



**JUNIOR RANGER PROGRAM** 

# Hueco Tanks State Park and Historic Site Junior Ranger Program

#### Recommended for ages 5 to 13

Welcome to Hueco Tanks State Park and Historic Site. We are glad you have taken the time to visit us and hope you enjoy your tour of this very special place.

The Junior Ranger Program is specially designed for people like you. Part of your job will be to help take care of our Texas State Parks and to tell other people to take care of them, too. The parks belong to all of us and we want you to be able to bring your children here someday.

Start your adventure of becoming a Junior Ranger by going through the Interpretive Center exhibits. Be sure to watch the orientation video because it will help with some of the questions. On your trip, you will hike and learn about pictographs. You will also learn to identify plants and animals. As you tour the site keep your booklet with you. You never know when you might find an answer. The challenge for you is to complete as many of the activities as possible, but you must complete at least six to be considered a Junior Ranger.

If you need any help, just ask your parents or ask a ranger for assistance. When finished, take your booklet to a ranger in the Headquarters building or at the Interpretive Center. Be prepared to answer any questions that the ranger may ask. Once finished, you will receive a certificate of completion and a patch.

#### **JUNIOR RANGER PROMISE**

As a Junior Ranger, I promise to:

Assist in making Hueco Tanks State Park and Historic Site and other parks better for those who visit after me.

Protect all cultural and natural resources on public lands and in the world around me.

Learn more about parks and similar areas including their cultures, plants, animals and historic features.

Share with others what I have learned about these special places.

Signed:	

**Fun Fact:** There are 15 species of lichen at Hueco Tanks. What is lichen? **Ask a ranger.** 



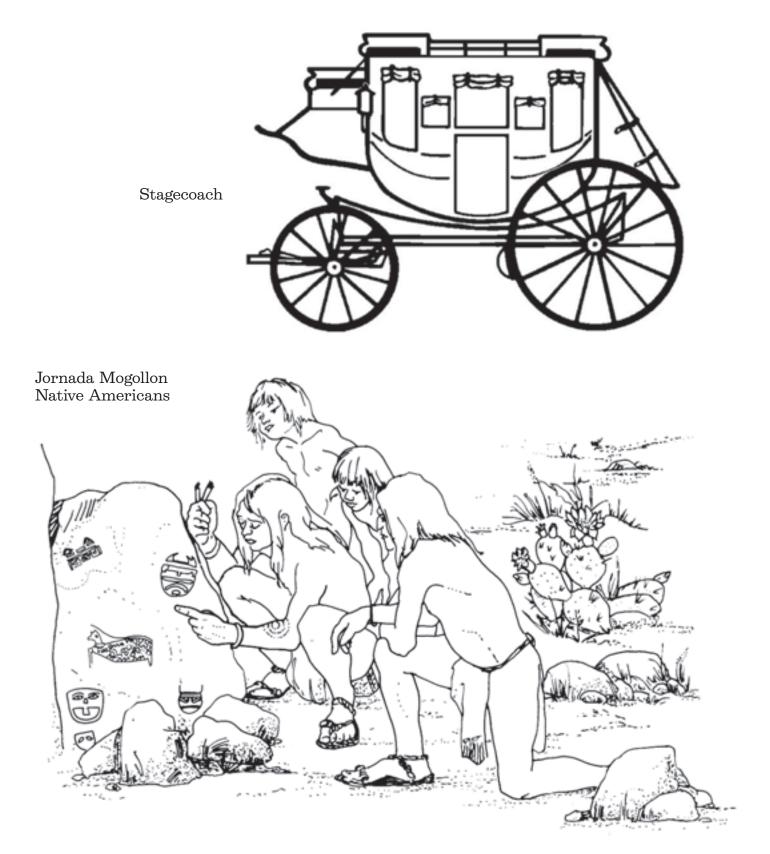
People come to Hueco Tanks from all over the United States and the world.

1.	Circle and name your home state or country.
2.	Trace your travels from your home to Hueco Tanks State Park and Historic Site.
3.	What has been the most fun during your travel?
_	
<u> </u>	What is a park or historic site close to your home?
_	What is a parti of instoric site cross to your notife.

**Fun Fact:** There are over 270 rock art sites at Hueco Tanks.

# **Coloring Activity**

Using the crayons in the Interpretive Center, color the following to the best of your ability.



Fun Fact: A type of stagecoach that came through Hueco Tanks was the "mud wagon."

