

City of Rocks Junior Ranger

What I experienced at City of Rocks National Reserve...

Place a check mark next to the areas you visited:

- | | |
|--|---|
| <input type="checkbox"/> Bath Rock | <input type="checkbox"/> Visitor Center |
| <input type="checkbox"/> Register Rock | <input type="checkbox"/> Campground |
| <input type="checkbox"/> Indian Grove | <input type="checkbox"/> _____ |

Place a check mark next to other activities you did:

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Saw Stars | <input type="checkbox"/> Camped |
| <input type="checkbox"/> Walked a trail | <input type="checkbox"/> Had a picnic |
| <input type="checkbox"/> Climbed a rock | <input type="checkbox"/> _____ |

Be An Artist!

Draw a picture or write about what you liked the MOST

THIS CERTIFIES THAT

_____ has completed the Junior Program at

CITY OF ROCKS NATIONAL RESERVE

As a Junior Ranger, I promise to explore, learn about, and protect special places like City of Rocks National Reserve

Witnessed by: _____ Date: _____



City of Rocks National Reserve

P.O. Box 169

Almo, ID 83312

<http://www.nps.gov/ciro>

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Updated: 7.2014

City of Rocks National Reserve Junior Ranger

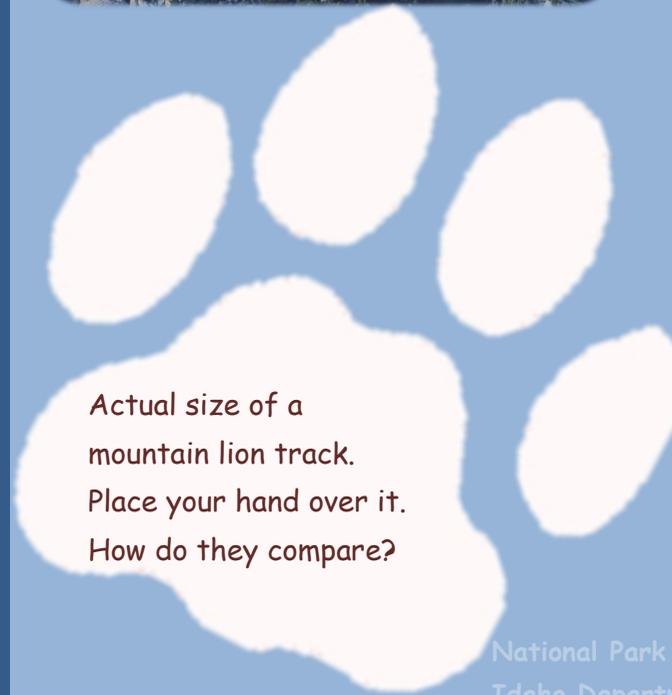


Explore

Learn

Protect

Activity Booklet for ages 10 & up
Finish 9 Activities to Complete



Actual size of a mountain lion track.
Place your hand over it.
How do they compare?



National Park Service in partnership with
Idaho Department of Parks and Recreation



W

elcome to City of Rocks
National Reserve

City of Rocks has many activities to offer visitors, from site-seeing to rock climbing and hiking. Learn all about City of Rocks National Reserve by talking with a ranger at the visitor center.

Park employees work hard to protect and preserve the natural and historical features of the park. This Junior Ranger Program was designed to help you and your family enjoy the reserve, as well as help the rangers protect its features. When you become a Junior Ranger you have an opportunity to help preserve the history and its natural wonders.

Junior Ranger Pledge

- To enjoy nature without picking plants or injuring wildlife.
- To help keep our reserve clean and free of litter.
- To only climb where I can safely climb down.
- To be a positive example for other park visitors.
- To explore the wonders of City of Rocks.
- To invite others to visit City of Rocks National Reserve.



W

hat I love most about
City of Rocks National Reserve...

