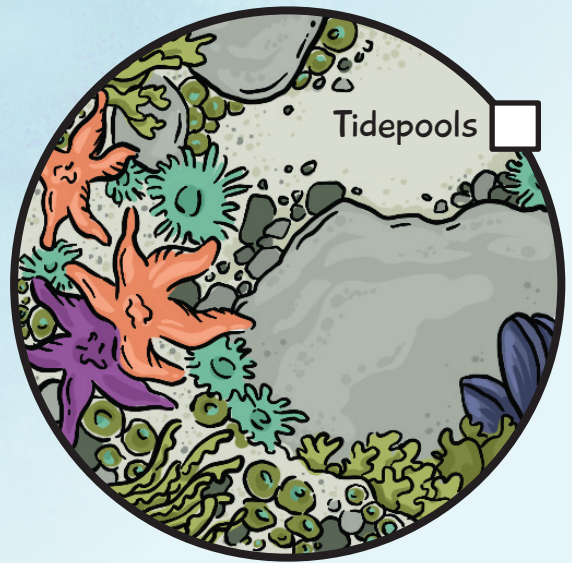
☐ Moss



☐ Berries



☐ Seabird



☐ Tidepools



☐ Pinecone

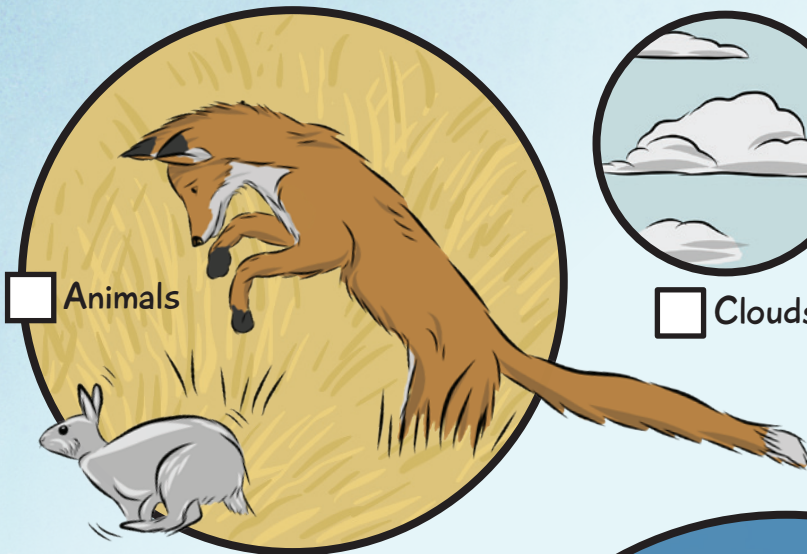
☐ Scat



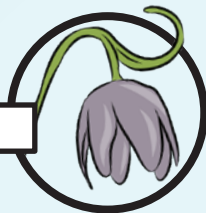
☐ Clouds



☐ Driftwood



☐ Animals



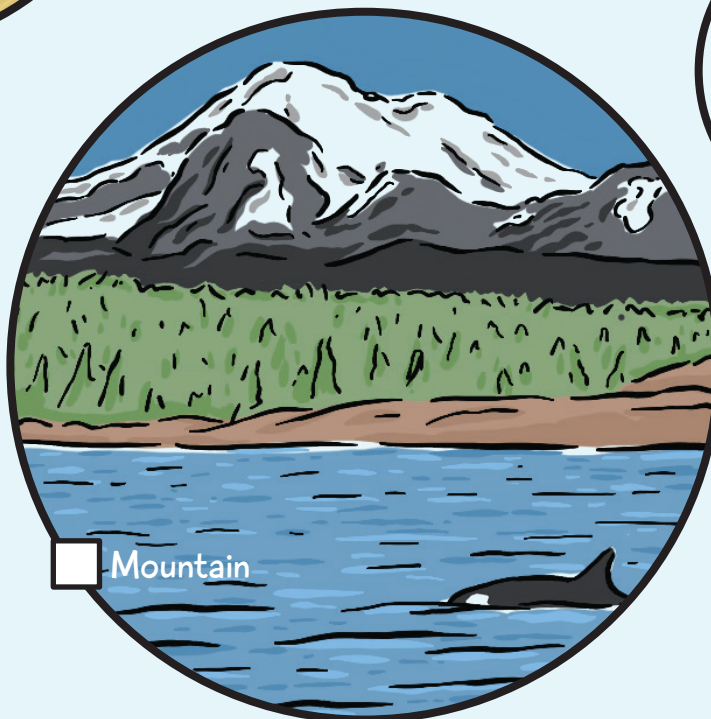
☐ Flower



☐ Historic Building



☐ Pollinator



☐ Mountain

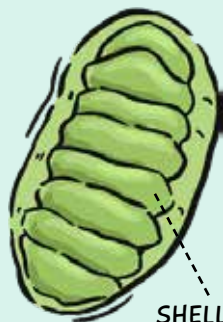


☐ Rocks



# Tidepool Numbers

When the tide is low at Granny's Cove, discover creatures that call the **intertidal zone** home. After your adventure, complete these math problems.



## 1 Chiton

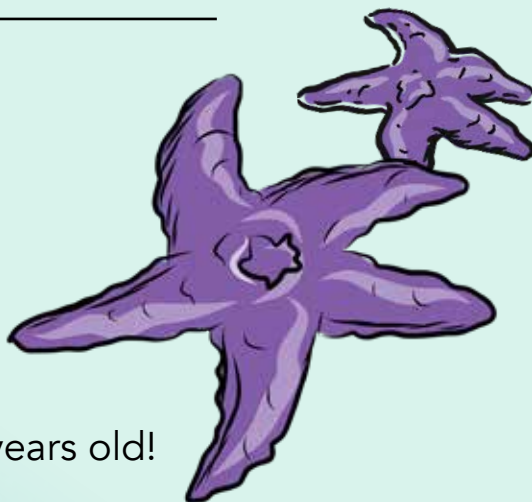
