

## Junior Ranger Pledge

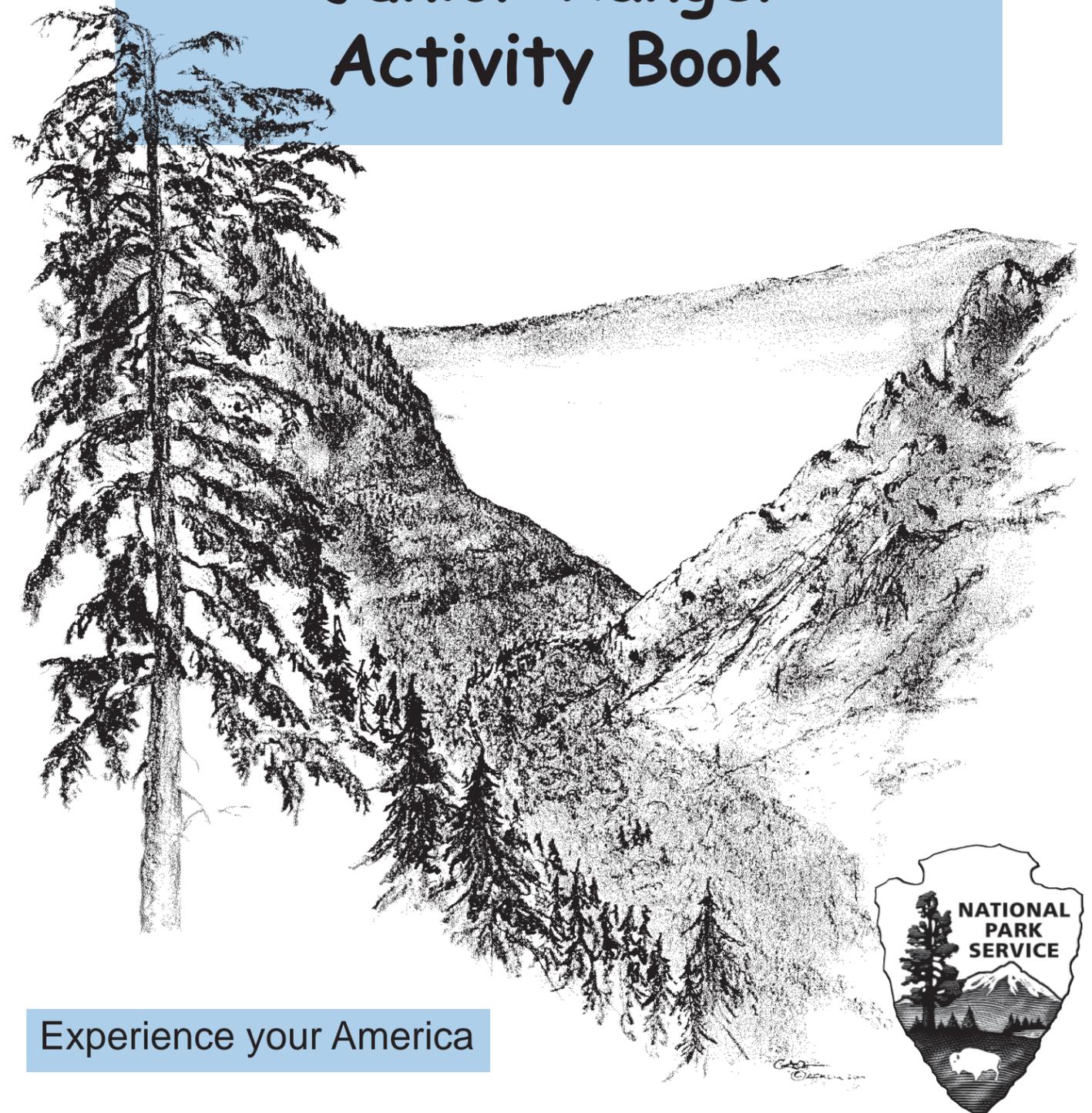
As a Junior Ranger I, \_\_\_\_\_ ,  
print your name  
promise to help protect and preserve our  
National Parks and Monuments for  
everyone to enjoy both now and in the  
future.

