



To become a Junior Ranger, children age ten and older must complete the activities in this book. Younger children must complete at least three activities. Parents may help children of any age. The book should then be taken to the Alan Bible Visitor Center or the Katherine Landing Ranger Station to be checked by a park ranger, who will present the child with a badge and certificate.

Lake Mead National Recreation Area

is pleased to participate in the Junior Ranger Program, which is one of many youth programs of the National Park Service. The Junior Ranger Program is especially important because it gives young children access to National Park resources in a manner that they can understand. This Junior Ranger Guide and Activity Book introduces children to many aspects of Lake Mead National Recreation Area, including the roles of park rangers, the formation of Lakes Mead and Mohave as reservoirs, the importance and preservation of the area's natural and cultural resources, and finally, to the extraordinary plant and animal life unique to this desert environment.

To learn more about Lake Mead National Recreation Area, on-line, please visit:
<http://www.nps.gov/lame/home.html>

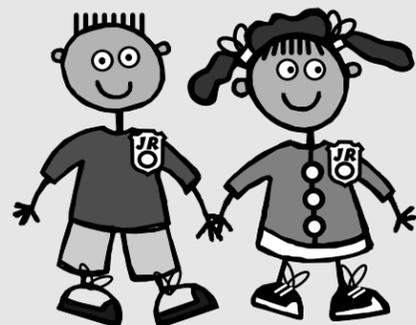
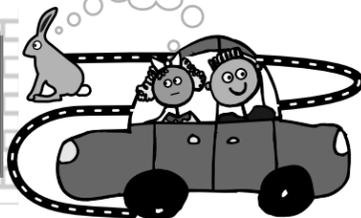
To learn more about the National Park Service Junior Ranger Program and other National Park Service youth programs, on-line, please visit:
<http://www.nps.gov/youthprograms/>

Hey - I didn't get to finish my Junior Ranger book!

No problem! Read this!

If you didn't have time to complete the Junior Ranger Guide and activity book while at Lake Mead National Recreation Area, you can still earn your badge and certificate! Mail your completed book to:

Lake Mead NRA, Interpretation Division; 601 Nevada Way; Boulder City, NV 89005



The Lake Mead National Recreation Area Junior Ranger Guide and Activity Book was created by:



The Lake Mead National Recreation Area Interpretation Division and graphic artist and writer Jennell M. Miller, Ph.D.