How many shell plates does this chiton have?

\_\_\_\_\_

## 2 Sea Star

Did you know?  
Some sea stars can live up to

$11 + 13 =$  \_\_\_\_\_ years old!



## 3 Mussels

A mussel opens its shell twice a day. How many times will it open in a week?

\_\_\_\_\_



HIGH TIDE LEVEL

## 6 Tide Levels

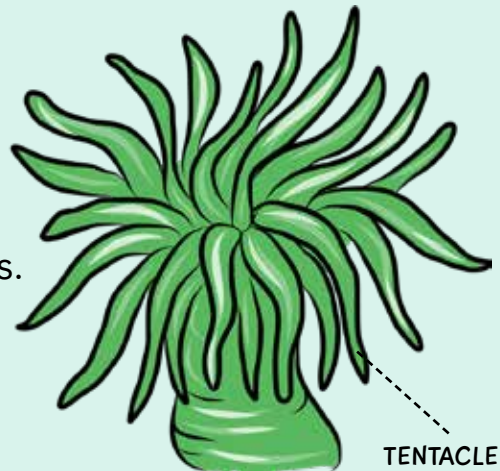
High tide reaches **108** inches.

Low tide is **84** inches less.

How many inches high is low tide?

\_\_\_\_\_ in

LOW TIDE LEVEL



## 4 Sea Anemone

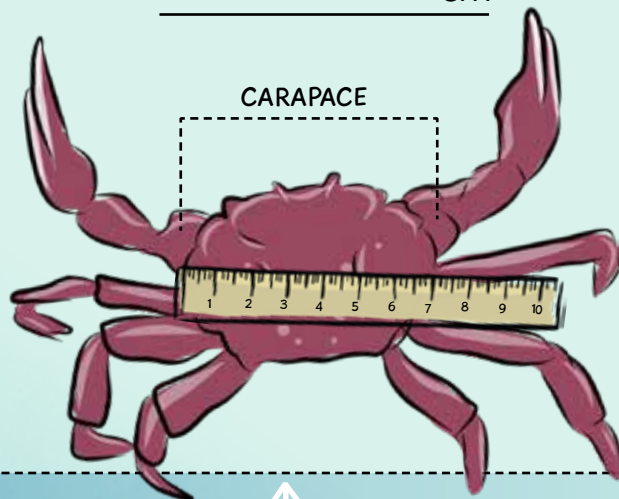
Count the tentacles on the sea anemone!

