

# At Home Directions

Can't make it to the Visitor Center? You can still become a Junior Ranger! You can print this document or email [BLM\\_NV\\_RRC\\_RangerPrograms@blm.gov](mailto:BLM_NV_RRC_RangerPrograms@blm.gov) with your name and address to get a copy in the mail.

When you have completed your pages, you can either scan the pages and email to [BLM\\_NV\\_RRC\\_RangerPrograms@blm.gov](mailto:BLM_NV_RRC_RangerPrograms@blm.gov) or mail your completed book to:

Junior Ranger  
1000 Scenic Loop Drive  
Las Vegas, NV 89161

Make sure to include your name and mailing address so we can send you your Junior Ranger badge!

Unable to come to Red Rock Canyon National Conservation Area right now? You can still become a Virtual Junior Ranger from home! Just complete the appropriate number of pages for your age group, following the changes below. When you're done, send us your book to get your Junior Ranger badge in the mail!

**Page 7:** Draw or describe animals you see outside your home. How are they similar or different to the wildlife at Red Rock Canyon?

**Page 10:** Look through Red Rock A-Z here: <https://www.redrockcanyonlv.org/lasvegas/red-rock-canyon-a-to-z/>. Can you find three of these plants there?

**Page 20:** Watch the three minute Introduction to Red Rock Canyon video here: [youtu.be/Fmw6M1A48AE](https://youtu.be/Fmw6M1A48AE). What are some things you saw in the video that you liked? Why do you want to visit Red Rock Canyon someday? You can draw a picture of something you would like to see at Red Rock Canyon, tell a story about what your perfect visit would be like, or write a poem.

**Page 21:** Here are examples of petroglyphs (left) and pictographs (right) found at Brownstone Canyon in Red Rock Canyon National Conservation Area.



**Page 23:** These might be a little challenging without the Visitor Center to help guide you! You can try searching online or ask an adult for help.

Pages 9, 12, and 26 can only be completed at Red Rock Canyon, but you always save them to do when you do come visit.



# Junior Ranger

DISCOVERY BOOK



BLM/NV/LV/GI/12-13+1800



**NATIONAL CONSERVATION LANDS**

**Red Rock Canyon National Conservation Area**



**SOUTHERN NEVADA CONSERVANCY**

# Welcome!

Bureau of Land Management's Junior Ranger program helps introduce young explorers like you to the lands and resources that the Bureau of Land Management manages. This discovery book will introduce you to the plants, animals, and history of Red Rock Canyon National Conservation Area. Red Rock Canyon is one of many public land locations you can enjoy.

**1** Complete the appropriate number of pages for your age group. Feel free to have a Ranger or adult help you. It's also okay to do more activities if you wish.

Ages 6 and under: 4 pages

Ages 7-9: 5 pages

Ages 10-12: 6 pages

Ages 13 and above: 8 or more pages

**2** Take this book to the visitor center information desk after you finish your pages so that a Red Rock Ranger or volunteer can check your work.

**3** Once someone has checked your answers, you will be sworn in and the certificate at the back of this book will be filled out.

## Plant Zones

How would you like to travel from Mexico to the Arctic and not leave Red Rock Canyon? As you drive around the 13-Mile (21 km) Scenic Drive, you will change elevation (the height above sea level). The temperature will be about three to five degrees cooler for each 1,000 feet (300 m) you climb. You may not think of these changes as much, but it is for plants and animals. Each type of plant and animal can only tolerate a certain amount of coolness and dryness. This means that the higher you climb and the cooler it gets, you too will get to experience the different plant zones.



Joshua Tree  
2000-6000ft



Utah Juniper  
5000-7000ft



Ponderosa Pine  
6000ft and up



Beavertail Cactus  
Sea level-4000ft



Many Headed Barrel  
Cactus 3500-4800ft



Mt. Charleston

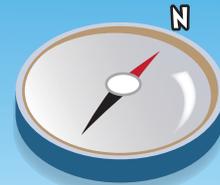
Rainbow Mountain

Mt. Wilson

Oak Creek  
Canyon

Spring Mountain  
Ranch State Park

Blue Diamond



Bridge Mountain

Turtlehead Peak

Lost Creek Canyon

Calico Hills

Pine Creek Canyon

Scenic Drive

Calico Basin

Visitor Center

Red Spring Picnic Area

State Route 159/Charleston Boulevard

Blue Diamond Hill

Hey kids!

My name is Sandy and I'm a Junior Ranger here at Red Rock Canyon National Conservation Area! That means it is my responsibility to help keep Red Rock Canyon clean, tell others about Red Rock, and do my part to protect and preserve Red Rock. Now it is your turn to become a Junior Ranger too! I will guide you through the book to make sure you are ready to be an official Red Rock Canyon Junior Ranger!

Let's have fun!



State Route 159/Charleston Boulevard

# Four Major North American Deserts



≡ **Mojave Desert**  
(Hint: the smallest desert entirely in the US)

⋮ **Sonoran Desert**  
(Hint: crosses the US and the Mexican border)

/// **Great Basin Desert**  
(Hint: the largest desert entirely in the US)

|||| **Chihuahuan Desert**  
(Hint: the only desert that has area in Texas)

Come and discover a part of the Mojave Desert at Red Rock Canyon National Conservation Area. Fill in the four desert areas with the correct pattern.

