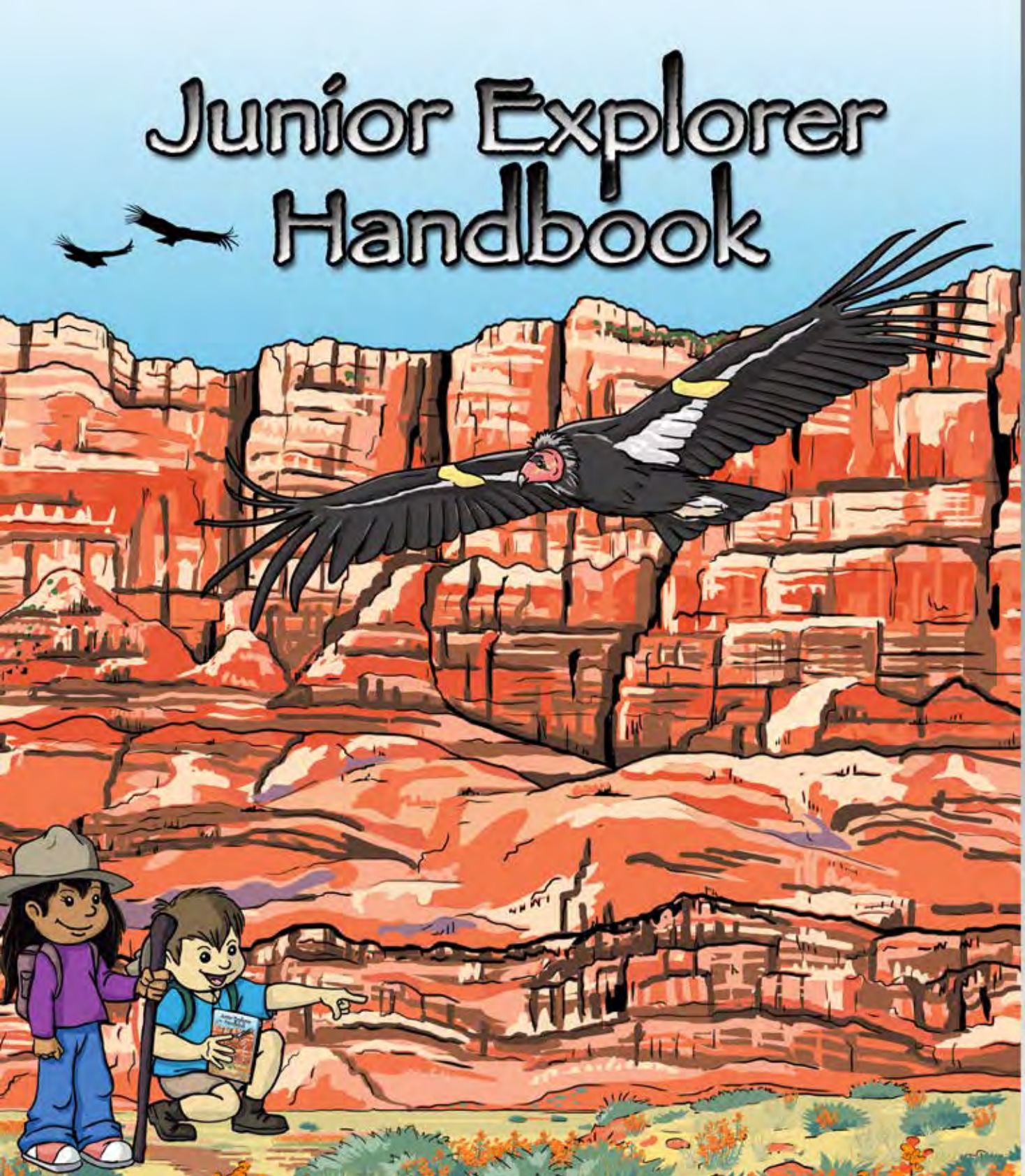
Junior Explorer Handbook



JOIN THE ADVENTURE

Vermilion Cliffs National Monument

Activity Guide

National System of Public Lands
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BLM

Become A Junior Explorer!

What is a Junior Explorer?

