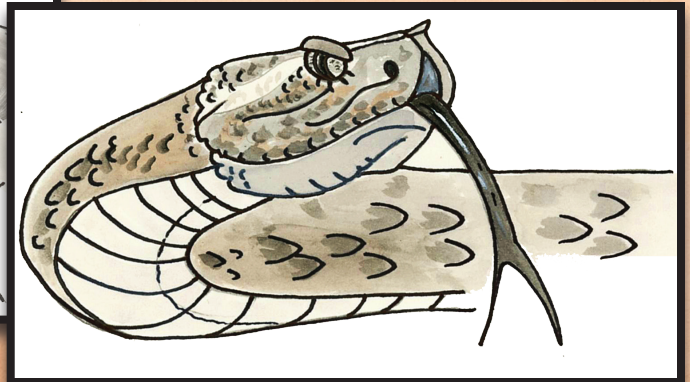
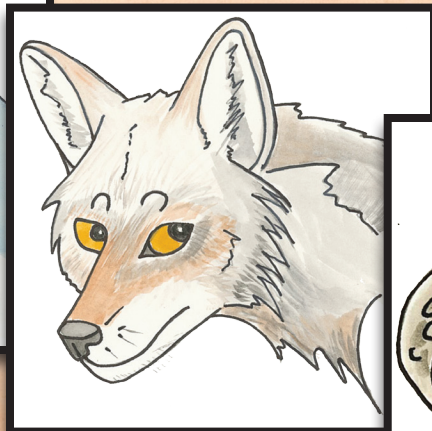
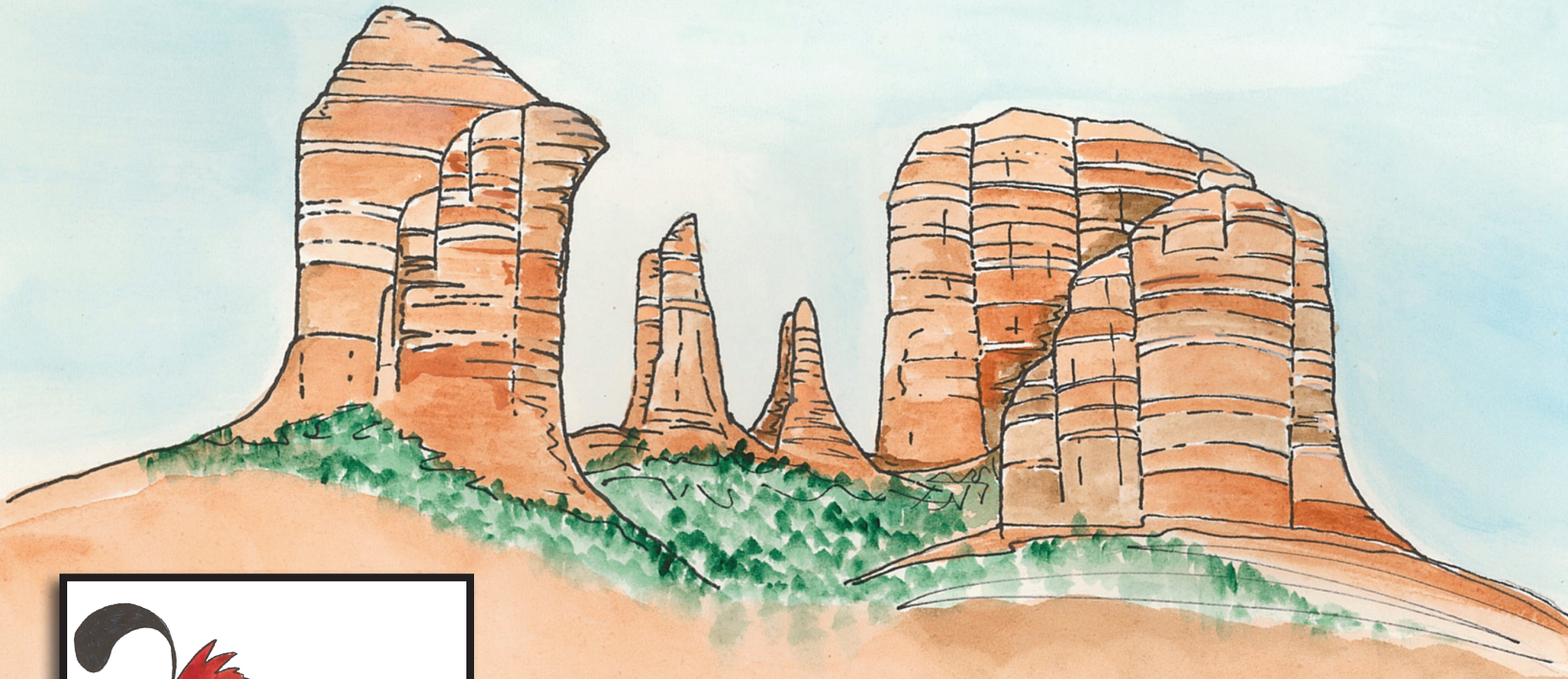




United States Department of Agriculture

RED ROCK RANGER DISTRICT

# JUNIOR FOREST RANGER ACTIVITY BOOK



Red Rock  
Ranger District

Coconino  
National Forest

GP-R3-04-01

September 2017



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## JUNIOR FOREST RANGER RESOURCES

Forest Service, U.S. Department of Agriculture: [www.fs.fed.us](http://www.fs.fed.us)

Arizona Natural History Association: [www.aznaturalhistory.org](http://www.aznaturalhistory.org)

