You Can Become a Lovelock Cave Junior Ranger By Following These Four Easy Steps:

1. Complete the activity book for your age group.
   Look for these symbols for your age group:

K-3rd Grade

4th-6th Grade

2. Complete the correct number of activities listed below for your age group. Put a check in the box of the activities that you complete.

Complete three of the activities below.

Complete four of the activities below.

- ☐ Explore the Marzen House Museum
- ☐ Tour the Lovelock Cave Back Country Byway
- ☐ Hike the Lovelock Cave nature trail
- ☐ Visit Lovelock Cave
- ☐ Pick up three pieces of litter and put them in a trash can

3. Drop off your finished activity book at the drop off box at the Marzen House Museum.

Or mail it to:
Bureau of Land Management
Lovelock Cave Junior Ranger Program
5100 E. Winnemucca Blvd.
Winnemucca, NV 89445

Or bring to:
Pershing Co. Chamber of Commerce
350 Main Street
Lovelock, NV 89419

4. When you successfully complete these steps, you will receive a certificate and a special Lovelock Cave Junior Ranger badge.

Note: Unfortunately we have insufficient supplies of the activity books, certificates and badges to provide copies to schools. However, schools can obtain a hard copy of the book and certificate to make classroom copies. This activity book can also be downloaded from our website at www.nvblm.gov/Winnemucca or at www.nevadaoutdoorschool.com.

Lovelock Cave Back Country Byway

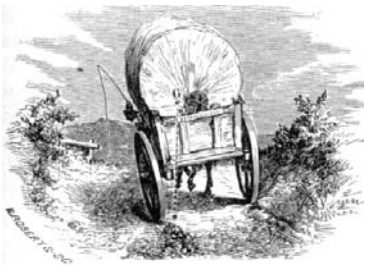
The area around the Lovelock Cave Back Country Byway has been home to many people and living things over time. Look closely and you will discover this for yourself!

As you begin your trip, you will be in the town of Lovelock, Nevada. Visit the museum and see things from Lovelock Cave and Lovelock's past. Look at the courthouse, the shops, restaurants and other buildings that the people of Lovelock use today and think about how things have changed over time.

Also notice the railroad tracks. These tracks stretch from the Pacific Ocean to the Atlantic Ocean and to many other places in between. Think about the Chinese people who worked hard to help build this railroad and who made Lovelock their home for awhile. Visit the old train station and look at pictures of train travel in the past.

Look around as you are leaving town. Did you spot the fields where farmers grow their crops? Many people who live here today are farmers. They grow alfalfa, wheat, oats, garlic, and hay. You may see white boxes or sheds in the fields. These hold bees that pollinate the plants. Look for ditches along the road. These carry water to the farmer's fields. Many birds use the ditches, too. Did you see one as you passed by?

The Humboldt River is also used by many birds and other animals. The plants growing along the banks provide food, shelter and a place to raise their young. There are many fish that live in the river, too.



As you drive along, you are following the same path that many pioneers took 160 years ago! The pioneers left their homes in the east to go to California. If you look very closely, you might even see some ruts made by the pioneers' wagons.

The land you are traveling through has been the home of the Paiute (pie-yout) Indians for hundreds of years. The Paiutes caught fish in the Humboldt River with nets, traps and lines with many hooks. The Paiutes also used plants and animals for food, clothing, tools, and houses.

Many thousand years ago a huge lake named Lake Lahontan filled this valley. Imagine what this lake would look like. Can you picture mammoths, camels, saber tooth tigers, and giant sloths walking along the shore? Do you see lines on the mountainside? These lines were left like rings on a bathtub as the lake dried up and shrank into a little lake called Humboldt Lake. Today, because this area is so dry, even Humboldt Lake is dried up much of the time.

When you arrive at Lovelock Cave, walk the nature trail and notice the many different plants growing. If you watch closely, you just might spot a horned lizard or a coyote in the distance. Also, look at the rocks along the nature trail and around Lovelock Cave. How do they look and feel? How do you think they were made?

Lovelock Cave was used by Native Americans for almost 5000 years. Archeologists (ar-kee-ol-uh-jists) are scientists who learn about the past by studying the things that other people left behind. Archeologists have found many things, like mats and duck decoys, that were stored in the cave by Native Americans. Bats also used Lovelock Cave during times when there was more water. The bats ate the insects that lived in Lovelock Cave. Bats no longer live in the cave today because it is too dry for insects.