WESTERN NATIONAL PARKS ASSOCIATION

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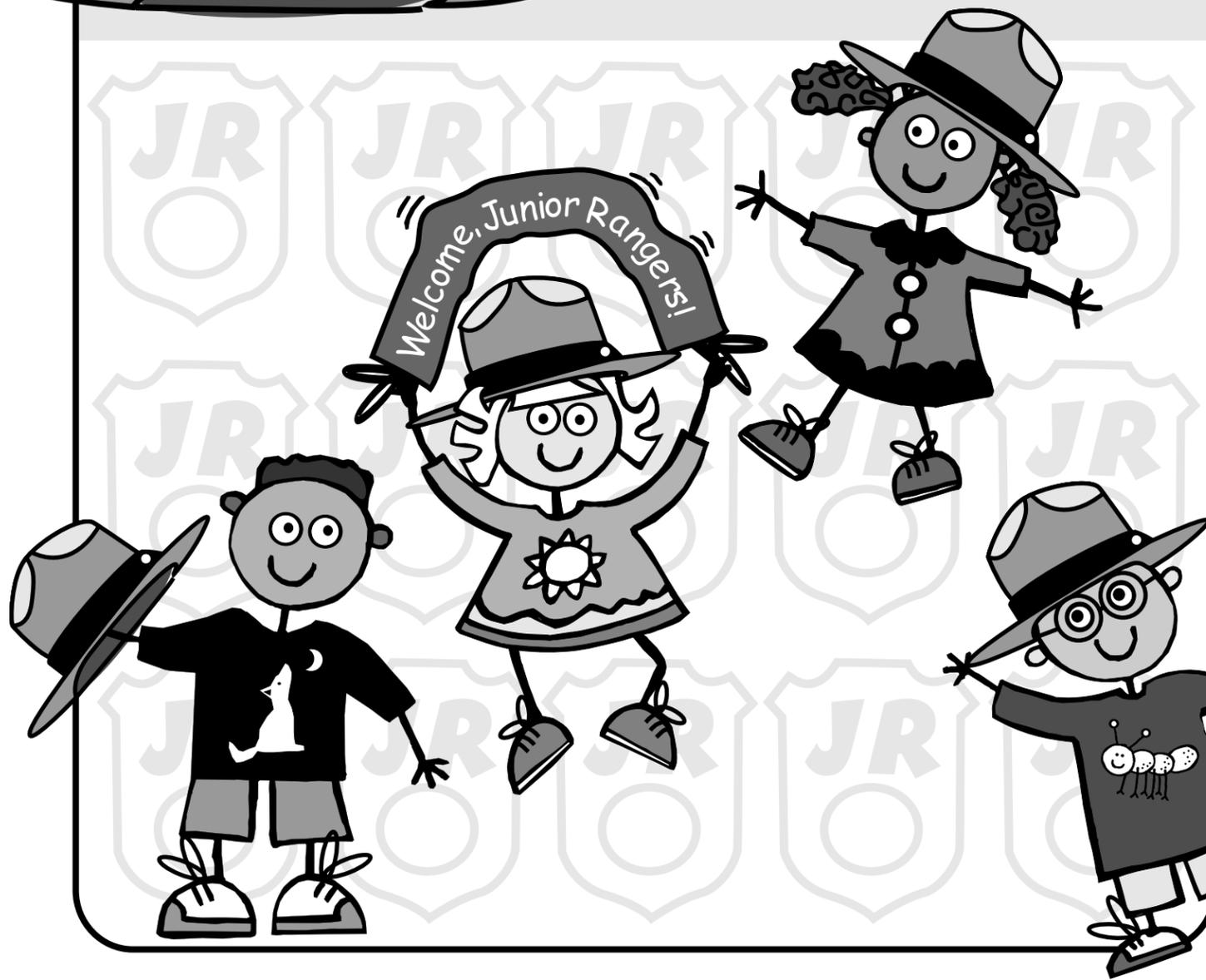
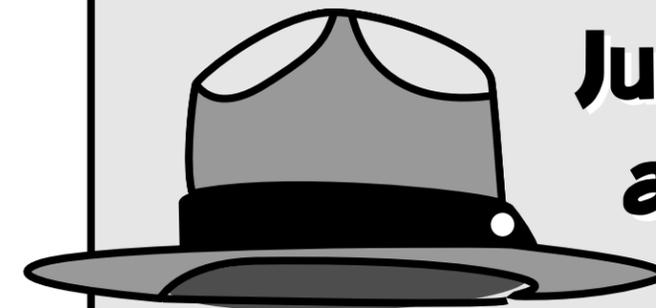
9/2002

Lake Mead

National Park Service
U.S. Department of the Interior
National Recreation Area



Junior Ranger Guide and Activity Book



This book belongs to: _____



Junior Rangers Needed!

Would you like to help the rangers at Lake Mead National Recreation Area take care of this special place? The first step is to become a Junior Ranger! If you are ten-years-old or older, complete all of the activities in this book - if you are younger than ten, complete three activities - to earn your Junior Ranger badge and to learn a lot of neat

things about Lake Mead National Recreation Area. You may ask a parent or guardian, older brother or sister, or a park ranger for help. After you have finished the activities, show your work to a park ranger at the Alan Bible Visitor Center or the Katherine Landing Ranger Station.



Don't forget to have fun!

Rangers and their jobs . . .

At Lake Mead National Recreation Area park rangers have many jobs. They work both out in the park where you can see them and "behind the scenes" where you might never see them. Solve the word puzzles below to learn about some of the jobs that the rangers do.

pa +  OFF +  + r

A _____ ranger enforces park regulations and protects the animals and plants that live here. patrol officer

  + r

A _____ is the ranger that keeps the park safe from fires. fire fighter

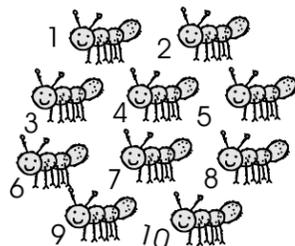
 + 

An interpretation ranger is a _____.

