

# Buffalo Gap National Grassland

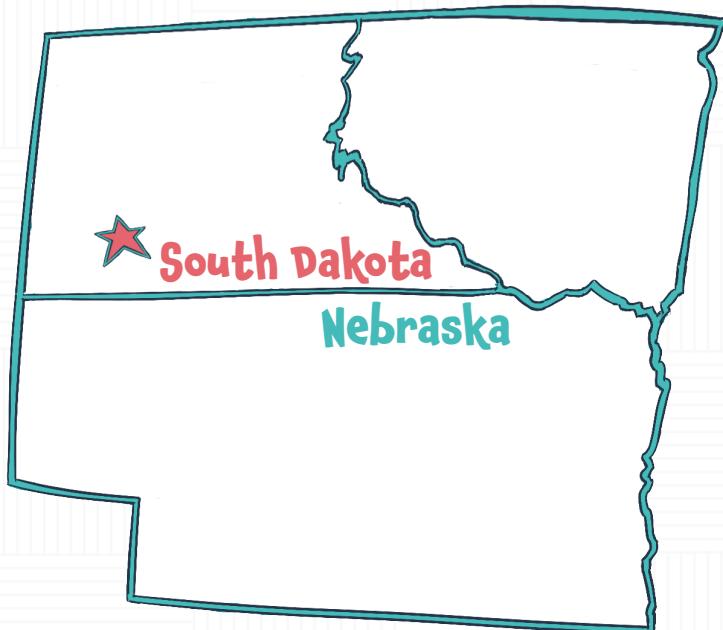
**JUNIOR RANGER  
ACTIVITY BOOK**



This book belongs to:

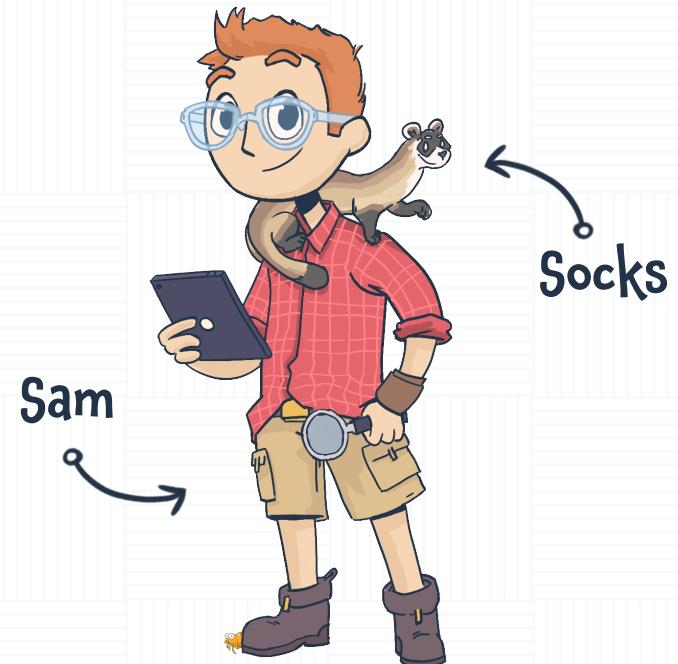
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# WELCOME TO BUFFALO GAP!



Wall Ranger District  
Buffalo Gap National  
Grassland - East  
710 Main St  
PO Box 425  
Wall, SD 57790  
(605) 279-2126

Fall River Ranger District  
Buffalo Gap National  
Grassland - West  
1801 Highway 18 Bypass  
Hot Springs, SD 57747  
(605) 745-4107