As you can see, the area around the Lovelock Cave Back Country Byway was, and still is, home to many plants, animals and people. As you travel though these lands, you are visiting their home. And as a guest in their home, it is important to remember the teaching of the Paiute elders, and to *treat all things with respect*.

Leave No Trace

There are things that everyone can do to help care for the Lovelock Cave Back Country Byway when they visit. Read the **Leave No Trace** principles below and match each principle to the picture illustrating it.

1. **Plan Ahead and Prepare**- Learn about area you'll be visiting. Use maps to show you where you'll be going.

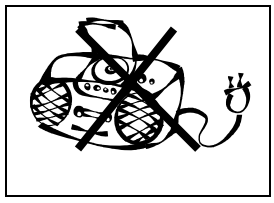
2. **Travel on Hard Surfaces**- Using hard surfaces protects soil and plants. Hard surfaces are roads, trails, gravel, dry grass, and snow.

3. **Dispose of Waste Properly**- Use trash cans to throw away your garbage. If a trash can is not available, take ALL of your garbage with you!

4. **Leave What You Find**- Leave everything you find in its place so that others can enjoy them, too.

5. **Respect Wildlife**- Never follow or feed wild animals. Keep pets on leashes or in the car with the windows slightly open at all times.

6. **Be Considerate of Others**- Respect other visitors by not making loud noises. You will see more animals if you are quiet.

5 ____ ____ ____ 

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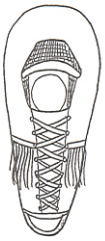
Museum Treasure Hunt

Look for these artifacts at the Marzen House Museum.
Check off artifacts when you find them.

