



Junior Ranger Activity Book

Ages 13+



Name: _____

Date: _____

Introduction



What is a Park Ranger?

Park rangers play important roles in managing parks, historical sites and recreational areas. It is easy to find the rangers! They are usually in uniforms.

Park Rangers...

1. Protect the park
2. Provide information to visitors, lead tours and answer questions
3. Work with teachers teaching classes in the park
4. Help in an emergency by doing search and rescue or fighting fires
5. Research the history, archeology and biology of the park
6. Take care of buildings, trails and exhibits in the park
7. Work with communities so people understand how to visit and protect the park

What is a Junior Ranger?

As a Junior Ranger, it is your responsibility to preserve and protect your parks, to care for your natural and historical surroundings, to share what you have learned about the parks with others, and to continue exploring these treasures.

How may I become a Junior Ranger?

It is very easy. Just follow these directions !

1. Complete any 7 of the 9 activities in this booklet.
2. Share your answers with park rangers.
3. Receive a Junior Ranger badge and a Junior Ranger certificate.

If you don't have time to finish at the park, you can also mail a completed copy of the Junior Ranger book to :

**Junior Ranger Program
Lewis and Clark National Historical Park
92343 Ft. Clatsop Rd. Astoria, OR 97103**

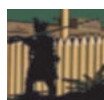
Adults: This is designed as a family program, so feel free to participate with your child. We hope you will have fun and learn more about the park as well.



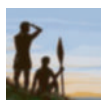
Hi, Junior Ranger !

Explore! Learn! Protect!

Lewis and Clark National and State Historical Parks are in Oregon and Washington. The parks include 11 sites (5 in WA, 6 in OR), and each site is represented by a symbol shown below. These symbols will show you which activities are available at the site you visit (Look at the bottom of each activity page). A park ranger, from one of the sites shown in **bold**, will either stamp or sign your booklet. (Look at page 12)



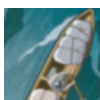
Fort Clatsop, OR
(Visitor Center)



Fort Stevens State Park, OR
(Ranger Station/Historical Area)



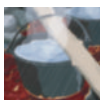
Cape Disappointment State Park, WA
(Lewis and Clark Interpretive Center)



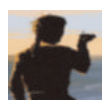
Netul Landing, OR



Dismal Nitch, WA



Salt Works, OR



Station Camp, WA



Fort to Sea Trail, OR



Fort Columbia, WA



Ecola State Park, OR



Discovery Trail, WA

Once you earn your Junior Ranger badge, you may also earn a place in the Junior Corps of Discovery. Your rank is based on the number of parks you've visited.

Private

Visit one site and complete the required activities in this book.

Sergeant

Visit two sites. Don't forget to bring your activity book!

Captain

Visit three sites and complete the booklet.

President

Visit four sites and complete the booklet.
Congratulations!

For more information, please ask the park rangers.



The National Park Service



Lewis and Clark National and State Historical Parks (NSHP) ★

1. Clark's Dismal Nitch
2. Station Camp
3. Fort Columbia (Washington) State Park
4. Cape Disappointment (Washington) State Park
5. Fort Stevens (Oregon) State Park
6. Fort Clatsop
7. Netul Landing
8. Fort to Sea Trail
9. Sunset Beach State Recreation Area
10. Salt Works
11. Ecola (Oregon) State Park



- ❓ How many NPS sites are there in your home state?

- ❓ What other NPS sites have you visited?

- ❓ How many sites of Lewis and Clark NSHP have you visited?

- 🎨 On the map above, color the state where you live and draw a line showing how you came here.
- 🎨 Color all the states you've been to.

*
Let your parents help you with this page

ACTIVITY
2

What Happened at Dismal Nitch?

The expedition remained trapped at Dismal Nitch from November 8 to 15, 1805, because of the strong winds, waves and heavy rains from Pacific storms. It was the first time during the journey that Clark described the situation as "dangerous."

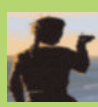
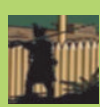
Look at the picture below and write a journal entry as if you were at Dismal Nitch in November 1805. Mention as many difficulties as you can that you would be facing.