## What is a desert?

A desert is an area that gets less than 10 inches (25 cm) of rain per year. It can be very hot and sometimes quite cold (below freezing). Red Rock Canyon National Conservation Area is within the Mojave Desert, which gets most of its rain during winter storms and occasional scattered summer thunderstorms. Other places in the Mojave Desert can reach temperatures up to 130°F (about 55°C). That's hot enough to fry an egg on the sidewalk! Red Rock Canyon National Conservation Area is also part of the Bureau of Land Management's National Conservation Lands.

# Public Lands Belong To You!

The Bureau of Land Management is a federal government agency that takes care of more than 245 million acres (991,000 km<sup>2</sup>) 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.

The Bureau of Land Management 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 Native American artifacts, to ghost towns.

## National Conservation Lands

The Bureau of Land Management's National Conservation Lands contain some of the West's most spectacular landscapes. It includes over 873 federally recognized areas and approximately 35 million acres (142,000 km<sup>2</sup>) of National Monuments, National Conservation Areas, Wilderness Areas, Wilderness Study Areas, Wild and Scenic Rivers, National Scenic and Historic Trails, and Conservation Lands of the California Desert.



# Wildlife Watch

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 inhabitants of Red Rock Canyon. Remember not to feed or pet any wild animal! Draw a circle around each animal you see.

## 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 their herds.



## Coyote

The coyote is one of the most recognizable mammals of the desert. They are often heard howling, letting other coyotes know that they are not welcome. Coyotes also bark to protect their den.

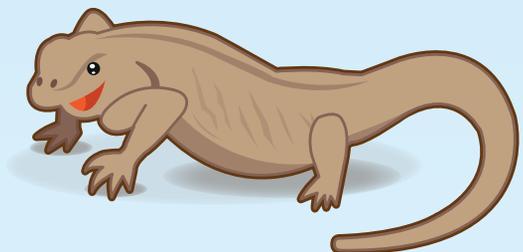


## Red-Tailed Hawk

This carnivore, though one of the largest hawks, only weighs a few pounds. It can often be seen circling high in the air, distinguished by its red tail feathers.

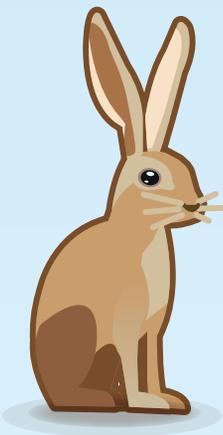
## Chuckwalla

Chuckwallas can tolerate temperatures as high as 102°F (39°C), allowing them to withstand the brutal summer heat. To avoid predators, chuckwallas wedge themselves into rock crevices and puff up their extra skin folds like a balloon, stopping the predator from being able to pull them out.



## Jackrabbit

These “rabbits” are actually hares, as their young are born fully covered in hair with their eyes wide open. They have specially adapted long ears that allow them to cool off during the hot summer days, as well as to listen for predators.



## Cottontail Rabbit

The cottontail rabbit can be active any time during the day, but like many other desert dwellers, they are often less active during the extreme heat of summer days. When danger is near, the cottontail alerts other rabbits by raising its white tail.



## White-Tailed Antelope Ground Squirrel

Often mistaken for chipmunks, ground squirrels are omnivores, eating seeds, grasses, plants, and small animals such as insects. When they cannot find water in the desert, these squirrels can use moisture from their food to survive.



## Desert Tortoise

The desert tortoise is able to live in the desert by staying out of the hot sun, conserving water, and staying inactive to not waste energy. Tortoises spend 95% of their time in a burrow (a hole in the ground), which also protects them from predators like coyotes and hawks.



## Desert Iguana

The desert iguana is a long lizard, growing up to 16" (41 cm) in length. It uses its light brown and tan colored body to camouflage itself in sandy areas, even staying active when temperatures reach 115°F (46°C)!

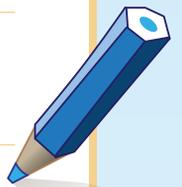


## Tarantula

These hairy spiders often live in burrows near rocks and tree roots. Tarantulas will lay webbing around the entrance to their burrow, and can feel when something disturbs the silky strands. This alerts the tarantula of danger, as well as potential food that may pass over the webbing, such as crickets and lizards.



**In the space provided, draw or describe any other animals that you see.**



# Shapes and Colors in Sandstone Quarry

Many people come to Red Rock Canyon to see the red-colored rocks, but that's not all we have here! If you look around, you can find all the colors of the rainbow among the many shapes of Red Rock Canyon and in nature. In this picture of the Sandstone Quarry area, circle the shapes that you can see. Try to find at least two circles, squares, triangles, and rectangles. Put an X by five different colors that you see while visiting Sandstone Quarry.



Circles



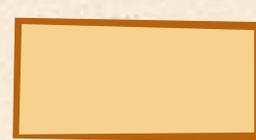
Squares



Triangles



Rectangles



Colors:  Blue  Orange  Yellow  Red  Green  Brown  Purple

# Sandstone Quarry, an Ancient Sand Box

Visit Sandstone Quarry, three miles (5 km) from the visitor center along the 13-Mile (21 km) Scenic Drive.

Between 1905 and 1913, sandstone was cut into blocks and removed from a place which became known as Sandstone Quarry. The blocks were loaded onto flat cars that were pulled across the desert to the railhead in Las Vegas. Steam was the power source for everything, including the saws and the Best Steam Traction Engine used to haul the rock. The stone was used in Los Angeles and San Francisco because of its superior quality for building. Three companies tried to make a success of mining the sandstone until the quarry was shut down in 1913.