Cradle Board ☐



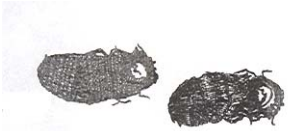
☐ Duck Decoy

Knife ☐

☐ Basket

Projectile Point ☐

☐ Sagebrush Sandals

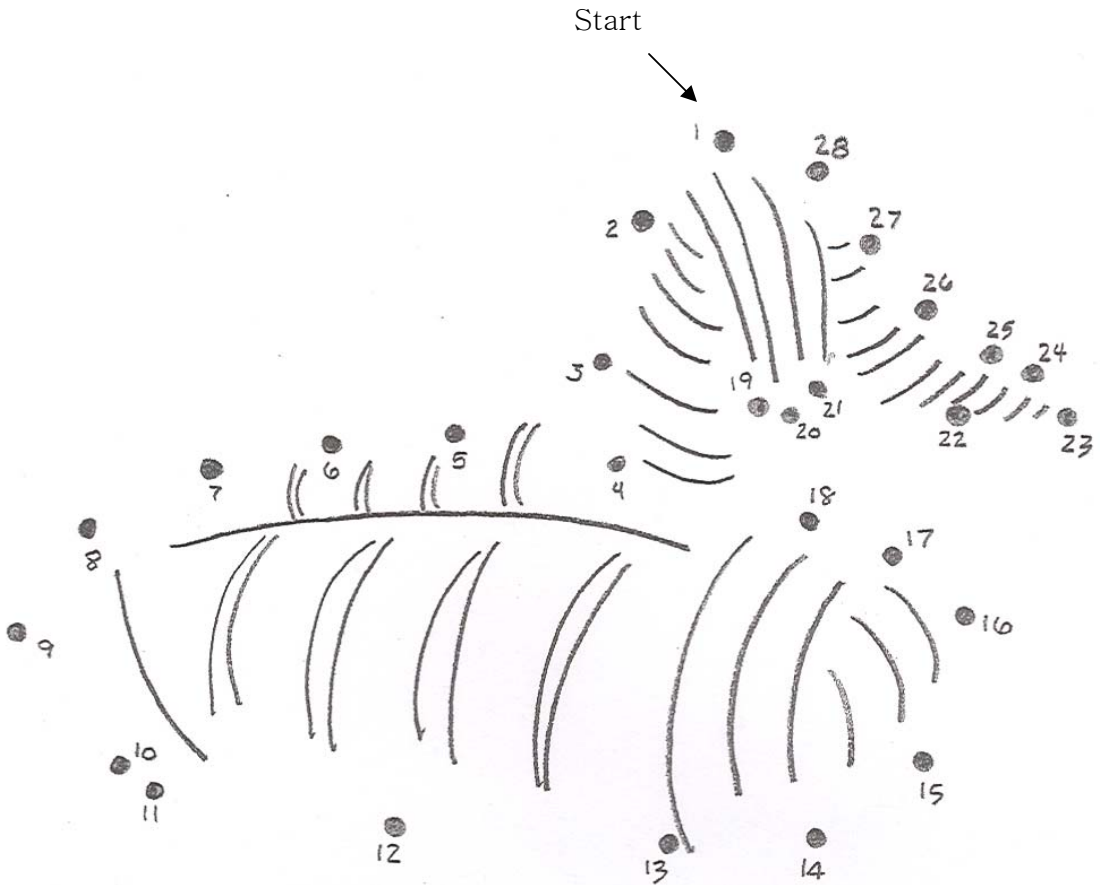


☐ Fish Hooks

Draw a picture of one other artifact that you saw at the museum. What was it used for?

Duck Decoys

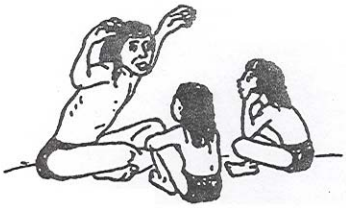
Archeologists found eleven duck decoys in Lovelock Cave. Native Americans used these ducks to hunt real ducks. They put the decoys into the water to attract ducks and then trapped them in a net. Visit the diorama in the museum to see how the Native Americans used the duck decoys and Lovelock Cave.



Connect the dots to create a duck decoy.

