

Bureau of Land Management

# Junior Explorer



## PIONEER WAGON MASTER



**Activity Book**

*National Historic*  
Oregon Trail  
Interpretive Center

## Public Lands

# Belong to You!

The Bureau of Land Management (BLM) is a federal government agency that takes care of more than 245 million acres of land. Most of these lands are in the western part of the United States. These lands are America's public lands, and they belong to all Americans. These public lands are almost equal in area to all the land in the states of Texas and California put together.

The BLM manages public lands for many uses. The lands supply natural resources, such as coal, oil, natural gas, and other minerals. The lands provide habitats for plants and animals. People enjoy the big, open spaces on the lands. The lands also contain evidence of our country's past, ranging from fossils to Indian artifacts to ghost towns.

# Junior Explorers

BLM's Junior Explorer program helps introduce young explorers like you to the lands and resources what the BLM manages. This "Pioneer Wagon Master Activity Book" focuses on nature and renewable natural resources around the National Historic Oregon Trail Interpretative Center.

**Words:** Look for these words in **bold** throughout the book.

**GREAT AMERICAN DESERT:** The name for the unexplored and uninhabited lands west of the Mississippi River during the mid - 19th Century.

**LODE MINE:** A mine used to reach a vein containing important quantities of metallic ore (gold) and filling a well-defined fissure in the rock.

**SLUICE BOX:** A long, inclined trough or launder with riffles in the bottom that provide a lodging place for heavy minerals (gold) in ore concentration. Used to separate gold from other rock.

**CHIMNEY ROCK:** A National Historic Site in Western Nebraska. Used as a landmark by the Oregon Trail pioneers on their journey West.

**GOLD PANNING:** A manual technique for sorting gold. Wide, shallow pans are filled with sand and gravel that may contain gold. Water is added and the pans are shaken, sorting the gold from the gravel and other material.

**FUNGI:** (plural for fungus) Organisms that lack chlorophyll including molds, rusts, mildews, mushrooms, and yeast.

**LICHEN:** A plant-like growth that is actually a result of a fungus and algae living together. It grows very slowly, lives for a long time, looks like moss or a crusty dry leaf and can grow on bare rock or soil.

**MOSS:** Small green plants that have hairlike structures called rhizoids instead of leaves, stems, and roots. These rhizoids grow into the soil and help the plants get water and minerals.

**PICK AXE:** A heavy iron tool with a wooden handle and a curved head pointed on both ends. This tool is used by miners to break rock.

**CONTINENTAL DIVIDE:** A series of mountain ridges extending from Alaska to Mexico that forms the watersheds of North America.

**JUMP OFF TOWNS:** Towns on the edge of the frontier where the pioneers outfitted and began their journey West.

**SOUTH PASS:** A mountain pass on the continental divide in the Rocky Mountains of Wyoming. The pass is located in a broad valley and provided the pioneers & their wagons with a level and easy path to cross the Rocky's.

# Welcome

*I'm glad you decided to join us! We're going to have a lot of fun learning about history & the natural world at the National Historic Oregon Trail Interpretive Center. My Oregon Trail pioneer friends will tell you how to complete each activity. The vocabulary words to the left will help you complete the activities. If you have any other questions, staff at the Interpretive Center can give you a hand. Let's go!*



The National Historic Oregon Trail Interpretive Center is a special place. It was created in 1992 to provide an educational & interpretive examination of the Oregon Trail Experience. Historians come to this site every year to study both the Oregon Trail as well as local & natural history. As a Wagon Master at the Interpretive Center you can help by learning about our nation's rich history, sharing your discoveries with family & friends, and leaving things in the Interpretive Center as you find them.

## Steps to Becoming a Wagon Master:

1. Walk through the Interpretive Center & Trail System and read the exhibits and watch the videos. **What two agencies joined to form the BLM?**

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2. If you are **6-8 years old**, complete **3 or more activities** of your choice  
If you are **9-12 years old**, complete **5 or more activities** of your choice
3. To receive an award, take your completed Junior Pioneer book to one of the Interpretive Center employees, or mail it to the address on the back of this book with your return address so we can mail your award to you.