### Safety Activity

Match each sentence to "DO" or "DON'T DO." Hint: The drawings will guide you.



**Fun Fact:** The dark coating on rocks at Hueco Tanks is called *patina*.

### **Interpretive Center Activity**

Hueco Tanks is a crossroads in time. For thousands of years the water in the huecos has allowed both plants and animals to live here, in the middle of a desert. Ancient people who passed through here hunted bison and other animals. Then, as many centuries passed, Native American groups came to Hueco Tanks and painted their stories on these rocks. The Butterfield Stagecoach route passed through Hueco Tanks on the way to deliver mail between the east and west. Later on, the Escontrias family ranched here. Today, we come to Hueco Tanks to learn about other cultures and to have fun!

Complete all questions. If you need help, ask a ranger.

	Find the Escont  How old is it?  Silverio's wife was	years old.		She had	children.
Watch the orientati	on video. Hueco mea	ans	·		
Name the three mount					·
Find an artifact like	e this, called a	point.	100 mg/m	 	
( raig!	ocate a puma skull. I				
Name four other artifa	cts from the Interpre	etive Center.			
1	_ 2	3		4	
You found the	an	d		most interes	sting.

**Fun Fact:** Hueco Tanks mountains are close to 400 feet above the surrounding area.

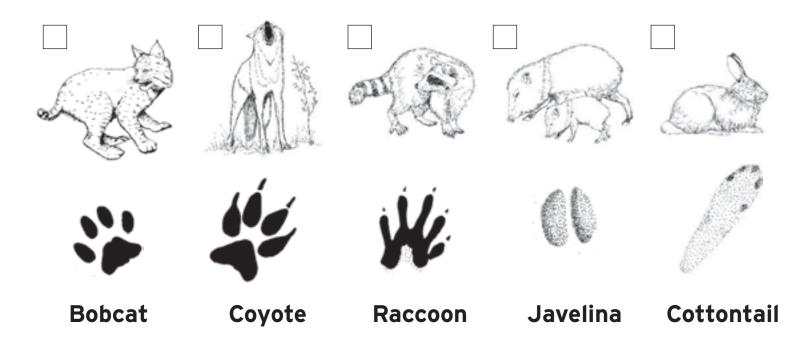
#### **Word Find**

In the puzzle, find and circle the **28 words** listed below. Each word is related to the history of Hueco Tanks. Remember that words may be spelled forward, backward or diagonally.

F	N	I	R	D	P	0	A	S	I	S	T	M	Z	Word	List
0	0	Т	X	Α	M	Н	Α	W	K	Υ	R	0	В	Jornada	Dam
P	Н	X	U	M	1	U	Н	M	N	U	В	L	N	Mogollon	Oak
I	C	G	Ε	Κ	R	Ν	C	L	Α	C	Н	-	R	Hueco	Tank
C	1	R	R	R	Н	Т	Α	G	Т	C	P	P	A	Mask	Hawk
Т	Κ	Ε	M	Α	S	Κ	0	Ν	٧	Α	Υ	Ν	N	Apache	Yucca
0	ı	Т	X	Р	0	ı	C	0	U	F	L	Ε	G	Water Stagecoach	Lizard Petroglyph
G	0	Α	В	0	В	Κ	Ε	L	L	D	G	Н	Ε	Shrimp	Lichen
R	W	W	C	Α	F	W	G	L	Т	R	0	C	R	Kiowa	Oasis
Α	Α	Ε	R	K	L	Α	Α	0	U	Α	R	ı	M	Tigua	Park
P	U	Т	0	C	Т	Н	Т	G	R	Ζ	Т	L	L	Fox Rain	Ranger Buffalo
Н	Α	Р	Α	C	Н	Ε	S	0	Ε	ı	Ε	0	I	Hunt	Lion
S	J	0	R	N	Α	D	Α	M	ı	L	P	V	0	Gather	Pictograph
0	L	Α	F	F	U	В	G	Α	Т	Н	Ε	R	N	Vulture	

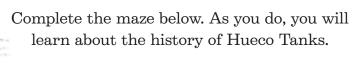
#### **Animal Tracks**

If you see tracks along the trail, see if you can identify the animal that made them and check them off.