This ranger leads walks, gives talks, and works with kids. He or she may even visit you at your school! teacher

R +  + ologist

An _____ ranger is a scientist. He or she studies the cultures of ancient peoples who once lived in the area that is now our park. archaeologist

 + N +  A _____ ranger makes sure the park is clean and that everything is in good repair. maintenance

Have you seen rangers doing any of these jobs?



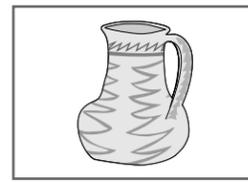
Junior Archaeologist

People have lived in the desert around Lake Mead National Recreation Area for thousands of years. Even though the early people who lived in the area have been gone for a long time, scientists can still study them! The objects that the people left behind (known as **artifacts**) are clues to how they lived. The places where artifacts are found are called **archaeological sites**.

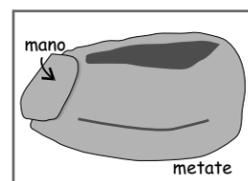
and people who study the clues within the sites are called **archaeologists**. Artifacts found at the archaeological site, and even the site itself, can tell us many stories of the lives of ancient peoples. Because the site and the objects found there are important to help us understand the past, they are protected by law.

In this activity, your job is to help a team of park archaeologists. First learn about some of the types of objects found in the area. Then, identify the artifacts in the photos taken by archaeologists at a newly discovered archaeological site. Write the name of the object in the space provided next to each photo.

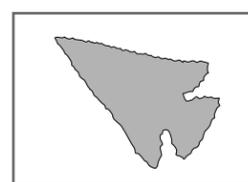
Artifact Guide Lake Mead NRA



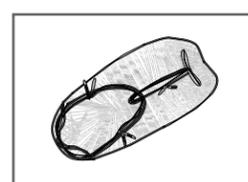
clay pot
A container used to carry and store water.



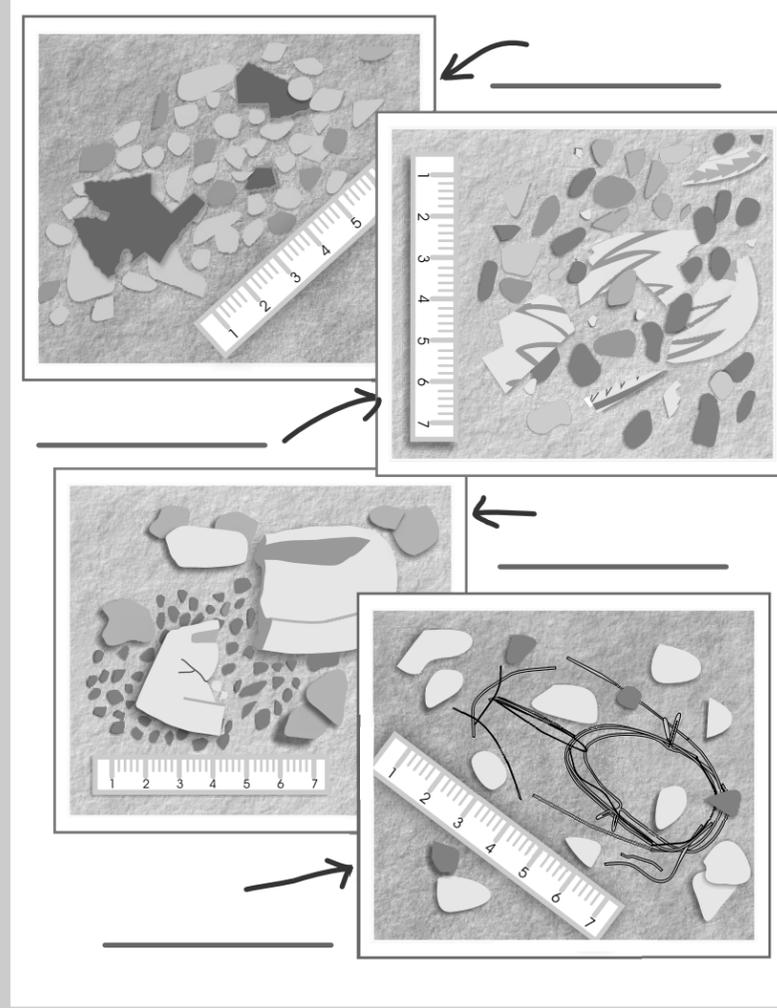
mano and metate
A mano is a stone that fits in the hand for grinding seeds. The metate is a large flat stone on which the seeds are ground.



point
Used as a hunting weapon, points were made of chipped stone and then attached to a spear.



sandal
A shoe made of woven plant fibers.