Walk to the big red rocks. Run your hand across a red rock. How does it feel?

- Sharp  Smooth  Rough  Warm  Cold

Walk down the short trail with an adult. Look at the big blocks of sandstone cut out of the rock. What shape are they?

- Square  Rectangle  Circle

Stand next to a big sandstone block. Is it taller than you?  Yes  No

Can you put your arms around it?  Yes  No

How will you explore Sandstone Quarry today?

Draw a picture or write a sentence or two about what you will do.



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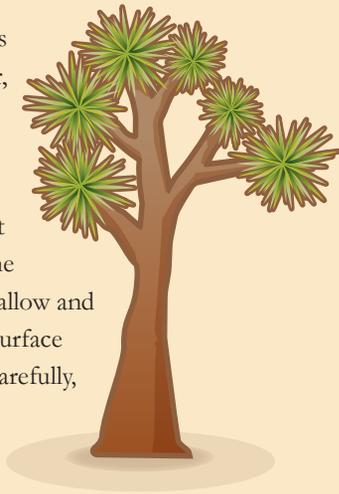
# Plant Adaptations

As you walk around the visitor center and Discovery Plaza, go around the 13-Mile (21 km) Scenic Drive, or go for a hike, look around at all the desert plants of the Mojave Desert. The plants you will see along the way possess special adaptations for living in the desert. Adaptations are physical or behavior changes that help plants and animals live in different environments. These adaptations help these plants survive the cold winters and very hot and dry summers here in Red Rock Canyon. Read below about some of the amazing adaptations of five of the desert's plants.

Can you find three of these plants during your visit?

## Joshua Tree

A desert is a place that gets less than 10" (25 cm) of rain a year, or a place that loses more water than it gains, making all deserts very dry places to live. To take advantage of what little rainfall that does come, the roots of the Joshua tree are shallow and spread out just under the soil surface over a large area. If you look carefully, you might see an old tree that has fallen over because its root system could no longer keep it upright.



## Mojave Yucca

It can be very hard to find water in the desert. Plants can lose a lot of water through their leaves. To conserve this scarce resource, plants like the Mojave yucca have thick, tough, waxy leaves with a relatively small surface area. Like many other succulents, during the summer heat the Mojave yucca opens its stomata (the tiny holes on the leaf surface that let it breathe) at night when the air is cool. Rather than fall off like other plants, dead leaves stay on the yucca, falling downward to help shade the trunk.



## Cholla

When it is very hot outside, people usually stay inside or stay in the shade. Since a plant can't exactly walk under the shade of a tree, it has to create its own shade, and that's just what a cholla does! The sharp spines that cover the branches from top to bottom act like little parasols, protecting the cholla from the desert sun while keeping animals from eating its branches.



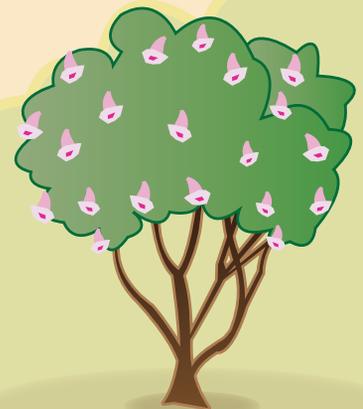
## Utah Juniper

It is all about water storage for the Utah juniper tree. This evergreen can grow to be almost 30 feet (9 m) tall and live to be 650 years old. The Utah juniper is able to do this because of its extensive root system, specially adapted to find water stored deep in the soil. During a drought, the juniper can also move water from its branches and store it in its trunk to keep itself alive.



## Desert Willow

The desert willow is not a true willow, but just like the true willow, it is a wetland plant. How does this plant grow in the desert with so few of the adaptations we see in many other desert plants? Well, there is water in the desert, but sometimes it is hidden below the soil surface. The desert willow only grows in washes and other areas where there is water below the soil surface. This water keeps the desert willow alive where it could not grow otherwise.



# Yesterday and Today

Red Rock Canyon is the historical home to the Nuwuvi (Southern Paiutes). The Nuwuvi still live in Southern Nevada today, but life looks very different now. In the past there weren't grocery stores or water fountains, and they lived in wickiups. All living things, including people, need food, water, shelter, and a space to survive. These four things make up what we call a habitat. Draw a line to connect each habitat item from today to those that may have been used in the past.



Solve the cryptogram to decode a simple rhyme.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

6 15 15 4 , 23 1 20 5 18 , 19 8 5 12 20 5 18 , 19 16 1 3 5

1 8 1 2 9 20 1 20 9 19 1 19 16 5 3 9 1 12 16 12 1 3 5

# Desert Oasis at Lost Creek

Visit the Lost Creek Trailhead seven miles (11 km) from the visitor center on the 13-Mile (21 km) Scenic Drive. Walk up the trail until you come to a spring with willow trees around it (about 1/3 mile or 500 m).

Do you see any insects or animals? Write down those that you see.

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Do you think this might be a good spot for other animals to come and drink when you are not there? What animals might get water here?

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Lost Creek has water all year long, even though the desert gets less than ten inches (25 cm) of rain a year. If you were thirsty and living at Red Rock Canyon years ago, would this spot have been important to you?

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Why?

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At the end of the canyon is a seasonal waterfall that occurs in the spring from snow melt or after a heavy rainfall. Think about what time of year it is and if there has been any heavy rain recently. Do you think you will see a waterfall at the end of the canyon? Take a look and find out!

What did you see when you arrived?