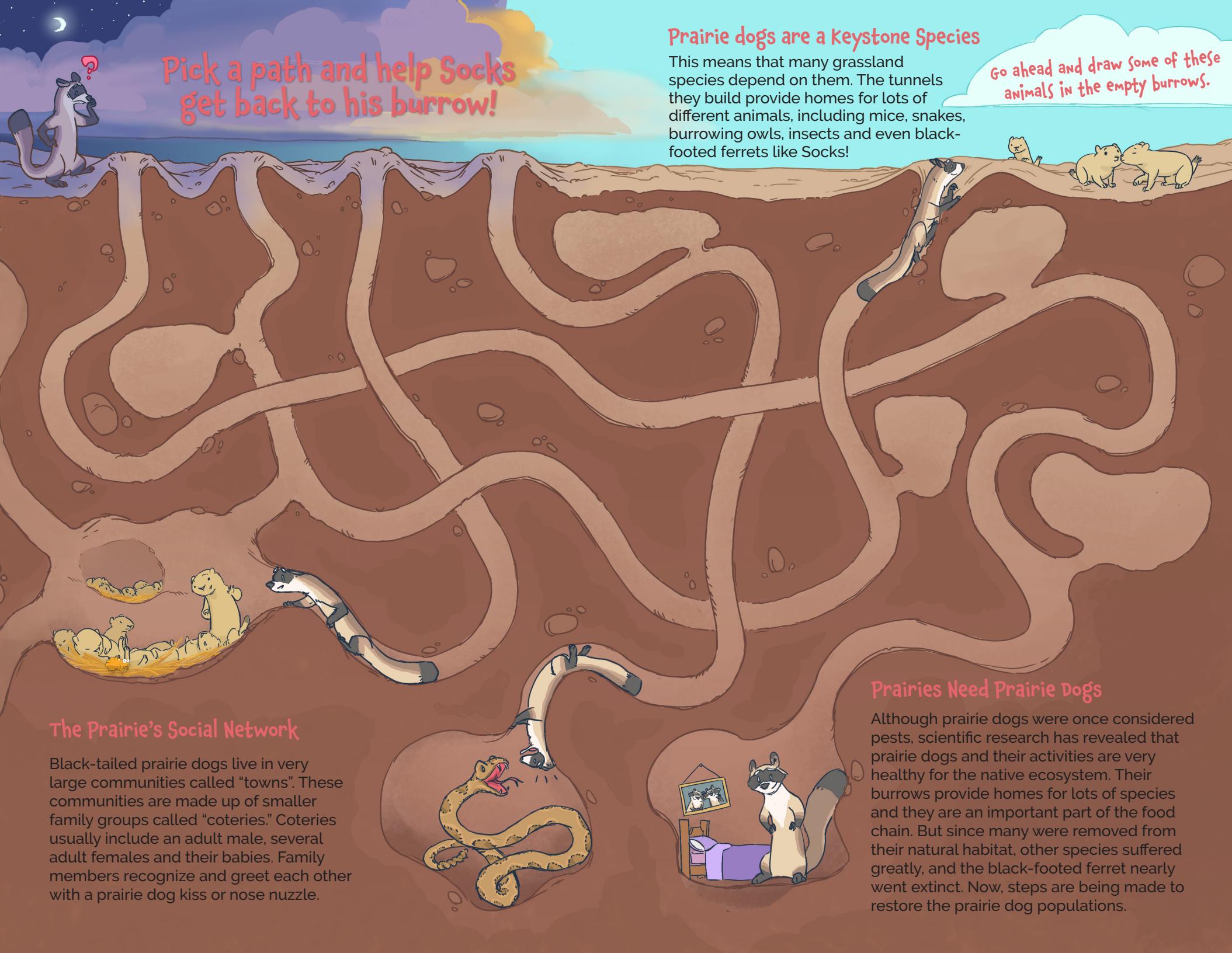


My name's Sam, and this little guy is Socks, the  
black-footed ferret!

We're here to show you around and help you become a Buffalo Gap National Grassland Junior Ranger. All you'll need is your field notebook (*that's this!*), a good pair of shoes, and a little imagination!

Do your best to complete **all the activities** in this book. When you're finished, bring it to the Buffalo Gap front desk to get your certificate signed. Then you are officially a Buffalo Gap Junior Ranger!

Come on, let's get started!



Pick a path and help Socks get back to his burrow!

## Prairie dogs are a Keystone Species

This means that many grassland species depend on them. The tunnels they build provide homes for lots of different animals, including mice, snakes, burrowing owls, insects and even black-footed ferrets like Socks!

Go ahead and draw some of these animals in the empty burrows.