Forest Service kids page: [www.fs.fed.us/learn/kids](http://www.fs.fed.us/learn/kids)

Forest Service Woodsy Owl page: [www.fs.fed.us/learn/kids/woody-owl](http://www.fs.fed.us/learn/kids/woody-owl)

Forest Service Smokey Bear page: [www.smokeybear.com](http://www.smokeybear.com)

Coconino National Forest: [www.fs.usda.gov/coconino](http://www.fs.usda.gov/coconino)

Coconino National Forest kids page: [www.fs.usda.gov/main/coconino/learning/kid](http://www.fs.usda.gov/main/coconino/learning/kid)

Discover the Forest page: [www.discovertheforest.org](http://www.discovertheforest.org)

Leave No Trace Inc.: [www.LNT.org](http://www.LNT.org)

Tread Lightly kids page: [www.treadlightly.org/tlkids](http://www.treadlightly.org/tlkids)

**Junior Forest Rangers never stop learning about the Natural World!**



## INTRODUCTION

Welcome to the Red Rock Ranger District of the Coconino National Forest, one of the oldest National Forests in the country. The Coconino (pronounced Co-co-nee-no) was created by proclamation consolidating several Forest Reserves in 1908. The Forest Service, U.S. Department of Agriculture, along with many volunteers, help protect and conserve this land, making sure it will be here to be enjoyed by future generations. The Coconino National Forest contains over 1,800,000 acres of very diverse habitats, including the snowy peaks and Ponderosa Pine forests in the north around Flagstaff; the central green riparian zone along Oak Creek; the red sandstone formations around Sedona, and the Wild and Scenic Verde River and Fossil Creek in the south.

We invite you to get outdoors and explore your National Forests. Bring plenty of water and healthy snacks to enjoy a hike in a canyon, or mountain bike around one of the many red rock formations. Look for interesting plants and animals that make this land their home. Learn about the history of the area by visiting a heritage site; which include remnants of ancient dwellings and rock art left by people long ago. Listen for insects and birds as you wade in Oak Creek.

**WHEN YOU GET TO KNOW THE RED ROCK RANGER DISTRICT,**

**YOU WILL WANT TO CONSERVE AND PROTECT THIS SPECIAL PLACE TOO!**





# THE PRINCIPLES OF LEAVE NO TRACE

The principles of Leave No Trace are simple guidelines to follow when visiting the Red Rock Ranger District or other public lands. They help us remember to be respectful while enjoying the outdoors and to protect these lands for future use.



**Following these guidelines will help to make your trip more safe and enjoyable!**

- 1. KNOW BEFORE YOU GO!** Plan ahead and prepare for your trip. Know where you are going and that someone knows when you are supposed to be back. Check the weather before going on a hike, and make sure you have plenty of water. Check camping rules and regulations, stay out of closed areas.
- 2. CHOOSE THE RIGHT PATH!** Stay on trails. Make sure you are camping in a designated area and avoid expanding the site. Do not pitch your tent on living plants or too close to creeks and streams.
- 3. TRASH YOUR TRASH!** Pack out any trash you have brought with you! Pick up any trash you find along the trail. Trash is ugly and can be extremely dangerous to local animals and habitats.
- 4. BE CAREFUL WITH FIRE!** Make sure it is ok to have a fire at your campsite, and NEVER leave it alone! Campfires should be small and contained in a fire pit or fire pan.
- 5. RESPECT WILDLIFE!** Never feed wild animals and give them plenty of space. Observe them from a distance. Do not attempt to pick up or pet a wild animal. Keep dogs on a leash at all times, do not let them chase wildlife.
- 6. BE KIND TO OTHER VISITORS!** Hike in small groups in a single file line. Do not yell or scream while on the trail or in camp. Leave your music at home and let others enjoy the natural quiet.
- 7. LEAVE WHAT YOU FIND!** Do not pick flowers or take home things you may find along a trail. Leave these things for other visitors to see and to enjoy.

# BECOME A JUNIOR FOREST RANGER!

## WHAT IS A JUNIOR FOREST RANGER?

- A Junior Forest Ranger explores the environment around them, learning about area geology and history.
- A Junior Forest Ranger cares about plants, animals, the land, and always stays on designated trails.
- A Junior Forest Ranger encourages others to care for our public lands and promotes the Principles of Leave No Trace.

Sound like fun? Here's how to earn YOUR Junior Forest Ranger Badge.

**Complete the activities for your age group and bring your complete book to a Forest Ranger for review.**

**AGES 6 AND YOUNGER** - Start on page 7, you are a Gambel's Quail! Follow the Quail on the corner of the page.



**AGES 7-9** - Start on page 11, you are a Rattlesnake! Try not to eat any mice while you look for the Rattlesnake on the corner of your pages.



**AGES 10 AND UP** - Start on page 16, you are a Coyote! One of nature's smartest creatures! Look for the Coyote on your pages.



**PAGES 19-22 ARE FOR EVERYONE!** - These can be done after you leave the Visitor Center while you travel through the Coconino National Forest. They are marked with a picture of Cathedral Rock.










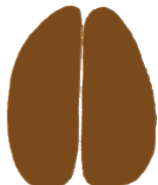









# ANIMAL TRACK BINGO



Go outside on the Visitor Center patio and look for animal tracks and statues. Cross off squares as you find them.