\_\_\_\_\_

## 5 Purple Shore Crab

How many centimeters wide is this crab's carapace?

\_\_\_\_\_ cm



CARAPACE

**What is the intertidal zone?**

The area between the high and low tide marks is where these creatures live.



# Plant Uses

Plants on San Juan Island have been used for thousands of years by **Coast Salish people** for many purposes. Check the boxes of the plants you see!

**WARNING:** Do not pick or eat anything without an expert's permission. Some plants are poisonous.

## ☐ Garry Oak

The bark is used traditionally for medicine. Long ago, Coast Salish people ate the acorns after soaking in water or burying in mud and roasting.



## ☐ Western Redcedar

Bark is stripped by Coast Salish people and used for many purposes, such as clothing, baskets, nets for fishing, and shelter.



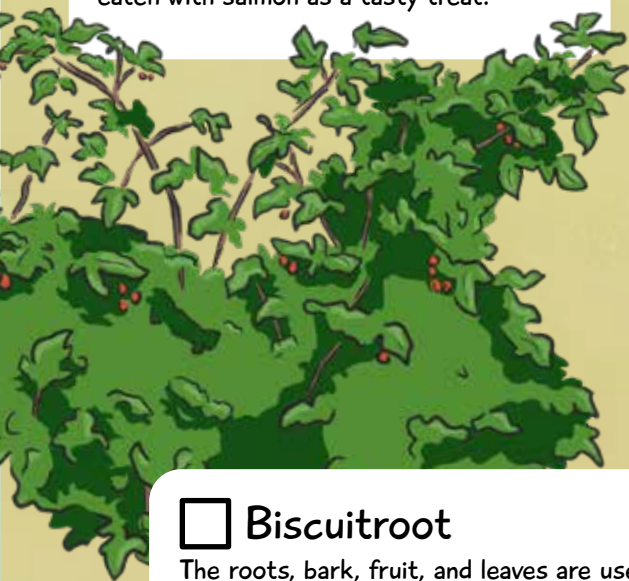
## ☐ Coastal Gooseberry

The tart berries are eaten fresh, canned, or made into jam and jelly.



## ☐ Salmonberry

The berries are gathered in early Spring and are the first fresh food of the season. They can be eaten raw or steamed and eaten with salmon as a tasty treat.



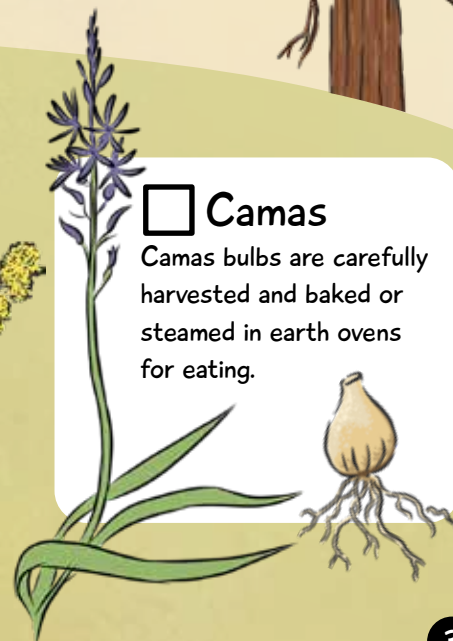
## ☐ Biscuitroot

The roots, bark, fruit, and leaves are used medicinally to treat injuries and sicknesses. The seeds can be used in a tea to soothe sore throats and colds.



## ☐ Camas

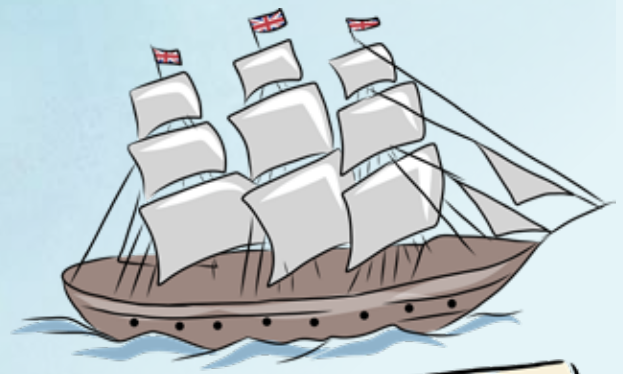
Camas bulbs are carefully harvested and baked or steamed in earth ovens for eating.