## The Prairie's Social Network

Black-tailed prairie dogs live in very large communities called "towns". These communities are made up of smaller family groups called "coteries." Coterries usually include an adult male, several adult females and their babies. Family members recognize and greet each other with a prairie dog kiss or nose nuzzle.

## Prairies Need Prairie Dogs

Although prairie dogs were once considered pests, scientific research has revealed that prairie dogs and their activities are very healthy for the native ecosystem. Their burrows provide homes for lots of species and they are an important part of the food chain. But since many were removed from their natural habitat, other species suffered greatly, and the black-footed ferret nearly went extinct. Now, steps are being made to restore the prairie dog populations.

# Rock hounding is all about searching! Can you find all of these words?

## Rock Hounding

Searching for and collecting rocks, fossils, or minerals. Take a look around and see what you can find!



## Magnifying Glass

Helps you get a closer look at rocks and gemstones. Many rocks can tell you where and when they come from by small clues that you may miss without this tool.

## Paleontologist

A scientist who studies fossils.

## Quartz

A hard, glossy mineral made of silicon and oxygen in crystal form. Present in most rocks, quartz is easy to find.

## Mineral

A natural solid substance that is not a plant or animal. Gold, quartz, and salt are all minerals.

## Geology

The study of rocks, minerals, and formations in the Earth's crust. Someone who studies geology is a geologist.

## Spray Bottle

Used to wet the surface of stones to reveal the patterns hiding beneath dust and sticky clay. Experienced Rock Hounds never leave home without it!

## Fossil

The preserved remains of an animal or plant.

## Strata

Layers of rock formed over a very long time. Each layer forms on top of the previous one, so the oldest rocks are found at the bottom.

## Agate

A stone of the quartz family with banded colors and mossy patterns.

## The Agate Rush

The White River Badlands are home to an amazing variety of agates. In fact, the state gemstone of South Dakota is the Fairburn Agate. Agates can be easily found in agate beds scattered throughout the Buffalo Gap National Grassland.



FAIRBURN AGATE

BUBBLEGUM AGATES

PRairie AGATE

## White River Formation

A geologic formation made up of jagged peaks and steep trenches caused by erosion. Paleontologists love these formations because they contain many fossils from the Eocene and Oligocene Epochs. The White River Formation begins about 37 million years ago and goes to about 25 million years ago.

check out the strata!