A Junior Explorer explores the environment around them.
A Junior Explorer cares for plants, animals, and the land.
A Junior Explorer encourages others to care for the land and its inhabitants.

How to earn your badge

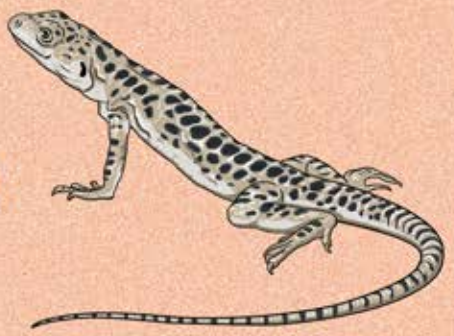
Complete six or more of the activities in this book at the Vermilion Cliffs National Monument, home, or local park.
To receive your Junior Explorer badge and signed certificate ...

... bring or mail your completed booklet (or a copy) to:

Arizona Strip District
345 Riverside Drive
St. George, UT 84790

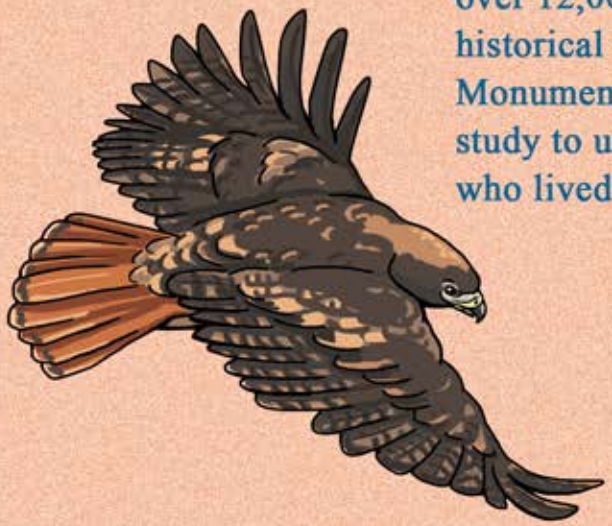
Vermilion Cliffs National Monument

In November 2000, this 280,000-acre area was designated as the "Vermilion Cliffs National Monument" for its' geological, biological and historic importance.
The cliffs for which the Monument is named are over 3,000 feet high.
The Coyote Buttes area features vibrant Navajo Sandstone geology with hues of orange, yellow, pink, and red.
The Paria River formed a canyon that is 2,500 feet deep and features arches and massive sandstone walls. The river also supports fish like the speckled dace.



The sandstone slickrock, colorful cliffs, and sandy plateaus provide habitat for a wide variety of plants and animals. Plants on the Monument range from common shrubs like sand sagebrush to sensitive species like fishhook cactus. The California condor, the largest land bird in North America, can be seen soaring above the Monument where many of the condors make their home. As part of the recovery efforts for this species, each fall more condors are released on the Monument where they join with others to make their homes among the safe haven of the Vermilion Cliffs. Numerous raptors, desert bighorn sheep, mule deer, mountain lions, and other animals, including bats, amphibians and reptiles, call Vermilion Cliffs their home.

Humans have explored and lived in the area for over 12,000 years. There are many archaeological and historical rock symbols on Vermilion Cliffs National Monument. These sites are links to the past; keys scientists study to unlock the mysteries of the daily lives of those who lived here long ago.



Visit us soon!

A World of Adaptations

Vermilion Cliffs National Monument is home to several species adapted to their environment. Draw a line from the animal to the phrase that matches it.

This animal's body is adapted to go weeks without needing to visit water

Grand Canyon Rattlesnake

This animal uses its long tail for balance.

Mule Deer

Specialized scales at the end of its tail warn others of its venomous bite.

Red-tailed Hawk

Townsend's Big-eared Bat

This animal roosts in caves or abandoned mines and eats insects.

Bighorn Sheep

This animal hunts by scanning for prey from their perch or soaring in the sky. Their call sounds like a rasping scream.

