



U.S. Department of the Interior
Bureau of Land Management



Logandale Trails

ADVENTURE BOOK

JUNIOR RANGER

Desert Plants Provide Animal Habitats!

Activities

Safety

Become a
Junior Ranger

Las Vegas
Field Office

Cover art by: Khloe, 3rd grade winner of the 2017 poster contest, Ute Perkins Elementary School

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Bureau of Land Management

The Bureau of Land Management (BLM) is a federal government agency that cares for more than 245 million acres of public lands. These lands belong to all Americans, including you. Most are in the Western United States. The BLM also manages a number of smaller sites in the Eastern United States.

The BLM manages public lands for many uses. These lands provide natural resources, such as coal, oil, and natural gas. They provide habitat for wildlife, food for grazing animals, and timber for people. The lands contain evidence of the past, such as dinosaur bones and plant fossils. Archaeological sites on public lands help us learn about people who lived in North America long ago. Today, people like you enjoy exploring the big open spaces on the lands.

Junior Ranger Program

The Junior Ranger Program introduces young adventurers like you to the lands and resources managed by the BLM. We hope you enjoy the activities in this book. When you are finished, cut out the Junior Ranger Certificate on page 25. Then, say the Junior Ranger pledge and sign the certificate. We invite you to join the adventure!



Logandale Trails



Responsible Recreation

Junior Rangers have fun at Logandale Trails! They follow the motto of "Safety First, Every Ride, Every Time" in an effort to reduce crashes and injuries resulting from inappropriate OHV use.

Natural Resource Protection

Junior Rangers help the BLM and Partners In Conservation preserve the natural resources of Logandale Trails by learning how to protect plants and wildlife while they are traveling through the desert.

Environmental Education

Junior Rangers teach their family and friends about the Logandale Trails Area and how to be safe and responsible.



Be a Junior Ranger

Junior Rangers play an important role in the Logandale Trails Area



Dear Adults,

We are delighted that you are supporting our Junior Ranger Program. The activities in this book offer a special opportunity to explore the Logandale Trails Area safely and responsibly. The goal of the BLM Junior Ranger Program is to educate children about proper outdoor recreation use with an emphasis on OHV safety, while instilling a strong ethic for natural resources.

Activities are recommended for children ages 5-12. The goal is for the child to learn by doing. Please read the introduction to each activity and discuss it with the child to be sure he/she understands it. If you need assistance with an activity, feel free to ask a BLM or Partners in Conservation representative.

How to Become a Junior Ranger



Attend an education program at Logandale Trails. Check with BLM Las Vegas Field Office or the Partners In Conservation website (www.partners-in-conservation.com) for program schedules. Attending a ATV Safety Institute ASI ATV RiderCourse (see note below) also counts as an education program.

5-8 year-olds complete at least three activities in this book.

9-12 year-olds complete at least five activities in this book.

Optional

Complete one stewardship project (A stewardship project is where you help take care of the Logandale Trails. See page 22).

Fill in Programs Completed:

#1 _____
Name of Education Program Date Staff Signature

#2 _____
Name of Stewardship Program Date Staff Signature

Safety First, Every Ride, Every Time



While you complete the activities in this booklet, make sure you follow our Junior Ranger motto of "Safety First, Every Ride, Every Time" by modeling appropriate OHV behavior and wearing your personal protective equipment Every Ride, Every Time!

Can you find all the safety gear? Once you find the safety gear draw a line to it.



1. GLOVES
2. EYE PROTECTION
3. LONG PANTS
4. OVER THE ANKLE BOOTS
5. HELMET
6. LONG-SLEEVE SHIRT
7. BODY ARMOR

Note: Full face helmets protect your face as well as your head. Open helmets are lighter and cooler and should be used with mouth protection. The use of full face helmets will give you the best helmet head, the better your helmet head is, the cooler you are #helmethead.

Junior Ranger Safety Tips

P - Prepare yourself and your equipment for the trip. Make sure you have parental supervision.

L - Let someone know where you're going and when you will return.

A - Adverse weather or fire conditions? Check first.

N - Never go out on the trail alone.

Take an ATV Safety Course. If you are under 18 years old and plan to ride an ATV, you should take a safety training course. In these courses you will learn laws and safety skills and necessary safe riding habits. You will also learn about the ATV so you can conduct "pre-ride" safety checks. To register for a Certified Safety Course, contact Partners In Conservation or call the ATV Safety Institute at (800) 887-2887.