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## DO NOT DRINK THIS WATER.

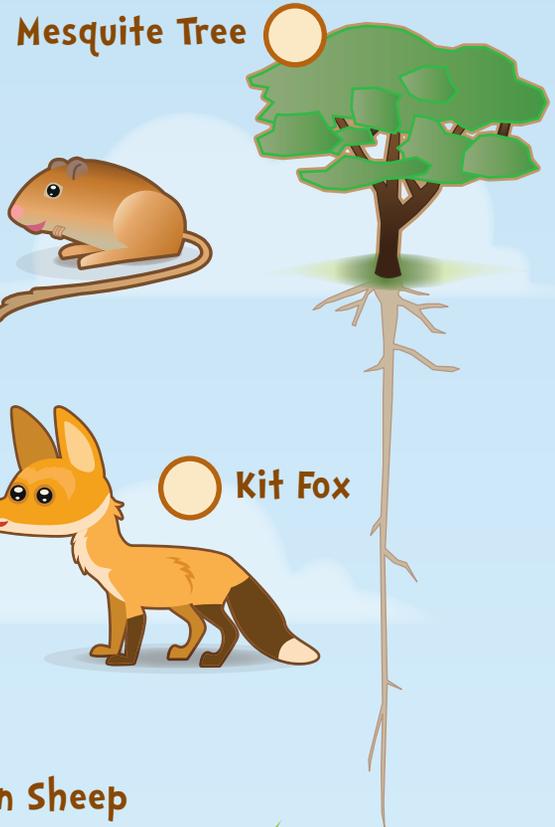
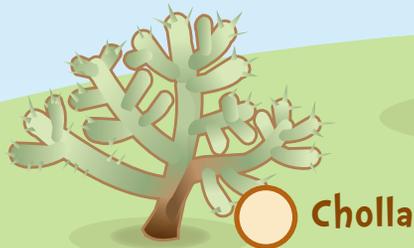
There may be tiny creatures in the water like *Giardia lamblia* that could make you sick. People today must purify water from wild streams and springs before they can safely drink it.

GRRRR



# Surviving in the Desert

Plants and animals at Red Rock Canyon have adapted to survive in the hot and dry weather of the desert. Match each plant or animal with its adaptation. Write the number of the adaptation for that plant or animal in the blank next to it. There is only one answer for each.

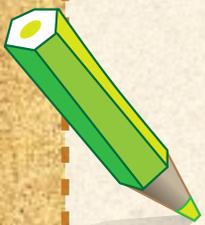


- 1 Runs more than flies.
- 2 Tap root may go down 100 feet to get water.
- 3 Has scaled skin resistant to drying.
- 4 Comes out at night.
- 5 Climbs trees to escape midday heat.
- 6 Burrows underground.
- 7 Its body is adapted to get all of its water from seeds.
- 8 Big ears catch cool breezes and has reflective body hair.
- 9 Spines create shade.
- 10 Internal organs insulated by fat layer to keep warm during winter.

# Tracks

Although you may not see the animals who live here, you may find signs of them by their tracks and droppings. Unscramble the words on the next page to discover which animals make Red Rock Canyon their home. If you are having trouble figuring out what animal the tracks go to, ask for help from a Red Rock Ranger or volunteer, an adult, or flip through your Junior Ranger Activity Book for clues.

Use the empty space to trace your own footprint. If you have space, trace your foot with your shoe on and with your shoe off. How are they different? How are they the same? Use the ruler to figure out how wide and how long your foot is. Compare your foot size with others. Who has the biggest feet? Who has the smallest?



YTOEOC

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ROGAKONA TRA

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DARLZI

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ALIQU

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ABCOTB

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STREDE STRETOOI

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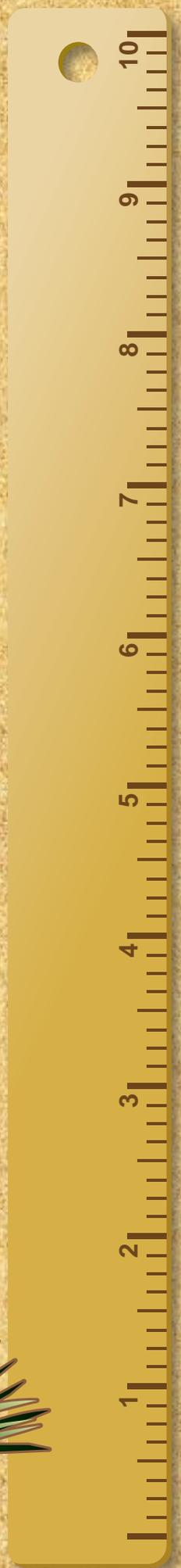


KASNE

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HIRNBOG PEHES

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# Pack your pack!

There are many things that you need to take along, could take along, or that are better left behind for a day of hiking. Imagine that this is your bedroom and you are about to go to Calico Tanks for a hike. "Pack" your backpack by circling all the things you would take on the hike. Remember, even if you are going hiking for the day, it is a good idea to be prepared to spend the night if you must.



# WORD SEARCH

Find these animals of Red Rock Canyon in the letter block. Their names may be found going up, down, diagonally, backwards, or across. Circle the words as you find them and cross them off the list so that you know which words you have already found.