Mountain Lion

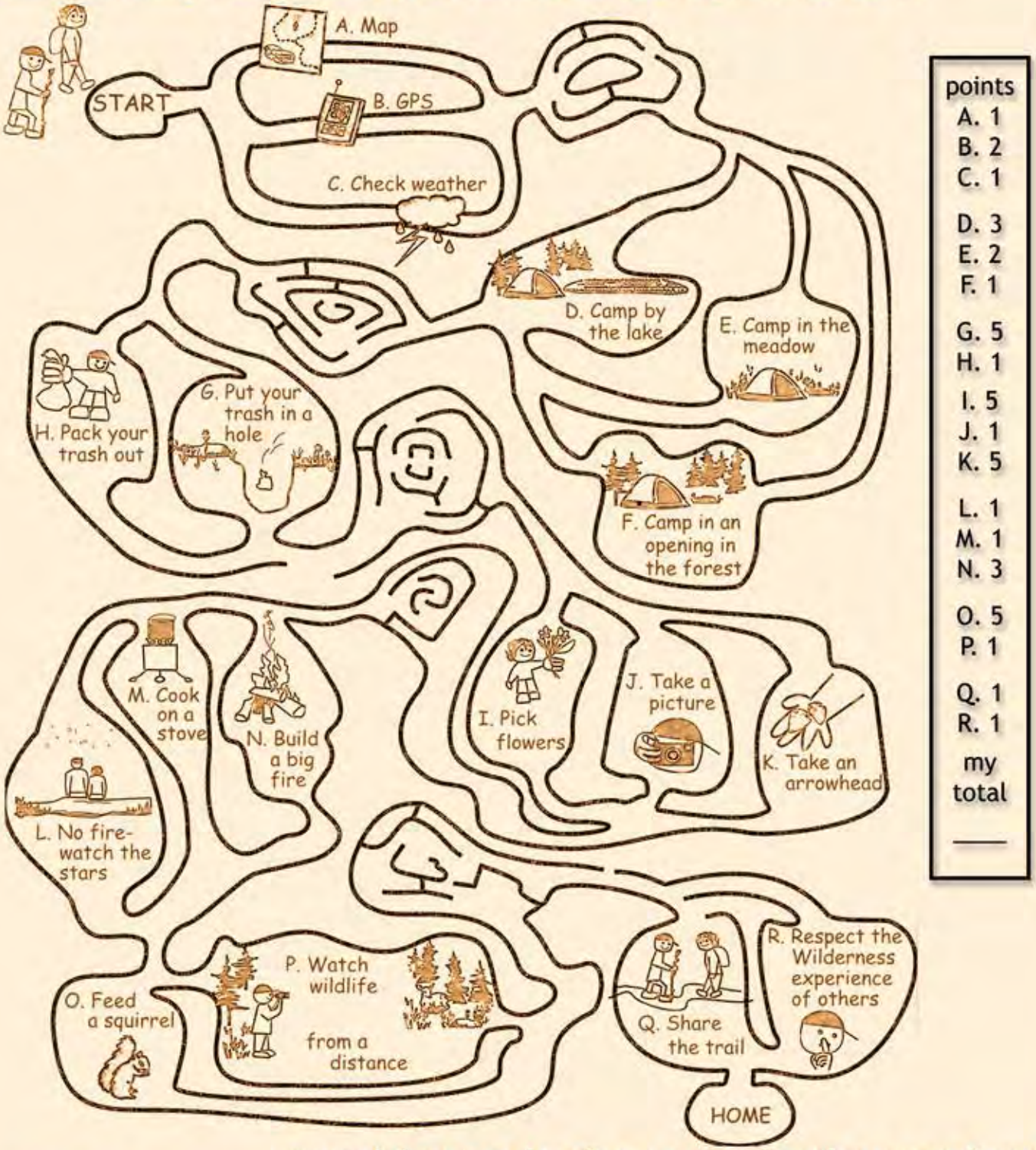
Speckled Dace

This animal is adaptd to many diferent habitats, including warm desert streams.

Big ears radiate heat to keep this animal cool.