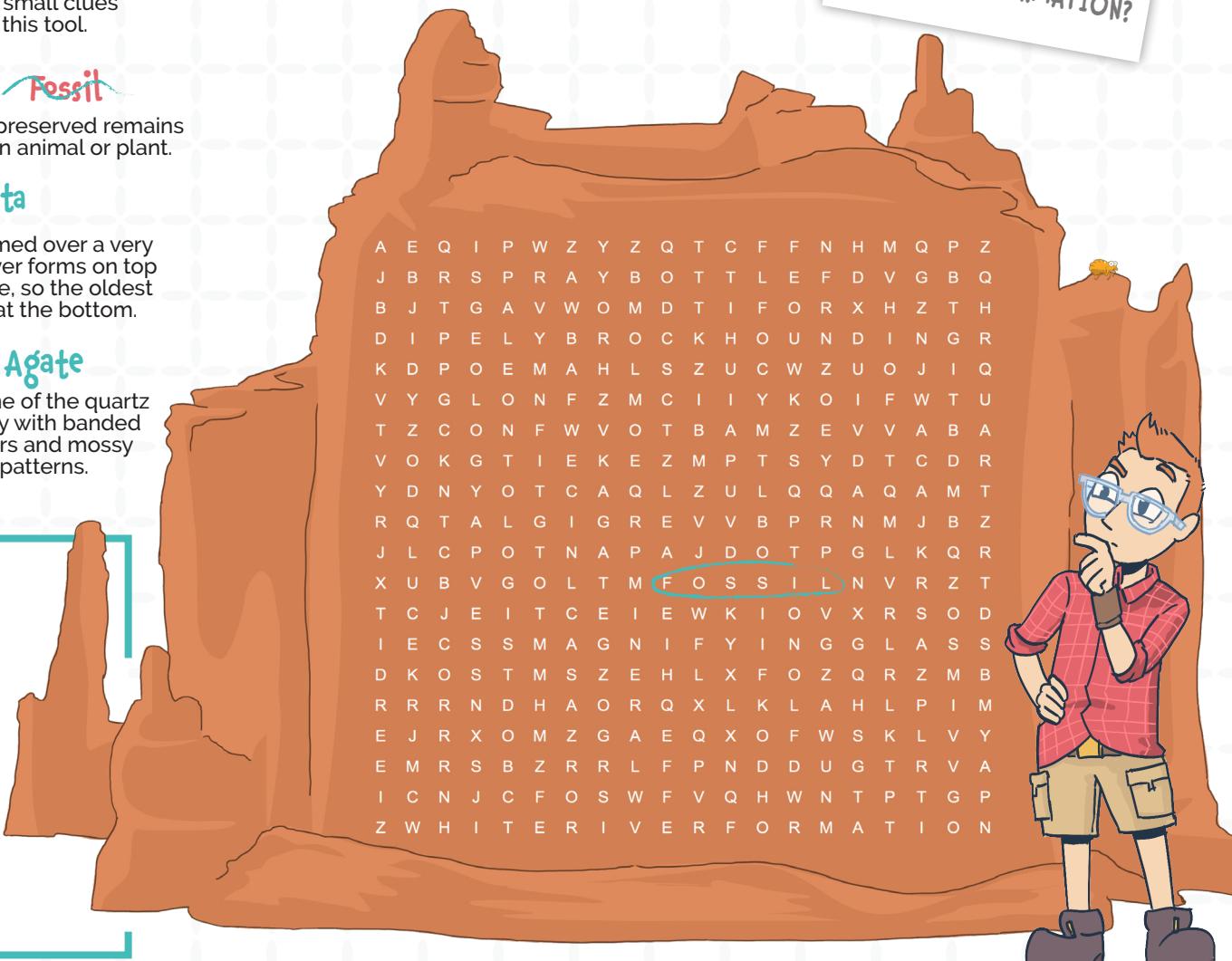
caused by erosion!



CAN YOU FIND THE  
WHITE RIVER FORMATION?

## Erosion

Erosion happens when rocks are moved or worn away by ice, water, wind or gravity. This movement changes the surface of the land.



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

## Can you match up each set of tracks with the critter that made them?

Draw a line connecting each set of tracks with the corresponding animal silhouette.



## Do you see any signs of wildlife?

Evidence like tracks, hair, markings, or even scat (animal poo) can give you hints as to what animals went by. Draw a picture of any hints you see and the animal you think left them.

Make your own tracks in the dirt and draw a picture of what they look like.



## Help reintroduce the black-footed ferret to the wild!

The endangered black-footed ferret nearly went extinct because of habitat destruction, loss of food, and disease. But they're making a comeback and the Forest Service is working to reintroduce the black-footed ferret to Buffalo Gap.



Black-footed ferrets depend almost entirely on prairie dogs for food and shelter. So we need to protect both species and their prairie habitat!

Prairie Dogs have been subjected to eradication efforts for nearly 100 years!

These programs have reduced historic prairie dog populations by about 90% and have affected other species that depend on prairie dogs for survival.

Boost the prairie dog population by drawing more burrows and prairie dogs.