"...the swells continued high all the evening & we are compelled to form an Encampment on a Point scercely room sufficient for us all to lie cleare of the tide water ...we are all wet and disagreeable, as we have been...for several days..."
(Capt. Clark, Nov. 8, 1805)



A large, hand-drawn brown outline of a journal page with a scalloped right edge and a binding on the left side, intended for writing a journal entry.




 ACTIVITY
3

Deciding Where to Spend the Winter

The members of the expedition arrived at Station Camp near the mouth of the Columbia River. While they were staying at Station Camp, Clark's party went on a trip to the shore of the Pacific Ocean near Cape Disappointment. Also, at Station Camp, they took a poll of opinions of where to spend the winter of 1805-1806. If you were an expedition member, what would you vote for? Do you agree to cross the dangerous river to get to the South or head East upriver to look for a winter campsite?

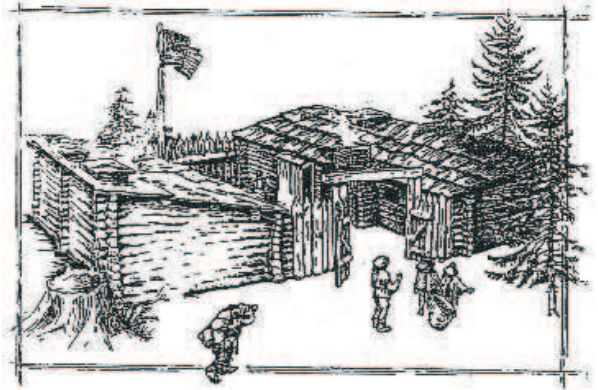


Cross to the South side _____

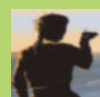
Head upriver _____

Because ...

They crossed to the South side and found the best spot for their winter camp and named this place Fort Clatsop in honor of the American Indians that lived near there. Clatsop means "dried salmon people." The expedition arrived here December 7, 1805, and stayed until March 23, 1806.



Why do you think the expedition chose the Fort Clatsop site for their winter encampment site to spend the winter?



ACTIVITY
4

Poetry of the Park

Create poems from your ideas, thoughts or emotions that you felt in the park. Choose a word from the box to begin each poem or think of your own word related to the Lewis and Clark Expedition. All lines of the poem should be related to or describe the topic word.