Leave No Trace *Maze*

These Vermilion Cliffs Junior Explorers are about to go on a long trip through a Wilderness. Help them make the best choices about where to go and what to do along the way. Each stop has a numerical rating with it. Add up your score & find your impact level below.



points
A. 1
B. 2
C. 1
D. 3
E. 2
F. 1
G. 5
H. 1
I. 5
J. 1
K. 5
L. 1
M. 1
N. 3
O. 5
P. 1
Q. 1
R. 1
my total
____

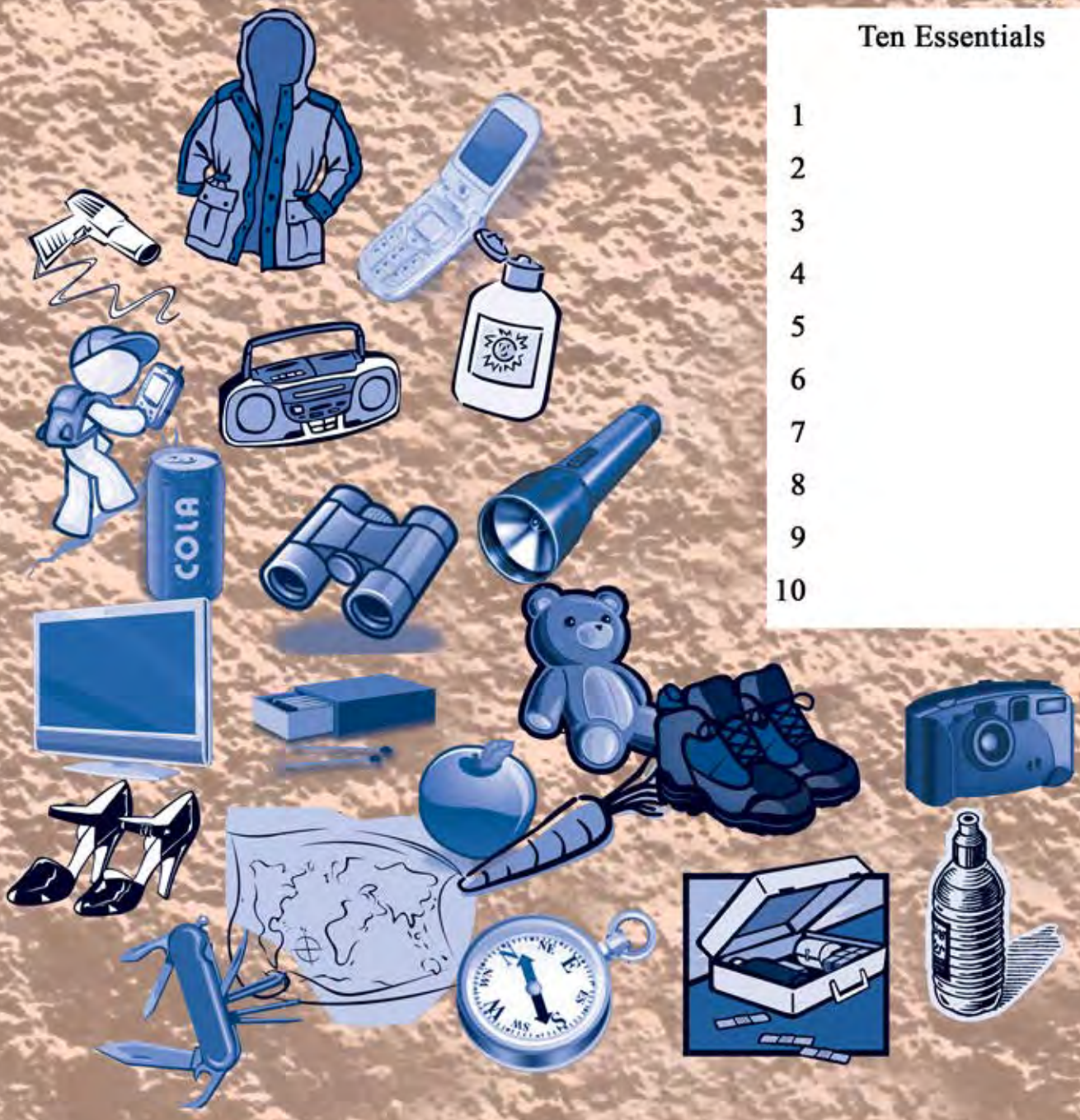
What is your score?
7 - Great Job! You are working towards leaving no trace.
8 to 12 - not bad, but please take care.
12 or more - Lighten up, you are leaving impacts. If you got a 5 on any action - YIKES! You should not be doing this. Check your answer. Ask a ranger if you have any questions.