I will always remember to respect all  
living things.

\_\_\_\_\_  
Signature of Junior Ranger

# Timpanogos Cave National Monument

## Junior Ranger Activity Book



Experience your America



Unable to finish this booklet during your visit?  
Take it home, finish it, and then mail it to us:

Timpanogos Cave National Monument  
Rural Route 3, Box 200  
American Fork, Utah 84003  
801-756-5239  
www.nps.gov

Please circle which **award** you would like to receive for  
completing this booklet:



Pin-on plastic badge

or



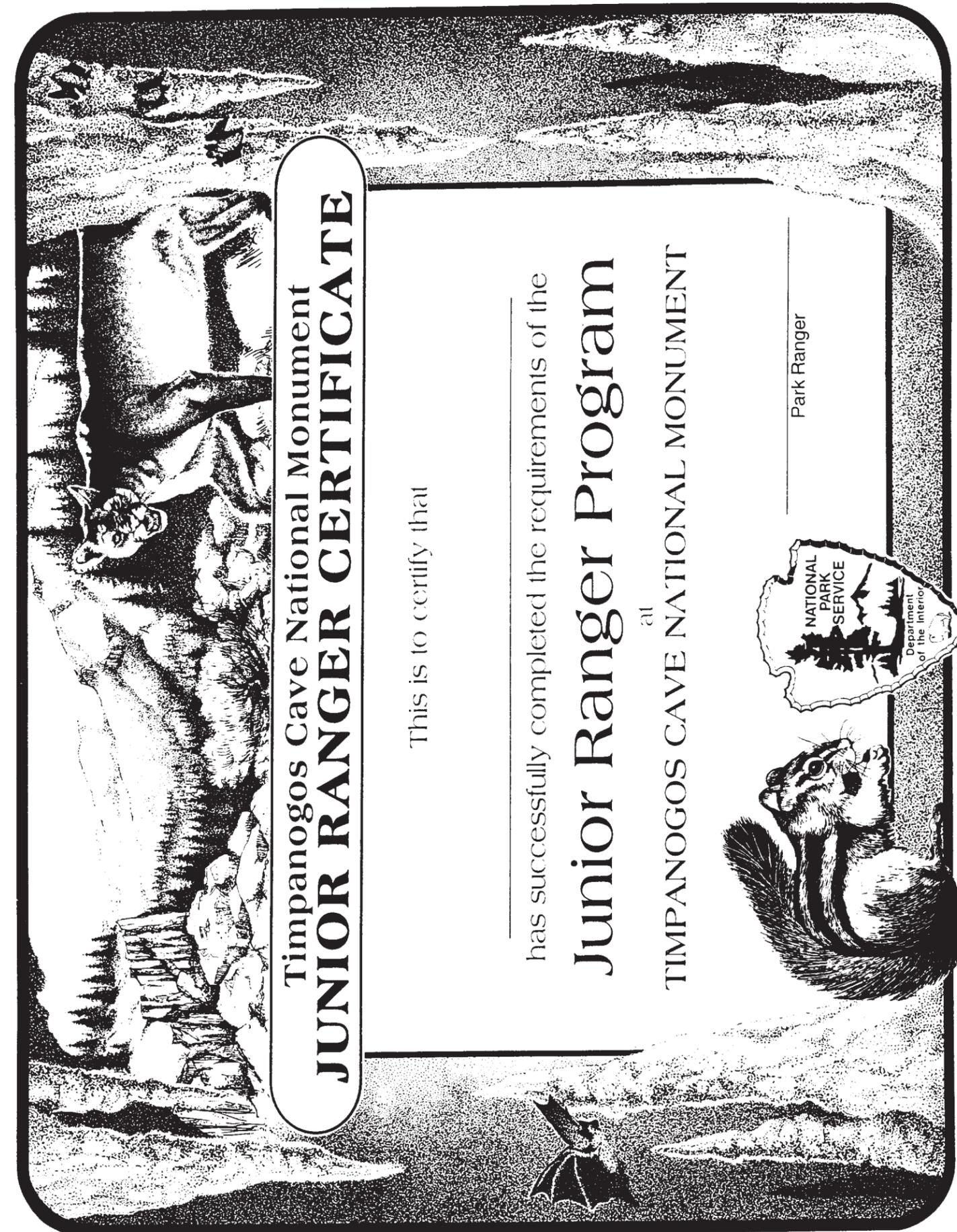
Sew on patch

Did you know that you can be a Junior Ranger  
even if you are not able to visit a national park?  
Log on to [www.nps.gov/webrangers](http://www.nps.gov/webrangers) to learn how.

A Special Thanks to:

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Project Underground for their ideas for activities

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[www.wnpa.org](http://www.wnpa.org)

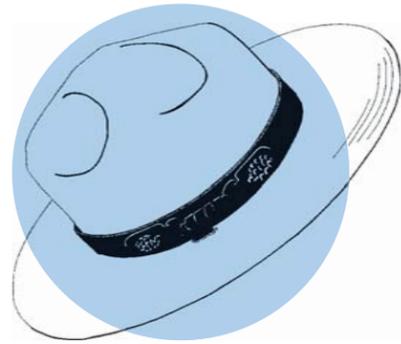




## Interview a Park Ranger



How can you find out what a Park Ranger does everyday? Ask one! Find a Ranger and ask them to tell you 3 things they do as part of their job. Find out what they like to do best.



- 1.
- 2.
- 3.

## An Experiment to Try at Home

If you want to make your own cave formations, try this at home. Make sure to have an adult help you.

### Ingredients:

1 cup water  
jar  
spoon  
string (don't use yarn)  
pencil  
4 teaspoons sugar  
cooking pan  
stove

### Creating a Sugar Stalactite

1. Boil the water and put in 4 teaspoons of sugar. Stir until all the sugar dissolves. Pour into jar.
2. Now take your pencil and tie the string in the center. Knot the string and let a long piece hang almost to the bottom of the jar.
3. Let the solution sit for several weeks. Don't pick up the jar to look at it. Crystals of sugar will grow on the string.