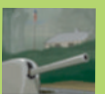
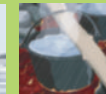
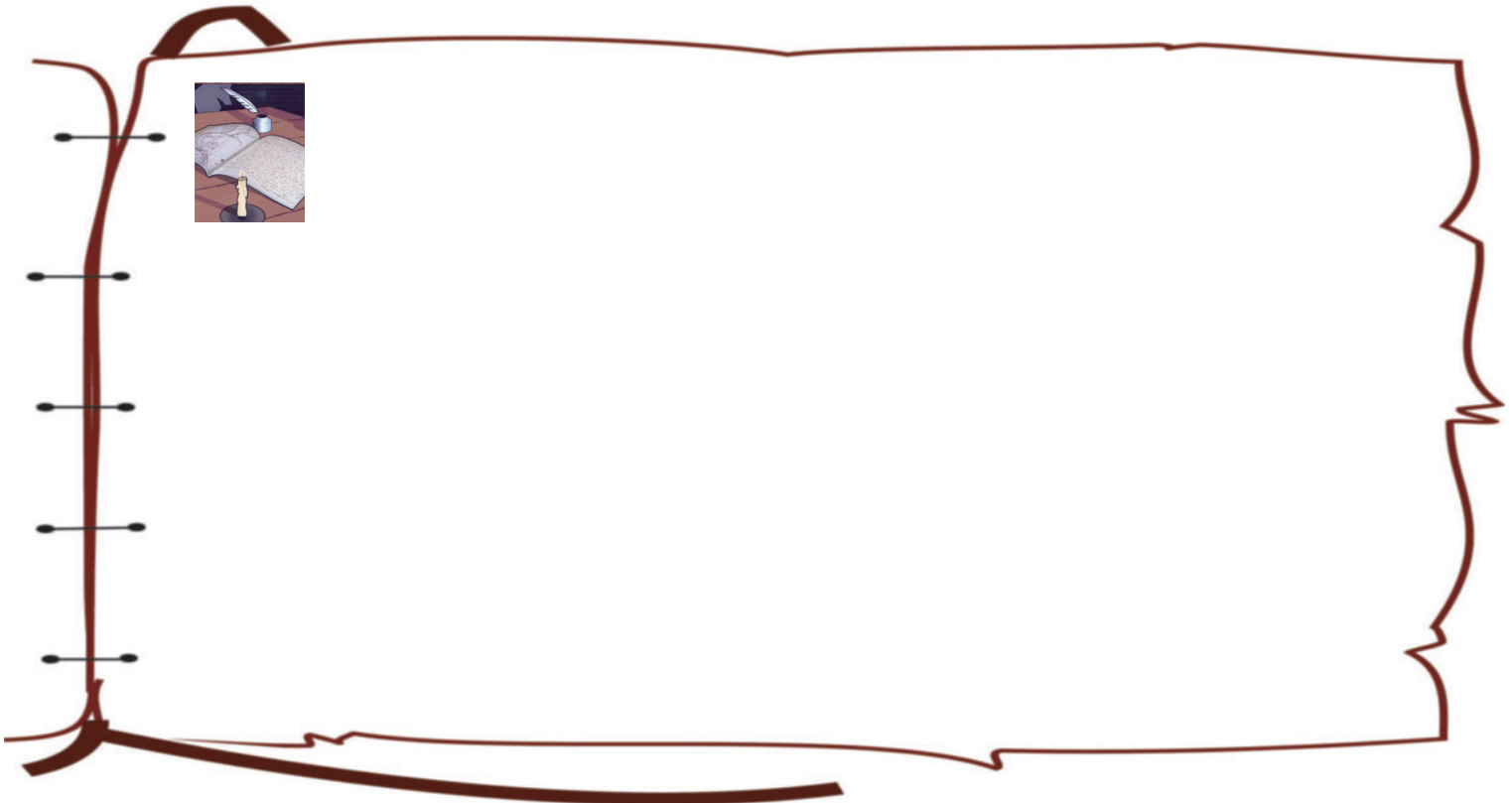
<Word Box>

LEWIS CLARK ECOLA NETUL CANOE PARK SEAMAN
YORK CLATSOP CEDAR ELK WHALE SALT CHINOOK
NATURE

Example : "SEAMAN"

Sleep soundly
Eats happily
Active guard
Makes us laugh
A good dog
Nice to travel with

Now, it's your turn.



Tree of Life

American Indians in the Northwest depended on the land, river and sea around them to survive. Western redcedar was treated with great respect because it was an important resource for their way of life. It provided necessities; everything from canoes to baskets. Think of what it would be like to live in a more simple time, before cars, electricity or shopping malls.

Write the name of the modern item equivalent to the item used by the Clatsop and Chinook.



There were many things which the area tribes ate. List three foods they may have eaten.

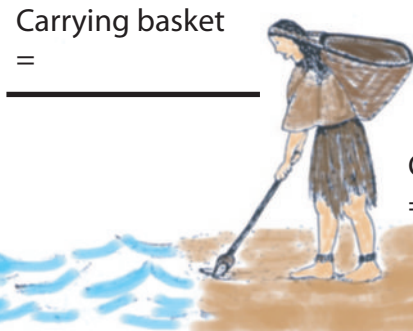
1. _____
2. _____
3. _____



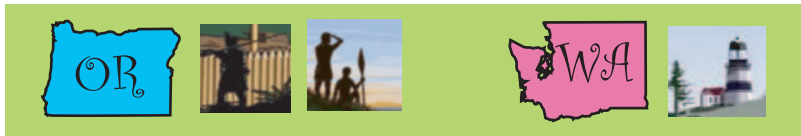
Plank house
= _____



Cedar bark hat
= _____



Cedar bark skirt
= _____







Following the Trail...