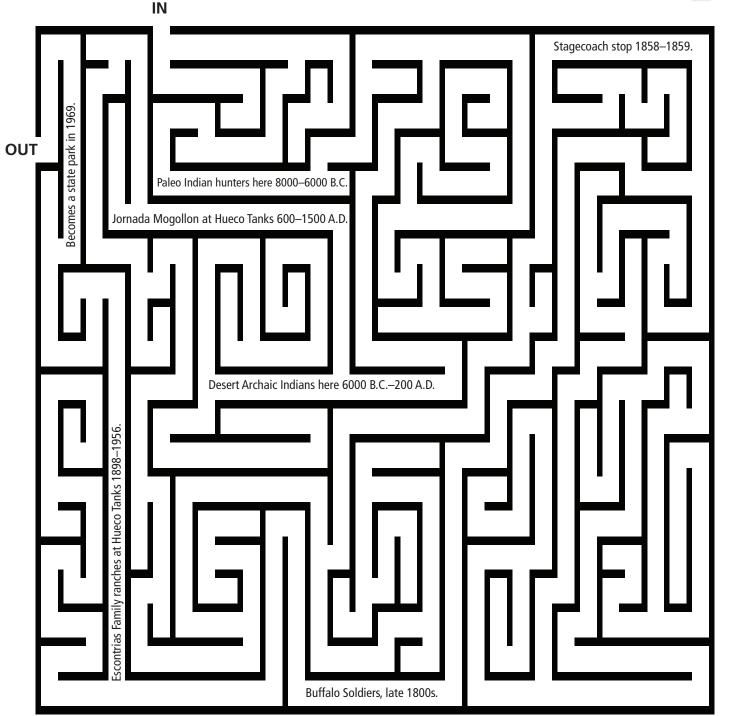


**Fun Fact:** Hueco Tanks was once part of a ranch with thousands of acres.

# **History Activity**





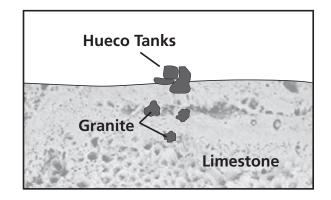


Fun Fact: People have lived periodically at Hueco Tanks for at least 10,000 years.

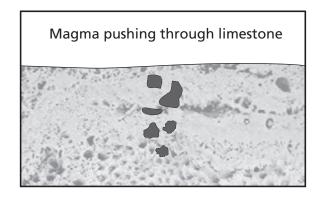
#### **Geology Activity**

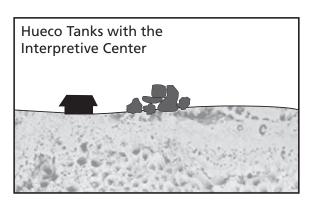
Hueco Tanks was formed about 35 million years ago, during the Tertiary Period. Magma pushed up into limestone and cooled into granite. Then, the limestone was eroded, leaving the 400-foot-high piles of granite boulders, which we call Hueco Tanks.

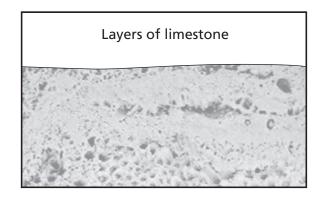
**Tertiary Period** – Era when humans first appeared. **Limestone** – A rock formed from ancient seas. **Granite** - A rock formed from cooled magma.

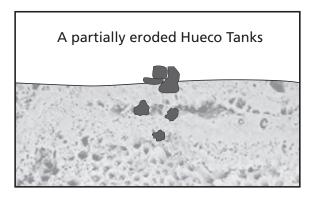


Number the pictures "1" through "4" in the order that they happened.