# Unscramble the Pig War

The Pig War was a disagreement between the United States and Great Britain over San Juan Island. **What happened?**

**Unscramble** the facts along the timeline. Find the **hidden word** with the circled letters!



**START**

**IN THE MID-1800'S**  
American and British settlers each thought the island belonged to their own

\_\_\_\_\_

**TYUCONR**



**1860**  
Both the United States and Britian sent military protection to the island, escalating tensions. The

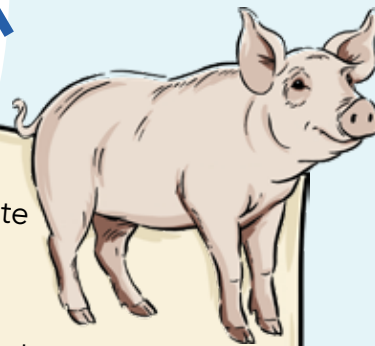
\_\_\_\_\_

**SCANAEIRM**  
settled on the south side, and the British settled on the north side.

**1859**  
A British pig was killed after it ate

\_\_\_\_\_

**TEPTAOSO**  
from an American farmer's vegetable garden. This started the dispute between the Americans and British regarding who owned the island.



**1865**  
During years of sharing the island, neither side ever fired a shot. Instead, they became very

\_\_\_\_\_

**FERYNLID**  
with each other.

**1871**  
Though called a war, the

\_\_\_\_\_

**DUSTIEP**  
never experienced armed conflict and was settled

\_\_\_\_\_

**LPLFEYUEAC**



**1872**  
It was finally decided that the San Juan Islands were the

\_\_\_\_\_

**RITRYRETO**  
of the United States.

**HIDDEN WORD**

\_\_\_\_\_

Unscrambled words: 1. COUNTRY 2. POTATOES 3. AMERICANS 4. FRIENDLY 5. DISPUTE 6. PEACEFULLY 7. TERRITORY  
Hidden word: CONFLICT



# Homesteading Maze

Pioneers seeking a new life traveled to San Juan Island, where they could claim 160 acres if they built a home and farmed the land. The remains of **Sandwith Homestead**, a historic farm and subsistence orchard, are here in the Park.

Do you know why **animals** and **orchards** were important to a homestead? Follow the arrows through the maze and answer the questions to find out.

**START**

Fruit orchards were useful to a homesteader. "Pick" two reasons why they were important to the Sandwith family.

- ☐ Orchards were one way for a farmer to claim land
- ☐ Orchards could be moved from place to place
- ☐ Fruit was one of the few sources for sweet deserts
- ☐ Orchard trees could be changed every year



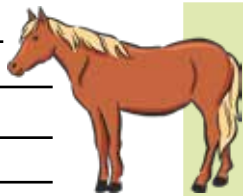
Count the harvested apples!

What do farmers get from each of these animals?



SHEEP \_\_\_\_\_

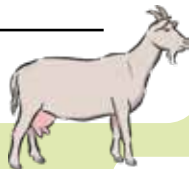
HORSE \_\_\_\_\_



CHICKEN \_\_\_\_\_



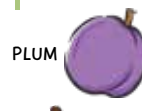
GOAT \_\_\_\_\_



PEAR



ORANGE



PLUM



LEMON



APPLE



BANANA

Which fruits might have been grown in the Sandwith Orchard? Circle three.



**FINISH**

1. Orchards were one way for a farmer to claim land and fruit was one of the few sources for sweet deserts. 2. There are 9 apples in the basket. 3. Sheep used for wool and meat, horses used for transport, chickens used for eggs, pest control and meat, goats used for milk and meat. 4. Pear, apple, plum

# Adventure Through Ecosystems

Help a young river otter get back to its den...there is so much to see and do along the way! The ecosystems of San Juan Island National Historical Park include conifer forests, lagoons, prairies, dunes, and coastal bluffs, providing important habitat for plants and animals.