Captain Lewis observed, described, collected and preserved many of the plant species he saw. Take a trail walk and record your observations.

**Ask a ranger for help if you have trouble locating the plants.*

Name	 Draw the plant	 From the journals	Descriptions (size, height, shape, color, smell, texture, etc.)	Date/ Location/ Weather
Western Redcedar		<p><i>"...the mountains Covered with a verry Croth of pine & furr... grows to the hight of Sixty or Seventy feet and from 2 to 3 feet in diamiter..."</i> (Capt. Lewis, Jan. 8, 1806)</p>		<p>E.g. 7/20/06 Fort Clatsop. Sunny</p>
Sitka Spruce		<p><i>"The Pine of fur(fir) speses, or spruce oune grow here to an emence size &hight mamey of them 6&7 feet through and upwards of 200 feet high."</i> (Capt. Lewis Nov. 12, 1805)</p>		
Red Huckleberry		<p><i>"The leaves and petals of the flowers of the green Huckleberry have appeared. Some of the leaves have already obtained ¼ of their size."</i> (Capt. Lewis March 22, 1806)</p>		
Deer Fern		<p><i>"The small firn also rises with a common footstalk from the radix and are from four to eight inches long; a slight longitudinal grove throughout its whole length."</i> (Cap. Lewis Feb. 3, 1806)</p>		





Where the River Meets the Ocean...

Read the following passage to help you answer the questions on the next page.

On November 7, 1805, the Lewis and Clark Expedition arrived near the mouth of the Columbia River. They believed they saw the Pacific Ocean, and Clark wrote excitedly in his journal, "Ocian in view! O! The joy!" What they were actually seeing was the Columbia River estuary, where the river meets the ocean.



Picture 1. Clark's Map

What is an estuary?

An estuary is where fresh water from rivers and streams meet the ocean. The fresh water is mixed with the sea water and the water becomes brackish. This water is also affected by the tides.

Tides cause changes of water level, which plays an important role in the estuaries. The land is submerged at high tide and exposed at low tide. The tides also affect the fresh water and sea water ratio. High tide=more sea water, low tide=more fresh water. Due to the fluctuation of water and the salt content in the water, the organisms of the estuary live in a delicate balance.

Why is it important?

Estuaries are one of the most productive environments on earth. They provide habitats for many kinds of plants both in and around estuaries. Fish, crabs, marine mammals, clams, shellfish, marine worms and birds also rely on estuarine habitats as places to live, feed and reproduce.

In addition, estuaries play a role as filters. They filter out sediments or pollutants from upriver, so they make water cleaner. Marsh grasses trap solid particles and prevent **algae blooms** that can deplete the oxygen in water and kill fish. Also, millions of microorganisms such as bacteria, fungi and algae help to recycle nutrients and atmospheric gasses like oxygen.



According to the journals...