In some ways this is similar to the way mineral calcite dissolves and later redeposits becoming cave formations.



# Welcome to Timpanogos Cave National Monument!

Timpanogos Cave National Monument is one of many national park areas in the United States. These parks belong to everyone to enjoy and visit.

## How to Become a Junior Ranger

As a Junior Ranger at Timpanogos Cave, you can help Park Rangers protect the caves and the land around them. To become a Junior Ranger complete 3 of the activities shown for your age group. You must also complete all the activities required for **both** age groups. Look for the symbol that matches your age group. An adult can help you complete the activities. Then have a Ranger at the visitor center review and sign your completed activities, and you will receive your Junior Ranger badge. Have fun!



### Both Age Groups Must Complete All of the Following:

- Junior Ranger Responsibility ( pg. 2 )
- Ranger Interview ( pg. 12 )
- Junior Ranger Pledge (back cover)
- Attend any Ranger led program: Cave Tour, Evening Program or Junior Ranger Program
- Pick Up Trash



### Stalagmites Ages 8 and under

Choose 3 of the following activities:

- Help the Bat Find Its Way ( pg. 5 )
- Animal Match ( pg. 3 )
- Batty Art ( pg. 10 )
- What Lives in a Cave? ( pg. 7 )
- Draw a Picture or Write a Poem ( pg. 11 )



### Stalactites Ages 9 and over

Choose 3 of the following activities:

- Cave Word Search ( pg. 9 )
- Cave Formation Identification ( pg. 6 )
- Caver's Supply List ( pg. 8 )
- How Cave Formations Are Made ( pg. 4 )
- Draw a Picture or Write a Poem ( pg. 11 )





## Junior Ranger Responsibilities



As a Junior Ranger, it is your responsibility to help take care of the national parks you visit. You can help preserve and protect these special places, and keep the park safe for people and wildlife.