# Interpretive Center Scavenger Hunt

*The Interpretive Center possesses a wealth of information just waiting to be discovered! Explore the Center and complete each question. The answers can be found in the displays or by asking one of the friendly staff.*

Q: How many pioneers traveled the Oregon Trail? How long did it take?

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Q: Name three groups of people who came into the Oregon Country before the emigrants.

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Q: What mountain pass in Wyoming did the Oregon Trail pioneers use to cross the **Continental Divide**?

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Q: In what ways did Indians assist pioneers?

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Q: Name two "**jumping off towns**" the emigrants used to begin the Trail.

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Q: Give two good reasons to go to Oregon.

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Q: Where did the Oregon Trail end? Why was there still work to do once they reached their destination?

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# Pioneer Math

$2+2=4$

$3 \times 4 = 12$

$5-4=1$

$20 \div 4 = 5$

*During the long journey West the pioneers faced many challenges. How many miles should one travel in a day? How many days rations does one have? These were common questions the pioneers must answer correctly in order to survive the trip. Help your pioneer friends reach the promised land of Oregon by using "Pioneer Math" to answer the problems below.*

You brought 400 pounds of bacon for the journey. Each person in your party gets 20 pounds of bacon. How many people are in your party?

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The trip to Oregon is about 2,000 miles. You are currently at Fort Boise and are told you have 550 miles left to travel. How many miles have you traveled so far?

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To this date approximately 3 1/2 million ounces of gold has been mined out of the hills of Baker County. At the current exchange rate (ask a staff member for the current gold exchange rate), how much money in dollars has been mined in Baker County?

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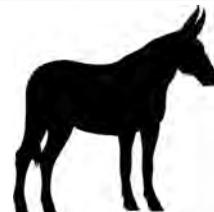


HORSE

+



=



+

DONKEY

=

\_\_\_\_\_

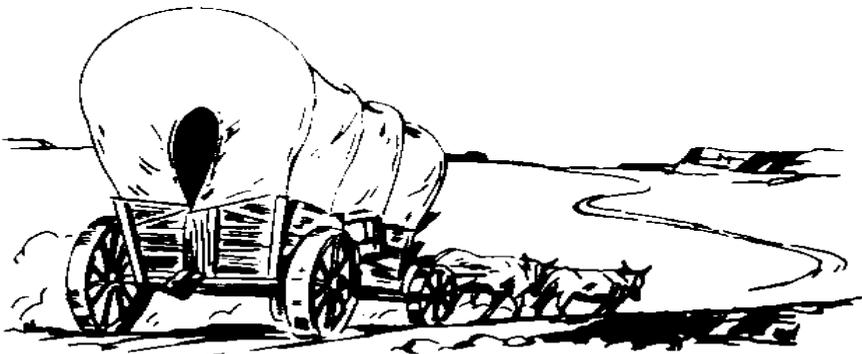
# Oregon Trail Word Hunt

*Many pioneers heading West had never traveled far from their homes in the East. They found the "Great American Desert" to be an unexplored and dangerous place. Others saw it as the adventure of a lifetime.*