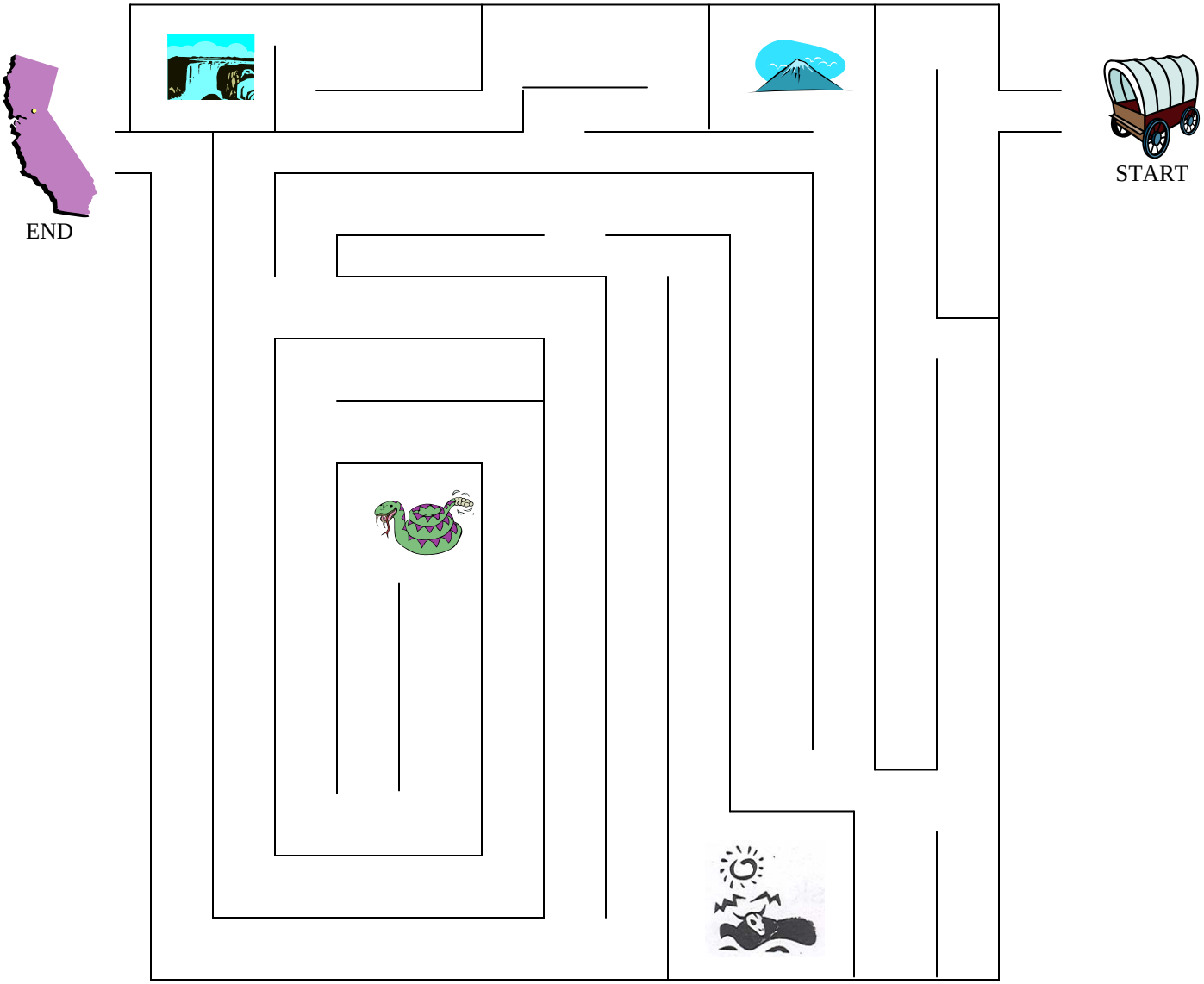
Yesterday and Today

The Paiutes who lived here in earlier times didn't have grocery stores, running water or automobiles. Yet, they went about their daily chores using different tools than we use now. Draw a line to connect each item from Paiute life with a similar item from your life today.



The Trail West

During the mid-1800's many people from the eastern United States left their homes in search of a new life in California. Today the trip would take only four days by car, or five hours in a plane. But in the mid-1800's it would have taken five months to cross the country in a covered wagon. On that trip, the travelers faced many dangers. Find the safest path for the travelers to take so that they avoid the dangers below.



What were some dangers the travelers of the 1800's had to face? _____

_____

Nature Lover

There are many plants that live here in the Great Basin Desert.
When you hike the nature trail, study the plants that you see.

Draw the leaf of a plant that lives here. What color is it?

Describe how that plants smells._____

_____

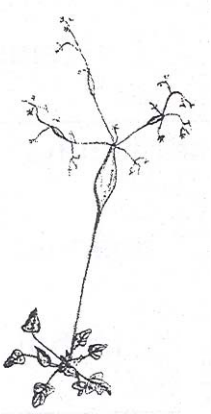
Explain what is it like where that plant grows. _____

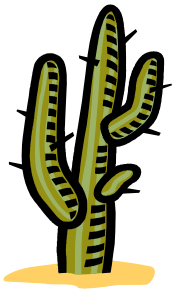
_____

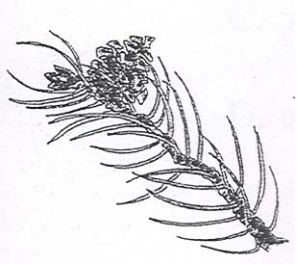
Describe how the Paiute Indians used this plant. Hint: Ask an adult to help you find the answer in the Nature Trail Guide._____

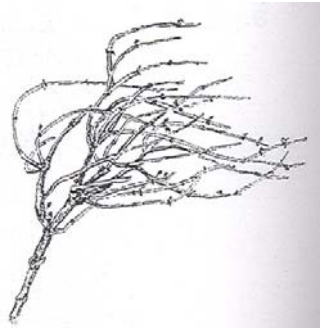
_____

Circle the plants that live here.
Cross off the plants that don't live here.









Be A Wildlife Detective!

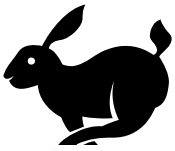
As you explore, be sure to look and listen for signs of wildlife.
Check off clues as you find them.

- ☐ Animal Tracks
- ☐ Bird Feathers
- ☐ Birds Calling or Singing
- ☐ Insects Buzzing
- ☐ Animal Droppings
- ☐ Leaf Chewed by an Insect
- ☐ Animal Hole
- ☐ Bones
- ☐ Spider Web
- ☐ Snake Skin

Draw a picture of an animal or insect you saw today.

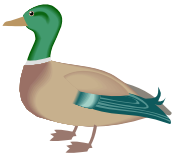
Great Basin Desert Animals

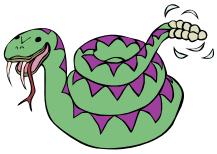
Many animals call the Great Basin Desert home. Look for the underlined part of each word in the word search below.