**Once you have crossed off all the squares in a row, you have BINGO!**

 Mountain Lion	 Striped Skunk	 Gray Fox
 Mule Deer	 Lizard statue	 Beaver
 Bob Cat	 Elk	 Rattlesnake statue
 Blue Heron	 Black Bear	 Coyote
 Javelina	 Raccoon	 River Otter

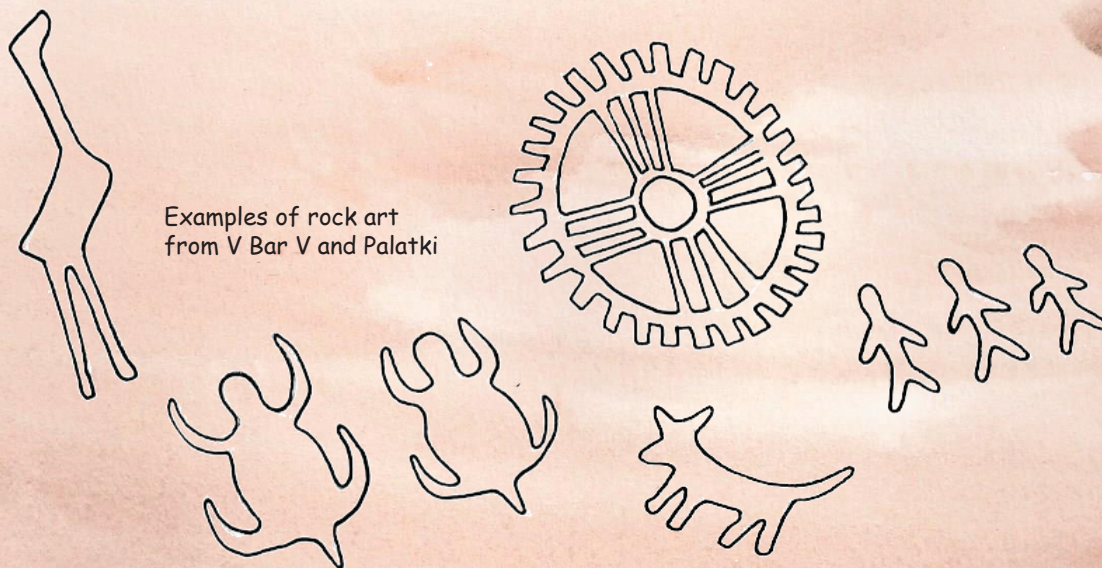
# DRAW YOUR OWN ROCK ART!



There are many signs of people who lived here long, long ago. They built homes on top of hills, along cliffs, and high in canyon walls. They left behind pictures carved and painted onto stone. We call these pictures 'rock art', and only the people who made these symbols know what they mean.

Rock art is fragile, and cannot be replaced, so it is important to protect it.

**TODAY, IT IS ILLEGAL TO DRAW ON OR CARVE INTO ROCKS.  
WE CALL THIS GRAFFITI!**

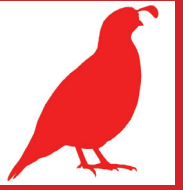


Examples of rock art  
from V Bar V and Palatki

**Draw your own rock art below!**

Rock art often shows pictures of animals, people, shapes or events.  
What will your rock art show? Will it tell a story?





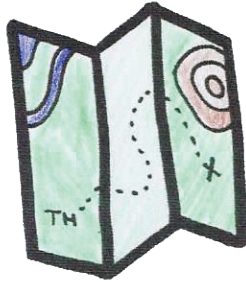
# WHAT TO PACK FOR A DAY HIKE

Plan ahead and prepare to make sure you have a good, safe hike. Making sure you have everything you need can mean the difference between an enjoyable hike and a disaster!