**HOW TO PLAY:** Find a small item for each player to use as a game piece. Flip a coin to see how many spaces to move.

- **HEADS** move forward 2 spaces; **TAILS** move forward 1 space.
- Follow the directions of each space you land on.
- The first player to reach the otter's den wins!





Stop and fish  
in a lagoon  
STAY IN PLACE

Dive through  
the water!  
ADVANCE 3



Island Marble  
Butterfly



Follow a butterfly  
to the prairie  
ADVANCE 1

Hurry past  
invasive  
cheat grass  
ADVANCE 1



Avoid a  
wildfire!  
STAY IN  
PLACE



Slide down a  
sand dune!  
ADVANCE 2



Yellow Sand  
Verbena

Sniff some  
yellow sand verbena  
STAY IN PLACE



Nap on a  
sunny rock  
STAY IN PLACE



Virginia  
Pepperweed

Lupine

Roemer's  
Fescue

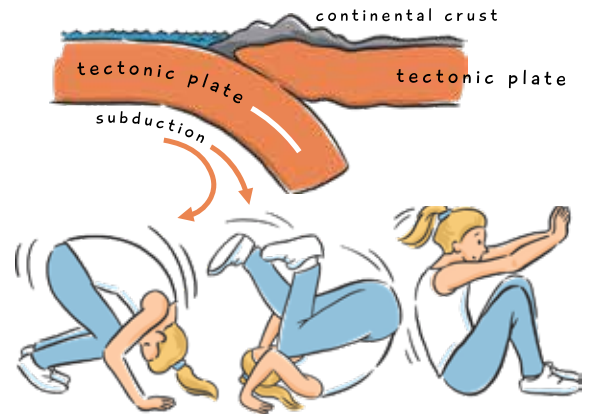
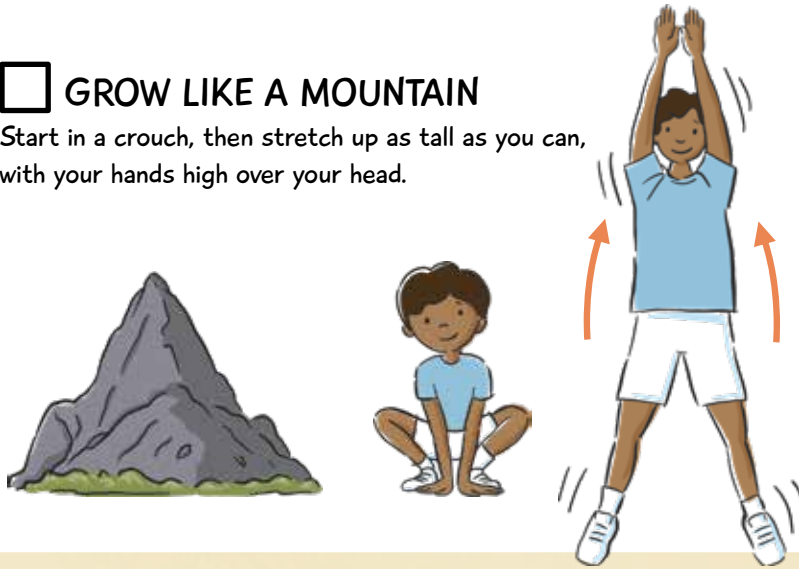
# Jump Around Geology

How were the San Juan Islands formed? **Move your body** to shape the islands through geology. Remember to be safe while doing these activities!

The San Juan Islands began with the collision of **tectonic plates** - huge, moving pieces of the Earth's crust. As the plates ran into and rolled over each other, they made mountains and valleys.

## ☐ GROW LIKE A MOUNTAIN

Start in a crouch, then stretch up as tall as you can, with your hands high over your head.



## ☐ ROLL LIKE A TECTONIC PLATE

Do a somersault to roll under another plate.