Title (noun) - 1 word

Description - 2 words

Action - 3 words

Feeling (phrase) - 4 words

Title (synonym for title) - 1 word

T

ake a moment and think about your visit to City of Rocks. Choose an animal, place or other thing you liked and fill in the blanks to make a poem about it.



How will I protect it?

Now **think** of ways **you** will **protect City of Rocks** and other special places. Write a **personal oath**, about what **you** will do.

Here are some words you might like to use:

respect	learn	plants
clean	conserve	protect
trash	explore	

Wildflower Watch



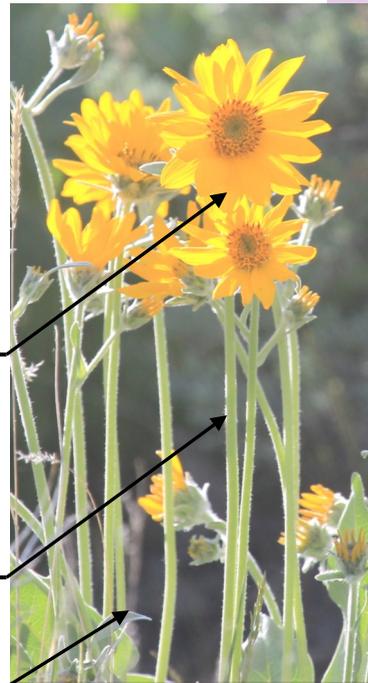
The bright yellow flowers of the arrowleaf balsamroot are one of the early signs of spring in City of Rocks. Growing quickly, these plants provide much needed food for roaming animals. Arrowleaf balsamroot is eaten by nearly all types of wildlife! Little hairs cover the arrow shaped leaves and each flower head grows on a separate stocks.

1. _____
 2. _____

1. Can you name the parts of the plant?

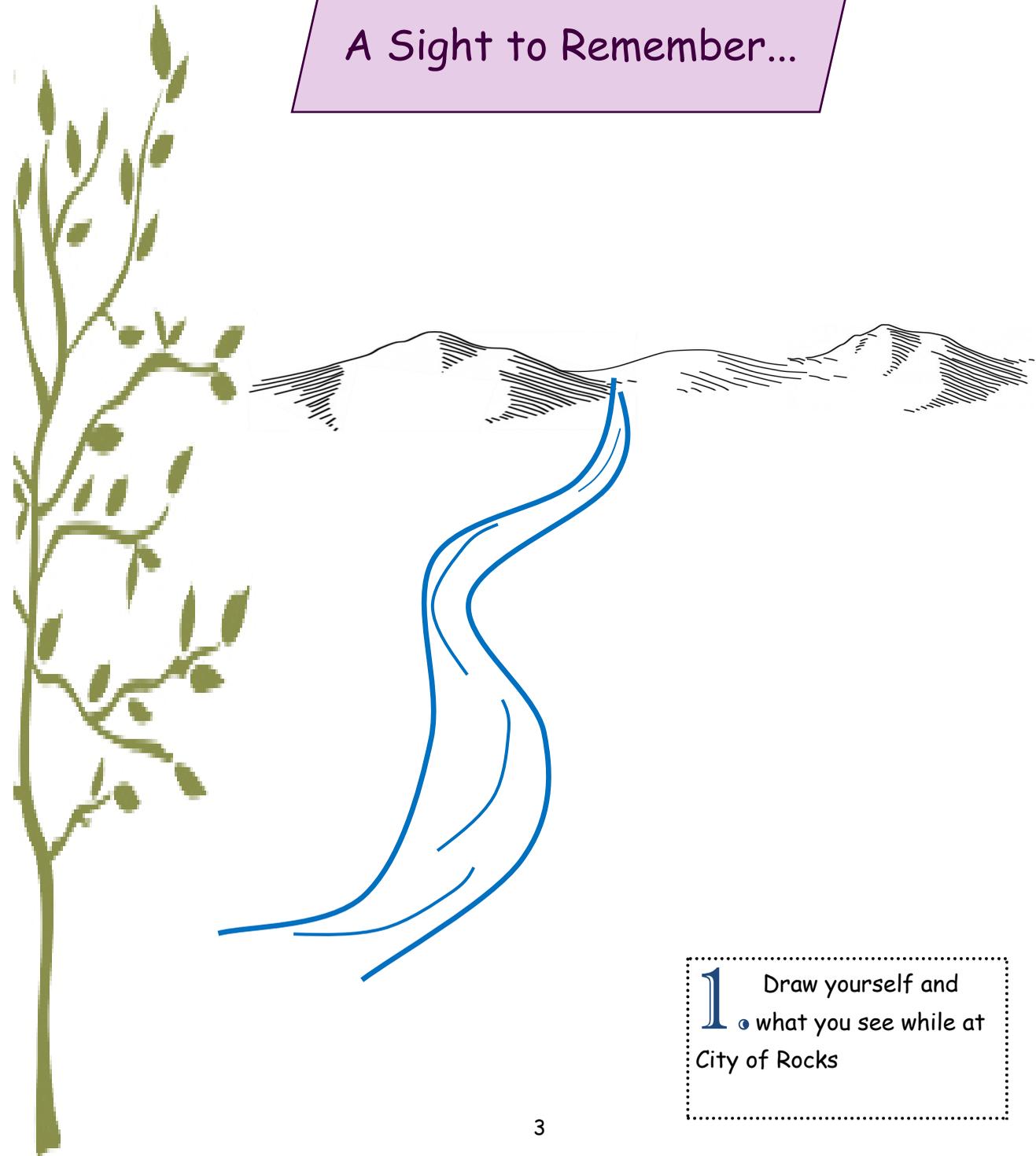
Each piece has a purpose...