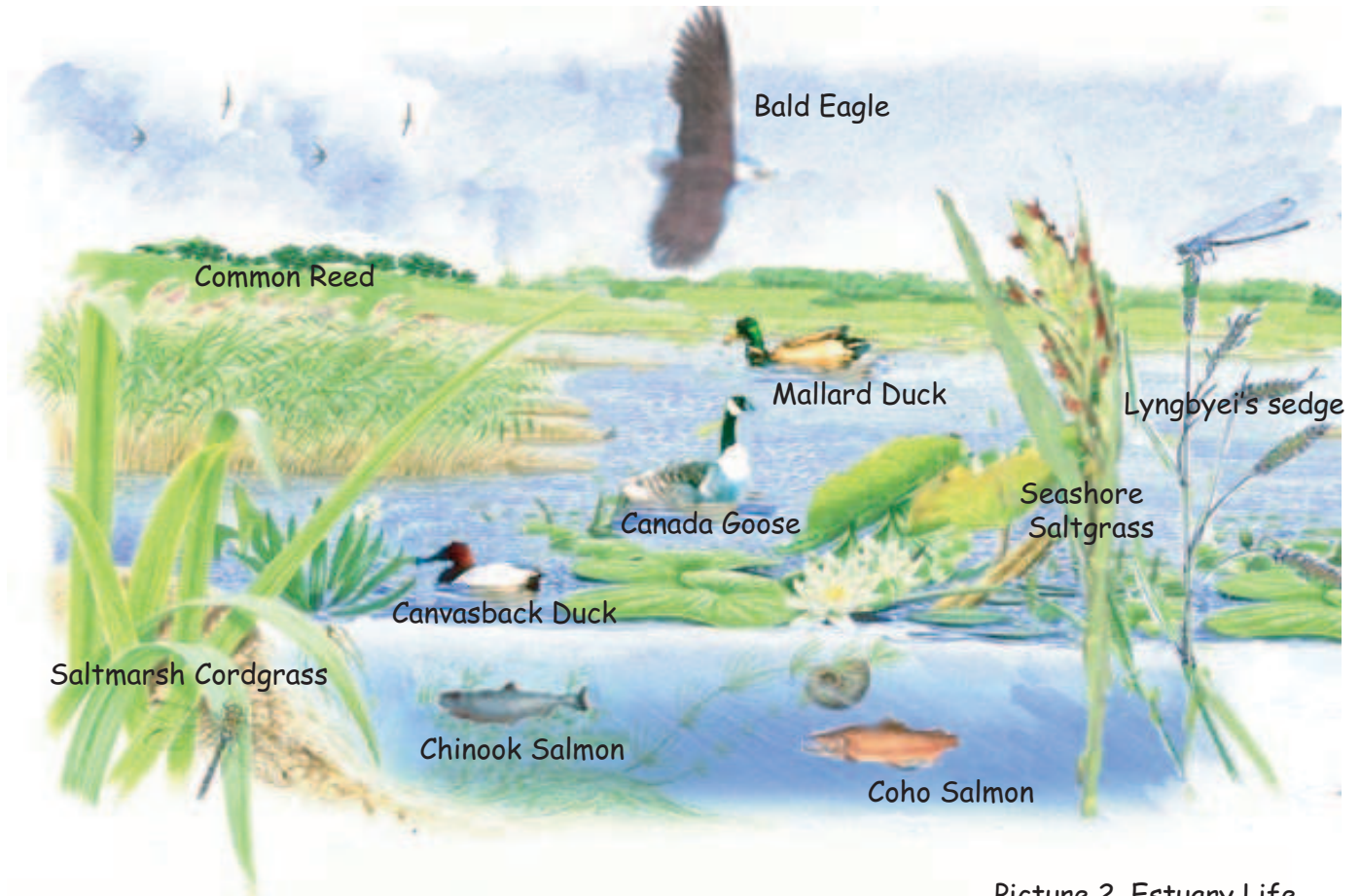
"...we took the advantage of a returning tide and proceeded on to the second point on the starboard...the water of the river too salt to be used....In this situation, we are compelled to form our camp between the height of the **ebb** and **flood** tides, and raise our baggage on logs..." (Capt. Clark, Nov. 8, 1805)

"...I prosue'd this gang of Elk through bogs which the wate of a man would Shake for 1/2 an Acre, and maney places I Sunk into the mud and water up to my hips without finfing any bottom on the trale of those Elk. " (Capt. Clark, Dec. 8, 1805)

*ebb: the time between high tide and low tide. *flood: the time between low tide and high tide.



Let's look at the life in the Columbia River estuary:



Picture 2. Estuary Life

What are three consequences if estuaries are polluted or destroyed?

1.

2.

3.



What can you do to keep estuaries healthy?

1.

2.

3.



ACTIVITY
8

Navigation and Mapping

The Lewis and Clark Expedition utilized the best technology available in the early 19th century. Some 19th century navigation and mapping technology is still used today. Most has been developed into more technologically advanced equipment.

See if you can name the navigation or mapping instruments and list the instruments used by Lewis and Clark.



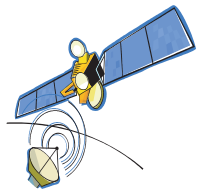
An instrument used to measure the angle and altitude of the sun, moon and stars above the horizon to determine latitude.