Activity 1



Senses Ride

Take a ride on any of the trails (following the Junior Ranger Safety Tips, of course!) and use your senses to discover the natural world around you (you can park your OHV and hike as well). Listed below are four of our five senses: Sight, sound, smell, and touch. Use each of your senses to learn about something along the trail and describe it below.

Example:

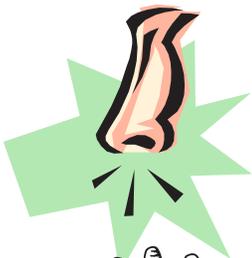
Sight: I saw some animal tracks in the sand near a burrow.



Sight:



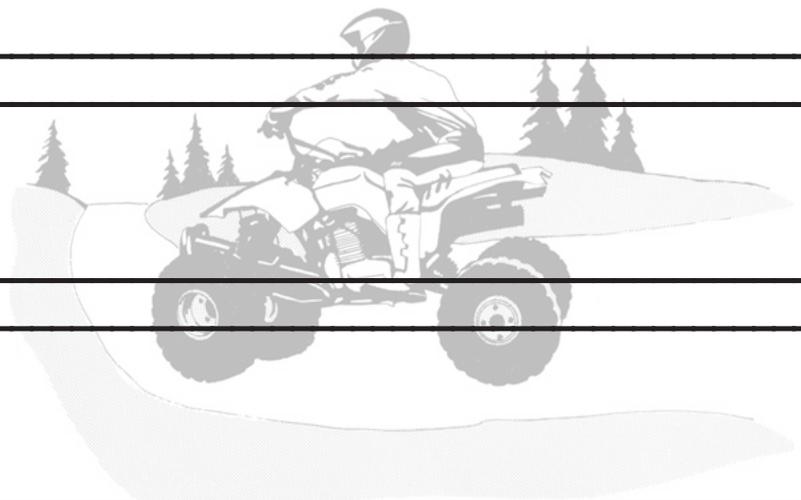
Sound:



Smell:



Touch:



Who Plays Where?



Logandale Trails is a popular destination spot. Visitors enjoy operating motorcycles, ATVs, trucks, cars, buggies, rock crawling, dispersed camping, horse back riding, and much more



Activity 2



Who Plays Where?

In this activity, you can sketch pictures of the diverse recreation opportunities at Logandale Trails, or you can also use a camera to take pictures and then paste some of your pictures to make a collage.

A large, empty rectangular box with a thick orange border, intended for students to draw or paste their own images of recreation opportunities.

Wildlife



Many people think there is no wildlife in the desert. This is not true! If you take a close look, you may be surprised by what you can find. If you walk quietly and look carefully, you may spy some of the animals that live around the Logandale Trails.



Bighorn Sheep

These powerful mammals are herbivores and like to dine on grasses, leaves and other plants. They use their large horns to fight each other and establish rank in the herds.

Red-tailed Hawk

The Red-tailed hawk is an amazing bird of prey who generally hunts small mammal, lizard and other birds.



Gila Monster

The Gila Monster is the largest lizard native to the United States. It can measure up to 2 feet long and weigh more than 5 pounds. The Gila Monster is the only venomous lizard native to the United States.

Activity 3



Wildlife

In the space provided, draw or describe animals that you have seen at Logandale Trails.

A large, empty rectangular box with a thick orange border, intended for drawing or describing animals.Four horizontal black lines spaced evenly, intended for writing a description of the animals.

Desert Tortoise



The desert tortoise is an herbivore whose upper shell (carapace) may attain a length of 9-15 inches. The tortoise is able to live where ground temperatures may exceed 140 degrees F because of its ability to dig underground burrows to escape the heat.

It is a federally listed threatened species that depends on the desert scrub of the Logandale Trails for its habitat.



Desert tortoise declines appear to have been most severe and widespread in the Western Mojave Desert. Recent estimates indicate that there are about 100,000 individual desert tortoises remaining in the Mojave and Sonoran deserts.

How you can help protect the desert tortoise

Stay at least 5 feet away from any tortoise

Do not throw out scraps of food. Garbage may attract ravens, which prey on young tortoises.

Watch for tortoises in the road or trail, particularly on rainy days. If you see a tortoise in the trail, either wait for it to move or carefully drive around it.