The center part of the flower holds the reproductive organs, the **stamen** and **pistil**. The stamen are raised higher than the pistil. Bright, colorful, showy **pedals** attract insects that pollinate flowers. Arrow shaped **leaves** turn light from the sun into food for the plant. A tall, strong **stem** holds up the flower and moves nutrients throughout the plant. **Roots** collect water and nutrients from the ground. Each part, no matter how small, plays an important role in the plants life.



3. _____
 4. _____
 5. _____

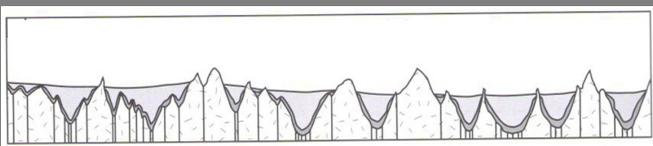
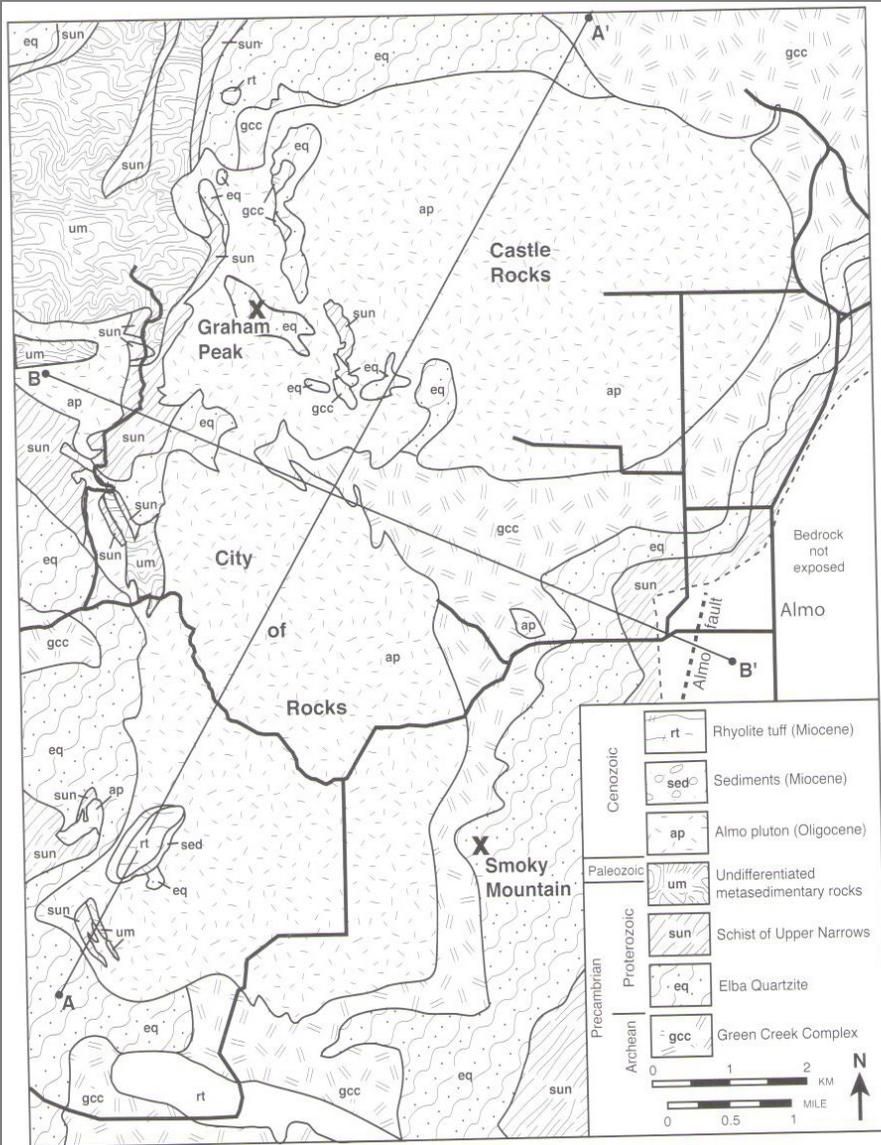
A Sight to Remember...