Answer the following questions about your responsibilities in national parks. Circle the correct answer and then explain why in the space below. You can ask a Ranger or other adult for help.

1. Does a Junior Ranger pick up trash on the cave trail? Yes No

1a. Why?

2. Does a Junior Ranger feed wildlife? Yes No

2a. Why?

3. Does a Junior Ranger touch cave formations? Yes No

3a. Why?

4. Does a Junior Ranger carry water when they go hiking? Yes No

4a. Why?



## DRAW A PICTURE OR WRITE A POEM



DRAW A PICTURE OR WRITE A POEM BELOW ABOUT YOUR FAVORITE THING YOU SAW AT TIMPANOGOS CAVE NATIONAL MONUMENT.



## Batty Art



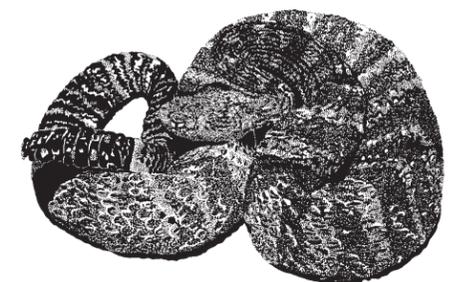
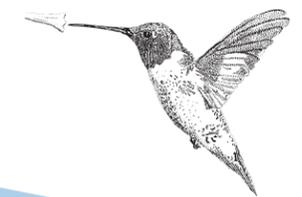
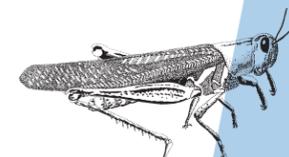
Some people think a bat looks like a flying mouse - but there is no such thing as a flying mouse. A bat has a small furry body and nurses its young. Bats have wings and are the only mammals that can fly. Follow the drawing and instructions below and draw your own bat.



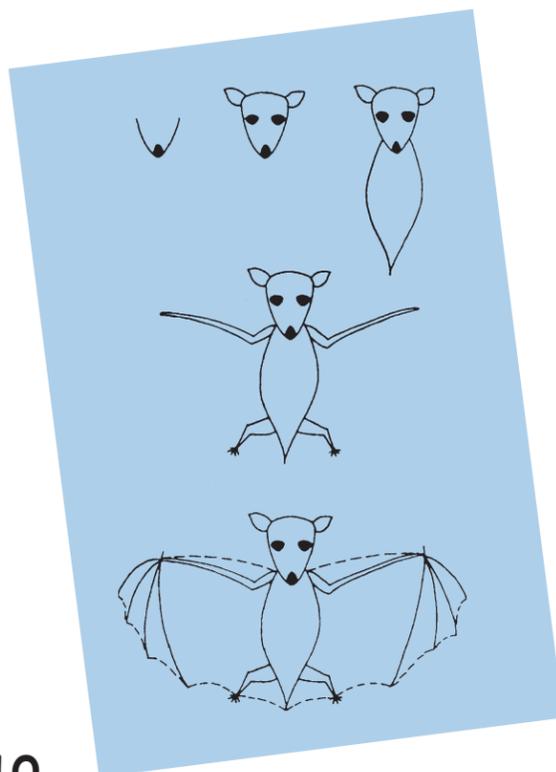
## Animal Match



These are some of the animals that can be found here. While visiting the park look for these and other animals. Can you match the animal with its name? Draw a line from the animal to its name.