**Circle the items to take in your pack or wear on your hike!**



Water Bottle



Trail Map



Hat

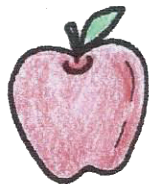


Hiking Boots



Sunscreen

Whistle



Healthy snacks



Candy



Headphones and music



First Aid Kit



Soda



Extra clothing

Camera



# CONNECT THE DOTS FOR FIRE SAFETY



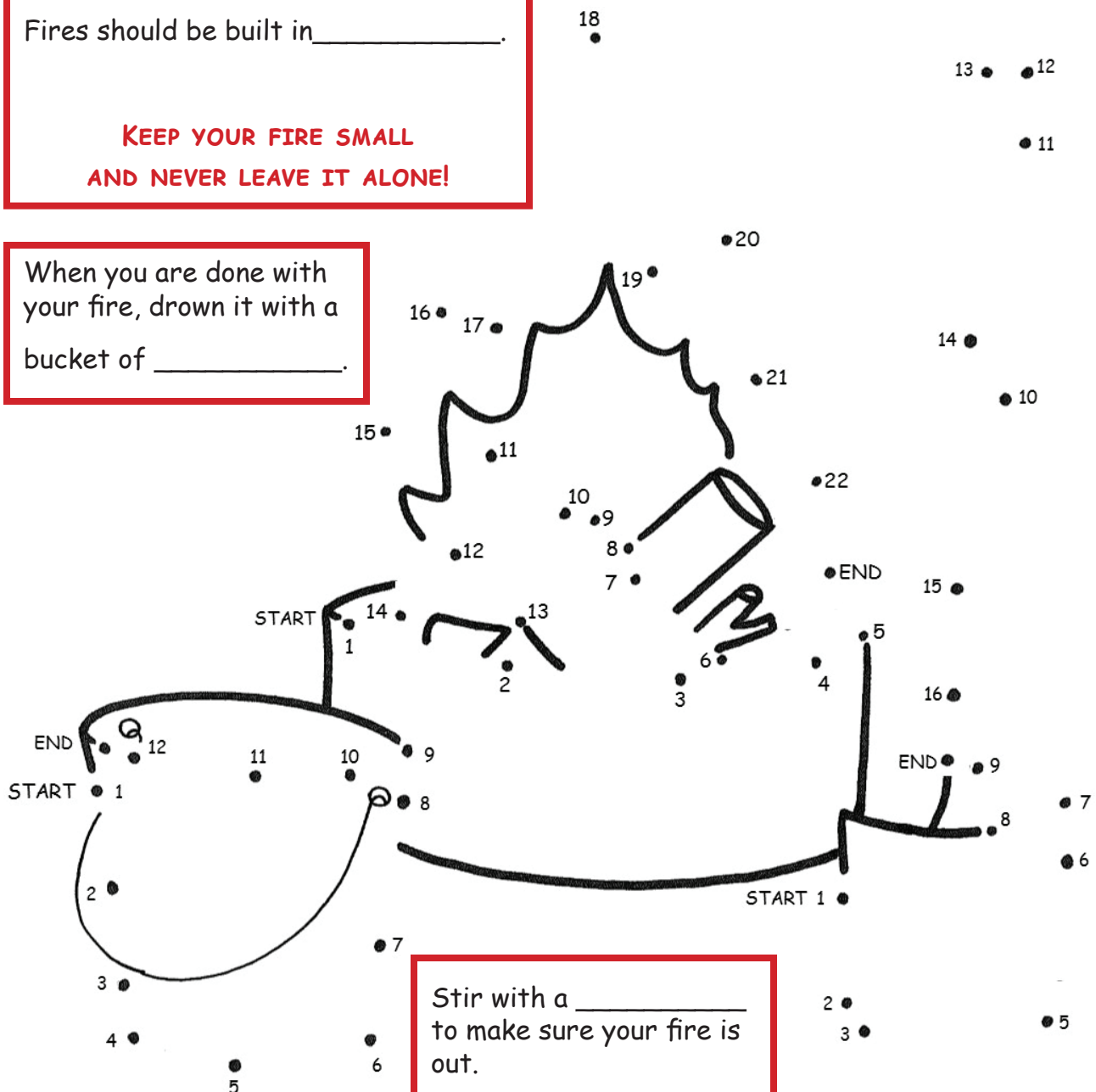
Campfires can be lots of fun, but also a big responsibility! Nine out of ten wildfires are human caused. Practice fire safety and NEVER start a fire without an adult to help you.

Connect the dots and fill in the blanks to learn about how you can help.

Fires should be built in \_\_\_\_\_.

**KEEP YOUR FIRE SMALL  
AND NEVER LEAVE IT ALONE!**

When you are done with  
your fire, drown it with a  
bucket of \_\_\_\_\_.



Stir with a \_\_\_\_\_  
to make sure your fire is  
out.

**IT SHOULD BE COOL  
TO THE TOUCH!**



# CAMP OH NO!



The principles of Leave No Trace are simple guidelines to follow when visiting the Red Rock Ranger District or any other public lands to protect these areas for future use.

Look at the picture below and circle anything that violates the principles of Leave No Trace. Can you find all seven?

## THE PRINCIPLES OF LEAVE NO TRACE

1. Know before you go.
2. Choose the right path.
3. Trash your trash.
4. Be careful with fire.
5. Respect wildlife.
6. Be kind to other visitors.
7. Leave what you find.



\*Hint: Check out page 5 for more information and a little help!

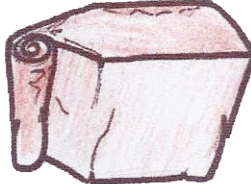





# HOW LONG DOES IT LAST?

## LEAVE NO TRACE TIP:

Leave only footprints. Take everything you brought with you back. Littering is illegal and also bad for animals.


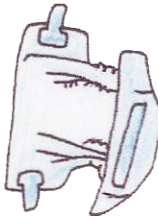

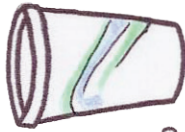

Trash lasts longer than you might think! Can you guess just how long these things will take to decompose? Draw a line from the trash to its place on the timeline.

			
Paper Bag	Banana Peel	Plastic Bag	Plastic bottle

1-5 Years	80 Years	1,000,000 Years
-----------	----------	-----------------

1 Month	2 Years	10-20 Years	100 Years	500 Years	Forever!
					
Cigarette Butt	Diaper	Aluminum Can	Styrofoam Cup	Glass Bottle	



# LET'S GO OUTSIDE!

All of these questions can be answered by checking out the displays and information kiosk out in front of the visitor center.

## LEAVE NO TRACE TIP:

Take only pictures and memories. Do not take ANY rocks, plants, animals, historic artifacts, or insects off the Forest, leave them where you find them.



## Head outside to find answers to these questions.

We have quite a few species of hummingbirds that live here full time or stop by on their migration routes. List two different hummingbirds we have in the area.



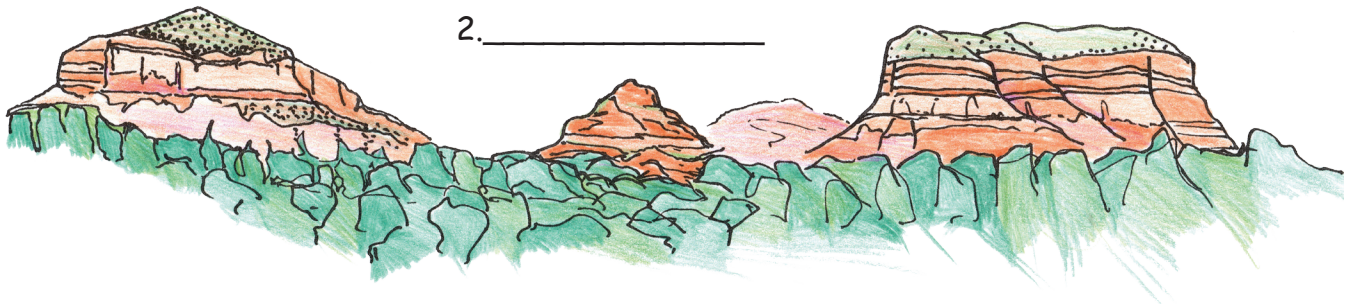
1. \_\_\_\_\_

2. \_\_\_\_\_

Label the rock formations you can see from the visitor center!