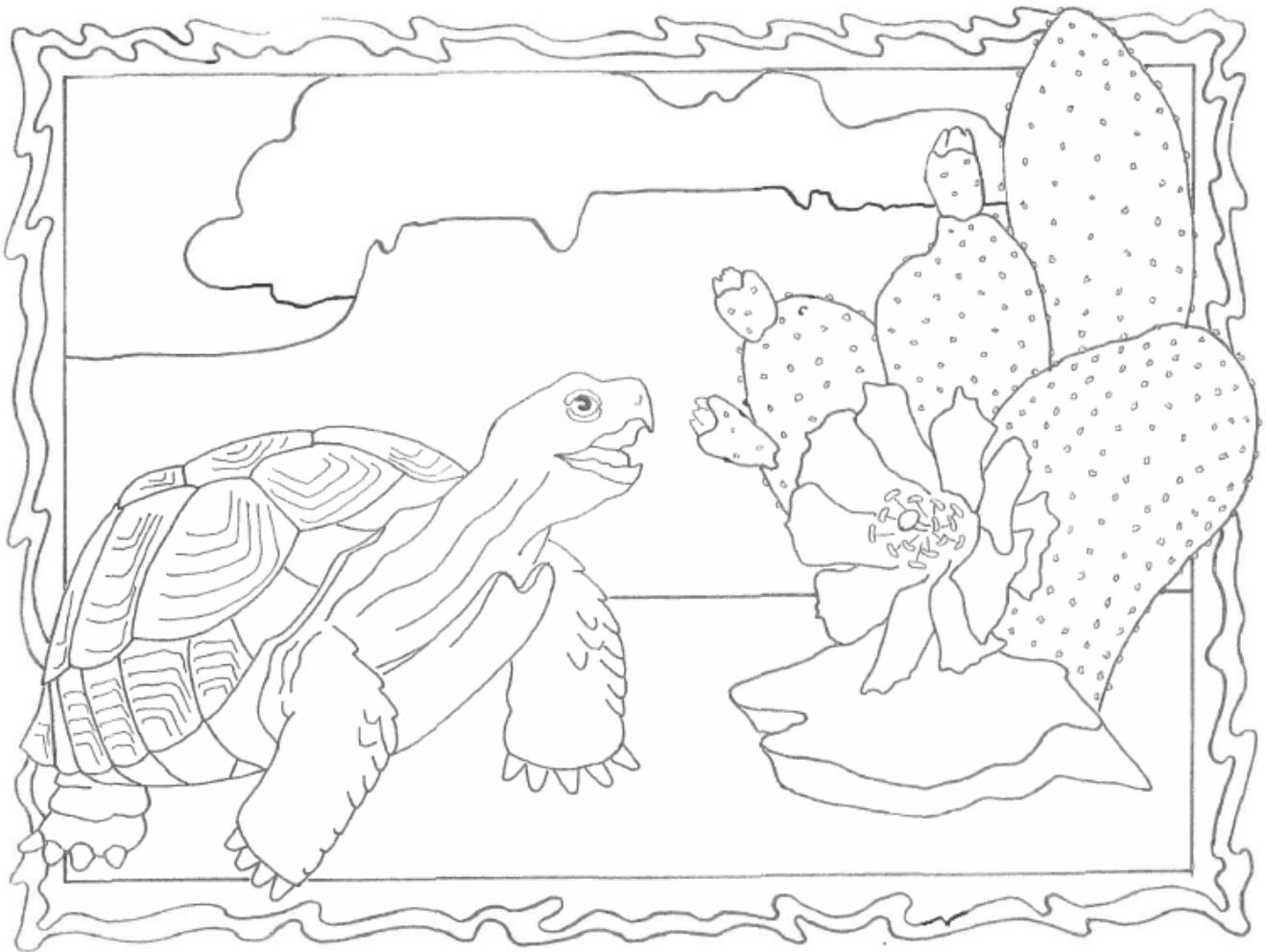
Check the ground beneath vehicles for tortoises before the vehicle is moved.

Stay on existing roadway and trails or designated routes.

Activity 4



Let's color the tortoise



Tread Lightly



By practicing the Tread Lightly principles, you not only care for the environment and reduce conflicts among recreationists, you help protect access to recreational areas for years to come. You can do this by using the acronym T.R.E.A.D.