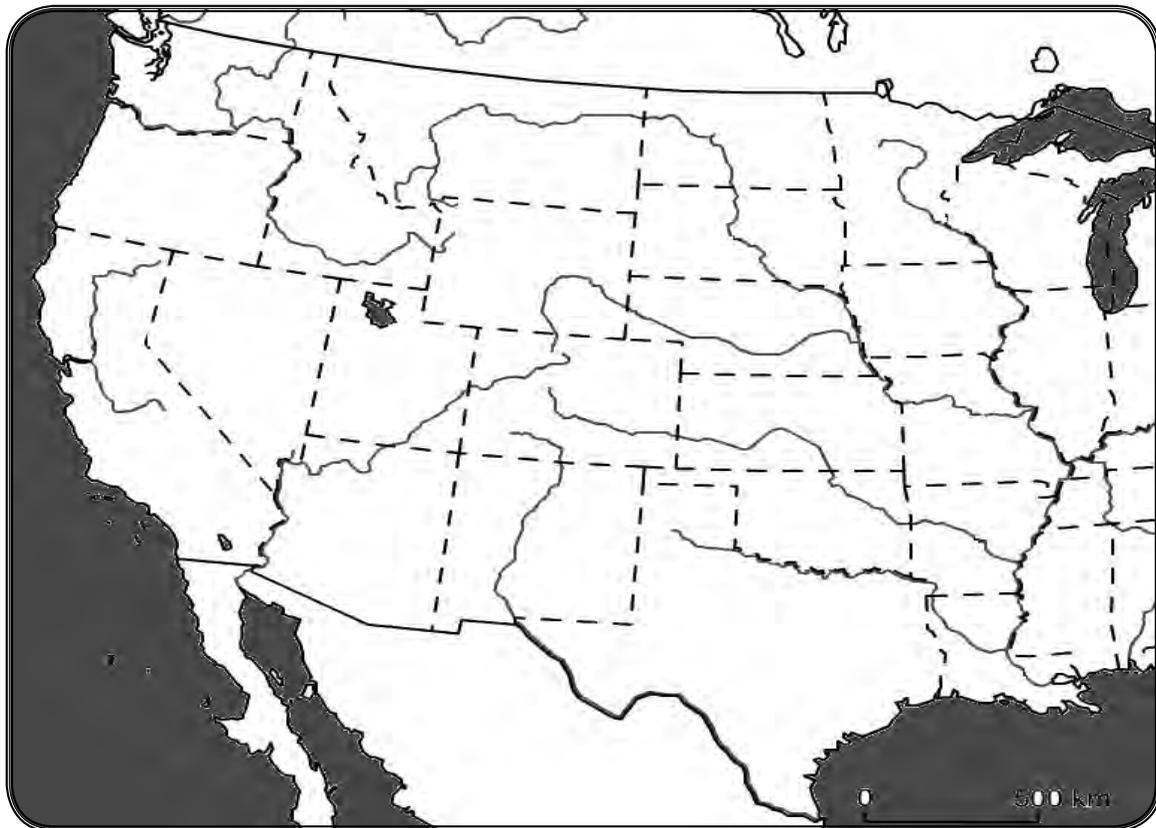
*These ten words are things the pioneers may have seen while traveling West. They may be hidden horizontally, vertically, diagonally, or backwards. Circle each word when you find it.*

Y	G	L	M	D	D	B	B	F	E	S	F	G	H	I
P	A	J	H	G	D	O	L	A	F	F	U	B	R	R
G	I	G	O	N	E	X	O	O	U	G	D	E	H	Q
K	C	O	R	Y	E	N	M	I	H	C	U	O	X	Z
A	Q	N	N	I	K	S	O	U	T	H	P	A	S	S
G	Y	P	V	E	F	N	O	G	A	W	R	E	E	N
D	H	Y	O	K	E	Y	M	W	R	K	Y	V	X	G
N	I	U	H	H	F	R	I	U	B	N	C	W	T	K
L	U	V	B	J	O	L	N	N	C	D	E	J	K	L
L	L	I	H	F	F	A	T	S	G	A	L	F	W	H
R	Y	K	G	D	U	K	E	O	U	G	F	H	K	F
U	K	G	T	R	O	W	E	L	I	H	I	Y	P	V
R	Y	U	C	W	T	J	L	Y	R	D	R	A	O	M
P	H	S	C	O	R	E	G	O	N	C	I	T	Y	H
H	K	G	D	R	T	R	H	P	D	R	G	J	U	S