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

BIGHORN

HAWK

LIZARD

BAT

RABBIT

FOX

COYOTE

BOBCAT

SQUIRREL

COTTONTAIL

DEER

BURRO

EAGLE

RAVEN

ROADRUNNER

TREE FROG

DRAGONFLY

BEETLE

RATTLESNAKE

TORTOISE

OWL

PACK RAT

BUTTERFLY

INSECT

MAMMAL

REPTILE

BIRD

AMPHIBIAN





# A Day In The Life

A day in the life of a child 2,000 years ago was quite different from today. Children helped by gathering seeds, growing crops (like corn), hunting small animals (such as rabbits and birds), preparing meals, and tending to younger children. They also learned to make tools, weave baskets, and crafted pottery. Families taught the children about the world through stories and rituals.

Imagine children 2,000 years ago using a daily journal to write down what they did each day. Help finish the "journal entry" below by filling in the blanks from the words provided. Information at the visitor center and the glossary in this discovery book may help you find the answers.

Agave

Bighorn Sheep

Mano

Metate

Roasting Pit

Petroglyphs

Shares

Yucca

Storytelling

Tinaja

I knew it would be another busy day today as the sun rose over the red hills. I grabbed my pot and walked to the spring by the big, white mountain to get water to use for the day. Until just a few days ago, I was able to go to the hidden lake in the red hills, but this warmer weather has caused all the water there to disappear. I can remember spending time in the spring watching the water slide along the rocks. The rushing water slid into the deep hole cut into the stone, forming a pool or \_\_\_\_\_, where I could gather water easily.

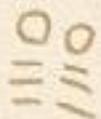
Along the way to the water, I passed my father and a bunch of men collecting gray rocks to use for our cooking area, called a \_\_\_\_\_. It will be only a few days until the \_\_\_\_\_ plant and desert tortoise are cooked enough to eat. In the meantime, I will help my mother gather the seeds that she will grind on the large flat stone, the \_\_\_\_\_, with a flat hand-sized stone, called a \_\_\_\_\_, to make cooking flour. It's a lot of work to grind the seeds and to make enough flour to use for cooking. By mixing the mesquite

seeds and berries together, a tasty meal will be had by all.

Near the spring, I saw my brother, along with several other boys, making \_\_\_\_\_ out of yucca fiber ropes. Later they were able to catch a couple of rabbits to have for dinner. Above the boys on the rocks are several carved images, or \_\_\_\_\_, of the many animals which previous hunters found in the area, including the agile \_\_\_\_\_, an animal with big curved horns.

The rock carvings remind me of the \_\_\_\_\_ that our family sometimes shares at night around the fire. I look forward to this time because it teaches me how my family, friends, and the land came to be.

After a five-mile (8 km) round trip journey, I went back to our camp with the water for the day. That seems like a long walk for water, but for now, that is a way for me to help out. When I got back, my mother was weaving a basket. Someday I will be able to weave the \_\_\_\_\_ fiber and also make the yucca soap as skillfully as my mother does. That will be fun!



# Journal

There is so much going on at Red Rock Canyon that it is hard to believe how beautiful and diverse the desert can be! After you've had some time to explore the visitor center and the 13-Mile (21 km) Scenic Drive, write down a few things that you liked best. You can tell a story about a hike you went on, draw a picture of an animal or mountain you saw, or write a poem about your time at Red Rock Canyon. What sights, sounds, and smells did you experience?



# Petroglyphs

Throughout Red Rock Canyon, there are special cultural resources known as petroglyphs and pictographs. Petroglyphs are images that have been carved or pecked into the rocks many years ago by Native Americans, and pictographs are the same but painted rather than pecked. These special places provide a link from the past to present day and are clues to how Native Americans lived and used Red Rock Canyon. The images could have been representations of maps, stories, rituals, trails, terrain, or important events.

Today, it is illegal to draw on or carve into the rocks. This would be called graffiti. Below is a rock for you to draw your own pictograph on without having to use a real rock. Keeping in mind what the Native Americans may have been doing when drawing and carving their rock art, what would be a good image for you to draw? Imagine that 500 years from now people will look at your "rock" to learn about our culture. What will you tell them with your picture? Write your story in the space provided to go along with your picture.



# Thinking About Red Rock Canyon

Setting aside areas of land for conservation brings up issues and questions. Here are examples of four considerations. Pick one and answer the question.

What would happen if...

1 people decided to build houses instead of leaving open space for conservation?

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2 no one took care of the Conservation Area?

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3 Native American artifacts, fossils, and plants were collected by people?

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4 you climbed up a rock and couldn't get down?