- T - Travel and recreate with minimum impact**
By traveling only where permitted you will minimize your impact.
- R - Respect the environment and the right of others**
Help keep trails accessible for recreation by respecting the right of hikers, riders, campers and others to enjoy their activities.
- E - Educate yourself; plan and prepare before you go**
By educating yourself and obtaining travel maps and regulations from public agencies, complying with signs and barriers, and asking permission to cross private property, you insure your impact is minimized.
- A - Allow for future use of the outdoors; leave it better than you found it**
By avoiding streams, petroglyphs, muddy trails, steep hillsides and wildlife, you allow for the future use of the great outdoors.
- D - Discover the rewards of responsible recreation**
Recreating responsibly helps protect the environment and preserves opportunities to enjoy your visit.

Activity 5



During your trip to Logandale Trails, how did you use TREAD?
In the space provided describe how you used TREAD.

T - Travel

R - Respect

E - Educate

A - Allow

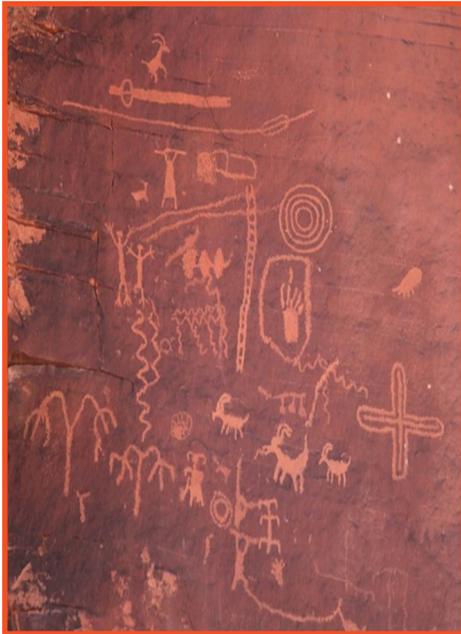
D - Discover

Resources: <https://www.treadlightly.org/>

History



The Logandale Trails is the former home of the Virgin Anasazi, a culture that mysteriously left the area around 1150 AD. Other groups came before and after the Anasazi, leaving evidence of their presence in the area. If careful, visitors to Logandale Trails can spot petroglyphs, pueblo foundations, and artifacts that indicate the former presence of these cultures.



The drawings that can be seen on rocks in the Logandale Trails are petroglyphs (Native American rock drawings). The images are pecked into the darkened, desert varnished surface of the sandstone to reveal the lighter rock beneath. Scientists tell us that most of the petroglyphs at this site were carved thousands of years ago.

In order to preserve the petroglyphs, follow these steps:

- ✿ Take photographs rather than rubbings. The photos you take will not hurt the drawings, but rubbings gradually degrade them.
- ✿ Do not touch the petroglyphs. Each person's fingers contain oils that are harmful to the drawings.
- ✿ Leave the petroglyphs and any artifacts you may find in their places.

Activity 6



Be A Nature Artist

In the space provided below, draw petroglyph then describe in your own words what you think it means.



Wind Ripples In The Sand Dunes

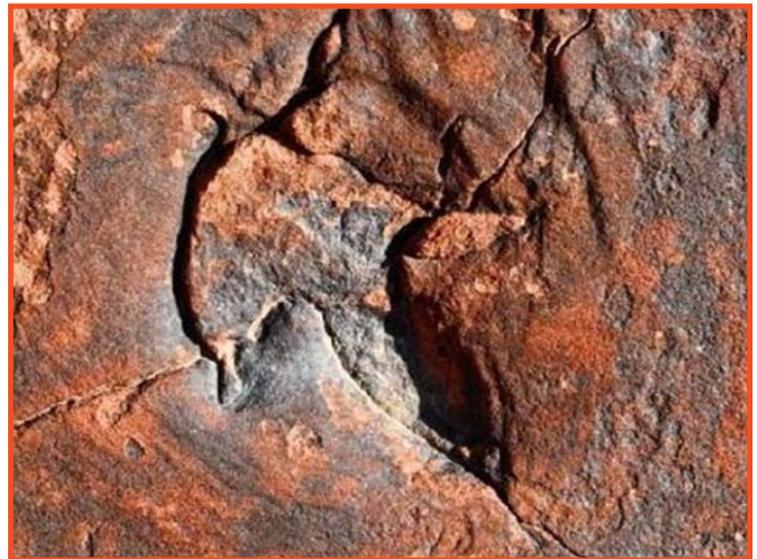
The geology of the Logandale Trails area consists of bright red Aztec sandstone rocks that outcrop. The sandstone dates back to the Jurassic period (about 180 - 190 million years ago) and is now ancient sand dunes hardened into rock. Due to erosion, these red sandstones offer a large supply of sand for the formation of new sand dunes. Some ancient tracks of small two-footed theropod (meat-eating) dinosaurs have been found in the Aztec sandstone in Red Rock Canyon National Conservation Area and Valley of Fire State Park. Paleontologists are still researching these sites. Maybe our footprints and tracks can be preserved in these sand dunes in the future.