FLAGSTAFF HILL  
 WAGON  
 OXEN  
 OREGON CITY  
 PIONEER  
 YOKE  
 SOUTH PASS  
**CHIMNEY ROCK**  
 RIFLE  
 BUFFALO



# Exploring The West



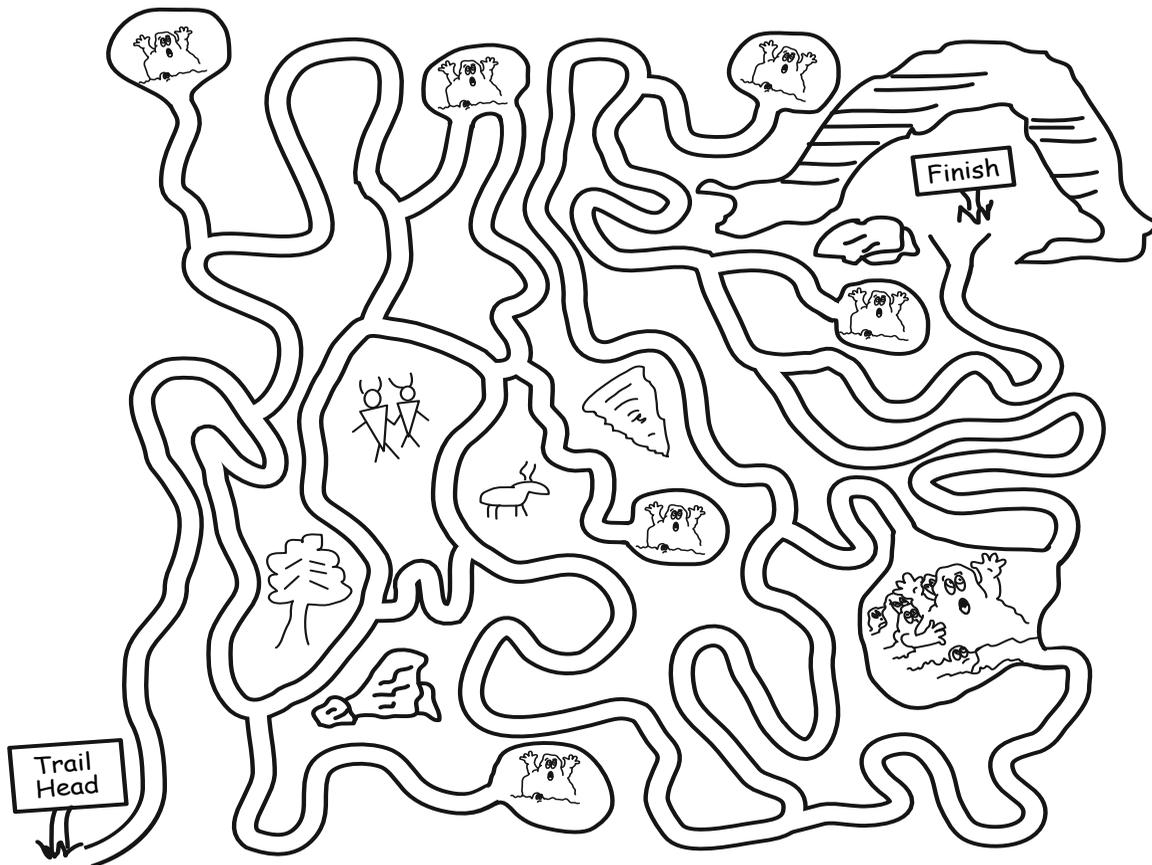
*The Oregon Trail did not just appear out of thin air. For thousands of years Native Americans were creating trails to reach summer and winter grounds across the West. In 1804 Meriwether Lewis and William Clark, as well as trappers and fur traders, used these routes & river passages to open up a path to the Pacific Ocean. The migrations to Oregon and California helped to connect many of these independent trails forming what we now know as the Oregon Trail. Even today we continue to use these routes, for example interstate 84 lies atop parts of the old Oregon Trail! On the map above draw the route of the Oregon Trail. Also mark the locations of Independence, Missouri as well as South Pass, and this Interpretive Center.*



# Tip-Toe Through the Crypto



*There are many interesting hikes at the Interpretive Center which require hiking through desert landscapes covered with fragile, living soil crusts called cryptobiotic soil. Made up of fungi, moss and lichen, they resist erosion and hold moisture to help other plants grow. Scientists study cryptobiotic soils to understand their contribution to the desert environment. These crusts are easily damaged and can take decades to recover if stepped on. Try to hike on established trails or along animal trails to minimize damage to cryptobiotic soil. Before you head out on the trail, let's see if we can find our way through the maze to the arch without stepping on any cryptobiotic soil.*