1. Draw yourself and what you see while at City of Rocks

Geologic Wonders

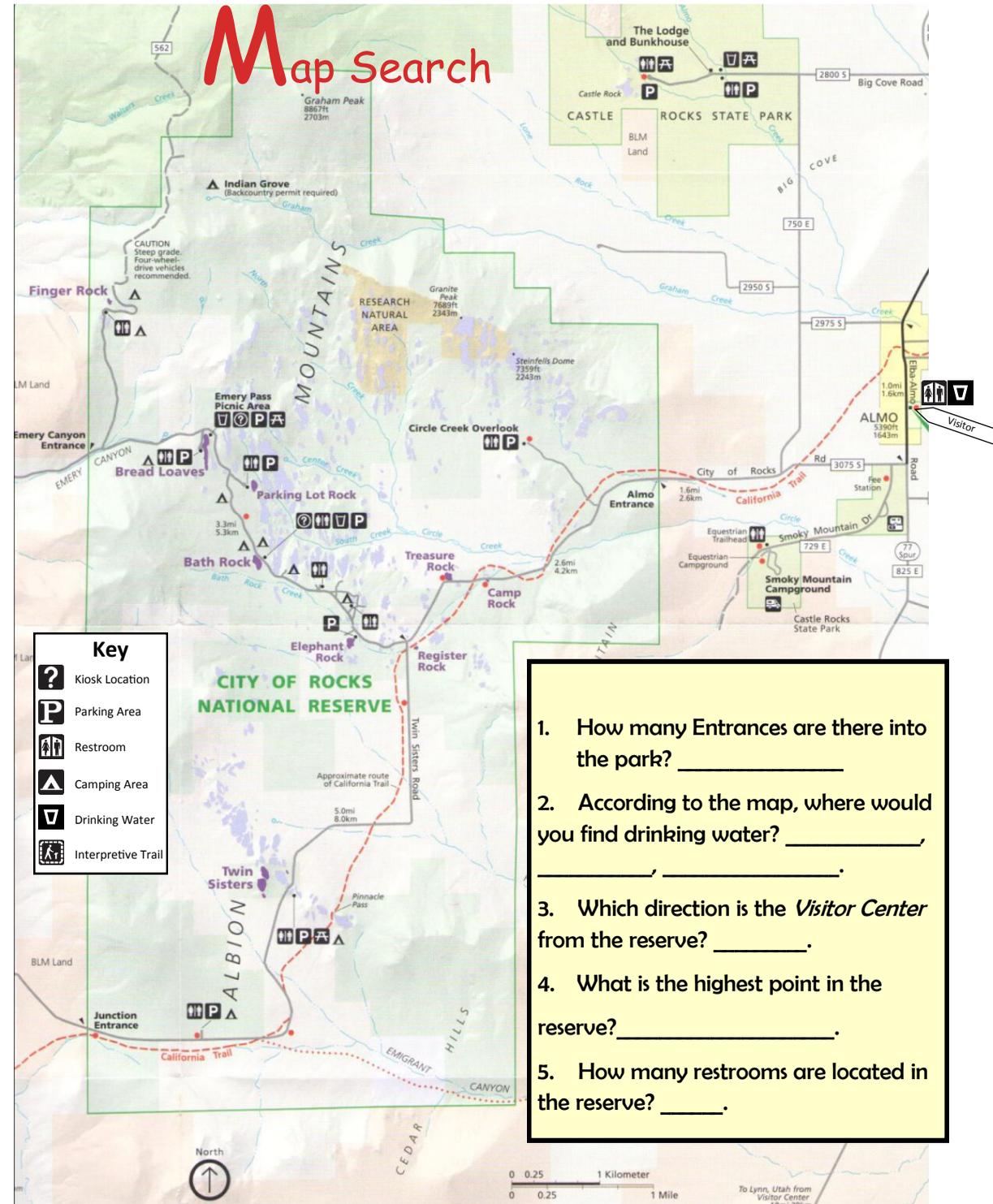
1. Color the different rock types



2. Color each layer: granite, soil, sky

There is **more than meets the eye** when you look over the landscape at the City of Rocks. Granite forms from magma **deep** beneath the earth's surface. As it rises, it **cools slowly** and crystallizes. Erosion exposes the granite and large features can be seen today. There are **two types** of granite found in the Reserve, **Green Creek Complex** and the **Almo Pluton**. The Green Creek Complex has a **brownish tint** and has irregular crystal patterns. The Almo Pluton has a **whiter** color and similar-sized crystals. Complete the activity to find out where you can find different types of rocks in the Reserve...

Map Search



1. How many Entrances are there into the park? _____
2. According to the map, where would you find drinking water? _____
3. Which direction is the *Visitor Center* from the reserve? _____
4. What is the highest point in the reserve? _____
5. How many restrooms are located in the reserve? _____

Leave No Trace

What are the effects of litter? How long does it take for things to breakdown?

- Banana Peel - 3-4 weeks
- Apple Core - 2 months
- Cardboard - 2 months
- Cotton Glove - 3 months
- Orange peels - 6 months
- Wool Sock - 1-5 years
- Milk Cartons - 5 years
- Cigarette Butts - 10-12 years

- Leather shoes - 25-40 years
- Tinned Steel Can - 50 years
- Foamed Plastic Cups - 50 years
- Plastic containers - 50-80 years
- Aluminum Can - 200-500 years
- Plastic Bottles - 450 years
- Disposable Diapers - 550 years
- Plastic Bags - 200-1000 years

Collect all the littler you see in the park, use a plastic bag as a glove.

Remember, while hiking, **only take pictures** and **leave only footprints**. Everything that you see, no matter how small, plays an important role in the environment. **Leave your surroundings the way that you found** them so that the next visitor can enjoy it the way you did... **Be aware** of those around you as you visit the Reserve, avoid actions that might offend others. What does it mean to you to be a **responsible visitor**?