- Cave cricket
- Black-chinned hummingbird
- Grasshopper
- Blacked-billed magpie
- Golden-mantled ground squirrel
- Mountain lion
- Mountain goat
- Elk
- Rattlesnake



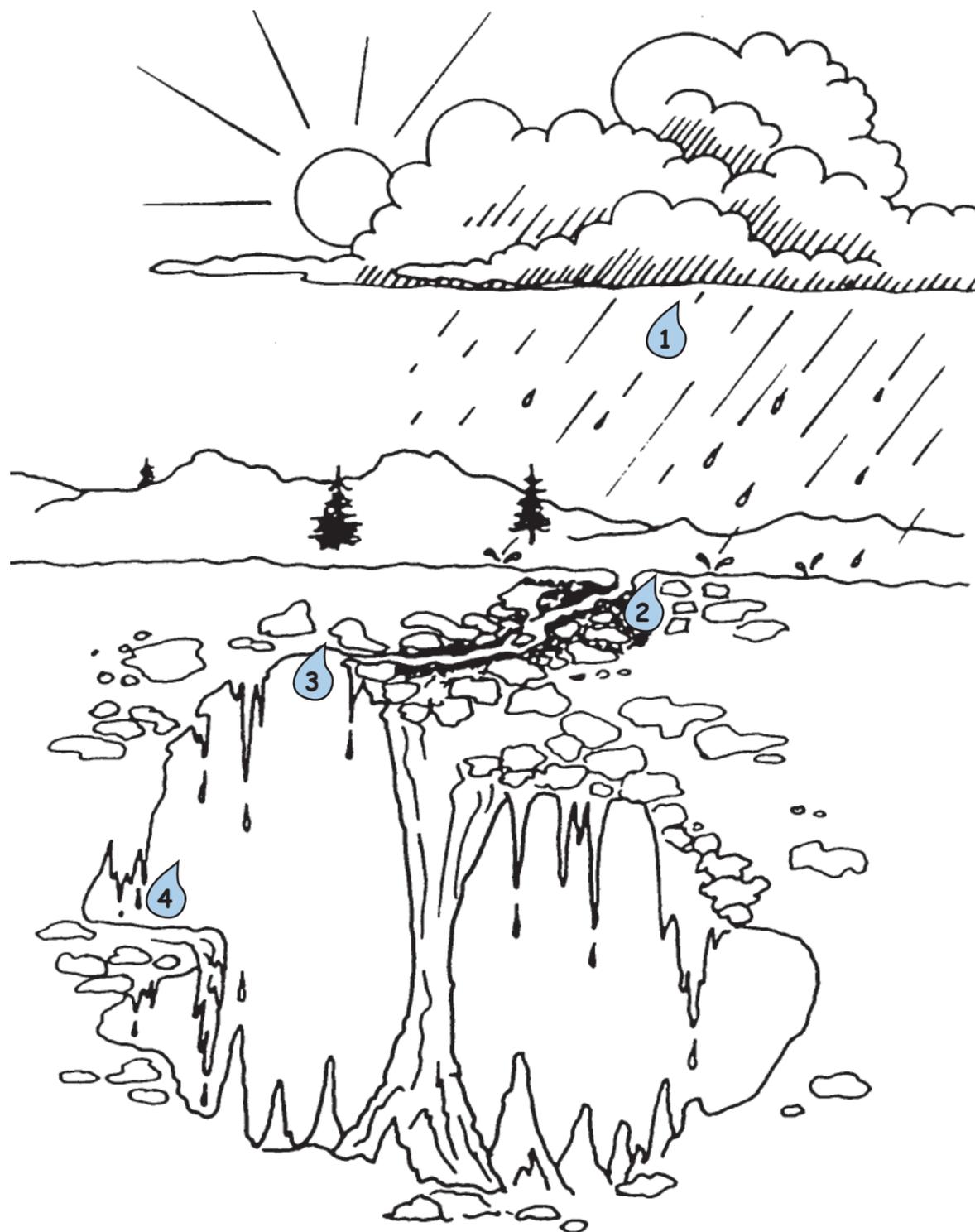
1. Draw a large letter U. Draw in a nose.
2. Close in the top of the head. Add ears and eyes (Bats have many sizes and shapes of noses and ears.)
3. Put a dot where you want its tail to end (about 2 heads distance down from the nose). Draw a rounded body, curving into a tail.
4. Add arms and legs. (How many toes are on each foot?)
5. Add a thumb at the top of each arm. Then add the 4 fingers coming down from each wrist. (Remember, they are spread out to support its wings!)
6. Draw in dotted lines to cover the wings, including between the fingers, feet, and tail.