# Animal Tracks

*Biologists can tell where an animal has been and where it is going by studying animal tracks. Write the animal's name near the matching tracks. Use the animal names below to help you complete the activity. Did you find any of these tracks while hiking our trails?*



mountain lion

badger

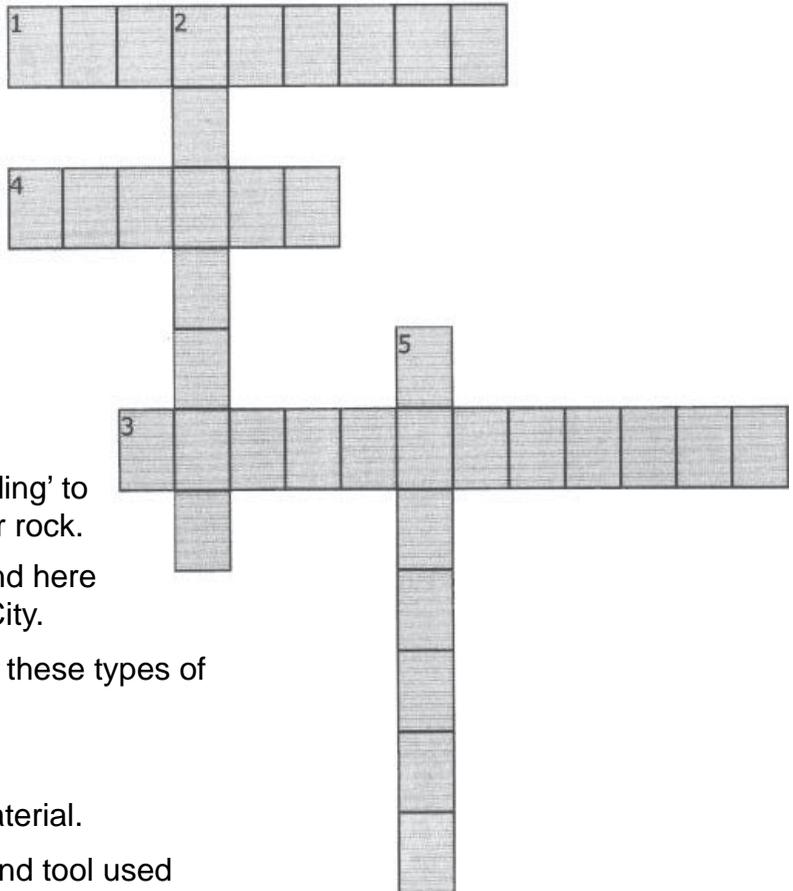
coyote

black bear

pronghorn antelope

# Connecting to the “Golden” Past

*Since the discovery of Gold in Baker County in 1861 about 3 1/2 million ounces have been mined out of the surrounding hills. To this day there are still over 10,000 gold mining claims throughout the county. Across the countryside lode mines, sluice boxes, gold pans, and other mining equipment were used to extract this precious material. Mining towns with populations in the thousands literally sprung up over night. Sometimes they were abandoned just as quickly. Complete this “golden” crossword puzzle by writing the answers to the questions listed below.*



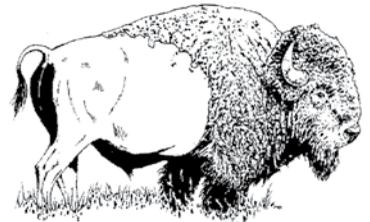
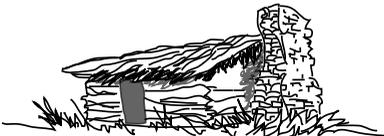
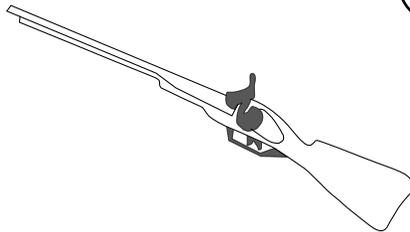
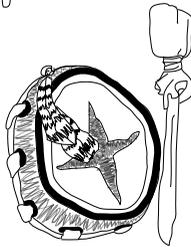
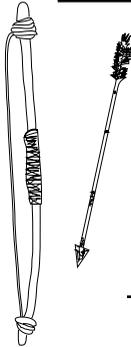
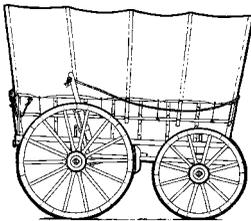
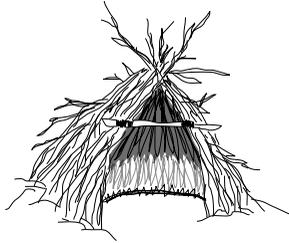
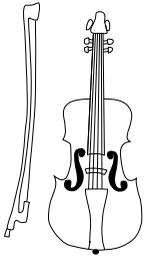
## Across:

1. Uses gravity & ‘pounding’ to separate gold from other rock.
3. In 1861 gold was found here 5 miles south of Baker City.
4. Gold is often found in these types of under-ground veins.