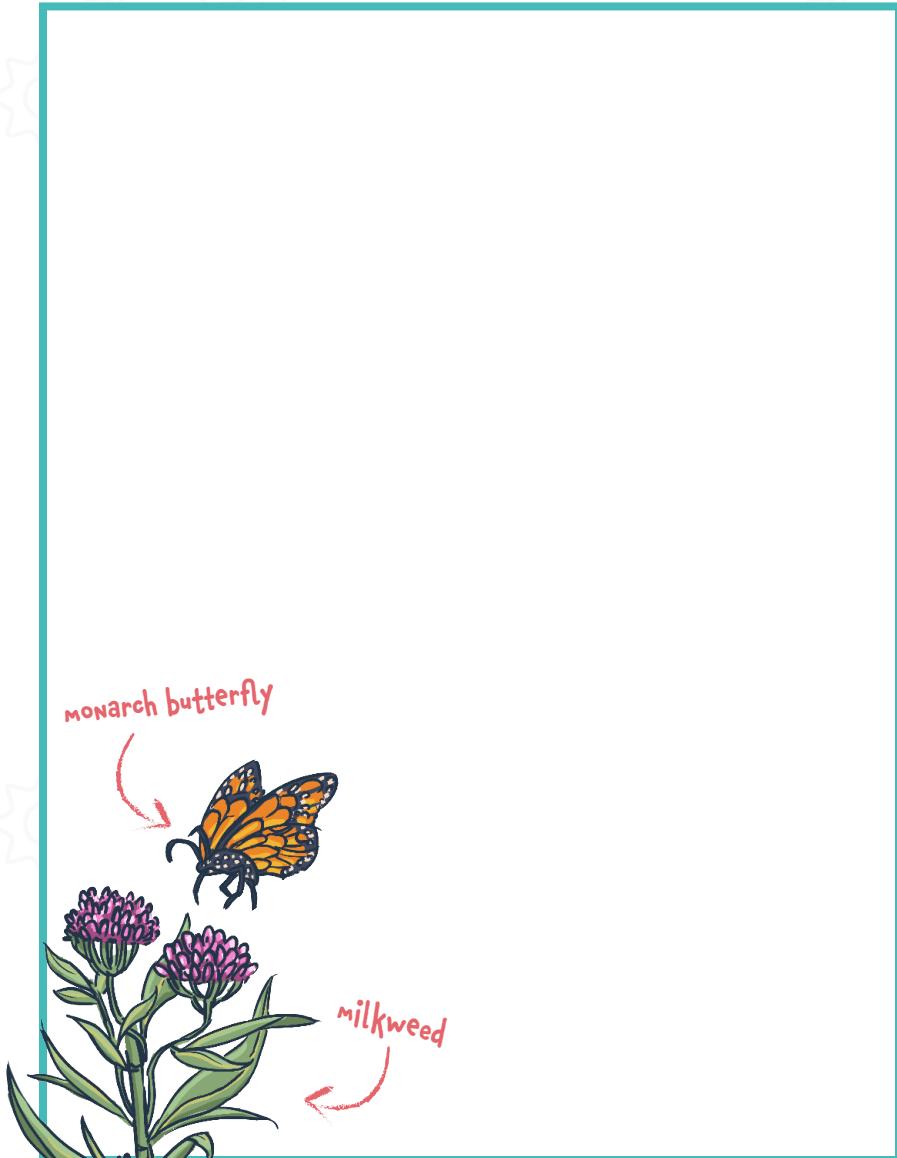
Both prairie dogs and black-footed ferrets are finding fewer places to make their homes. Prairie dog towns compete for limited space with agricultural land and urban development. Help their habitat recover by drawing some more prairie grass and beautiful flowers.

## Good News!

The Conata Basin area of Buffalo Gap is the most successful ferret reintroduction site in North America and now has the largest black-footed ferret population in the world.

## There are lots of cool things to do at Buffalo Gap!

Draw a picture of what you did or what you want to do next time.



monarch butterfly

milkweed

Circle all 5 fleas in this book to help stop the spread of sylvatic plague!

Sylvatic plague is spread by fleas when they bite. The plague impacts prairie dogs, black-footed ferrets and other sensitive wildlife.

Plague has reduced the overall prairie dog population by about 70% since 2008 and therefore greatly affected the black-footed ferret population.

People help by dusting the burrows with an insecticide that kills fleas, but is safe for wildlife. People have also developed plague vaccines specific for both prairie dogs and black-footed ferrets. Both vaccines provide about 9 months of protection and must be administered every year. The vaccine is given to black-footed ferrets in a shot, just like when you go to the doctor. Prairie dogs take their vaccine in food, and as long as most of the colony eats it, the whole colony will be protected.



Wow, that was a lot of hard work!

Now that you've finished, bring this booklet to the Buffalo Gap front desk during regular hours and a ranger will sign your certificate.



# Certificate of Achievement



awarded to

great job!

for successful completion of all of the required activities to be a  
**Buffalo Gap National Grassland Junior Ranger**

Date \_\_\_\_\_

Ranger Signature \_\_\_\_\_

