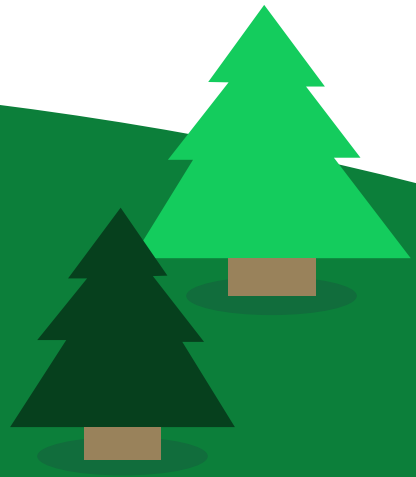
Start by opening this PDF in Adobe Acrobat or Adobe Reader
and selecting "Full Screen Mode" from the View dropdown menu.

OKLAHOMA

From Mesas and Prairies to Pine Covered Forests

Click Here!



How to Play

Welcome to the Oklahoma State Parks Nature Study Challenge!

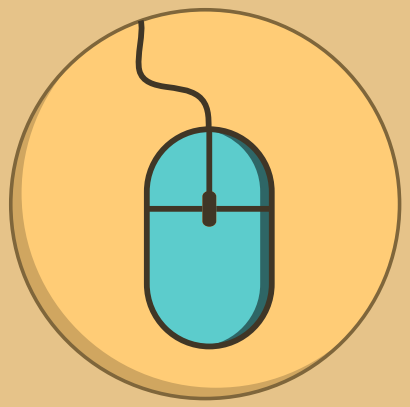
A great way to see Oklahoma's natural world is to visit a state park. If you're unable to travel, this Nature Study Challenge takes you on virtual trips to special places across Oklahoma.

Your guides for these virtual trips are internet websites from Oklahoma State Parks and the Oklahoma Nature Conservancy. The primary source of information for native wildlife is the Oklahoma Department of Wildlife Conservation's website.

This Nature Study Challenge has two parts; the "Oklahoma Pathfinder" and the "State Park Scientist." You can complete one or both! You'll earn rewards for each part that you complete.

So what are you waiting for? Let's get started!

How to Play



Links

Use this button to email your finished product for rewards!

Rewards

Earn two Wildlife Trading Cards and a Certificate for completing the activity!

How to Play

Video

Watch videos from OK State Parks to learn more about these special places.

Photo

Take a virtual tour of your state parks by viewing 360° photography.

Web Resources

Oklahoma State Parks

Videos and 360° Views: www.travelok.com (listings by each state park)

Oklahoma Department of Wildlife Conservation

Field Guide: www.wildlifedepartment.com/wildlife/Field-Guide

Species Spotlight: www.wildlifedepartment.com/wildlifemgmt/species

http://www.wildlifedepartment.com/Batfieldguide.pdf

Oklahoma Nature Conservancy

360° Views: www.nature.org/ok360

Oklahoma Pathfinder Challenge

Introduction

Just like frontier explorers, let's begin our Oklahoma adventure by looking at some maps of the places where we're traveling. On the two maps are listed eleven destinations.

Each blue button on these maps opens a virtual tour of some of Oklahoma's state parks and other special natural areas in our state.

Many explorers traveled across frontier Oklahoma by following rivers and streams. With plenty of water, forests full of wild game and other sources of food, the eastern side of Oklahoma was the easiest part of an explorer's journey.

The prairies of western Oklahoma were a greater challenge. Often it was difficult to find good drinking water during the summer. On the prairie, unexpected blizzards could occur at any time during the winter.