## How Cave Formations are Made



One of the most important ingredients in making a cave is water. Draw a line following the raindrop's journey from a cloud to a cave formation.



## Cave Word Search



There are many discoveries to be made while visiting Timpanogos Cave. Some of them are hidden in this word search. Can you find the words listed below in the word maze?

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

- CAVE POPCORN
- DRAPERIES
- FLOWSTONE
- HANSEN CAVE
- HELICITITES
- LAKE

- MIDDLE CAVE
- RIMSTONE DAM
- STALACTITES
- STALAGMITES
- TIMPANOGOS CAVE
- WATER



Hint: The words can be found horizontally, vertically, diagonally, forwards and backwards.



## Caver's Supply List



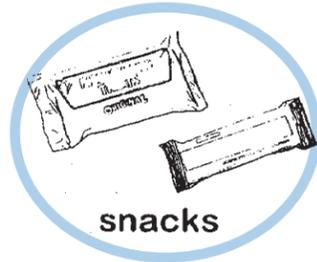
If you were to go caving there would be certain supplies you would want to take with you. Circle the supplies that a good caver would take on a wild cave adventure.



ranger hat



dog



snacks



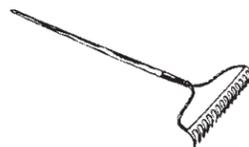
first-aid kit



sandals



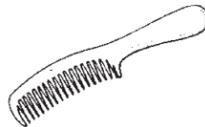
gloves



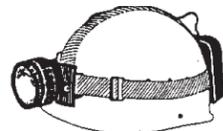
rake



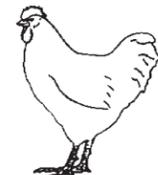
swimsuit



comb



hardhat with light



chicken



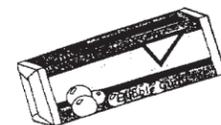
water



toys



20 foot rope



bubble gum



sturdy boots



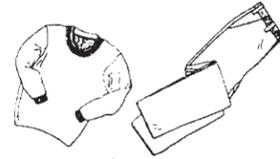
couple of friends



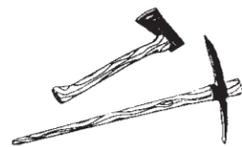
overalls



an expert caver



sturdy clothes



pick or ax



extra sources of light



shorts



## Help the Bat Find Its Way



Bats sometimes visit Timpanogos Cave National Monument but they rarely stay. The caves here are too cold and have too many people for bats to want to live here. Other caves may have many bats living in them. Can you help this bat find its way out of the cave?