As a junior archaeologist you know that it is important not to take or damage artifacts. How could you explain this idea to a friend?

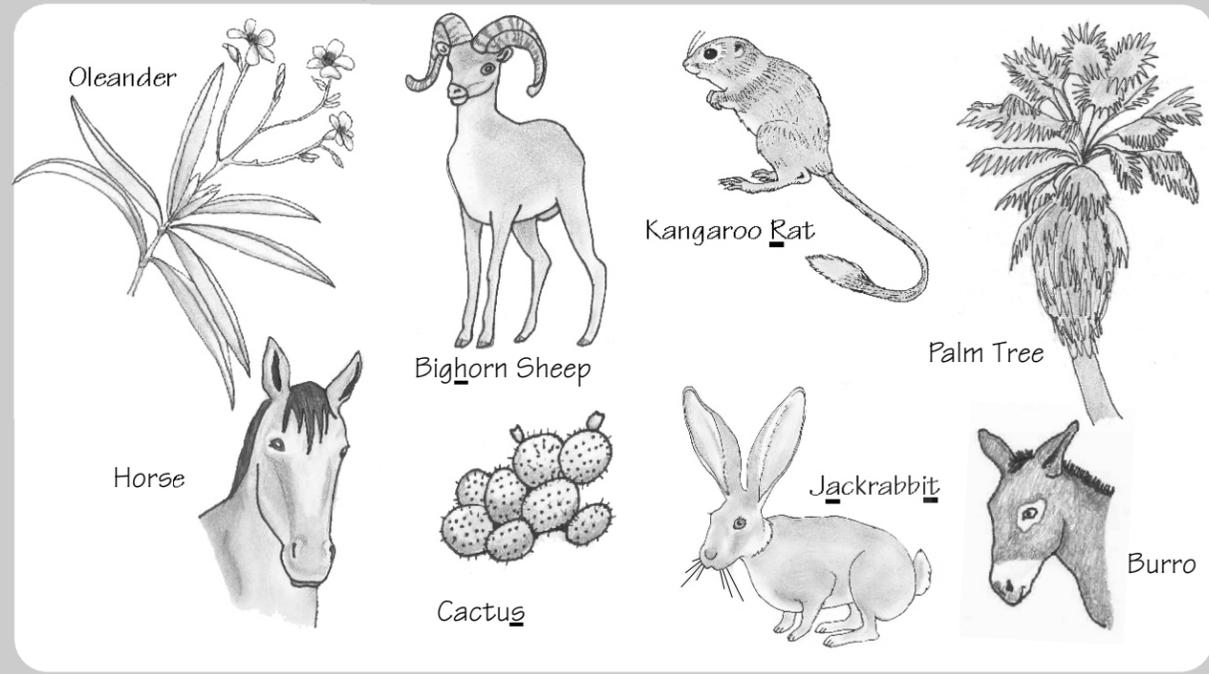
This place doesn't look like home!

Who Belongs Here?

If you saw a giraffe wandering through the Lake Mead National Recreation Area, you could easily tell that he didn't belong. But, did you know that many of the plants and animals living here, which seem to belong – really don't? These plants and animals were brought into the area by people moving in from other places. A plant or animal is **native** to the environment in which its ancestors first lived. When a plant or animal is moved to a new area, it is considered

a **non-native** in its new home. Even though non-native plants or animals might love their new home, they can actually harm it. The non-natives don't bring their old predators with them. So, they can quickly multiply and take up space used by their native neighbors. Non-natives also don't bring along their own food and water supply, so they eat the food and use, or contaminate, the water of native residents. In some cases, native residents become completely crowded out by the non-native intruders.