Jack<u>rabbit</u>

Mallard <u>Duck</u>





Rattle<u>snake</u>

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

Lahontan Cutthroat <u>Trout</u>

Great Horned <u>Owl</u>

Golden <u>Eagle</u>

Western Fence <u>Lizard</u>

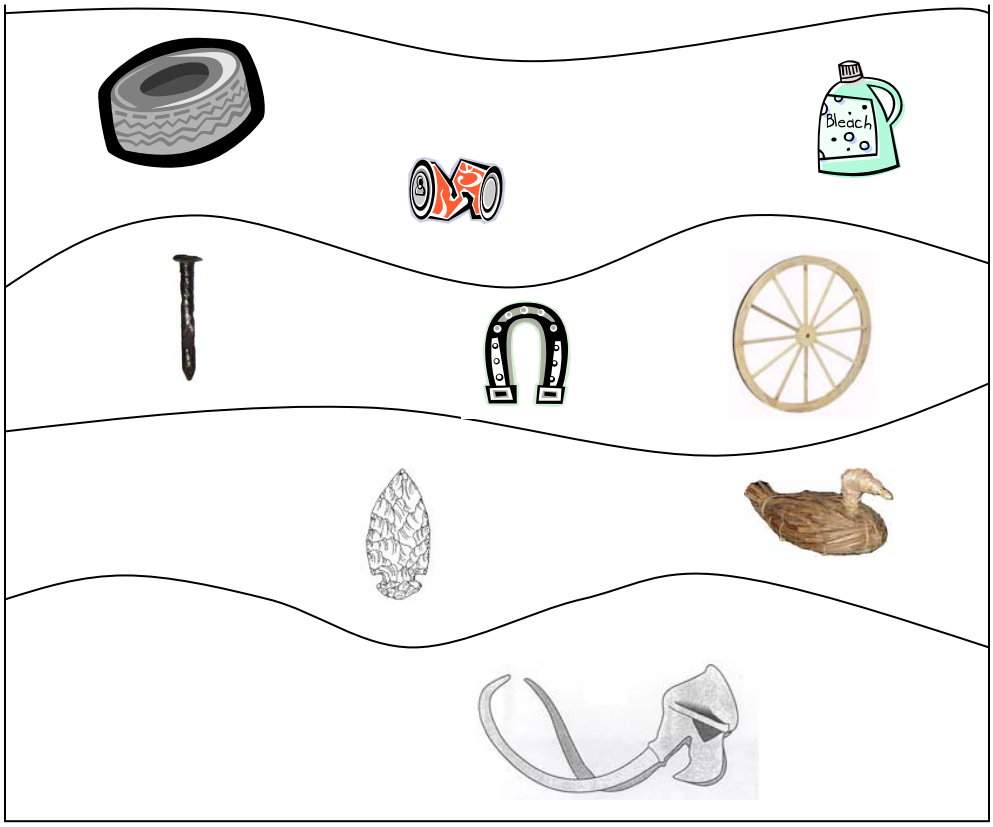
Mule <u>Deer</u>

<u>Coyote</u>

Red Tail <u>Hawk</u>

Digging the Past

Archeologists are people who learn about the past by studying the things that people left behind long ago. How deeply these things are buried tells archeologists how old they are. Look at the chart below to determine how old the items are.



0-100 years ago

100-160 years ago

160-4,500 years ago

10,000-40,000 years ago

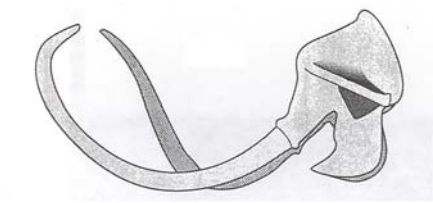
Who Left These Items?

Match the item with the person or animal that left it.

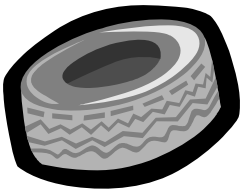
A. duck decoy	1. pioneer
B. tusk	2. Indian
C. wagon wheel	3. modern-day man
D. soda can	4. mammoth

An archeologist found these items near Lovelock Cave. Use the chart on the previous page to find out how old they are.

1._____



2. _____



3. _____

4._____

5._____

After visiting Lovelock Cave, imagine how life among the Northern Paiutes would have been before Euro-Americans came into the area. Draw a picture showing Lovelock Cave, the plants, the animals, the lake, and the Paiutes living there.

Museum Treasure Hunt

When you are touring the Marzen House Museum, visit the *Native People of the Humboldt Sink* Exhibit to find the answers to these questions.