## Down:

2. Gold sticks to this material.
5. A common mining hand tool used to crush rock.

# Human History in Baker County



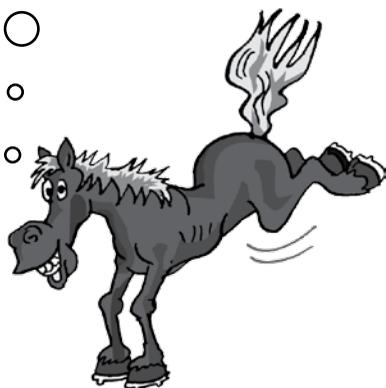
*Baker City and the surrounding County are steeped in a rich historical tradition dating back to the Oregon Trail migrations & the discovery of gold in 1861. Pioneers, miners, & Native Americans all utilized this land and left their mark on the region. During summer Native Americans would utilize the lush Powder River Valley, while, in later years, miners would scour the landscape for gold. Look at the pictures below and identify each, then tell which group of people: the Oregon Trail Pioneers, Native Americans, or Miners would use these items.*

# Leave No Trace

*Wow!  
I'm not finding  
a lot of evidence of  
careless people. But I  
think we can all do better!*

*Draw  
a line from the  
activity on the left  
to the action you should  
take on the right.*

*Then  
remember  
these when you're  
out for  
a hike!*



Hiking in areas where there are cryptobiotic soils.

You finish a candy bar while on a hike and have only the wrapper left.

You're going camping in an unfamiliar area.

You want to have a campfire.

A cute squirrel runs up to you and looks hungry.

You're on a hike and you have to go to the bathroom.

You find a historic oxen shoe laying on the ground.

Pack out all your trash and throw it in a trash can when you get back.

Get maps, learn about the area's weather, and have a backup plan in case of emergency.

Stay on trails or walk in washes when possible.

Leave it there for other people to see. Take a picture to remember it.

Bring a fire pan and pack out your ashes.

Use a 'Wag Bag' or dig a cathole 6-8 inches deep, 200 feet away from water. Carry out your toilet paper.

Don't feed animals no matter how hungry they look.

# Journal

Date \_\_\_\_\_ Time \_\_\_\_\_

Weather \_\_\_\_\_

Notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I saw \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I heard \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I learned \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*I hope you had a good time at the Interpretive Center today. Did you learn anything new? Did you go for a hike? Did you see any cool animals? Real pioneers keep journals while out in the field. Record today's date, time, and weather. Then write about the things you did today.*



# Wagon Master Responsibilities

*You're almost there! By now you have probably learned a lot about different things that scientists & historians study at the Interpretive Center. Now it's up to you to share your new knowledge with others. Sign the oath and memorize the Wagon Master responsibilities below.*

## Wagon Master Pledge



I \_\_\_\_\_, as a Wagon Master, do promise to uphold the principles of science & history and to use my newly acquired skills and knowledge to protect the environment & truth to the best of my abilities for the rest of my life.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Your responsibilities as a Wagon Master for the National Historic Oregon Trail Interpretive Center include:**

- 1.** Never litter and help pick up any litter you see while you at the Interpretive Center.
- 2.** Always stay on trails so you don't step on cryptobiotic soil crust.
- 3.** Never touch, write, or climb on fragile exhibits.
- 4.** Never chase animals, pick flowers, collect rocks or take anything from the Interpretive Center (except great pictures).
- 5.** Help your family, friends and other visitors take care of the National Historic Oregon Trail Interpretive Center.

This is to certify that

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has completed the  
National Historic Oregon Trail  
Interpretive Center  
Junior Pioneer Book  
and is hereby designated a



**WAGON MASTER**

in good standing with  
the Bureau of Land Management

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Official Signature

Date



*National Historic Oregon Trail Interpretive Center*

*National Historic*  
Oregon Trail Interpretive Center

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