All of the plants and animals shown below can be found within the Lake Mead National Recreation Area. Try to guess which ones are not native to (or don't belong in) this place. Then check your answers below. Which answers surprised you? Now put an X though all non-native plants and animals.



non-natives: Oleander, Palm Tree, Horse, Burro

What else is found in the Lake Mead area, but doesn't belong?

To find out, form a word by filling in the spaces below, using the letters underlined in the names of some of the native plants and animals above. The first letter, the 't' underlined in "jackrabbit," has been placed for you!

T _ _ _ _



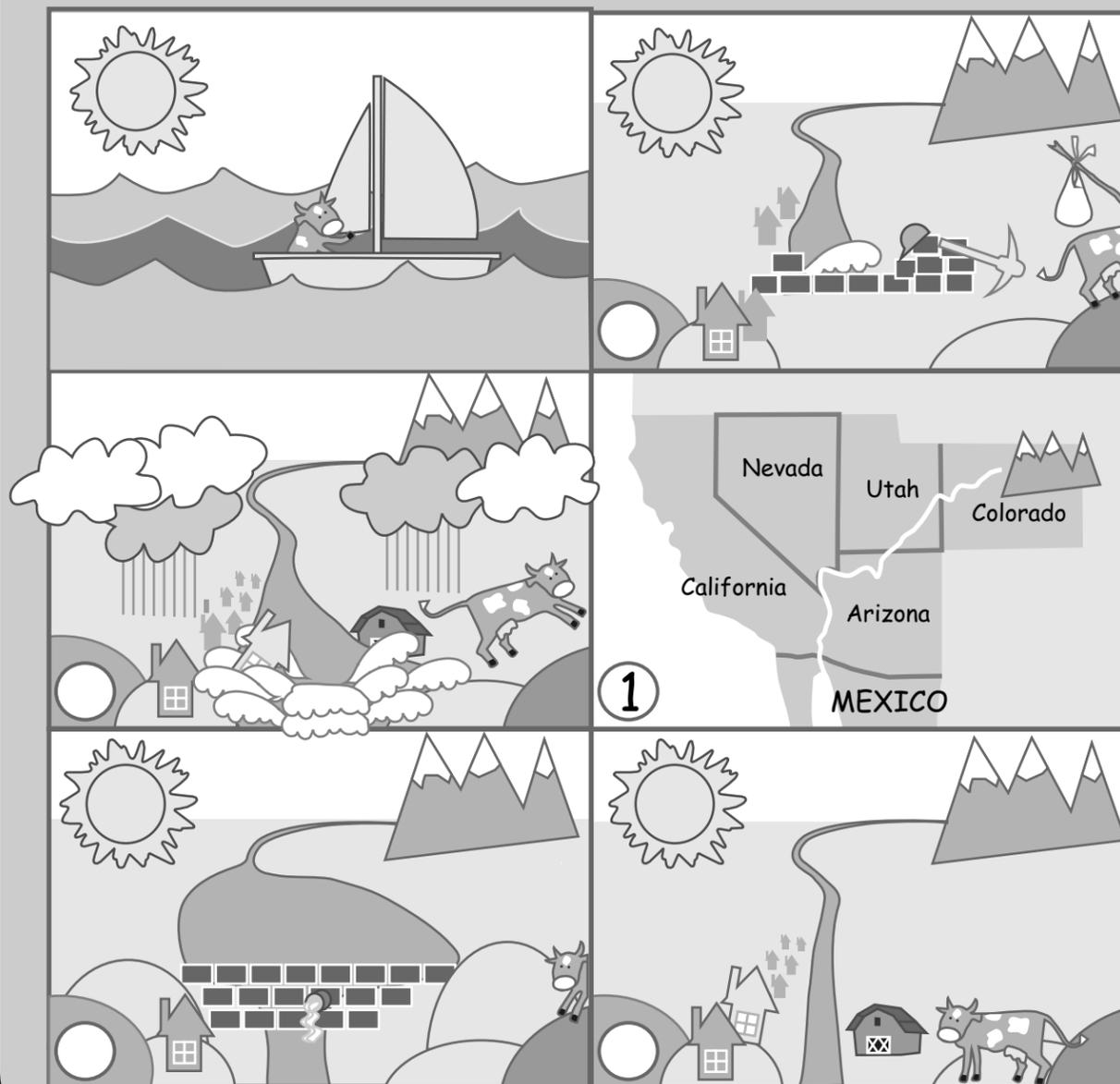
answer: trash

From River to Reservoir

Read the story below about the formation of Lakes Mead and Mohave. Then test your knowledge by putting the pictures into the order in which the events happened. The numbers in the paragraph can be matched to the pictures, and the first one has been done for you.