Rocky Scavenger Hunt

1. Identify these features



A. _____



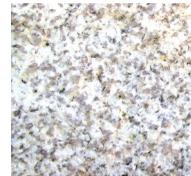
B. _____



C. _____



D. _____



E. _____



F. _____



G. _____



H. _____



I. _____

Two types of granite can be found here at City of Rocks, **Green Creek Complex** and the **Almo Pluton**. In some places, you can see where other types of rocks were taken into the granite as it cooled; this is called **xenolith** (Greek for "foreign rock"). Rocks slowly wear down (weathering) through contact with water, chemicals, and temperature changes. Forces such as gravity, water, and wind transport (erosion) broken down rocks (sediments). Germans gave a special name for broken down granite sediments, **Grus** (said with a long "u"). Look around you at the rocks, do you notice how some of the large features are long and line up next to each other? This is where the granite wore down along joints! These **joints** can also be seen in vertical cracks in the rocks. As water sits in flat or semi-sloped surfaces, it breaks down the minerals in the rocks, creating bowls call **panholes**.

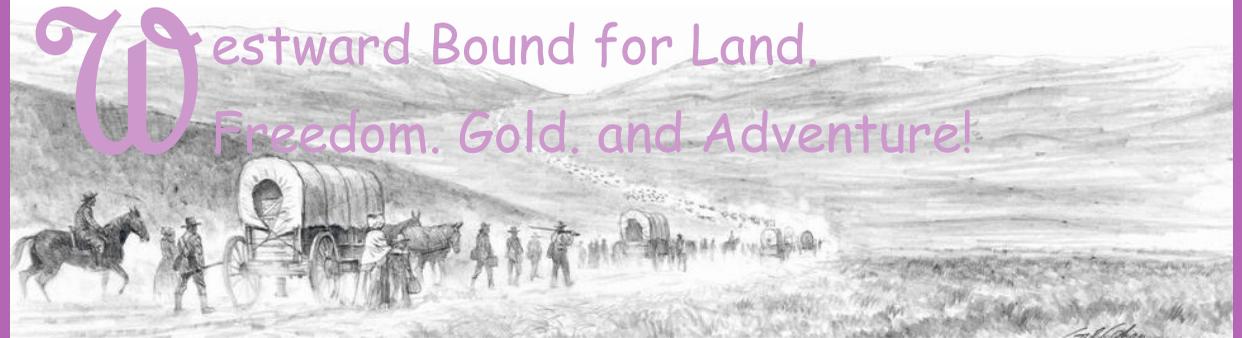
How wide/deep is the biggest panhole you can find?

Iron oxide (rust) was blown onto the surface of the rocks, creating a hard layer; this layer is called **case hardening**. This layer of case hardening protects the rock underneath it as the rock around it erodes. Salt from the Utah Salt Flats helps to create some of the coolest features at City of Rocks. As salt mixes with water, it blows onto the rocks. When the salt dries, it expands and breaks the rocks down. You may have seen amazing scoops and honeycomb features, these are called **tafoni**. When tafoni breaks all the way through the rock, it then creates a **window** or **arch**.

The Big Word Search

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

- | | | | |
|---------------|-----------------|---------------|----------------|
| Lizard | Yellow Warbler | Moose | Bacteria |
| Rattlesnake | Granite | Mountain Lion | Grasses |
| Jackrabbit | Bighorn Sheep | Owl | Grasshopper |
| Chipmunk | Bobcat | Peregrine | Ground |
| Pronghorn | Coyote | Falcon | Squirrel |
| Striped Skunk | Deer | Pinenuts | Grouse |
| Pinyon Pine | Red Tailed Hawk | Eagle | Human |
| Utah Juniper | Willow | Elk | Lynx |
| Pinyon Jay | Mice | Fox | Turkey Vulture |



Westward Bound for Land, Freedom, Gold, and Adventure!

In the middle of the 19th Century, **emigrants** were packing their belongings and pointing themselves **west**. Unlike today, this trip would take up to **6 months** and require grueling toil and heartbreaks. They traveled westward in the hope of finding **gold, land, & religious freedom**.