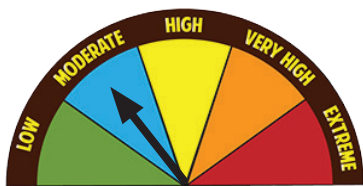
1. \_\_\_\_\_

3. \_\_\_\_\_



What is the nickname of the Agave plant?

1. \_\_\_\_\_

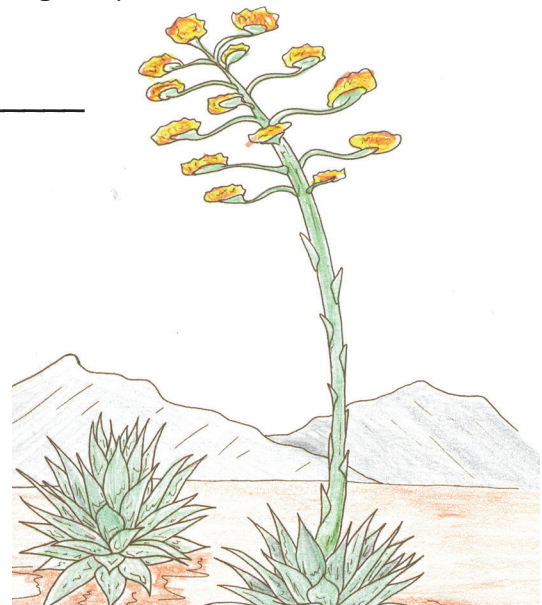


Today's Fire Danger

Fire safety is very important! Always check current conditions before planning a trip.

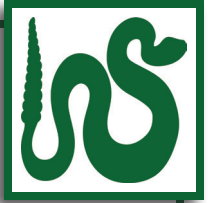
What is the fire danger level today?

1. \_\_\_\_\_





# FOREST SERVICE WORD SEARCH



Read about the history of the U.S. Forest Service and find the **BOLD** words in the word search on the opposite page!

The US Forest Service is in charge of 154 National Forests and 20 National Grasslands all over the country. It is the agency **MISSION** to protect these lands for all to enjoy.

The **FOREST** Service was established in 1905 by President Theodore Roosevelt.

Forest Service **RANGERS** work with partners, **VOLUNTEERS**, and the public to plant and harvest trees, build trails, teach people about nature, learn about the environment, put out wildfires, and much more.

National Forests are home to thousands of plants and **ANIMALS**.

National Forests are good places to go **HIKING**, biking, hunting, climbing, fishing, and camping.

The Forest Service needs your help to make sure these special places stay as **NATURAL** as they are today! Always practice Leave No Trace, and help others to do the same.

Enjoy your time in Coconino National Forest!



# FOREST SERVICE WORD SEARCH



Find the **BOLD** words from page 14 in the letters below:

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



# STORIES SET IN STONE



Find the geology display in the visitor center. The fascinating geology of the Red Rock Ranger District provides us with the district name and gives the area its dazzling skyline!

**Use the display to find answers to the questions below.**

Why are the rocks red?

---

What material makes up limestone?

---

How long ago was Red Wall Limestone formed?

---

Why is *Geology* important?

---

---

**LEAVE NO TRACE TIP:**

Millions of people, like you, come from all over the world to see the famous red rocks. Keep them natural, do not scratch or write on these protected rocks.



# FIRE SAFETY AND PROTECTION



Find the wildland fire display in the Visitor Center. Fire plays an important role in maintaining a healthy ecosystem, but can threaten lives and homes. One of the jobs of the Forest Service is to put out dangerous fires safely. Wildland firefighters are specially trained to fight fires in some of the most remote and hard to reach places. They carry special tools and have special skills that are unique to their job, and they are called on to fight fires all over the world.

Use the fire prevention display to answer the questions below.

Name three tools that Wildland Firefighters use to fight fires.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Nine out of ten wildfires are caused by:

1. \_\_\_\_\_

What 3 steps should you always follow to make sure your campfire is completely out?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

What are 3 benefits of planned or prescribed fires?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## LEAVE NO TRACE TIP:

The safest fire is no fire. When camping, consider not having a fire. Instead enjoy Arizona's starry nights or listen to the symphony of nocturnal creatures like owls, crickets and frogs.

# MY HIKING PLAN



Plan a hike for you and your family using one or more of the following: the recreation guide, a volunteer, a ranger, the trip planning display, or posted information.