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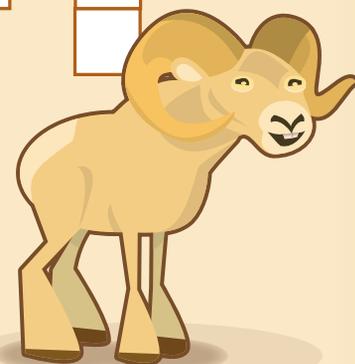
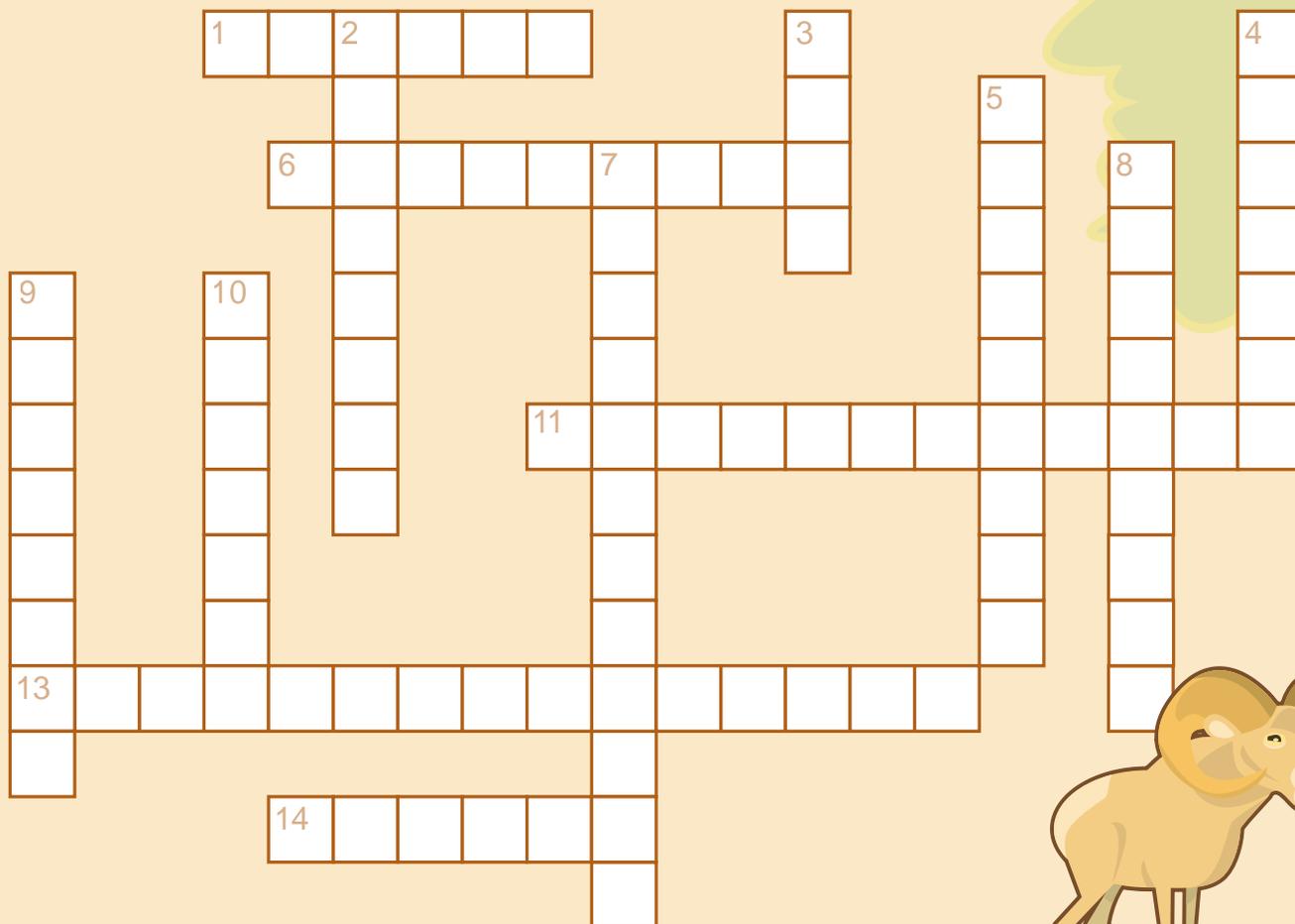
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Hmmm... What would happen if...



# Conservation Crossword Puzzle



## ACROSS

1. Partnership between a fungus and algae
6. Pattern of curving, angled lines in sandstone created by winds (2 words)
11. Rock made up of smaller rocks and pebbles cemented together
13. Historical pack trail from Santa Fe to Los Angeles (3 words)
14. The smallest desert in North America

## DOWN

2. Upper shell of tortoise
3. Channel cut into the desert floor by flash floods
4. Turtlehead Peak is in this mountain range (2 words)
5. Swirl created with right combination of hot air, cool air, and dust (2 words)
7. Nevada state mammal (2 words)
8. Reptilian form of hibernation
9. Curved lower shell of tortoise
10. Erosion-carved pockets in rock that hold pools of water



Look at the clues to discover which words fit together in the crossword puzzle. Some answers can be found around the visitor center, in this book, or by asking for help from a Red Rock Ranger or volunteer.



# Desert Tortoises



Meet my friend Hugo. He is a desert tortoise that lives at Red Rock Canyon. He and the other tortoises that live at the visitor center help to educate people about desert tortoises and the importance of keeping our public lands clean and protected.

Read the story below to find out more about desert tortoises. After you have read the story, help Scutey find his way through the maze so he can safely get to his burrow.

*Photography by Chelsea Conlin*

**O**n a warm September morning, a desert tortoise named “Scutey” used his egg tooth to break out of his egg. He had been waiting about four months to come out of his egg, and today was the day! Scutey could not wait to explore the place he would call home, but most importantly, he had to find a burrow for safety. When Scutey hatched, he had a soft shell that would take years to harden, making him an easy target for predators. The burrow would protect Scutey from any danger, such as hawks and ravens. It would also protect him from the late summer heat. Scutey found a nice shady spot with a burrow already there, just his size. He decided to use that burrow until his shell got too big for it, when he would have to find a new burrow or dig one on his own. Desert tortoises like their burrows to be a little snug so that when they sleep through the winter, they can stay nice and warm during the cold months.