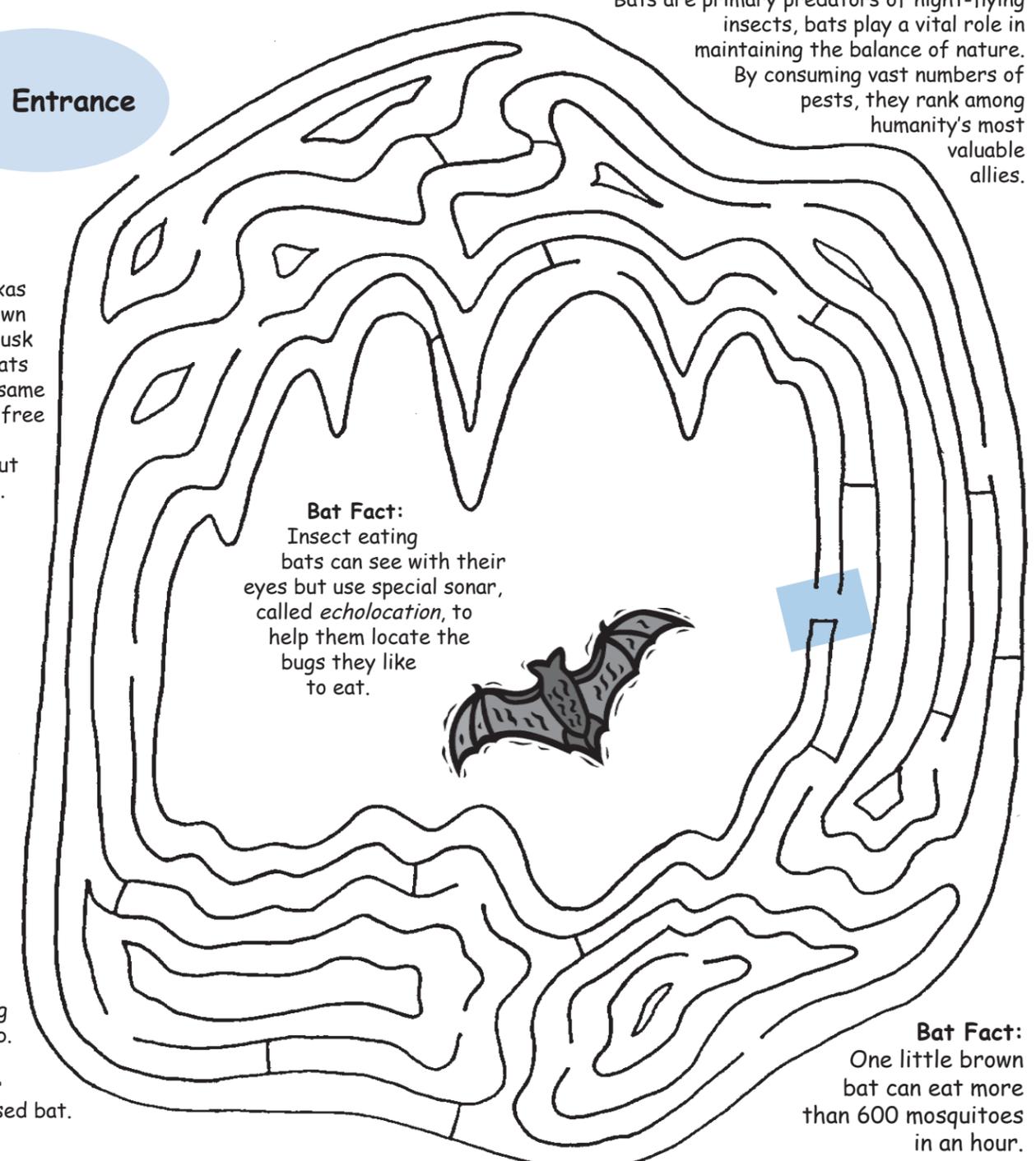
Cave Entrance

**Bat Fact:** There is an airport in Texas that shuts down just before dusk so that the bats that use the same air space are free to hunt their insects without being harmed.

**Bat Fact:** Insect eating bats can see with their eyes but use special sonar, called *echolocation*, to help them locate the bugs they like to eat.

**Bat Fact:** The smallest bat in the world is as big as your thumb. Its name is Bumblebee or Kitty Hog-nosed bat.

**Bat Fact:** Bats are primary predators of night-flying insects, bats play a vital role in maintaining the balance of nature. By consuming vast numbers of pests, they rank among humanity's most valuable allies.