## It is important to plan ahead and prepare!

Name of Trail: \_\_\_\_\_

How many miles round trip? \_\_\_\_\_

Elevation change: \_\_\_\_\_

Do I need a Red Rock Pass to park at the trailhead? \_\_\_\_\_

Does the trail cross any other trails? If so, which ones? \_\_\_\_\_

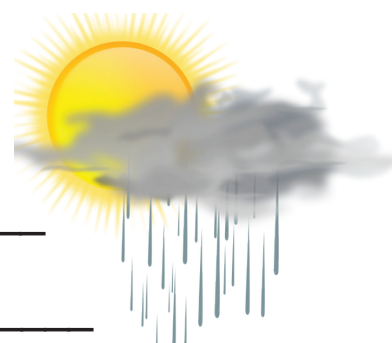
Does my trail go into a Wilderness area? \_\_\_\_\_

If so, which one? \_\_\_\_\_

Does my trail go by water? \_\_\_\_\_

What is the weather forecast? \_\_\_\_\_

What time is sunset? \_\_\_\_\_



For safety, I need to tell someone I trust where I am going and when I should be back. I will tell \_\_\_\_\_ about my hike plan.



# AGAVE COLORING PAGE



Color this page and learn about this unique and fascinating desert plant!

Some species of agave grow to be over 20 feet tall!

When it blooms, the agave will send up a stalk that can grow up to 12 inches a day!

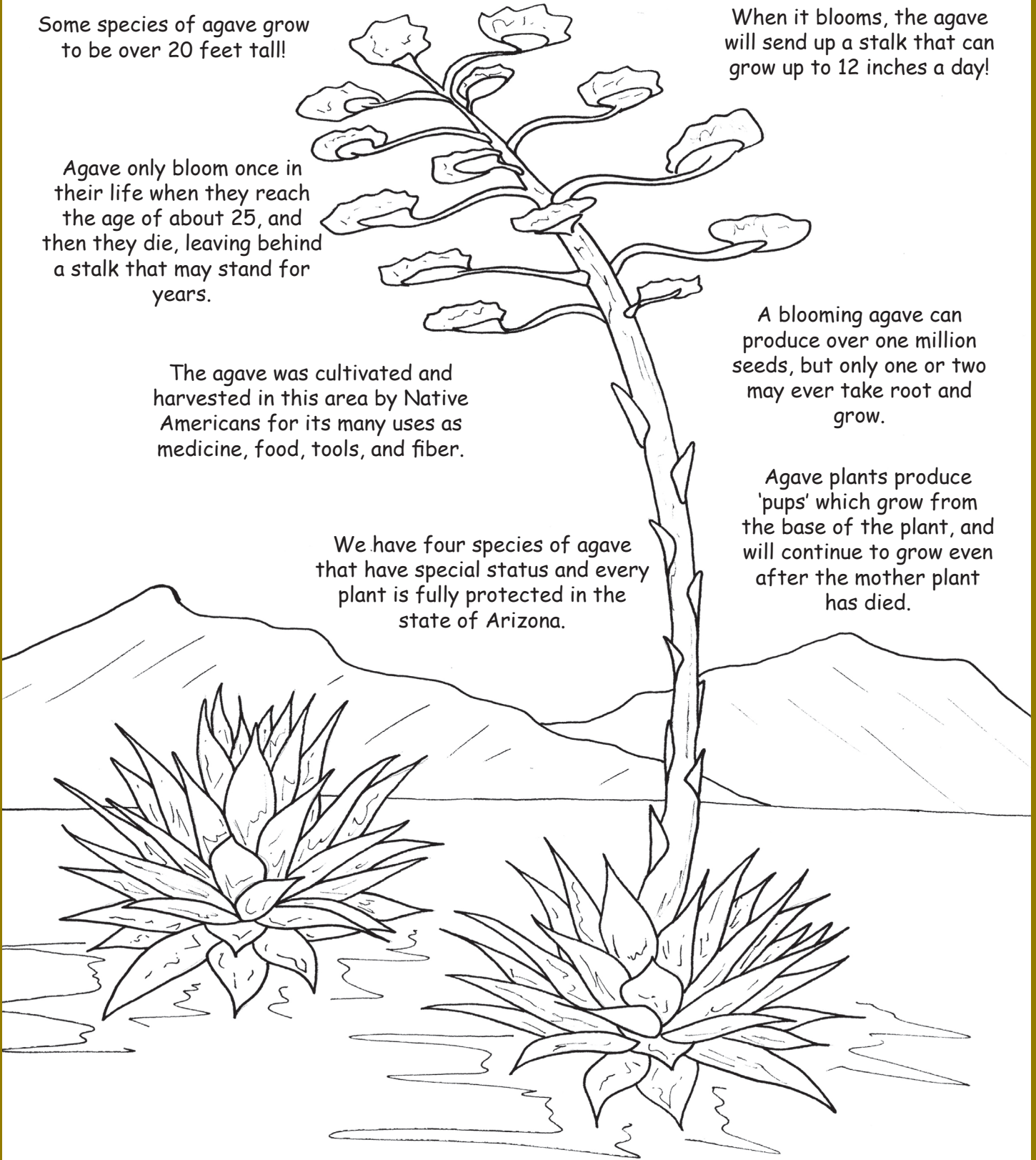
Agave only bloom once in their life when they reach the age of about 25, and then they die, leaving behind a stalk that may stand for years.

The agave was cultivated and harvested in this area by Native Americans for its many uses as medicine, food, tools, and fiber.

A blooming agave can produce over one million seeds, but only one or two may ever take root and grow.

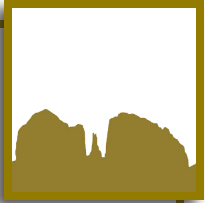
We have four species of agave that have special status and every plant is fully protected in the state of Arizona.

Agave plants produce 'pups' which grow from the base of the plant, and will continue to grow even after the mother plant has died.