Oklahoma Pathfinder Challenge

Instructions

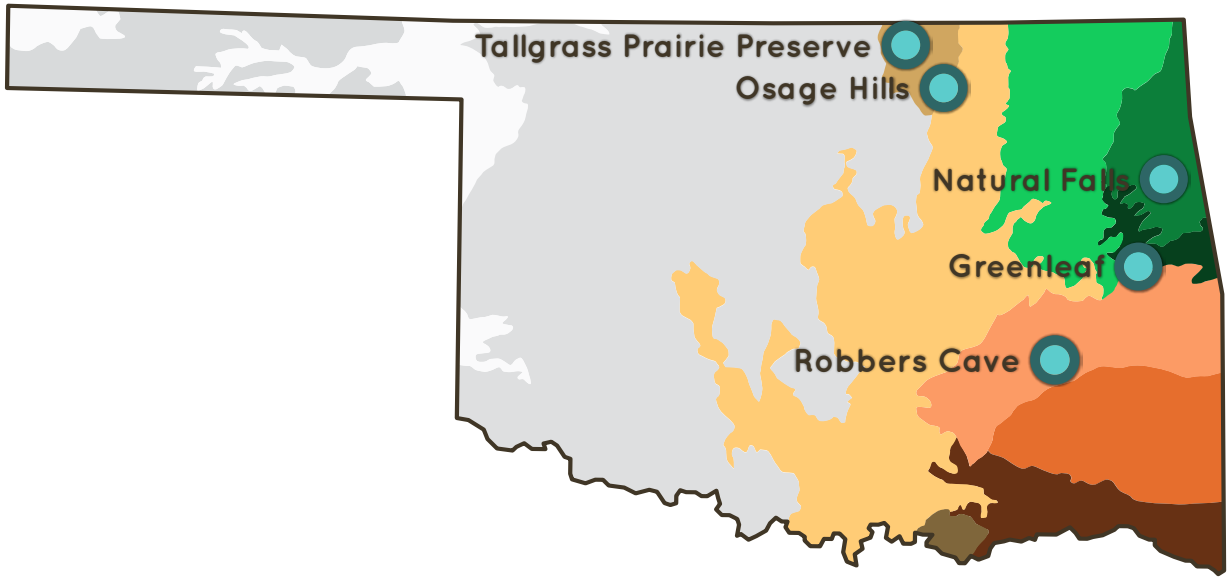
As you complete steps to becoming a Pathfinder you will take a virtual tour of Oklahoma using 360° photography and videos of several state parks and natural areas. Record your observations in your **Pathfinder Journal**.

The PDF document is fillable, so be sure to **Save** often. Once you have completed the virtual tours, have an adult help you to email your saved Pathfinder Challenge, to the address provided, in order to receive your certificate and wildlife trading cards!

After attaining the Pathfinder Certificate, we encourage you to complete additional parts of this Nature Study Challenge. From the Oklahoma State Parks webpage, download and complete the "State Park Scientist" PDF to receive your certificate and wildlife trading cards!

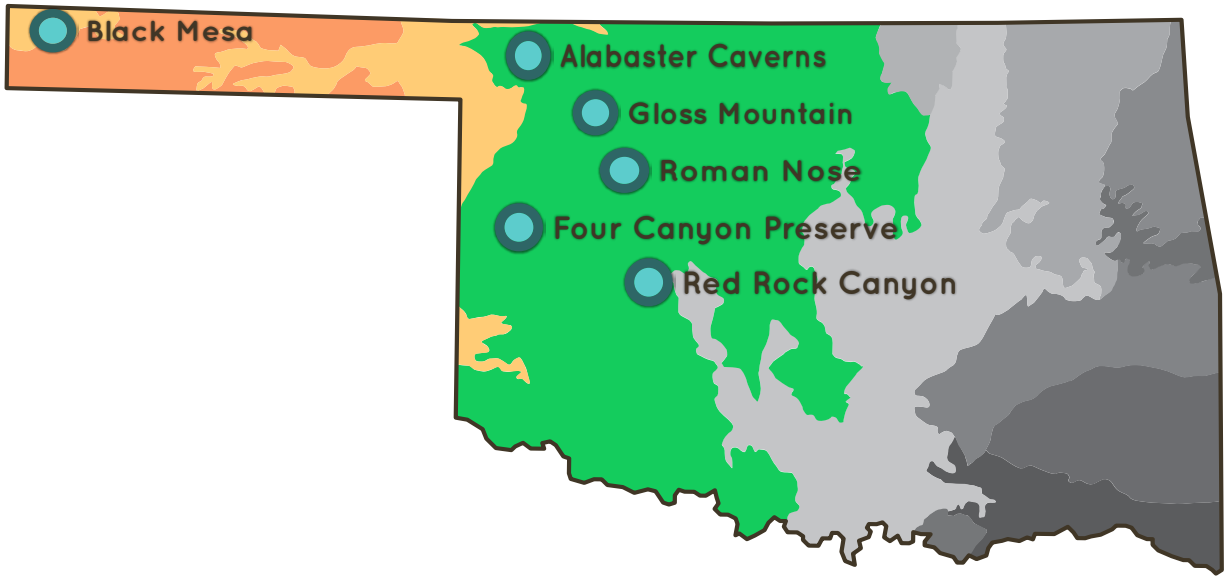
Eastern Oklahoma

Click on the blue map markers to begin your journey!