Scutey decided to go on a walk, a very slow walk, to see what this place was all about. After a few minutes, Scutey met a friendly ground squirrel named “Squeaks.” Squeaks taught Scutey that this place was called Red Rock Canyon, and it is part of the Mojave Desert. “This is a really special place, Scutey,” said Squeaks, “because desert tortoises only live in the

Mojave and Sonoran Deserts.” “Wow! You mean there are other desert tortoises?” asked Scutey. “Oh yes,” said Squeaks, “but not as many as there used to be. You see, desert tortoises have been around for millions of years, but recently things have been changing. Predators like ravens, coyotes, and snakes are a constant danger, and humans have been known to cause loss of habitat. Now desert tortoises, just like you Scutey, are a threatened species and are protected by the United States government. Here in Nevada, desert tortoises are even more special because they are Nevada’s state reptile.” This made little Scutey feel very important, but also a little nervous about the dangers he would face in his life.

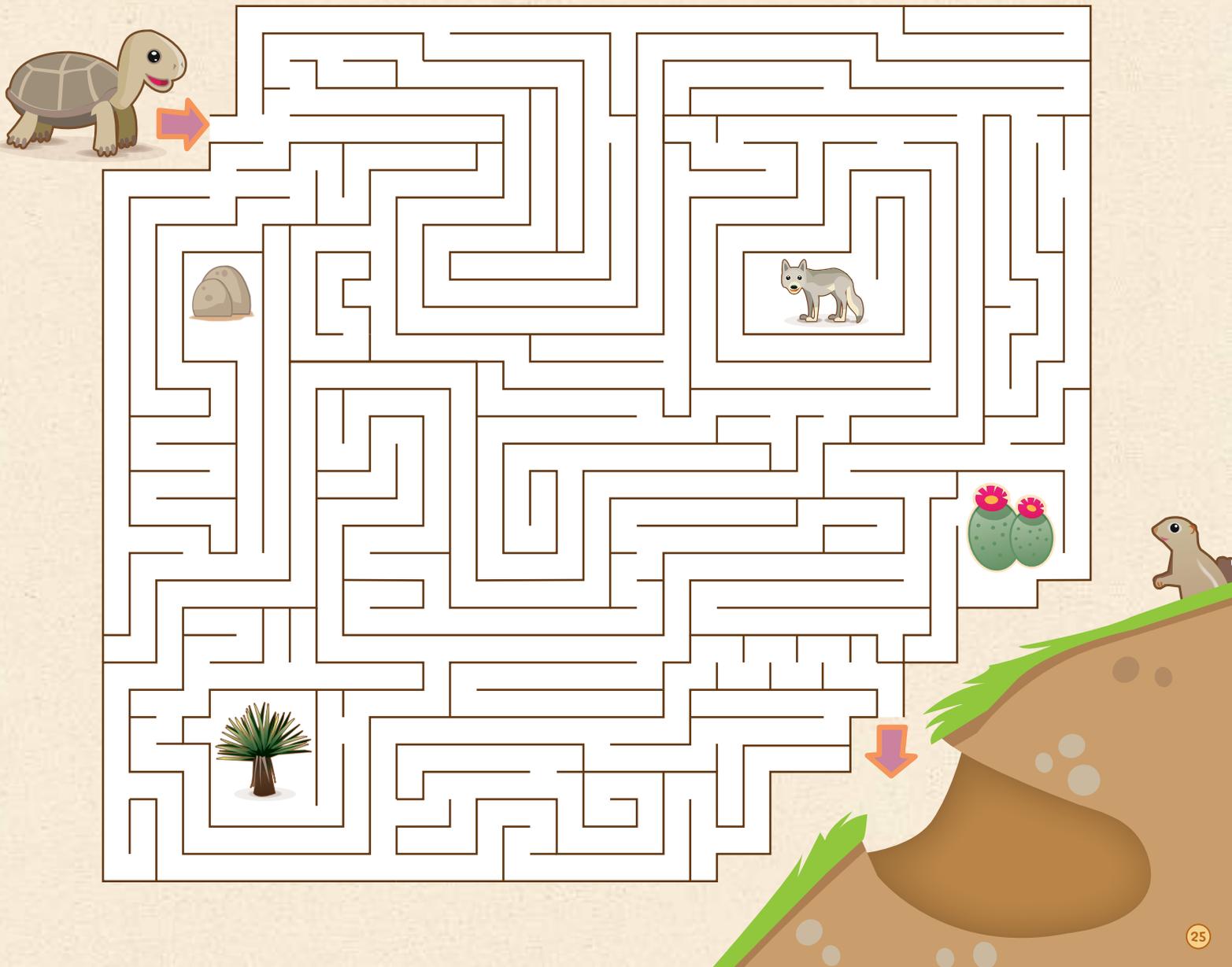
Scutey went along his way, discovering so many great things about Red Rock Canyon. Soon he found another animal munching on some beavertail cactus. “Excuse me, what are you?” Scutey asked. “Little hatchling, I’m a desert tortoise just like you!” the bigger animal said. “But you’re so big!” “I’m 60 years old now, but I could live to be much older. I’ll prove I’m a desert tortoise just like you. Look at the back of our shells, the carapace. I have 13 scutes and so do you, and our bodies are covered in scales.” Scutey was still not convinced that this bigger creature was a desert tortoise. After all, he didn’t have an egg tooth

and he was eating plants! “Am I supposed to eat plants like cactus and flowers too?” Scutey thought. “I know what you’re thinking,” said the bigger tortoise, “and yes, you are an herbivore that eats plants too. We tortoises don’t have teeth, but rather very sharp, tough mouths, so that we can chomp right through cacti and other desert plants, such as globe mallow and desert willow.”