WILDERNESS *Safety*

Junior Explorers need to know about how to be safe when they're exploring the outdoors. Being safe begins before you start your trip. Always go with another person, such as a parent, friend or sibling. Check the weather conditions for the area you are visiting. Tell someone who is staying behind where you are going and when you plan to return. Select ten essential items that you should take with you.and list them in the box to the right. What else would you like to bring? Don't make your pack too heavy!

Ten Essentials

1
2
3
4
5
6
7
8
9
10



Map, water, compass, knife, matches, first aid kit, sunscreen, flashlight, snacks and a jacket.

Help the Hiker

Maze

Help the hiker find her way to the rock symbol site.

Petroglyphs = pecked or incised rock symbols
Pictographs = painted rock symbols

Vermilion Cliffs *Word Search*

You will find the names of the plants and animals on the next page hidden in this word search. See how many you can find!
Hint: There are no spaces between words in the puzzle.

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

Fishhook cactus

California condor

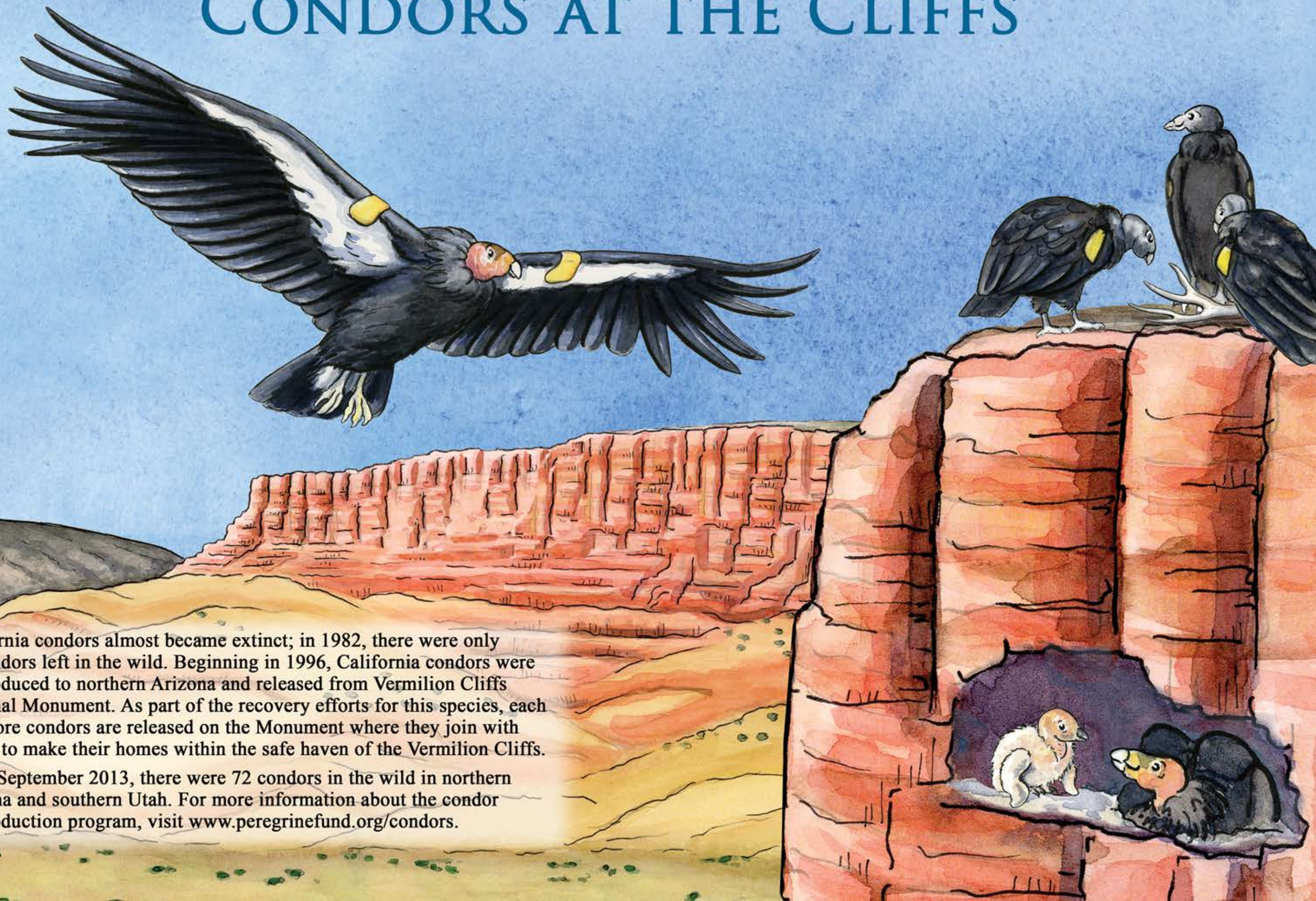
Maze petroglyph

Mule deer

Redtail hawk

Globe mallow

Condors at the Cliffs

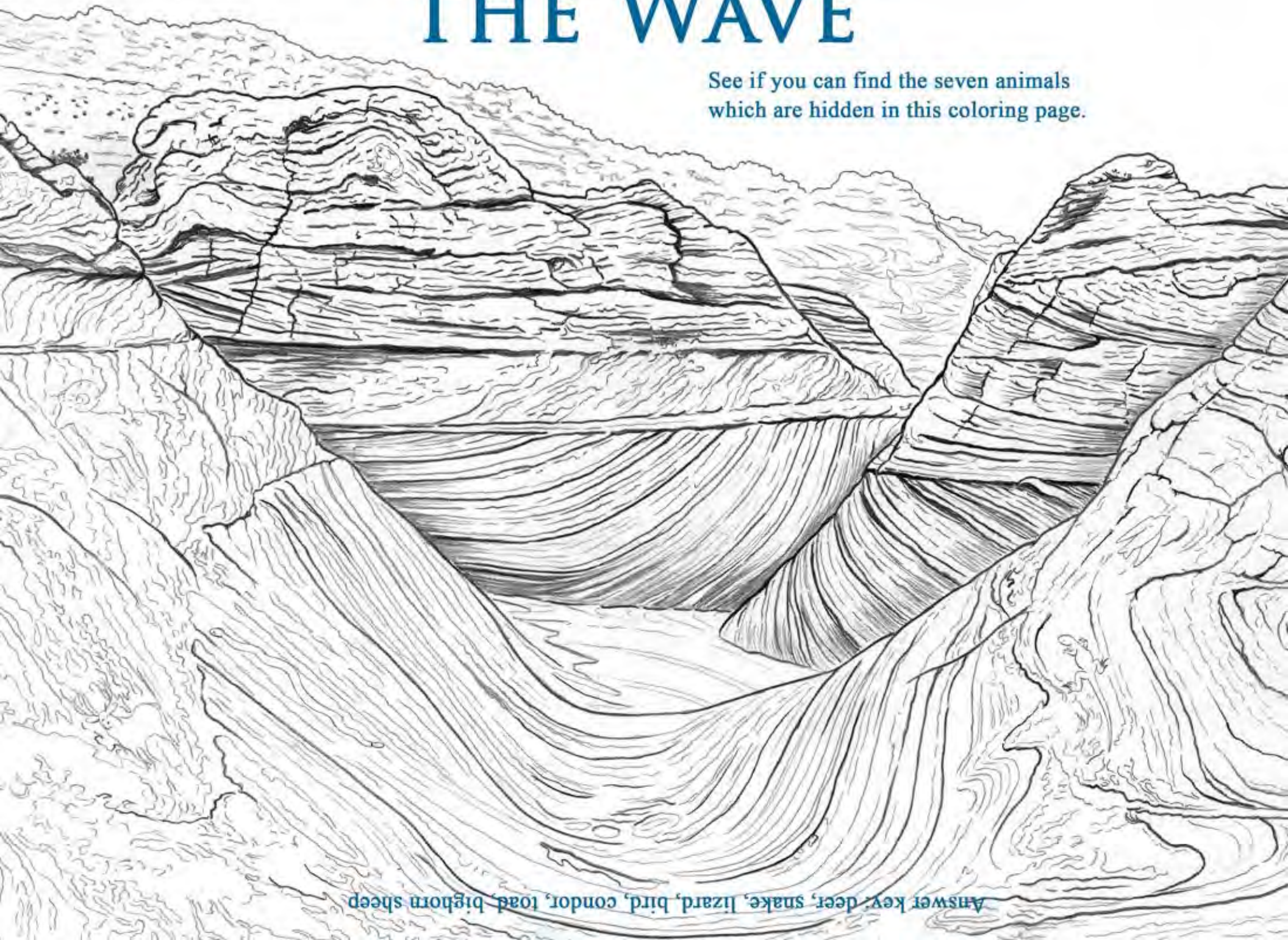