An instrument for finding directions by means of a magnetized needle turning and pointing to the Earth's magnetic north.





This orbits and scans the entire Earth every 15 days. It sends information through electronic signals. This information is then transferred to a Geographic Information System (GIS) to produce highly accurate and detailed maps widely used by scientists to make climatic and geographic observations.





A navigating system using satellites that continually circles the Earth and sends signals. This system allows the user to accurately determine his/her location (longitude, latitude and altitude) in any weather, day or night, anywhere on Earth.





A highly accurate clock used to find longitude. To maintain its accuracy and usefulness, it needs to be wound daily.



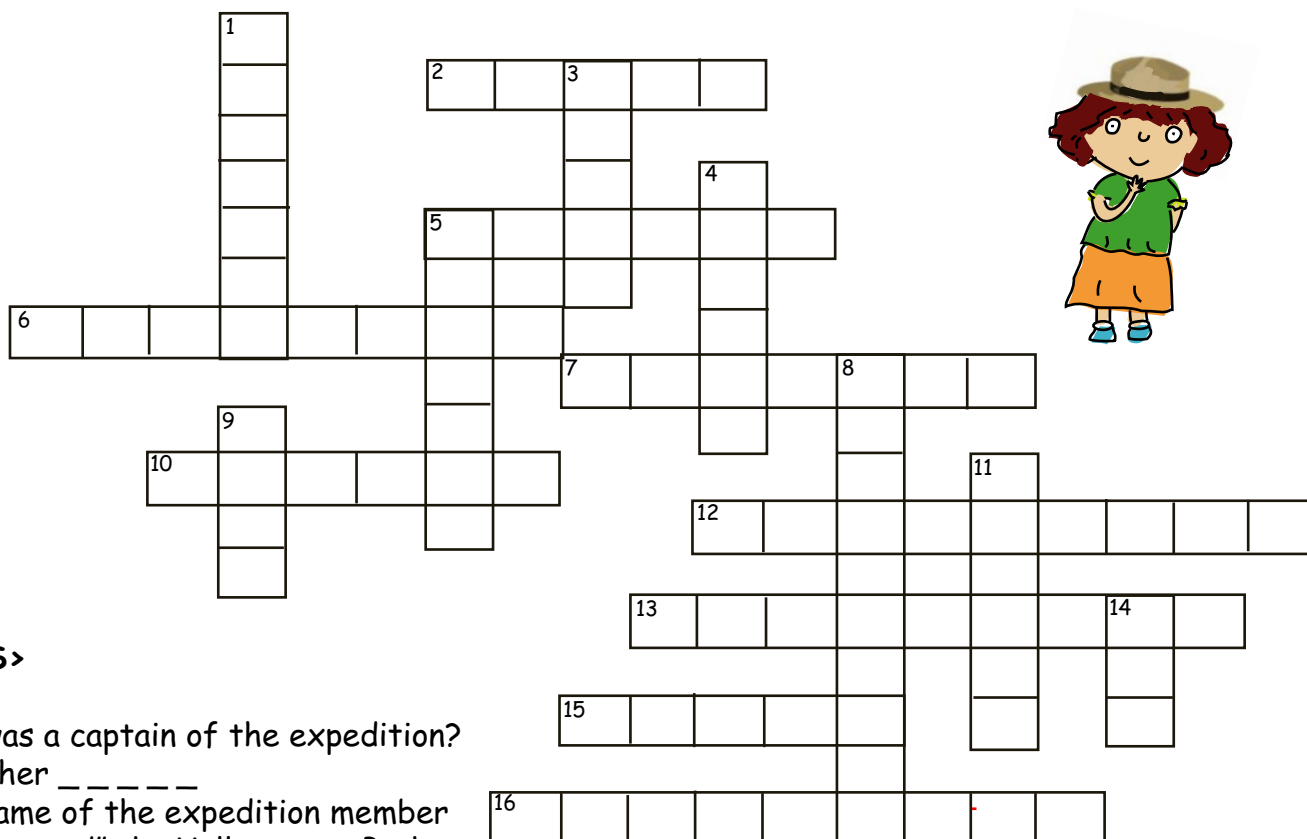
Which of the above navigational tools did Lewis and Clark use?