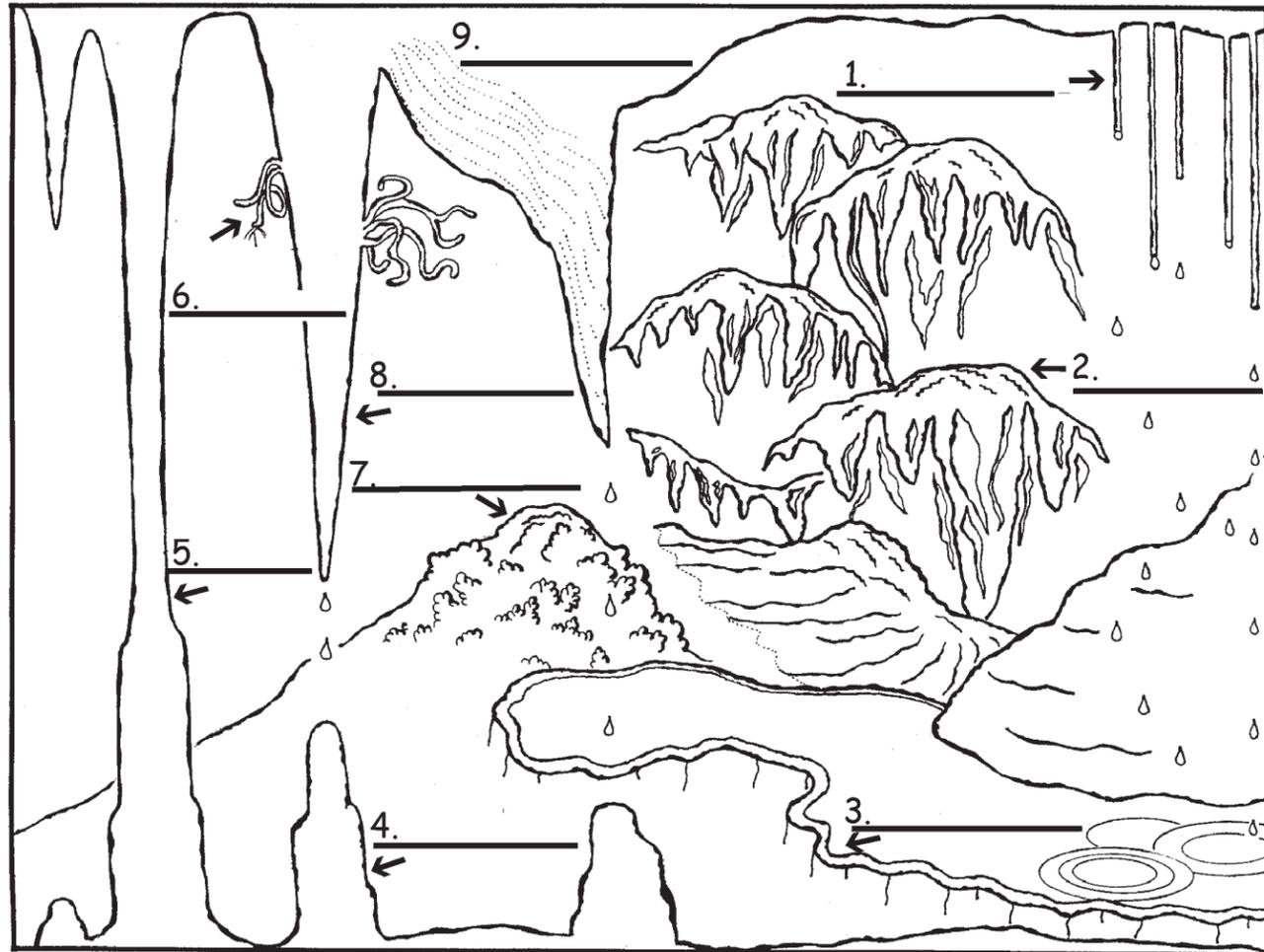
**Bat Fact:** One little brown bat can eat more than 600 mosquitoes in an hour.



## Cave Formation Identification



When you visit the cave you will see many different kinds of formations. There are 43 various kinds of formations in the caves. Can you identify the 9 formations found in this drawing? Write the correct name next to the formation.



Cave formation names: rimstone dam, cave popcorn, flowstone, draperies or cave bacon, stalactites, helictites, stalagmites, soda straws, column.



**Hint:** Answers to this page can be obtained by going on a cave tour or watching the park video



## What Lives In A Cave?



There are many kinds of creatures that live in caves. It is hard to believe anything can live in such a damp, dark environment. Invent and draw a creature you might see living in a cave. Give it some special features for living in the dark.