**Ice Age glaciers** covered the islands 17,000 years ago, carving out canyons and grinding down mountains.



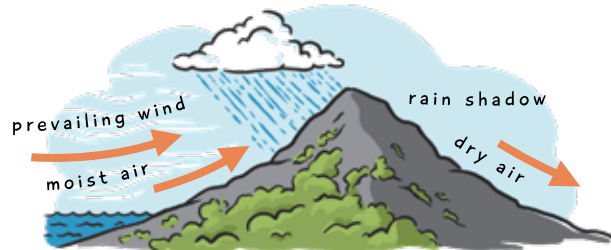
☐ **BE A GLACIER** Slowly crawl, slip and and slide over high and low places, pressing down with all your weight.

**Water and wind** from coastal weather continues to shape the islands.



☐ **SWEEP & WIGGLE** your arms, like the winds and ocean tides carving the shoreline.

San Juan Island is located in a **rain shadow**, where most of the rain from the Pacific Ocean is blocked by the Olympic Mountains. Less rain can determine what plants and animals grow and survive on the island.



☐ **FALLING RAIN** Wiggle your fingers to be raindrops, from high above your head all the way down to the ground. Which side of the mountain will you land on?





# Nature Notes

Find a place to sit quietly outside.  
Use your senses to explore your surroundings!

DATE: ..... TIME: .....

Describe where you are:

What is the weather like?

is it COLD, or  
WARM? WINDY?  
SUNSHINE?

Can you see clouds?

Do you know what kind of clouds they are? Cirrus? Cumulus?

Draw or describe them:

What else can you see?

Are there trees or plants nearby?

Draw or describe one or more here:

Close your eyes and listen.  
What can you hear?

What can you reach out and feel  
with your fingers?

Try this activity again  
at another location.  
What is different?

What is the same?

is it ROUGH, or SMOOTH?  
PRICKLY? SOFT?

Chocolate  
Lily

Yarrow

Nootka  
Rose

Roemers  
Fescue

# Be an Archeologist

**Archeologists** look closely at artifacts from a site to study how people lived in the past. Where an object is found can determine how old it is. San Juan Island National Historical Park has a rich archeological history, with each soil layer a different chapter of what happened long ago.

*Remember, if you see any artifacts or historical objects here in the Park, leave them in place!*

**Study the soil layers** and match each time period to the list of artifacts below.



1

**MODERN DAY  
TIME PERIOD  
(1966-Present)**

2

**PIG WAR  
TIME PERIOD  
(1859-1872)**

3

**HUDSON BAY  
TIME PERIOD  
(1853-1872)**

4

**PRE-CONTACT  
TIME PERIOD  
(Before 1790)**

Glass beads, axe head, painted ceramic dish shards

Horseshoe, minié balls, square nails, glass bottle, bone button

Candy wrapper, can, comb, penny, plastic toy

Stone net sinker, projectile points, bone needle, stone beads, bone awl

*Era 1: Chewing gum, can, comb, penny, crumpled paper Era 2: Horseshoe, bullets, glass bottle, bone button Era 3: Arrowheads, beads, axe head, necklace Era 4: Stone net sinker, bone needle, bone awl, wedge made from an antler*

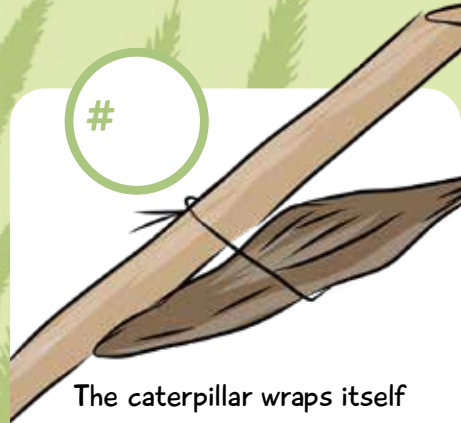


# Island Marble Butterfly

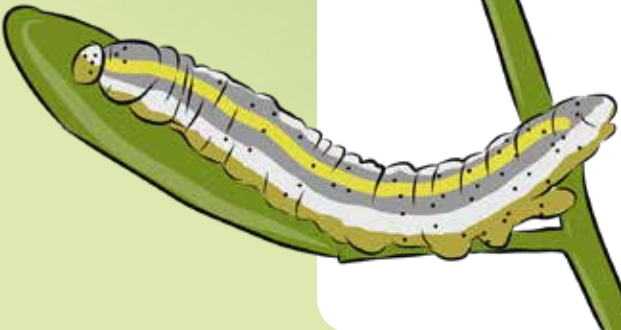
The Island Marble Butterfly is an endangered species that only lives here on San Juan Island! Park Staff help protect them and their habitat.