Crossword Puzzle!



<ACROSS>

- 2 Who was a captain of the expedition?
Meriwether _____
- 5 Last name of the expedition member who "discovered" the Yellowstone Park region and did not return to St. Louis until 1809.
- 6 Western _____ was important to the Clatsop and Chinook. The tree supplied canoes, baskets, ropes, boxes, bowls, dishes, blankets and hats.
- 7 Last name of the youngest soldier of the expedition.
- 10 The "butifull buzzard of the Columbia."
California _____
- 12 Shoes made of deer skin, elk skin or other soft leather. The expedition members made 338 pairs of these.
- 13 The Shoshone woman, who traveled with the expedition as an interpreter and promoted friendship between tribes and the Corps of Discovery.
- 15 Who was the co-leader of the expedition?
William _____
- 16 The third president of the United States, who sent the Corps of Discovery.
Thomas _____

<DOWN>

- 1 One of the expedition's goals was to reach the _____ Ocean. The Columbia River flows into this ocean.
- 3 A large ocean mammal which the expedition saw near Cannon Beach, OR, and Ilwaco, WA.
- 4 The name of Lewis' male Newfoundland dog.
- 5 The expedition's winter camp from December 1805 to March 1806.
Fort _____
- 8 A bird which was named after Clark.
- 9 An African-American member of the exploring party.
- 11 Chinook people ate the root of this plant. It was an important food source.
- 14 An animal that was used for food, clothing, and candles.



ACTIVITY
10

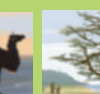
Journal Time

Lewis and Clark kept journals during their 28-month journey. They faithfully recorded details of what they saw. Draw or write about your favorite thing or your observations.



Date

A large, hand-drawn brown outline of a journal page. On the left side, there are five horizontal lines, each with a dot at each end, representing a binding or a date line. The word "Date" is written in a cursive font at the top left of the page.



Venturing into the Park



After you complete the activities of this book, the park ranger will either sign or stamp your booklet. If you visit four of the sites, you can be a President Junior Ranger, so don't forget to bring this booklet!

OR WA



**Fort Clatsop
(Visitor Center)**

**Fort Stevens State Park
(Ranger Station/Historical Area)**

**Cape Disappointment State Park
(Lewis and Clark Interpretive Center)**

Netul Landing

Ecola State Park

Fort to Sea Trail

Salt Works

Dismal Nitch

Fort Columbia State Park

Station Camp

Discovery Trail

Date/ Stamps



Date

















Junior Ranger Pledge

As a Lewis and Clark National and State Historical Parks Junior Ranger,



I _____ promise to:
Your name

- ✓ Preserve and protect our parks;
- ✓ Care for my natural and historical surroundings;
- ✓ Share what I have learned about the parks with others;
- ✓ Continue to explore these treasures.

The National Park Service and State Parks care for the special places saved by the American people so that all may experience our heritage. Established by Congress on May 29, 1958 and expanded October 30, 2004, Lewis and Clark National and State Historical Parks is one of many parks administered by the National Park Service and State Parks. The National Park system includes more than 390 natural, historical, cultural, and recreational areas. Be sure to ask about Junior Ranger programs at other National Park Service and State Park sites.

Designed and created by :

Minjung Kang, Junior Ranger Ambassador Initiative, SCA Intern

Contributors :

Staff of Lewis and Clark National and State Historical Parks

September 2006.

Direct comments, questions or suggestions to:

Lewis and Clark National Historical Park
92343 Fort Clatsop Road
Astoria, OR 97103

Tel: (503) 861-2471

Website: www.nps.gov/lewi

This Junior Ranger booklet was created through the partnership of the National Park Service (NPS), the National Park Foundation (NPF), and the Student Conservation Association (SCA) and was made possible through the generous support of Ocean Spray Cranberries, Inc., a National Corporate Partner of the National Park Foundation. To learn more about the online Junior Ranger program, visit www.nps.gov/webrangers.