Once you have visited all of the selected Parks and Natural Areas in Eastern Oklahoma, click on the "right" arrow to continue your discovery in Western Oklahoma.

Western Oklahoma



Once you have visited all of the selected Parks and Natural Areas in Western Oklahoma, click on the "right" arrow.

GOOD JOB PATHFINDER!

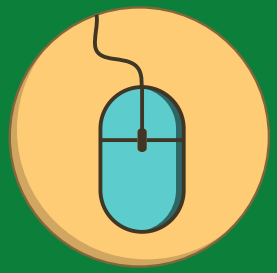
You've completed the Oklahoma Pathfinder Challenge! Have an adult help you to save and email this PDF document, using the link below, to receive your rewards! You'll soon receive your Oklahoma Pathfinder certificate and two wildlife trading cards in the mail. Great job!

Name

Parent Name | Parent Email

Mailing Address | City, Zip Code

Don't forget to complete additional parts of this Nature Study Challenge. From the Oklahoma State Parks webpage, download and complete the "State Park Scientist" PDF to receive more rewards!



Black Mesa State Park

Climate: The driest region in Oklahoma; about 17" of annual precipitation.

Physical Features: The top of the Mesa is Oklahoma's highest elevation at 4,973' above sea level.

Geology: A layer of black rock, called basalt, covers the top of the mesa. This rock came from volcano lava.

Vegetation: A shortgrass prairie, its native grasses aren't tall but have large root systems. These roots store water, helping the plant survive drought.

Wildlife: Species include pronghorn antelope, mule deer, golden eagle, scaled quail, magpie, and prairie rattlesnake.

Black Mesa State Park

Welcome to Black Mesa State Park and Black Mesa Nature Preserve!

Let's begin our adventure by joining Jenifer Reynolds from an episode of the television show Discover Oklahoma as we hike to the top of the Mesa.

Click on the video button below!

While watching the video did you notice the fastest animal in North America? What is the name of this animal that can reach speeds of up to 70 mph while running across the prairie?

Click here to record your answer in your **Pathfinder Journal.**

Black Mesa State Park

Now let's use the 360° photography button below as we stand on top of Black Mesa, the highest elevation above sea level in Oklahoma.

Click on the scene: "Southern Rim Sunrise." Notice the black-colored rock on the top and sides of the Mesa? It's called basalt, which comes from a volcanic lava flow. This Preserve is owned by State Parks and managed in partnership with the Nature Conservancy.

Next, click on the scene: "Rest Area Night View." All of the stars and planets you see are always right above us - we can see them at night in places like Black Mesa. In our cities we cannot clearly see the night sky. We have lots of street lights and lights on billboards and buildings.

Next, let's explore Black Mesa State Park. This state park is about 8 miles from the Black Mesa Preserve. Click on the scene: "Scenic Overlook with Group Camp." Below are the park's group camp and Lake Carl Etling. This state park is a great place to camp, to go fishing and to explore!

Alabaster Caverns State Park

Climate: About 25" of annual precipitation.

Physical Features: Alabaster Caverns is the world's largest gypsum cave that is open to the public. Guided walking tours lead visitors through the cave.

Geology: The cave was formed about 200 million years ago. Alabaster is a kind of gypsum rock. It can be white, pink, gray and sometimes black.

Vegetation: A shortgrass prairie is on the uplands; groves of red cedar and hardwood trees grow in the canyons.

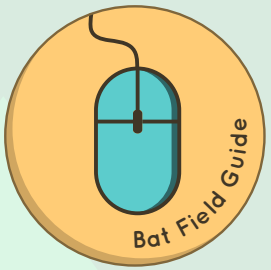
Wildlife: There are five species of bats in Alabaster Caverns. The Selman Bat Cave is called a maternity cave for Mexican Free-tailed bats. Each summer, about one million female bats raise their young in this cave. Each summer night bats eat about half their body weight in flying insects. These insects can harm crops and forests, making bats a farmer's best friend.