1. This is the name of the Indian people who live in this area:
   __ __ __ __ __ __
2. The Indian people used this to catch ducks: __ __ __ __ __
3. The duck decoys are the oldest in the world. They are over __ __ __ __ years old!
4. This is an important food for the local Indian people:
   __ __ __ __ __ __ __ __
5. These were used for warmth during the cold winter months:
   __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
6. Lovelock Cave was a place where Indian people __ __ __ __ __ __ things.
7. Indian people from California and Baja California brought these to the Lovelock area to trade with the Indian people who lived here: __ __ __ __ __ __
8. This was used to coat baskets so that they could be used as water bottles: Pine __ __ __ __ __
9. These people study how people lived in the past by studying things they left behind: __ __ __ __ __ __ __ __ __ __ __ __ __

Draw a picture of the most interesting artifact you saw at the exhibit. What was it used for?

Historic People of Lovelock: Biography Mysteries

Have an adult help you find out about these important people in Lovelock's past. Some of the clues can be found in the Lovelock Cave Back Country Byway Guide and the Nature Trail Guide.

I was born here and my relatives still live here.
I traveled all over America trying to get help for my people.
I started a school here for Paiute children.
I was the first Native American woman to write a book.
My statue is in the U.S. Capitol and Nevada State Capitol buildings.
Who am I?

_____

Courtesy of Nevada Historical Society

Courtesy of Elaine Pommerening

I operated a stage station here in 1866.
I founded this town in 1868.
I discovered many minerals here.
I built a saw mill, owned a hotel and helped build one of the first irrigation canals.
My first name is the same as our first president's and my last is the name of this town.
Who am I?

_____

We helped build the Central Pacific Railroad through here in 1868.
Later we opened businesses in town like laundries and restaurants.
We also worked in mines and on ranches.
We had our own community near where the park by the freeway is today.
We eventually moved away to places like San Francisco where we had more friends and family or went back home to our country on the other side of the Pacific Ocean.
Who are we?

_____

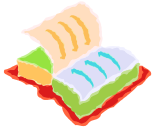
Courtesy of Nevada Historical Society

The California Trail

Many people left their friends and families in the eastern United States in search of good farmland and gold during the 1840's - 1860's. The trip took approximately five months to complete by covered wagon. The pioneers timed their trip so that they would cross the Sierra Nevada Mountains no later than October to beat the winter weather. In order to do this, they had to cross what is now the state of Nevada during the hottest months of summer. The Humboldt River served as their guide and source of water for many miles, but when the river ends at the Humboldt Sink, the pioneers faced 40 miles of terrifying desert. This was one of the most dangerous stretches of the entire journey for they had to cross the dreaded 40-mile desert with no water sources and virtually no vegetation for their animals. Imagine this, at the peak of summer!

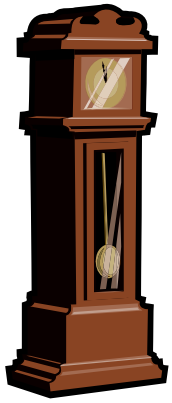
Will Your Party Make It?

As many people approached this last stretch of the trip, their animals were exhausted and every extra ounce of weight slowed the journey down. Below is a list of your wagon's supplies. Decide, by circling, what is crucial for the remainder of your trip. Cross off what you don't need; it gets thrown out!



tin of coffee
2 tents
blankets
sack of flour
tea kettle
chair
candles
sack of cornmeal
books
extra clothes
dried fruit
saw
ax
medicine cabinet
ammunition

bucket of grease
cooking pot
wagon jack
rifle
grandmother's rocking
soap
farm tools
bag of spices
bowie knife
barrel of bacon
grandfather clock
sack of sugar
rope
pillows



Special Message

Paiute elders are older members of the tribe. Elders are very important because they hold the knowledge of the old ways of doing things. They pass this wisdom down to younger people to keep Paiute traditions alive. Think of a special elder in your life, like a grandparent or an older friend. What have you learned from that elder? Below you will find important advice from the Paiute elders. Unscramble the blocks below to reveal their special message.

T R	T .	R E	T	L	G S	E C	W	E A	I T
I N	H	A L	S P	T H					

			AL						

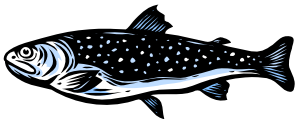
Paiute Language

The native language of the Paiute Indians is also called Paiute. Paiute is spoken by more than 1,000 people in Nevada, California, Oregon, and Idaho. Today, many Paiute children are learning Paiute at home and at school to help preserve their native language. Below is a list of common words in Paiute for you to practice.