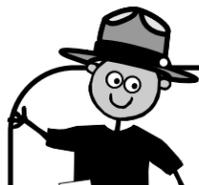
① From the snowy peaks of the Rocky Mountains, all the way to Mexico, flows the Colorado River. Much of this river lies in the desert, and the water it provides is very important to the people, plants and animals that live in the desert. ② People built houses and set up farms along the banks of the Colorado River because it provided water for drinking and irrigating crops. Soon towns were formed. ③ But, from time to time, heavy rains and melted snow caused the river to burst over its banks. Some homes and farms were carried away in the floods! ④ So, people built Hoover and Davis dams

to control the Colorado River. A dam is a structure that blocks or partially blocks the flow of water (similar to the stopper in the bathtub). Once the dams were in place, the water collected to form Lakes Mead and Mohave, which are artificial lakes or reservoirs. ⑤ The people in the towns along the river had to move, and their abandoned homes became completely covered with the waters of Lakes Mead and Mohave. ⑥ Once filled, these lakes became Lake Mead National Recreation area, and the towns below the dam were safe from all future floods!



1

answers: from top to bottom, first column: 6, 5, second column: 4, 1, 2



Leave No Treads

The desert environment that surrounds Lakes Mead and Mohave is home to many plants and animals. Even the soils that are found here are full of living organisms. Desert soils are damaged when people drive their cars

off of approved roads. Because it is so dry here, it can take hundreds of years for the damage to be repaired by nature. And, some types of damage can never be fixed.

Complete this family's journey to their favorite lakeside campsite. Remember to travel only on approved roads!

Chickens aren't the only ones to cross the road!

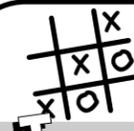
We're the tiny organisms that hold together a crust that protects the soil. Without us the soil would blow or wash away!

I'm moving as fast as I can!

Please take care of us! We may be tiny, but we're important!

What is the number of the road you took?

answer: 89



Adaptations Tic-Tac-Toe

The desert is a harsh environment: there are extreme temperatures (up to 120° F in the summer!) and lots of wind – and, there is very little rain and water. So, for animals and plants, the desert can be a tough place to live. Fortunately, desert plants and animals (even insects) have

developed all sorts of neat ways to survive in their environment. These neat features are called **adaptations**. An adaptation can either be a **behavior** (like digging a burrow to escape the heat) or a **physical trait** (like the spines on a cactus, which protect it from hungry animals).

Study the adaptations described in the spaces below, then go on a park scavenger hunt to find them. Don't forget to look in the bookstores and at the exhibits at the Alan Bible Visitor Center or the Katherine Landing Ranger Station. In the appropriate box, draw a picture of either the adaptation – or the plant or animal displaying the adaptation – that you see or hear.

Get 3 in a row to score Tic-Tac-Toe!



<p>Panting</p> <p>Coyotes pant to keep cool – just like a dog!</p>	<p>Long Tail</p> <p>Roadrunners use their long tails to turn quickly at high speeds and escape predators.</p>	<p>Spines</p> <p>Spines protect cacti from hungry predators . . . OUCH!</p>
<p>Tortoise Shell</p> <p>The tortoise has a hard shell that protects it from its predators. It's also a form of camouflage!</p>	<p>Hat</p> <p>Hats create shade, and humans wear them to keep cool.</p> 	<p>Big Ears</p> <p>Body heat escapes through the big ears of the jackrabbit!</p>
<p>Small Leaves</p> <p>Plants with small leaves reduce the amount of water lost to evaporation.</p>	<p>Scales</p> <p>Hard scales protect lizards and snakes from predators.</p>	<p>Hiding in Burrows</p> <p>Burrows are holes in the ground. They are used by tortoises, burrowing owls, and small mammals as a way to escape the heat.</p>