**Fun Fact:** The type of granite in Hueco Tanks is called syenite porphyry.

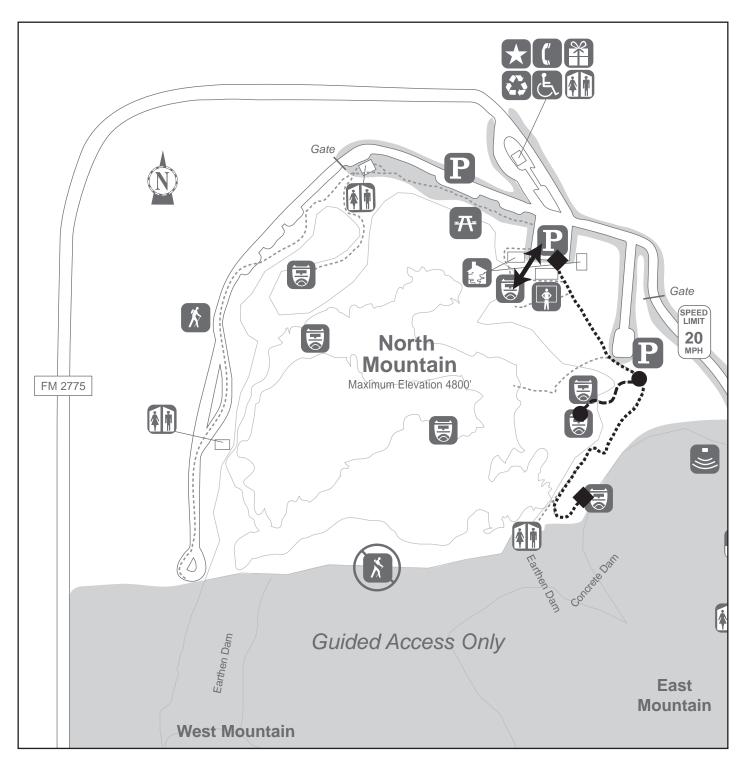
### Hiking Activity

At Hueco Tanks there are many places to hike.

In this activity, you can take a ranger tour or take one of the hikes below.

The  $\longleftrightarrow$  trail is short, but the  $\bullet - - \bullet$  and the  $\diamond \cdots \diamond$  trails are longer.

Trace the trail(s) that you will take. All trails will take you to pictographs.



Fun Fact: A jackrabbit raises its ears to help it cool off.

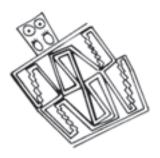


# Pictograph Activity

A pictograph is an ancient painting on stone. Archaeologists do not always know the meanings of pictographs, so they often have to look for clues, like solving a mystery. Never touch or otherwise harm a pictograph; they are very fragile and cannot be replaced.

Draw what the pictograph you see looks like.

Write what you think the pictograph means, and why.



Fun Fact: A petroglyph is a carving, and a pictograph is a painting on stone.

#### Pictograph Activity

Complete one of the two following activities.

The Native Americans who painted the pictographs couldn't just go to the store and buy paint. They had to make it themselves. Look at the pictograph and figure out what they used as colors in their paint.

Circle the colors you see and what they might be made from.

White white clay, calcium carbonate, gypsum

Yellow limonite

**Red** hematite or ochre

Orange a combination of yellow and red

**Black** carbon or manganese

**Green or Blue** copper rich rocks (malachite, azurite or turquoise)

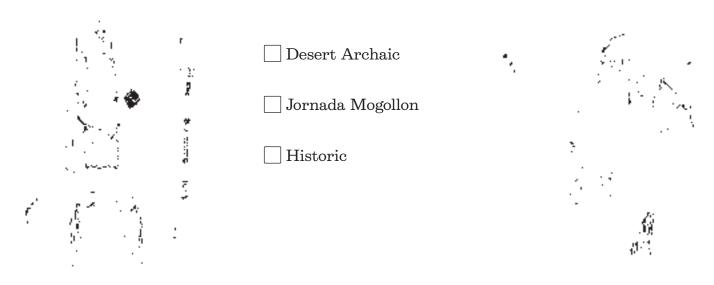


Desert Archaic pictographs include geometric shapes, comb designs, and animals running, sometimes with a spear in them. People are drawn with hour-glass-shaped bodies.

Jornada Mogollon pictographs include "masks" that look like faces, geometric shapes, animals and "blanket" designs (rectangular, with zig-zags or other shapes inside).

Historic pictographs are more recent, and they often include human figures and horses.

Which Native Americans created the ones you see? Check the box you think is correct.



Fun Fact: The Escontrias Ranch House was built in 1898.

#### **Animal Find**

Here are some animals that you might find in the park. If you find one, check off the square. Remember, do not touch, feed or disturb them!



	Lizard - A reptile with legs and a tail, that enjoys lying in the sun. You might see them scurrying down the trail.
	☐ Fairy Shrimp - A freshwater shrimp found in huecos.  ☐ Western Diamondback Rattlesnake - A rattlesnake with dark diamonds on its back.  Never approach a rattlesnake.
	Javelina – A wild grey pig-like animal that metimes eats cactus.  Pallid Bat – A type of bat with large ears, en at evening.
If you see any other type	s of animals, describe what they look like and name them, if possible.

Fun Fact: Although they look like pigs, javelina are not closely related to them.