This **determination** to open the American west was driven by the **dream** for a better tomorrow for themselves and their **families**. Packing up their entire life belongings and marching into the **unknown** was a truly **frightening** experience. Wagons and people passed through **seemingly endless prairie**, struggled up and down steep mountains, forded rivers, and crossed sunbaked deserts.

How great is our **American-pioneer heritage!**

If you lived during their time, and were going to travel the trail, what would you take with you? Why would you take those things?

Pack List

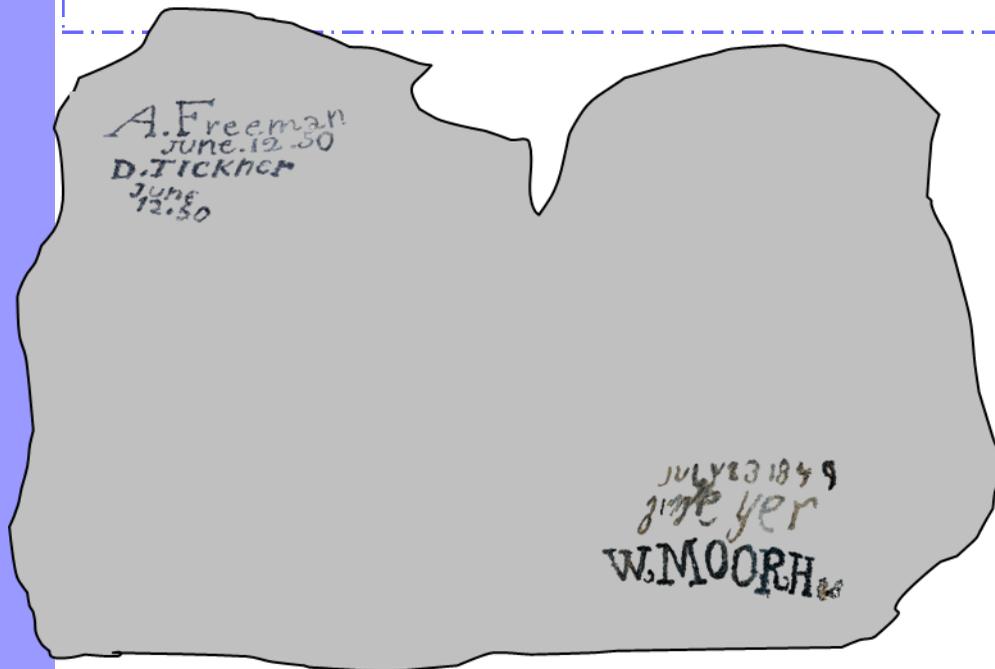
- | | |
|--------------------------------|--------------------------------|
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
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| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Did you know? In 1850, the trip cost \$300 per traveler; that is the equivalent to \$6,150 today!

A Date to Remember...

Emigrants following the California trail wrote their names with axel grease on Camp Rock and Register Rock. Sometimes they wrote their whole name, other times just their initials. They would also leave the date that they were in the "Silent City". If you were an emigrant, how would you write your name?

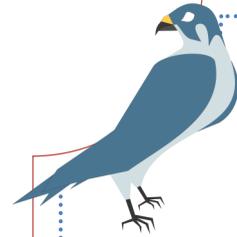
1. Use the space below to leave your name...
2. Who else can you get to sign their name?



Walk to the back side of Camp Rock, notice the multitude of emigrants that left their name of the rock...