Alabaster Caverns State Park

Welcome to Alabaster Caverns State Park!
Let's begin our cave tour by clicking on the video button!

After watching the video, click on the scene: "Cave Entrance." Caves, like Alabaster Caverns, have given shelter to humans since prehistoric times. The first known exploration of Alabaster Caverns occurred in 1898. This cave became a state park in 1953. It is one of the largest known gypsum caves in the world. A short distance from the entrance, the path leads to the lowest point in the cave called the Rotunda. It is 80 feet below ground.

Now click on the scene: "Encampment Room 2." Notice the large selenite crystals in the white boulders? Gypsum is a mineral. Long ago gypsum in this cave was formed as an inland sea evaportated. There are many types of gypsum; two kinds found in this cave are selenite and alabaster.



Gloss Mountain State Park

Climate: About 30" of annual precipitation.

Physical Features: These buttes are nearly 300' higher than the nearby prairie and are among Oklahoma's most distinctive landforms.

Geology: The Gloss Mountains are capped with gypsum rock, which slows the erosion of the clay and shale that lie beneath it. Pieces of gypsum selenite are scattered along the sides of these buttes and can look like glass, making the buttes "shine" as they reflect sunlight.

Vegetation: A mixed-grass prairie, this region has both shortgrass and tallgrass. Cedar trees grow along the sides and tops of these buttes.

Wildlife: Species include coyote, bobcat, white-tailed deer, turkey vulture and western diamondback rattlesnake.

Gloss Mountain State Park

Welcome to Gloss Mountain State Park!

To begin your discovery, click on the scene: "Gloss Mountain West Side." A short, but steep trail leads us to the top of this flat-topped butte.

Geologists tell us that long ago this area was covered by an inland sea. Over time, particles in the water settled to the bottom of this sea, forming gypsum rock. Gypsum is the white rock that covers the tops of these buttes.

Standing here, a Pathfinder can see far into the distance. Below you, is the park's entrance road, picnic shelters and restroom facilities. Check out Lone Peak Scene for some great views of this butte and prairie country.

Roman Nose State Park

Climate: About 30" of annual precipitation.

Physical Features: Steep bluffs and a canyon with a spring-fed stream.

Geology: The hilltops have layers of gypsum rock that cover layers of clay and other sedimentary rock. Water from an aquifer comes to the surface at three natural springs.

Vegetation: Hardwood and cedar trees grow in the valleys; prairie grasses are in the uplands.

Wildlife: Species include coyote, raccoon, red-tailed hawk, and rattlesnake. In early spring, flocks of robins eat berries from cedar trees.

History: The park is named for Henry Roman Nose, a leader of the Southern Cheyenne Tribe during the late 1800's and early 1900's. From 1902 until his death in 1917, his home was in this future park.

Roman Nose State Park

Welcome to Roman Nose State Park!

Click on the Inspiration Point Scene; we can see much of the park from this high point. Below is Lake Watonga. Red cedars and other trees cover the hilltops and Bitter Creek Valley.

Like Red Rock Canyon, this valley of Roman Nose State Park was once an important resting place and winter campground for Southern Cheyenne, Arapaho and other Plains Indians. Here they found protection from winter's cold north wind.

Click on the scene: "Natural Springs;" Big Spring is one of three natural springs that flow year round.

Red Rock Canyon State Park

Climate: About 32" of annual precipitation.

Physical Features: A spring-fed stream flows through this deep canyon. The steep walls of the canyon are red sandstone.

Geology: The canyon slowly gets larger as water continues its timeless erosion of the red sandstone.

Vegetation: Cedar and Caddo maple trees grow in the canyon; Rough Horsetail, a prehistoric reed-like plant, grows along the stream.

Wildlife: Species include squirrel and other small mammals, many kinds of songbirds, red-tailed hawk and great horned owl.

History: Pioneers and prospectors of the 1800's found shelter in this canyon on their journey to California. The ruts of their wagon wheels can still be seen.

