

7



Find the mother coyote with her pups in the den below.

How does a coyote build her den?

- a. Digging in soft soil
- b. Enlarging the holes of other burrowing animals
- c. Burrowing in caves
- d. Digging a series of tunnels like prairie dogs

Coyotes make their dens in rocky crevices, or the dens of other animals. They usually don't dig their own den. They will find an abandoned den of a badger or a prairie dog and enlarge it.

8

Find the sign marking the **short grass prairie**. This area is home to the second fastest land animal in the world; the pronghorn. Explain why the pronghorn is so fast.

Pronghorns and cheetahs evolved alongside one another (though North American cheetahs are now extinct). Pronghorns developed the ability to run at high speeds to escape from cheetahs.

9

Many plants on the **short grass prairie** have defenses, like sharp spines to protect them from being eaten. This is especially true for plants that hold a lot of water since water is hard to get in this dry environment. List three plants that use spines as a defense.

Hint: Use the touchscreens for help.

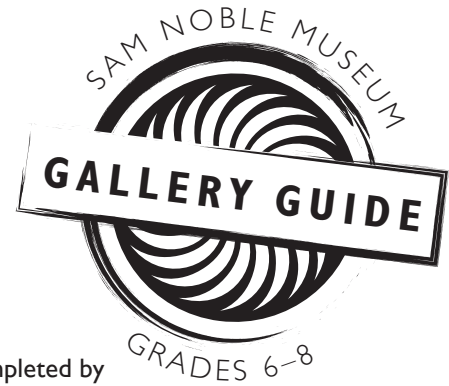
Pricklypear cactus

Cholla cactus

Yucca

One way that animals in dry environments get water is by eating plants. Herbivores like prairie dogs love to eat pricklypear cactus and get much of the water they need by eating it and other prairie plants

HALL OF NATURAL WONDERS



Welcome to the Sam Noble Museum!

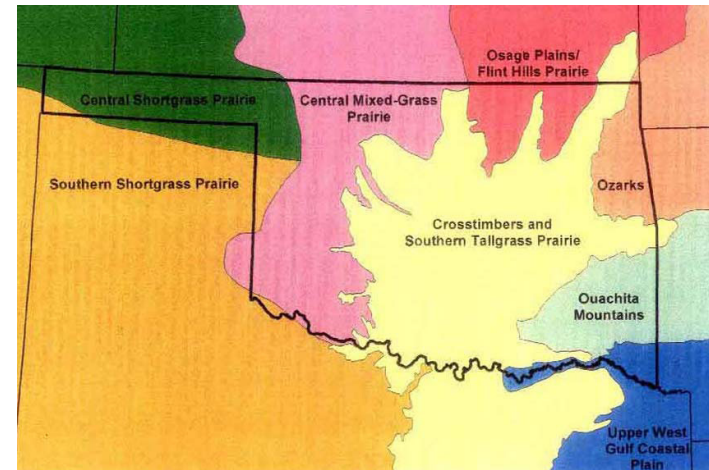
These gallery activities are designed to be completed by a student or group of students, with the help of an adult.

Gallery Guides are available for each of the museum's three permanent galleries.

The Hall of Natural Wonders is your guide to the plants and animals of Oklahoma. Each section of this gallery features different ecosystems in the state including woodlands, caves, mixed grass prairie and short grass prairie. Each of these areas are home to different plants and animals.

In the Ozark Highlands, you will explore the diversity of life in the upland stream and discover the different species that live in the oak hickory forest. Then, head to the limestone cave which features the 22 species of bat that live in Oklahoma. Next, find the bison in the mixed grass prairie and learn about how these giant animals have adapted to life on the prairie. Finally, stop by the short grass prairie to learn about Black Mesa and the wildlife that live in the driest part of our state.

Use the map below to learn where in the state each ecosystem is found!

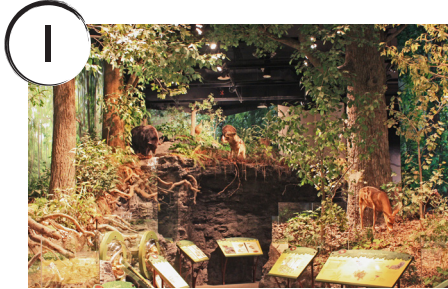


Sam Noble Museum 2401 Chautauqua Ave., Norman, OK 73072-7029
THE UNIVERSITY OF OKLAHOMA. (405) 325-4712 samnoblemuseum.ou.edu

The University of Oklahoma is an equal opportunity institution. www.ou.edu/eoo.
For accommodations on the basis of disability, please call (405) 325-4712.



1. Begin at the Hall of Natural Wonders located on the second floor. The gallery entrance has pictures of plants and animals covering the wall.
2. Explore the gallery to find the answers to the questions below.
3. Start your journey at the sign marking the oak hickory forest in the Ozark highlands.



How many different species of **warbler** birds can the oak hickory forest support? Ten

Oak and hickory trees are home to many warbler species including the black-and-white warbler, the northern parula, the American redstart, the Kentucky warbler and the Louisianan waterthrush.

How can so many warblers live in the forest without competing for **resources** (food, shelter, etc.)?

Warblers lessen competition by foraging for food and building nests in different parts of the forest.

Warblers live in different tree levels in the forest. Some warblers might spend their time high up in the tree's canopy, while others perch on lower branches. Some warblers even nest on the ground.



This snake makes its home in the leaf litter of the forest floor. It is often found in forests near water. It gets its name from the light colored spots on its body. What is it?

Speckled kingsnake

Speckled kingsnakes live in a range of habitats including woodlands, prairies and wetlands. They are known for their "salt and pepper" markings and eat rodents, lizards, birds and other snakes.



Stonerollers are fish that live in streams in the Ozark highlands. What would happen if stonerollers were no longer in the ecosystem?

- a. Numbers of invertebrates would decrease
- b. Algae may cover stream beds
- c. Silt may increase on the stream bed
- d. All of the above

When stonerollers eat algae from stream beds, they also ingest silt. This helps keep stream water clear and benefits the ecosystem.

Explore the limestone cave and find the information on dark zone animals. Dark zone animals, like the grotto salamander, have adapted to living in the dark by developing enhanced non-visual senses. Give one example of this adaptation. Touch, taste and smell help it find and avoid predators.

When Grotto salamanders change into adults, their eyelids fuse. Using sight takes up energy that is better spent on other senses in a dark environment, so grotto salamanders do not use their eyes as adults.



Find the bison in the mixed grass prairie. Bison may appear to be bulky and slow, but bison can run up to 45 miles per hour. They can also jump up to six feet high!

In addition to their large size and herding habits, bison have thick hide and can run and jump in order to protect themselves from predators, like coyotes.

List one example of **mutualism** that you can find in the mixed grass prairie. Mutualism is a relationship in which two organisms interact with and help each other without either organism being harmed.

Hint: Read the text panels for clues.

Prairie dogs and bison

Prairie dogs dig their tunnels in areas that bison have cleared while grazing. Bison also like to roll in the dirt that is left over after the prairie dogs dig their tunnels.