#### **Plant Find**

Here are some plants that you might find in the park. Remember, do not damage or remove plants or plant material. See how many you can find; then check them off.

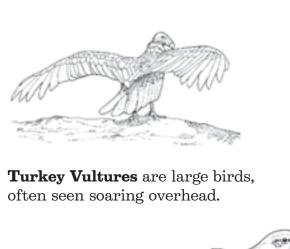


	De 13. a
J. Com	Prickly Pear – A cactus with pad-like stems.
1. 1	Javelina enjoy eating these plants.
	Cottonwood - A tree with a cotton-like material around the seed. Native Americans used this tree for medicine.  Creosote - A bush with small, rounded yellowish-green leaves. This plant is very common at Hueco Tanks.  Mesquite - A tree with light-green leaves and thorns.  Animals can eat mesquite fruits (sometimes called beans), and Native Americans did, too.
De	scribe and/or draw two more plants that you have seen at Hueco Tanks.
1	2

**Fun Fact:** Hueco Tanks is the only place known in the United States where the rare Comal Snakewood grows. What is it? **Ask a ranger**.

### **Bird Activity**

There are lots of birds at Hueco Tanks. Sit by the pond near the Interpretive Center, and look for birds. Below are some common birds. If you see one of them, circle it.





Male **House** Finches have red heads.

Rock Wrens are grey, and have pointy beaks.

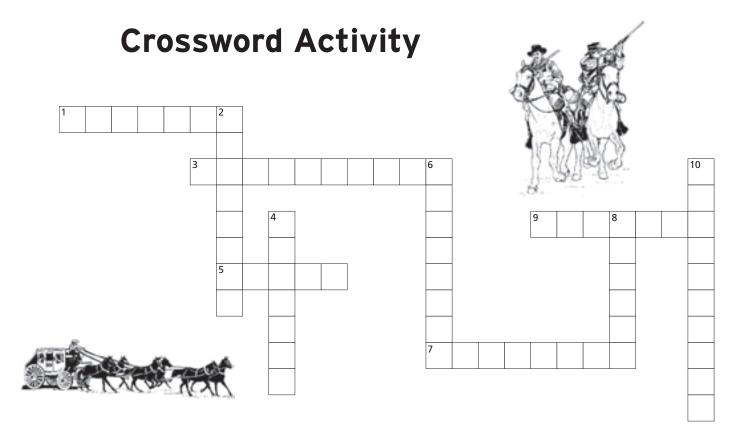


**Verdins** have yellow faces.



If you didn't see one of these birds, draw the bird you did see in the space below. Then describe it.

**Fun Fact:** More than 200 species of birds have been recorded at Hueco Tanks.



#### **Across**

- 1. Black troops at here in the 1800s were \_\_ soldiers.
- 3. A \_\_ is a Native American carving into rock.
- 5. Mountain is in the self-guided area.
- 7. Hueco Tanks is wonderful rock and boulder \_\_ site.
- 9. The Desert \_\_ Indians painted hunting scenes.

#### Down

- 2. The Butterfield \_\_ Stage stopped at Hueco.
- 4. The Mogollon made painted masks here.
- 6. Hueco Tanks is a State Park and Site.
- 8. There are great trails here for \_\_\_.
- 10. The \_\_ Family began ranching here in 1898.

### **Interview Activity**

Find a park stair member of a park volunteer, and if their time permits, conduct a short interview
Name of staff member or park volunteer:
What is their main job?
What other duties do they perform?
Their favorite part of Hueco Tanks is:

**Fun Fact:** There are 53 species of mammals at Hueco Tanks.

#### When you're finished...

... take your booklet to a ranger in the Headquarters building or at the Interpretive Center. Be prepared to answer any questions that the ranger may ask. Once finished, your certificate will be signed and you will receive a patch.

This Junior Ranger Program was developed by Jack Bargemann and the staff of Hueco Tanks State Park and Historic Site.

Project funded by Jack Bargemann and Public Donations.

For further information or comments please contact:

Hueco Tanks State Park and Historic Site 6900 Hueco Tanks Road #1 El Paso, Texas 79938 (915) 857-1135

www.tpwd.state.tx.us/huecotanks



# Certificate of Achievement

THIS CERTIFIES THAT



IS AN OFFICIAL
JUNIOR RANGER AT
HUECO TANKS
STATE PARK AND
HISTORIC SITE

RANGER SIGNATURE

DATE



4200 Smith School Road Austin, Texas 78744

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