Red Rock Canyon State Park

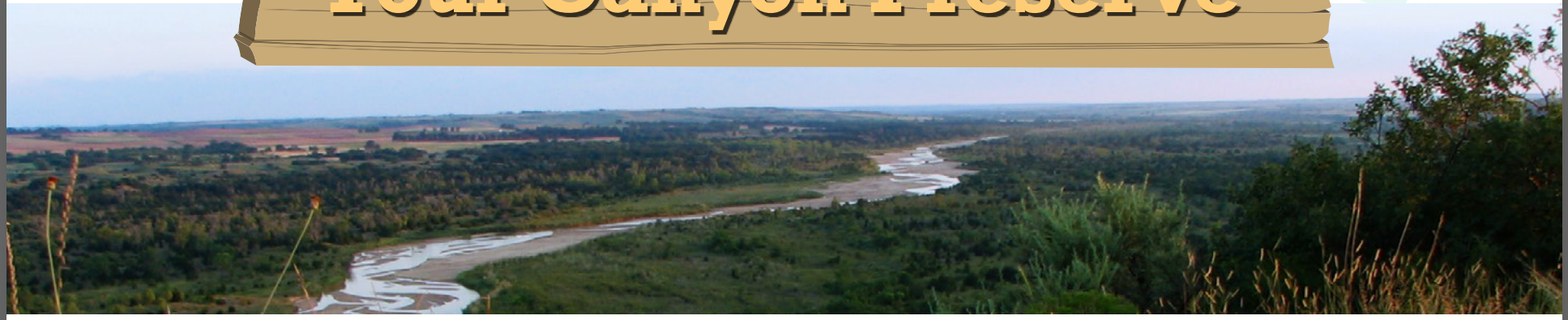
Welcome to Red Rock Canyon State Park!

This cool canyon and its spring-fed creek make Red Rock Canyon a good place to be on a hot summer day. Long ago, Plains Indians and pioneers found shelter here in other nearby canyons.

Take a look at the scene "California Road Nature Trail 1." Can you find evidence that pioneer wagons once crossed this red rock? Look closely and you may see the grooves or ruts in the brownish rock. These were made by wagon wheels over 150 years ago.

Click on "Balancing Rock Scene" to get a good view of the canyon.

Four Canyon Preserve



Climate: About 25" of annual precipitation.

Physical Features: Deep canyons, prairie ridges and floodplains of the South Canadian River.

Geology: The ridgetops are red sandstone that are capped by sand and gravel. The Canadian River deposits sediment that comes from nearby hills and as far away as the Rocky Mountains.

Vegetation: The uplands have mixed-prairie plants like buffalo grass, blue grama, little bluestem and sand sage. The canyons have groves of cottonwood and Chinquapin oak.

Wildlife: Species include mule deer, hawks and songbirds.

Four Canyon Preserve

Welcome to the Nature Conservancy's Four Canyon Preserve!

To begin your discovery of this important natural area in western Oklahoma, go to the "Ogallala-Permian Ecotone" 360° Scene; click on the movie camera icon that says "welcome." As a Pathfinder, you might find "Cinnamon Canyon" (360° scene) as a good place to camp.

From the "Saltbush Ridge" 360°, you're high above the South Canadian River. If you stood on this ridge 150 years ago, you might have seen a hunting party of Plains Indians on this same ridge.

Herds of bison once grazed in this river valley. This would have been a good place for Indians to prepare for a buffalo hunt.

Osage Hills State Park

Climate: About 40" of annual precipitation.

Physical Features: Rocky hills and bluffs overlook the valley that is formed by Sand Creek.

Geology: Sandstone is the primary sedimentary rock within this park.

Vegetation: Forests of post oak, blackjack, hickory and other tough trees cover the uplands; sycamore, cottonwood, redbud trees and buttonbush are some of the plants along the creek. Wildflowers and native grasses grow in sunny meadows.

Wildlife: Species include white-tailed deer, coyote, bobcat, fox, squirrel, rabbit, songbirds, wild turkey, owls and hawks. Lake Lookout has bass, crappie, catfish and bluegill; orange-throat darters are among the aquatic species that live in the non-polluted water of Sand Creek.

History: One of Oklahoma's first state parks, built by the Civilian Conservation Corps from 1935 to 1941.