Scutey decided he was ready to head back to his burrow. He found some water puddles along the way and drank until he was full. Desert tortoises know that they will not see very much water in the desert, so it’s always important to drink it when they can find it. Tortoises can save their water in their bladder for up to a whole year in case they can’t find any new water!

Scutey crawled into his burrow, realizing that it was still early in the day, but it was already too warm for him outside his burrow. Scutey didn’t know it yet, but he, like other desert tortoises, would spend about 95% of his life in a burrow. Before long, winter would be here, and it would be too cold for desert tortoises. Scutey would enter into brumation, a reptilian version of hibernation. He would be in a sleep-like state for almost five months. But, until then, Scutey would need to go out and learn all he could about being a desert tortoise, eat as many healthy plants as he could, and stay away from danger so he could grow old, just like his new friend.

## Help the desert tortoise find its way to its burrow!



# Discovery Plaza Bingo

Part of the Red Rock Canyon experience is the visitor center, which is filled with information all about Red Rock Canyon and the Mojave Desert. Throughout the visitor center and Discovery Plaza, there are many bronze statues representing some of the animals that can be found here. How many can you find? Use the "Bingo" table below to see if you can find four animals in a line on the board. Perhaps you will be able to fill the entire card by finding all the animals!



# Glossary

**Adaptation:** A change in a living thing which helps it to adjust to its natural surroundings.

**Agave:** A desert plant that grows a tall, fibrous stalk in spring; used as an important food source for Native Americans.

**Archaeologist:** A person who studies human history and prehistory.

**Artifact:** Any object made or altered by humans.

**Cactus:** A desert plant with fleshy stems and branches. It is often covered in prickly spines.

**Camouflage:** A way of blending into one's environment by taking on colors, shapes, and other characteristics of the surroundings.

**Carnivore:** An animal that eats only meat.

**Conservation:** The official care and protection of natural and cultural resources.

**Desert:** A region receiving less than 10" (25 cm) of rain a year, or a region that loses more water than it gains.

**Diurnal:** Active during the day, asleep or inactive at night.

**Ecosystem:** A network of living organisms that form a community together, which includes plants, animals, and their environment.

**Environment:** The surroundings or conditions in which a person, animal, or plant lives or operates.

**Geology:** The study of the earth's history through soil and rocks.

**Habitat:** The natural home or environment of an animal, plant, or other organism.

**Herbivore:** An animal that eats only plants.

**Limestone:** A rock type formed from the remains of shells and corals.

**Mammal:** Animals that have hair or fur, give live birth, breathe air, are warm-blooded, and nourish their young with milk.

**Mano:** Spanish for hand; referring to a hand-sized stone used by Native Americans for grinding seeds.

**Metate:** Spanish word that refers to a large flat stone used to grind seeds into flour.

**Nocturnal:** Active at night, and asleep or inactive during the day.

**Nuwuvi (Southern Paiute):** The group of Native Americans who live in southern Nevada, southern Utah, and southeastern California. Historically they were principally nomadic hunter/gatherers.

**Oasis:** A green, fertile area in a desert where a supply of water allows trees and plants to grow.

**Omnivore:** An animal that eats both plants and animals.

**Organism:** An individual animal, plant, or single-celled life form.

**Petroglyphs:** Rock carvings made by Native Americans.

**Pictograph:** Paintings on rocks by Native Americans using vegetable or mineral dyes.

**Predator:** An animal that eats other animals.

**Prey:** An animal that is eaten by other animals.

**Quarry:** A place where stones are excavated for building purposes.

**Ranger:** A government official in charge of patrolling and protecting public land and those people visiting it.

**Raptor:** A bird that feeds on other animals.

**Reptile:** Animals that are covered in scales and/or scutes, are cold-blooded, and generally lay eggs.

**Roasting Pit:** An ancient oven; a human-made hole in the ground lined with heated limestone rocks used for cooking by Native Americans.

**Sandstone:** A type of rock made of sand grains cemented together; the type of rock the Calico Hills are made of.

**Snares:** Human-made traps used for catching wild animals.

**Succulent:** Plants capable of storing water in roots, stems, or leaves in order to survive times of drought.

**Tinaja:** Spanish word which refers to large water holes created by water and wind wearing down the rocks.

**Wash:** Low ground which is flooded part of the year and dry the rest of the time; distinguished by a channel cut into the ground.

**Wickiup:** A small, cone or dome-shaped Native American dwelling covered with brushwood or with mats.

**Wildlife:** Wild animals which live in their natural surroundings.

**Yucca:** A desert plant with stiff, narrow-pointed leaves much like swords.





# Junior Ranger Oath

- I, \_\_\_\_\_, promise to protect Red Rock Canyon and other public lands by:
- Keeping them clean and litter free
  - Helping to teach others about the beauty of Red Rock Canyon
  - Leaving rocks, plants and animals here for others to enjoy

This certificate has been awarded to \_\_\_\_\_  
 on \_\_\_\_\_ to recognize his/her achievement in finishing the  
 Junior Ranger Discovery Book and becoming a Junior Ranger of Red  
 Rock Canyon National Conservation Area.

**Congratulations!**  
**You did it!**



Official \_\_\_\_\_

Witness \_\_\_\_\_



**NATIONAL  
CONSERVATION  
LANDS**

**Red Rock Canyon National  
Conservation Area**



**SOUTHERN NEVADA  
CONSERVANCY**