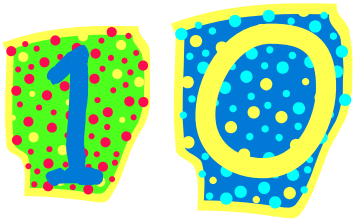
One	Su-mu-u	Boy	Nat-se
Two	Wa-ha-u	Girl	Za-a
Three	Pa-he-u	Rabbit	Cam-mu
Four	Wa-tsi-qui-u	Fish	Pah-gue
Five	Ma-ne-qcu	Deer	Der-hutcha
Six	Na-pa-he-u	House	No-be
Seven	Na-ta-kwa-tsi-kwe-u	Spring	Tah-mano
Eight	Wo-kwo-sa-kwe-u	Autumn	U-ban-nu
Nine	Su-mu-kaw-du-u pu	Summer	Tad-sah
Ten	Su-mu-ma-nu	Winter	Tdo-mo

Use the words on the previous page to match each picture below with its Paiute name.

Tdo-mo



Nat-se



No-be

Cam-mu

U-ban-nu

Za-a

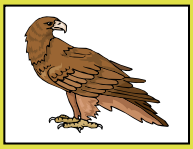
Pah-gue

Su-mu-ma-nu

Der-hutcha

Pa-he-u

Great Basin Desert Animals



Many animals call the Great Basin Desert home.
Look for them in the word search below.

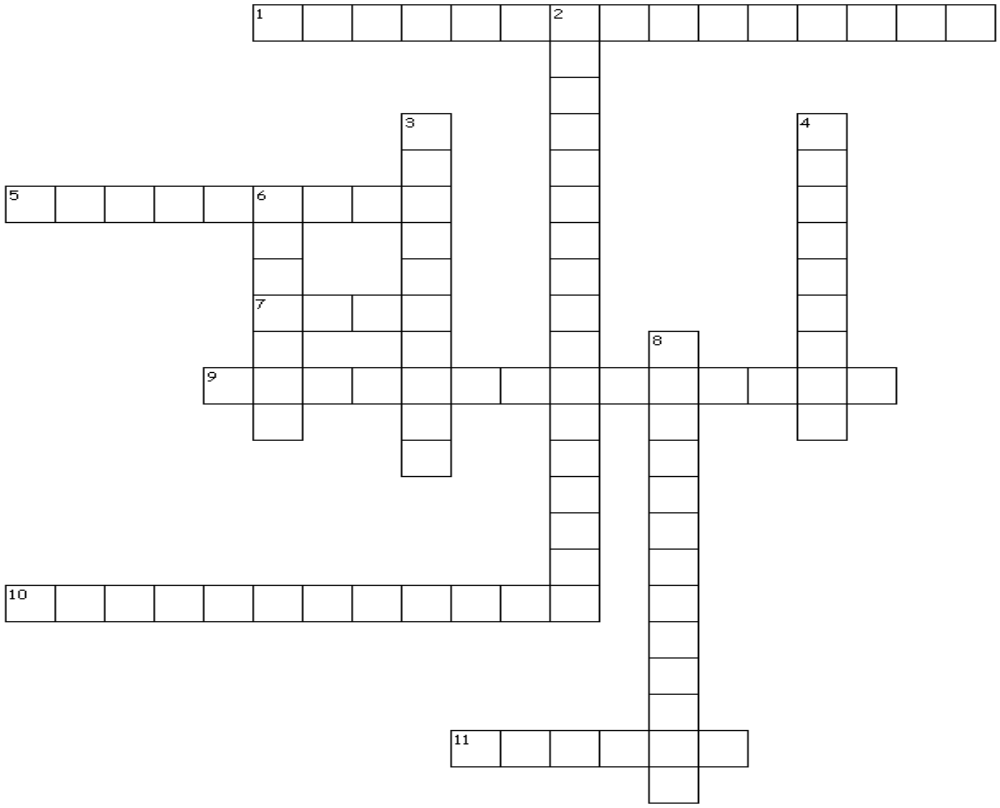
F	A	X	A	J	H	T	F	Z	S	R	N	E	W	I	P	E	O	E	L
C	N	M	S	K	X	R	W	E	H	F	A	L	H	Z	I	R	E	W	L
P	P	S	T	R	S	O	E	R	T	Z	F	I	O	P	P	C	E	O	Q
M	I	O	K	N	H	D	E	E	O	N	O	V	G	Z	A	P	Q	B	P
E	K	D	V	A	A	X	R	I	F	M	C	W	A	E	X	E	I	B	B
R	A	G	R	E	A	T	B	L	U	E	H	E	R	O	N	G	O	E	H
G	N	F	R	F	Z	D	A	O	T	D	E	N	R	O	H	B	U	D	H
A	G	G	Y	R	I	C	Q	P	L	H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

Words to find:

Bighorn Sheep
Peregrine Falcon
Kangaroo Rat
Horned Toad
Great Blue Heron
Merganser Duck
Prairie Dog
Pronghorn Antelope
Golden Eagle
Tui Chub
Bobcat
Kit Fox
Mule Deer
Jackrabbit
Western Fence Lizard

Paiute Plant Uses

Team up with an adult to find the answers to this puzzle.
Answers can be found in the Lovelock Cave Nature Trail brochure.