Osage Hills State Park

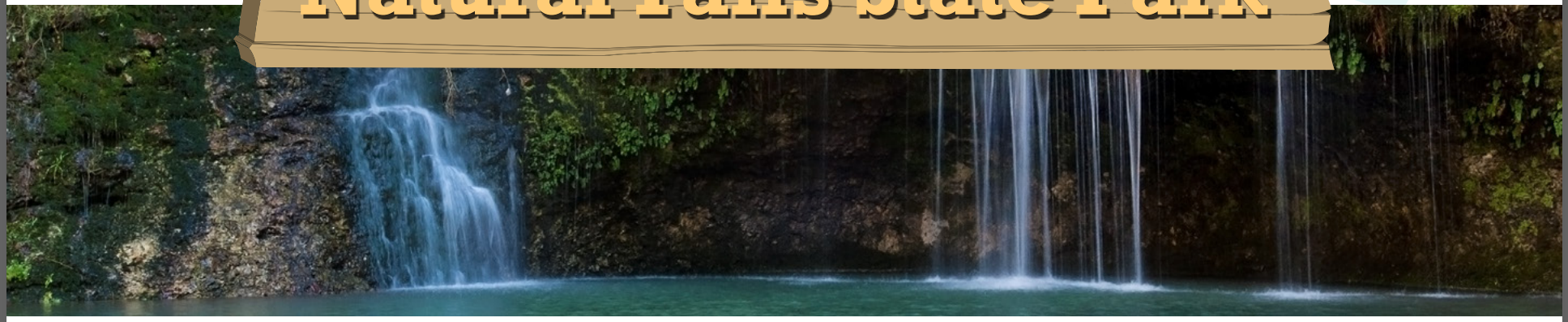
Welcome to Osage Hills State Park!

Pathfinders, take a look at Sand Creek using 360° scenes: "Bluffs" and "Waterfalls." Sand Creek flows through Osage Hills State Park. The unpolluted water of Sand Creek flows through Osage Hills State Park. Left untreated, it is not good for us to drink. However, Sand Creek is a great place for wildlife to get a drink.

Name at least one way a Pathfinder would know if a deer or other animals have come to Sand Creek, even if the Pathfinder didn't see the animal?

Click here to record your answer in your **Pathfinder Journal.**

Natural Falls State Park



Climate: About 44" of annual precipitation.

Physical Features: The park's 77' waterfall is breathtaking as it flows over a chert and limestone cliff. With its rocky ridgetop and deep valley, the park is typical of the Ozark Plateau.

Geology: Flowing water continues to shape the land as it erodes chert, limestone and other rock. Caves are common in the Ozarks.

Vegetation: The park has 17 different kinds of ferns and many kinds of native grasses, trees and shrubs.

Wildlife: Species include white-tailed deer, squirrel, raccoon, songbirds, hawks, and owls. The stream provides habitat for frogs and other aquatic animals.

Natural Falls State Park

Welcome to Natural Falls State Park!

Even though this is not a large park, Natural Falls State Park is one of Oklahoma's most beautiful places.

Check out the 360° scenes for good views of this special natural resource:
"Above the Falls Option 1"
"The Natural Falls Option 1"
"The Natural Falls Option 2"

Chert, also known as flint, is the top layer of rock in this park. A hard rock, chert often has sharp edges. For thousands of years, Native Americans made arrowheads, lance points and tools from this kind of rock.

Greenleaf State Park

Climate: About 48" of annual precipitation.

Physical Features: Most of the park is an upland forest, bordering part of Greenleaf Lake. From a trail overlook, the Arkansas River can be seen.

Geology: At the western edge of the Boston Mountains, sandstone and shale rock are at the earth's surface.

Vegetation: Drought-hardy plants like post oak, black hickory, and buckbrush are common; near Greenleaf Lake are black willow and other wetland plants.

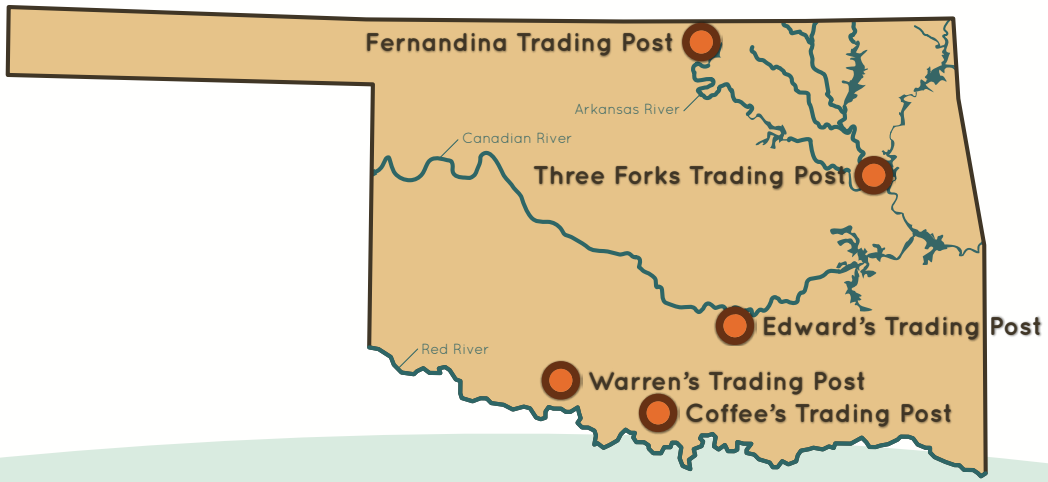
Wildlife: Species include white-tailed deer, raccoon, opossum and squirrel; songbirds, owls and hawks are examples of birdlife. Copperhead and rattlesnakes live here, but aren't frequently seen.