**Number the different stages** of the butterfly's life cycle in the correct order below.

#




The caterpillar wraps itself into a chrysalis for 10-12 months and transforms itself.



An egg hatches into a tiny caterpillar that grows larger as it eats leaves.


#




In the spring, a butterfly emerges from the chrysalis.

#

The butterfly flies around for 6-9 days and finds a mate.



#



A butterfly lays eggs on its host plant, which provides food and protection for the larvae.

#

#1 A butterfly lays eggs on its host plant #2 An egg hatches into a tiny caterpillar #3 The caterpillar wraps itself into a chrysalis #4 A butterfly emerges from the chrysalis #5 The butterfly flies around for 6-9 days and finds a mate

# Create your own canoe and paddle

**Canoes** were depended upon by Coast Salish people in the San Juan Islands for transportation, food gathering, and other needs for thousands of years. Traditionally made from hollowing out a trunk of a cedar tree, canoes range in size from small, one-person canoes to large canoes over 50 feet long.

**Paddles** are multipurpose tools, used for steering and moving the canoe across the water. They can also be used for hunting and protection. The size of the paddle is designed to fit the individual.

## DRAW YOUR CANOE

A large fishing canoe on the open ocean...a smaller river canoe...a canoe to carry your family...what will your canoe look like?



## DRAW YOUR PADDLE

Paddles can differ in size and shape, painted with colorful art that is important to its owner. Every paddle design is unique. What will you put on your paddle?

See these paddle designs at the Park's visitor center!



**Paddle 1:** Raven Paddle by Nathan Tatro of the Stillaguamish Tribe of Indians

**Paddle 2:** Eagle Paddle by Jeremy Monson of the Jamestown S'Klallam Tribe

**Paddle 3:** Thunderbird Paddle (Skipper's paddle) created by William Jefferson of the Lummi Nation



# Wildlife Bingo

<input type="checkbox"/> See an ORCA 	<input type="checkbox"/> TAKE A PHOTO from a safe distance 	<input type="checkbox"/> Discover a BUTTERFLY 	<input type="checkbox"/> DO NOT TAKE plants, rocks, shells 
<input type="checkbox"/> CAMPFIRE Safety  <p>Use only fire rings Extinguish completely</p>	<input type="checkbox"/> PICK UP after your pet! 	<input type="checkbox"/> Use BINOCULARS for safe viewing 	<input type="checkbox"/> Spot a BAT 
<input type="checkbox"/> Find a SEAL 	<input type="checkbox"/> KEEP YOUR DISTANCE at least 25 yards 	<input type="checkbox"/> Identify an EAGLE 	<input type="checkbox"/> BE WHALE WISE  <p>Learn the guidelines <a href="http://www.bewhalewise.org">www.bewhalewise.org</a></p>
<input type="checkbox"/> STAY ON TRAILS <p>Protect native species!</p> 	<input type="checkbox"/> Observe a DEER 	<input type="checkbox"/> DO NOT FEED birds or animals 	<input type="checkbox"/> PACK OUT TRASH 

**Witness the beauty of wildlife on San Juan Island!** Being a responsible visitor can help the island remain wild for many years to come. As you enjoy the park, play **Wildlife Bingo**: mark the box for each animal you have safely observed or an activity you have done.

**Get 4 in a row to win** - up, down, across or diagonal!

SAN JUAN ISLAND NATIONAL HISTORICAL PARK

# Junior Ranger Pledge

I am a Junior Ranger; my mission has just begun!

I'll help keep the air, land, and water clean. It's part of the fun!

I promise to respect Native homelands and historical places,

And always stay curious, exploring nature's open spaces.

\_\_\_\_\_  
JUNIOR RANGER SIGNATURE

\_\_\_\_\_  
RANGER SIGNATURE