Sand Dunes Crest

Sandtastic Dunes

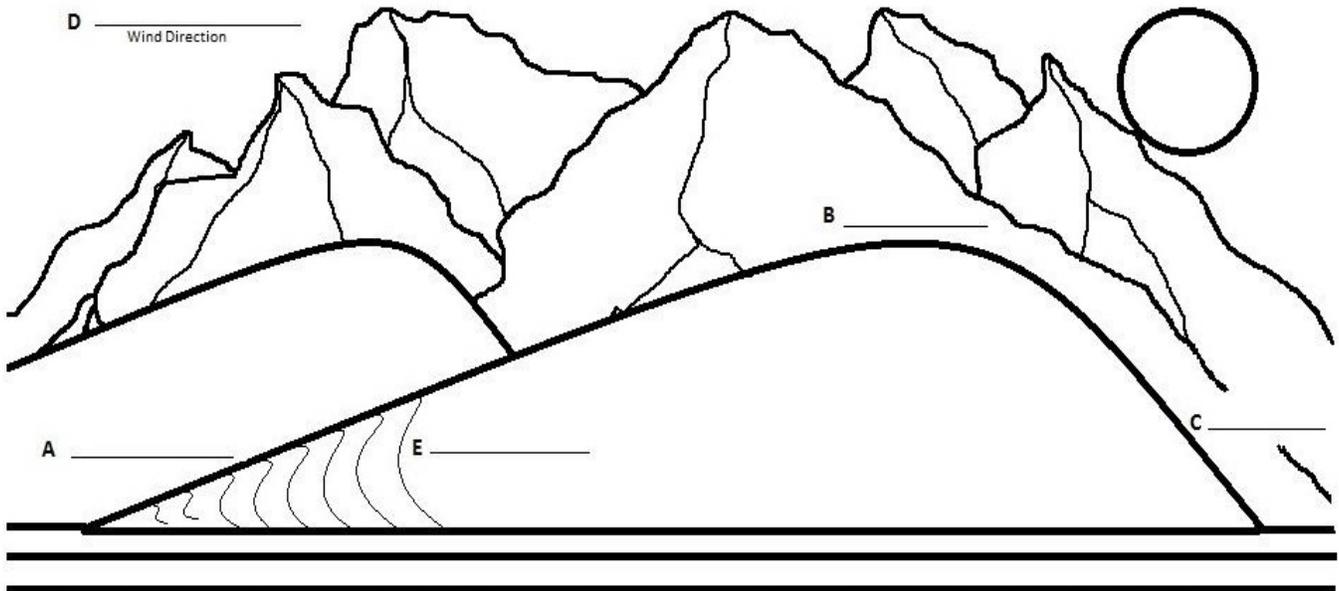
A dune is a mound of loose sand formed by the wind, usually along beaches or in deserts. Dunes can be formed when wind blows sand into a protected area. Dunes form as the grains of sand pile up or accumulate over time. Three things are required for dune formation to occur: a large supply of sand, wind speeds capable of moving the sand, and an ideal location for its accumulation.



Ancient tracks of small two-footed theropod dinosaur

Every dune has three main features. A windward side or **backslope**, a **crest**, and a **slipface**. A dune windward side is the side where the wind is blowing and pushing the sand grains up. The presence of **wind ripples** on this side can help to indicate the windward side and wind direction. The crest is the highest point of the dune feature at the point where material collapses and slumps down the slipface. A dune slipface is simply the side without wind. A slipface is usually smoother and steeper than a dune windward side.

Activity 7



Unscramble the words below to identify the features of the dune above. If you are having trouble figuring it out, look through the minerals page of the activity book for clues.