History: A historic park, many of its buildings were constructed in the 1930's and 1940's.

Greenleaf State Park

Welcome to Greenleaf State Park!

"Arkansas River Overlook Option 2" 360° view: As you view this 360°, zoom the camera toward the Arkansas River. The historic Three Forks Trading Post was located about twenty miles upriver.



Robbers Cave State Park

Climate: About 48" of annual precipitation.

Physical Features: Sandstone ridges, canyons, valleys, stream and lakes add to the natural beauty of this park.

Geology: Sandstone rock was folded and faulted during the formation of the nearby Ouachita Mountains.

Vegetation: Shortleaf pine trees tower over much of the forest habitat. Oaks, hickory and elm trees are among the other upland plants; sycamore and willow grow in valleys and shoreline areas.

Wildlife: Species include white-tailed deer, squirrel, raccoon, opossum, fox, songbirds, raptors and turkey vulture. On the trails, be watchful for snakes like copperhead, rattlesnake and water moccasin.

History: One of Oklahoma's first state parks, much of it was built in the 1930's by the Civilian Conservation Corps. The park gets its name from a small cave that long ago was used as an outlaw hideout.

Robbers Cave State Park

Welcome to Robber's Cave State Park!

Look at the "Robber's Cave Scene 1" 360° view to get a peek at the cave's entrance. Long ago outlaws used this cave as a hideout. Now look at "Robbers Cave 2" 360° view: While the trail to the cave is short, it's also steep in places. Just as we stand on this ridgetop, outlaws also used this spot for a good view of the valley below.

Tallgrass Prairie Preserve

Climate: About 40" of annual precipitation.

Physical Features: Gently rolling hills with canyons near Sand Creek.

Geology: Geologists believe the sandstone and limestone sedimentary rock is between 290 and 323 million years old.

Vegetation: The tallgrass prairie has many kinds of plants, including big bluestem and Indian grass. Post oak and blackjack oak are among the trees of the Cross Timber forest; cottonwood and hackberry trees grow along Sand Creek.

Wildlife: About 2,500 free-ranging bison live on the Preserve. Other animals include white-tailed deer, coyote, bobcat and many species of songbirds and raptors of the prairie and the hardwood forest.

Tallgrass Prairie Preserve

Welcome to the Nature Conservancy's Tallgrass Prairie Preserve!

Let's begin your exploration of this special natural resource, by clicking on the "Chicken Hill" 360° scene: Isn't this prairie beautiful? The native grasses, wildflowers and other plants provide habitat for many kinds of animals.

Now click on the scene: "Bison Herd" Do you see the camera icons on this 360° photo? Click on them and learn about the bison. Throughout history, and still today, bison are very important to almost all Native Americans. Before modern times, Indians used nearly every part of the bison. Bison provided them with food, clothing, shelter, utensils and was important in their religious ceremonies.

How many bison currently live at the Tallgrass Prarie Preserve during the winter season?

Click here to record your answer in your **Pathfinder Journal.**

Pathfinder Journal

Click the "right" button to return to Black Mesa.
Click the "left" button to see the question again.

*65 characters per field

Pathfinder Journal

Click the "right" button to return to the Eastern Oklahoma map.
Click the "left" button to see the question again.

*65 characters per field

Pathfinder Journal

Click the "right" button to return to the Eastern Oklahoma map.
Click the "left" button to see the question again.

*65 characters per field