3. How many can you find that were here in the 1850's _____?

I Sense a Scavenger Hunt



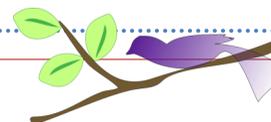
Can you **SEE** something:
flying , round , red

Can you **HEAR**:
wind blowing , birds singing ,
water running

Can you **SMELL**:
flowers , Pinyon Pine needles ,
something stinky

Can you **FEEL**:
Juniper seeds , granite , something fuzzy ,
grass

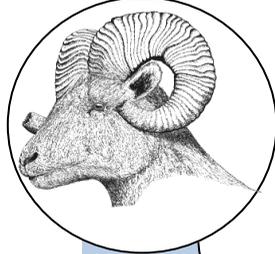
Can you use all your **SENSES** to find: a spider's
web , blooming flowers , a hole in the ground ,
a nest



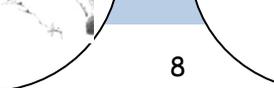
W hat am I?



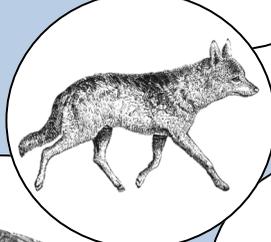
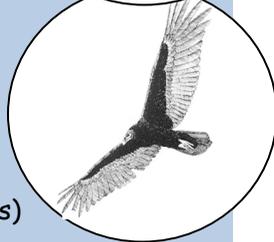
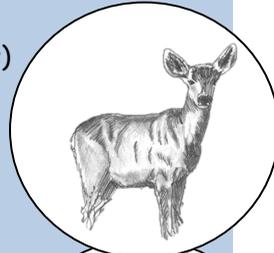
- Match the names of the animals with their picture.
- As you see these animals in the park, put a checkmark by their name



- Pronghorn (white fur on their rumps, breasts, bellies, and across their throats)
- Chipmunk (stripes on back and face)
- Coyote (long pointed ears)
- Jackrabbit (long ears, tan body)
- Golden Eagle (dark brown, very large wingspan)
- Great Horned Owl (large owl with tipped ears)
- Mountain Lion (tannish fur, seldom seen)
- Mule Deer (brown tannish color)
- Red Tailed Hawk (broad, rounded wings)
- Big Horn Sheep (large curved horns)
- Turkey Vulture (dark black with white)
- Elk (light to dark brown with large antlers)
- Pinyon Jay (blue, stay in groups)
- Greater Sage Grouse (grayish with black belly, long tail)
- Red Fox (red fur with white on undersides)
- Yellow Belly Marmot (brown coat, Reddish tail, and a yellow belly)



Binoculars are a good way to get up close and personal with wildlife without disturbing them. Keep a safe distance and give respect to animals in the reserve. How many of these animals can you see on your visit?



N ame that track



1. _____



2. _____



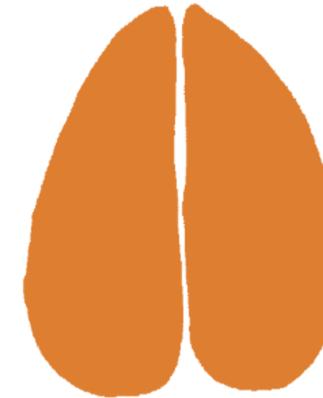
3. _____

4. _____



5. _____

6. _____



Bonus: From what you learned, what family might these tracks belong to?



A. _____



B. _____

Moose, Elk, & Deer Tracks

Size: Deer are mammals that belong to the family *Cervidae*. **Moose** are the largest of this family and their tracks can be 5 to 7 inches long. **Elk** tracks are generally 4 inches long and 3 inches wide. **Deer** tracks are much smaller, usually 2 to 3 inches long.

Dogs, Coyotes, & Mountain Lions Tracks

Size: **Coyote** tracks are similar in size to a medium-sized dog. **Mtn. Lion** tracks are very similar in size to the tracks of a large dog. **Dog** tracks are highly variable, but usually 3.5 inches long

Shape: Coyote tracks are often times narrow with only the two inside claw marks viable. Mountain lion tracks have an M-shaped heel pad with two lobes at the top, and three lobes at the base. Their retractable claws usually do not show. Dog tracks have two lobes at the base and one at the top. The middle claws are often pointed outward.

Did you know? Coyotes sometimes walk on their toes to avoid predators...