A. pakcbsole

B. serct

C. flpsaec

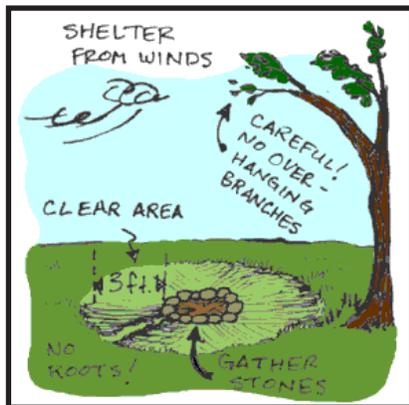
D.  or 

E. dinw piplers

Camp Fire Safety



While camping at Logandale Trails there's nothing like roasting marshmallows over an open fire; however, fire can be dangerous if you are not careful. So before your parents start the camp fire ask them if they have done the following:



1) Is that the best spot?

- ⌘ When scouting out your fire pit, make sure it's not under any low hanging branches or near brush or bushes. These can easily go up in flames if the fire gets bigger than anticipated.
- ⌘ You should also keep an 8 to 10 foot radius clear of anything, including tents, chairs and food.

2) Do we have a safe fire pit?

- ⌘ Clear all the debris from around the fire pit, including garbage and grass. There should be a 5-foot perimeter of soil around the campfire space.
- ⌘ If there is no metal ring, circle the pit with rocks. If your fire grows in size, this will help keep it within these borders.



3) Do we have water nearby?

- ⌘ You should always have water, dirt or a shovel nearby to help reduce the flames or put it out completely if necessary.

Did your parents answer yes to all three questions? If the answer is yes then let them know it is safe to start the fire.

*Please check with your local field office to ensure no fire restrictions are in place.

Camp Fire Safety



Now the sun has set and your tummy is full from all the s'mores. You're about to crawl into your tent and call it a night. But wait, how do we make sure that camp fire is out?

1) Drown the fire with water



2) Stir the fire around with a shovel or a stick to make sure all of the coals and wood are covered in water

3) Add more water



4) Feel for heat on the wood, coals, ashes and anything else in the fire ring to make sure it feels cold

Now it's bed time

Activity 8



What Would You Call It?

Sometimes the names we give to plants have to do with how they look. Scientists sometimes name plants after their interesting characteristics. These are called the plant's common name.



This plant is called beaver tail because the pad looks like a beaver's tail.



This plant is called catclaw because the hook-like thorns resemble the claws of a cat.

Now it's your turn! Find two interesting plants and observe them closely. Take a photo or sketch them in the box. Then come up with your creative name for them.

SKETCH or PHOTO	CREATIVE NAME	DESCRIPTION

Activity 9



FIND THE HIDDEN WORDS

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

Logandale

Desert Tortoise

Camping

Petroglyphs

UTV

Motorcycles

Leave No Trace

Catclaw

Hiking

Rock Crawling

In Your Own Words



What was your favorite part of your visit to Logandale Trails? Write about it, or draw a picture in the space below.

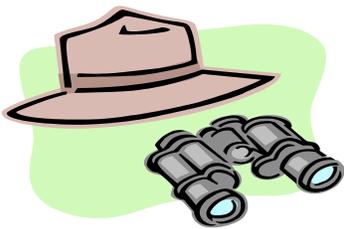
Congratulations



You have completed the Junior Ranger Program. Being a Junior Ranger is fun, but there are responsibilities. You must now take the Junior Ranger Pledge. Raise your right hand, have a park ranger read the Junior Ranger Pledge (on the next page) to you, and repeat the pledge after the ranger.

*More information about Logandale Trails can be found at:
<https://www.facebook.com/logandaletrails/>

Once you have taken the pledge, the ranger will sign your official Certificate of Achievement.



You are now an official Junior Ranger!

Thank you for participating in Logandale Trails first Jr. Ranger Adventure Book. We appreciate any feedback to improve this program, please provide feedback to the BLM at kkendrick@blm.gov or PIC at picorg@mvdsl.com



Certificate of Achievement



Congratulations Junior Ranger!

You play an important role in the management of our public lands. Thank you for your hard work! Great job!

This certifies that _____ has met the requirements of a Bureau of Land Management Junior Ranger.

Junior Ranger Pledge

I, (your name), promise to do these things to be safe and protect the desert:

- I will practice "Safety First, Every Ride, Every Time".
- I will do my part to keep our deserts clean.
- I will stay on the roads and trails when traveling through the desert.
- I will respect, protect, and enjoy our desert.

Park Ranger _____ Date _____