Across

1. Flour was made from the seeds of this plant.
5. This plant is used to start campfires.
7. This plant was used to make duck decoys.
9. Tasty nuts came from this tree.
10. Paiutes made a paste out of this plant and put it on body parts that are swollen
11. These colorful crusts grow on rocks and are ground into powder to treat rashes, bug bites and skin infections.

Down

2. Gum came from the roots of this plant.
3. According to Paiute legend, the world would not be complete without sagebrush and this plant.
4. This plant, which is related to pine, was used to make a tea.
6. The leaves of this plant were used for the roofs of houses.
8. When the wind blows, this plant makes a noise.

Nature Journal

As you walk the nature trail, notice the many plants growing. These plants were used by the Paiute Indians for food, medicine, tools, and firewood. There are many animals that also use the plants for food and shelter. Use the space below to make observations about a plant that you spot along the nature trail. Describe the plant in detail and draw a picture of it. Ask an adult to help you find out if the Paiutes used it for some purpose.

Geology Rocks!

Tufa: As you walk along the Nature Trail you may find a piece of a tan rock that looks like popcorn or broccoli. This rock is called tufa (too-fa). Tufa was formed over the years when calcium (the mineral in your bones) and carbon dioxide (the stuff in sodas that make it fizz) in the water of Lake Lahontan washed up against the limestone around Lovelock Cave, leaving a coating of minerals on it. If you find a piece of tufa, draw it here. If you don't find a piece, draw a picture of another interesting rock that you find.

Limestone: The waves of Lake Lahontan carved Lovelock Cave out of limestone. 200 million years ago the sediments of coral reefs and sea animal shells formed this limestone. In some places the limestone is actually starting to change into marble. If you look closely you will see angular "folds" in the limestone. These were formed by the forces of the earth compressing the limestone. Take a piece of paper and push it together from both sides. See how it folds. This is similar to the way folds are formed in the limestone.

Earthquakes: Notice the large rock in the opening of Lovelock Cave? This fell there during an earthquake several thousand years ago. Have you ever felt an earthquake? What did it feel like? Were you scared? If you have never felt an earthquake, how do you think it would feel? How would you feel during an earthquake? Write your descriptions here:_____

_____

Rock Ochre: Inside Lovelock Cave, if you look hard you may find a pocket of red powder on the floor of the cave. This is red ochre and is rust from iron deposits. The Paiute Indians mixed this with duck grease and used it for sunscreen and wind protection on their faces.

Lovelock Cave

Native Americans used Lovelock Cave as a place to store things. Archeologists found mats, bags and duck decoys in Lovelock Cave. The duck decoys were made from a marsh plant called tule, and are over 2,000 years old!

As you look out from Lovelock Cave, imagine a time when Humboldt Lake was full of water. Dome-shaped huts dotted the shore. Men fished and hunted ducks while women gathered roots and ground them into flour on flat stones. Children played nearby. When it was time to move to a new camp, people carried baskets filled with seeds and dried fish, duck decoys and tools to Lovelock Cave to store them.

If you lived here back then, describe what you would eat for food and what materials you would use to make your clothes and houses. What would you use to carry things and what tools and weapons would you make? What would you do for fun?

Junior Ranger Pledge

As a Junior Ranger, I promise to be safe and learn all that I can about the outdoors. I will respect all plants and animals. I will put all of my trash in trash cans or pack it out with me. I will leave all rocks, plants, arrowheads, and other objects where I find them so that others may enjoy them, too. I will teach my family and friends how to love and protect the outdoors.

Name:_____

Age:_____

Signature:_____

Address (if mailing):

_____

_____

_____

Congratulations! To receive your certificate and Junior Ranger badge, drop off this completed book at the drop off box located at the Marzen House Museum or bring it to the Pershing County Chamber of Commerce. A completed book can also be mailed to the BLM Winnemucca field office.