# WELCOME TO THE OAK CREEK WATERSHED!



The Oak Creek Watershed begins on the Mogollon (Mo-gee-on) Rim of the Colorado Plateau and runs through the Red Rock Ranger District, providing water and recreational opportunities for the community and is important habitat for thousands of plants and animals.

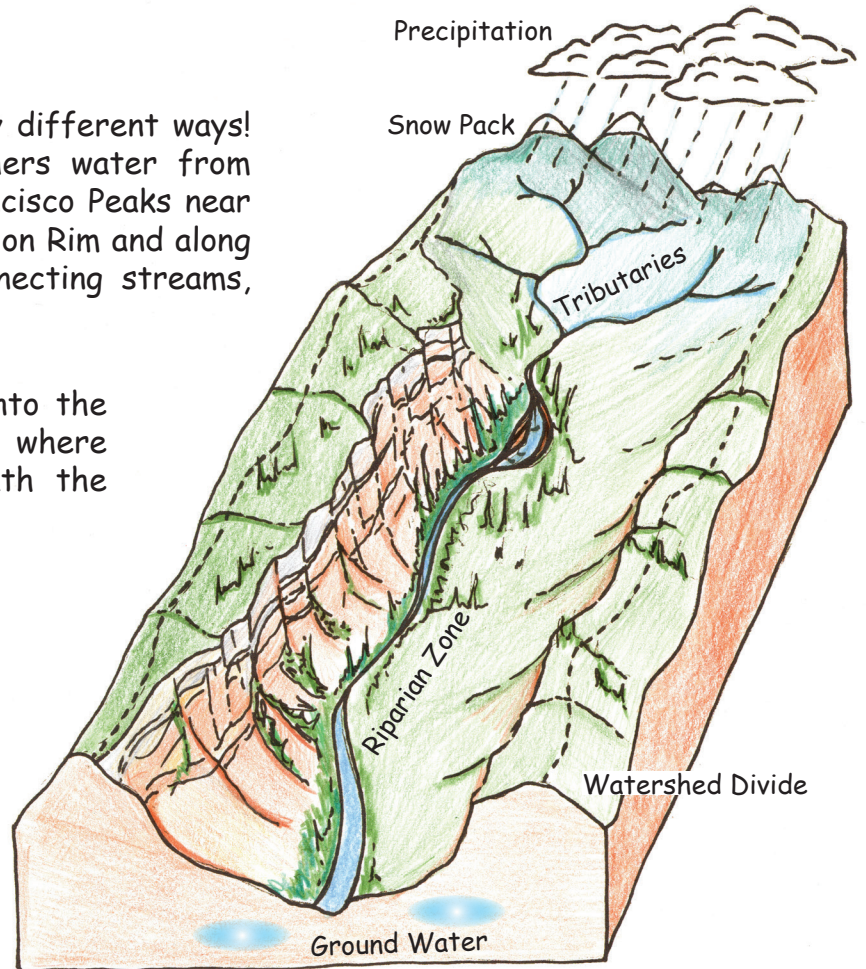
## HOW A WATERSHED WORKS:

Water flows downhill, but in many different ways! The Oak Creek Watershed gathers water from the melting snow of the San Francisco Peaks near Flagstaff, from rain on the Mogollon Rim and along the canyon, and from other connecting streams, springs, washes, and tributaries.

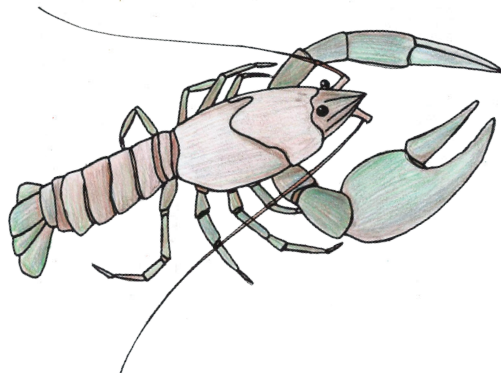
Water can either flow directly into the creek or can seep underground where it follows and gathers underneath the canyon as groundwater.

The health of a watershed is threatened by dirty water running off from cities, farms, dams, litter from people, and even wildfires.

Oak Creek flows into the Verde River, and after meeting up with several other rivers, finally flows into the Colorado River to the ocean.



## Did You Know?



Crayfish are an invasive species NOT native to Oak Creek. They are extremely destructive to local fish and frogs. Crayfish are aggressive hunters and will eat almost anything that crosses their path.

# PLANTS AND CREATURES OF OAK CREEK CANYON



Water is a rare and valuable resource in the southwest, Oak Creek is a special place and needs your help!

Some of the plants and animals found here live no where else in the world.

Keeping Oak Creek clean and free of trash is necessary to keep this special habitat healthy for all to enjoy!

Arizona Bugbane  
(*Actaea Arizonica*)

This plant is only found in Arizona along a few creeks and streams. Bugbane can grow to 6 feet tall and blooms with flowers in July and August that attract bumblebees.



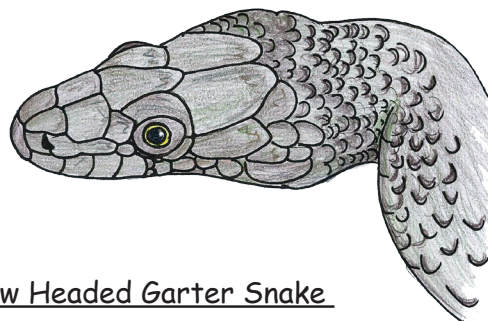
Mexican Spotted Owl  
(*Strix occidentalis lucida*)

This threatened dark eyed owl prefers to nest in the canyon walls of Oak Creek, hunting mice and other rodents under the cover of night.