California condors almost became extinct; in 1982, there were only 22 condors left in the wild. Beginning in 1996, California condors were reintroduced to northern Arizona and released from Vermilion Cliffs National Monument. As part of the recovery efforts for this species, each fall more condors are released on the Monument where they join with others to make their homes within the safe haven of the Vermilion Cliffs.

As of September 2013, there were 72 condors in the wild in northern Arizona and southern Utah. For more information about the condor reintroduction program, visit www.peregrinefund.org/condors.

The Wave

See if you can find the seven animals which are hidden in this coloring page.



Answer key: deer, snake, lizard, bird, condor, toad, bighorn sheep

Vermilion Cliffs

Match the Tracks

Draw a line from the track to the animal.

Tracking Tips

1. Walk slowly and quietly - if you are lucky you may see the animal.
2. Tracks are easier to see in the mud.
3. Many animals come out only at night so look for tracks early in the morning.

Monument Bingo

When you are driving or hiking in Vermilion Cliffs National Monument, you may see lots of things, including archaeological remains of the people who once lived here, and the plants and animals that lived here with them. You may also see interesting rock formations or cattle grazing. See if you can find four in a row and win a game of Vermilion Cliffs National Monument Bingo.

Cactus	Bighorn Sheep	Pueblo	Hawk
Lizard	Condor	Deep Sand	Paria Ranger Station
House Rock	Cattle	ATV	Moqui Marbles
Fragile Fins	Vermilion Cliffs	Paria River	Mule Deer

Petroglyphs *at Vermilion Cliffs*

= _____

= _____

_____

= _____

= _____

= _____

When scientists study sites and artifacts, they develop a hypothesis or educated guess about their purposes and then do studies to see if the guess was right. Record your guesses about what the rock symbols or petroglyphs above could mean.

Draw your own petroglyph above. What does it mean to you?

_____

California condors are the largest land bird in North America. They can grow up to 26 pounds with a wingspan of up to nine and one half feet.Condors can live to be 50 years old or more! They are scavengers, meaning, they only eat dead animals. They can soar up to 15,000 feet in the air and travel more than 150 miles a day. As part of the recovery efforts for this species, each fall more condors are released on the Monument where they join with others to make their homes within the safe haven of the Vermilion Cliffs. As of September 2013, there were 72 condors in the wild in northern Arizona and southern Utah. For more information about the condor reintroduction program, visit www.peregrinefund.org/condors.

Trail Journal

Take your trail journal to record thoughts and sketches when you hike in Vermilion Cliffs National Monument.

Home Sweet Cave

Bats spend daylight hours sleeping in caves, crevices or trees until night, when they emerge to hunt insects.

Once people thought bats were birds without feathers. Now we know bats are mammals because:

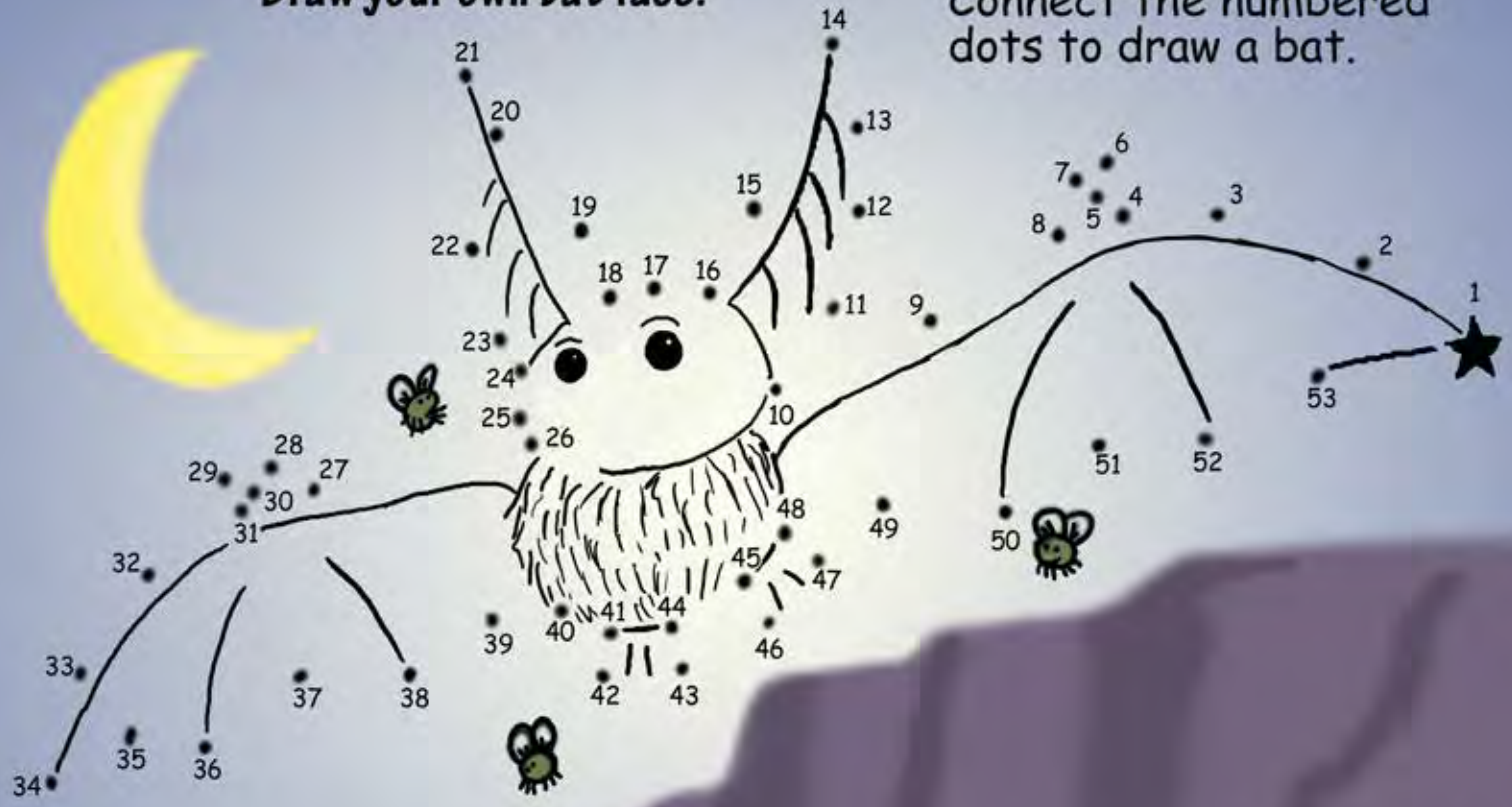
1. Bats are warm blooded
2. Bats nurse their babies with milk
3. Bats have fur

Bats are the only mammals that can fly. Their wings are made of two thin layers of skin stretched over their arms and long fingers. If we had fingers like a bat they would be longer than our legs!

The scary stories about bats are not true. When you see a bat, say "Thank you, friend." Bats eat hundreds of insects each hour. Without bats we would be swatting at more bugs!

Draw your own bat face!

Connect the numbered dots to draw a bat.



Now you can be "batty" for bats!

More Places to Play and Learn!!!

on the

NATIONAL LANDSCAPE CONSERVATION SYSTEM

Illustrator:
Rachel Ivanyi

Junior Explorer Oath

I promise to help protect the Vermilion Cliffs National Monument, public lands, my community, and the earth by being an active and responsible steward of the environment.

I promise that I will not feed wild animals.

I promise to leave rocks, plants, artifacts, and historic objects as I found them for everyone to enjoy.

I promise to continue to explore, learn about, and respect the world wherever I go.

I promise I will share what I learn with others.

Signed _____

Date _____