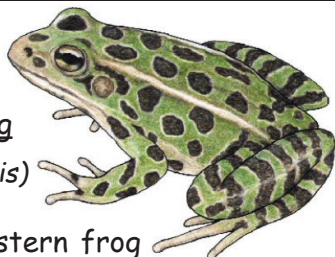
Narrow Headed Garter Snake  
(*Thamnophis rufipunctatus*)

This non-venomous snake is very rare and protected by the state. It lives in and around the creek eating fish and tadpoles.



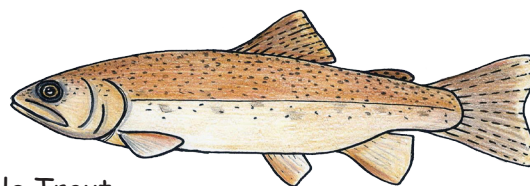
Lowland Leopard Frog  
(*Lithobates yavapaiensis*)

This native southwestern frog lives in desert creeks and streams and is threatened by invasive species and wildfires.



Gila Trout  
(*Oncorhynchus gilae*)

Once one of the rarest fish in the U.S., Gila Trout have been reintroduced to Oak Creek.



**ALWAYS PICK UP YOUR TRASH AND TAKE IT WITH YOU WHEN YOU LEAVE!**



# WILDLIFE CHECKLIST

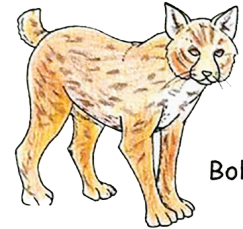


Coconino National Forest is home to many different animals. How many will you see on your visit? Keep your eyes and ears open and check off the animals you see.

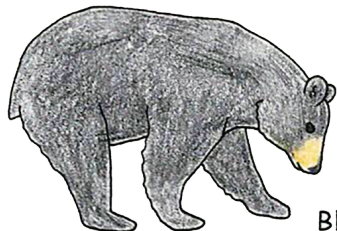
Always be respectful of wildlife, this is their home!

Use binoculars to get a better look at animals without getting too close.

## NEVER FEED WILD ANIMALS!



Bobcat \_



Black Bear \_



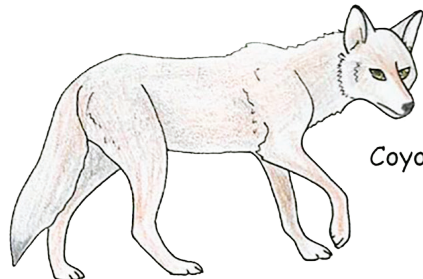
Blue Heron \_



Beaver \_



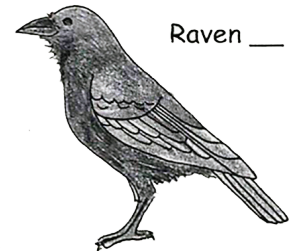
Tarantula \_



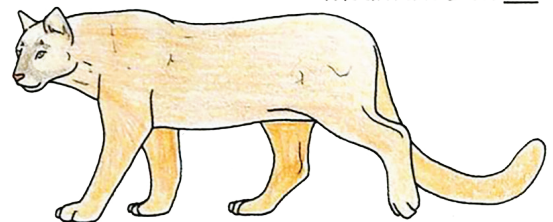
Coyote \_



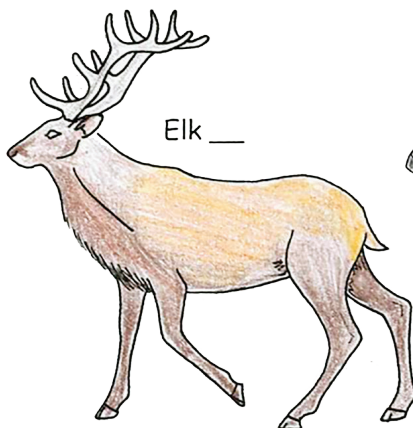
Rattlesnake \_



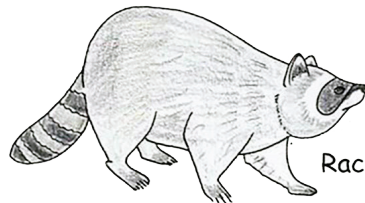
Raven \_



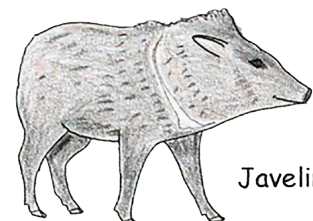
Mountain Lion \_



Elk \_



Raccoon \_



Javelina \_



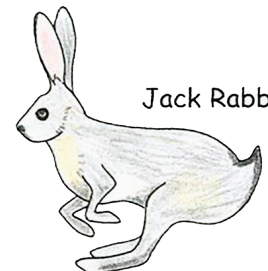
Grey Fox \_



Skunk \_

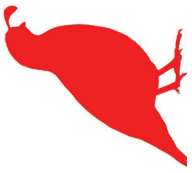


River Otter \_



Jack Rabbit \_





Red Rock Ranger District



Coconino National Forest



# CERTIFICATE OF ACHIEVEMENT

\_\_\_\_\_

Has Earned the Title

**JUNIOR FOREST RANGER**



\_\_\_\_\_

Date Awarded

\_\_\_\_\_

Forest Official

This book was produced in partnership with the Arizona Natural History Association, a non profit organization dedicated to encouraging the informed and sensitive use of public lands and resources in the Southwest.

Written and illustrated by Victoria Marshall.  
Education and Interpretation Coordinator, Arizona Natural History Association

