

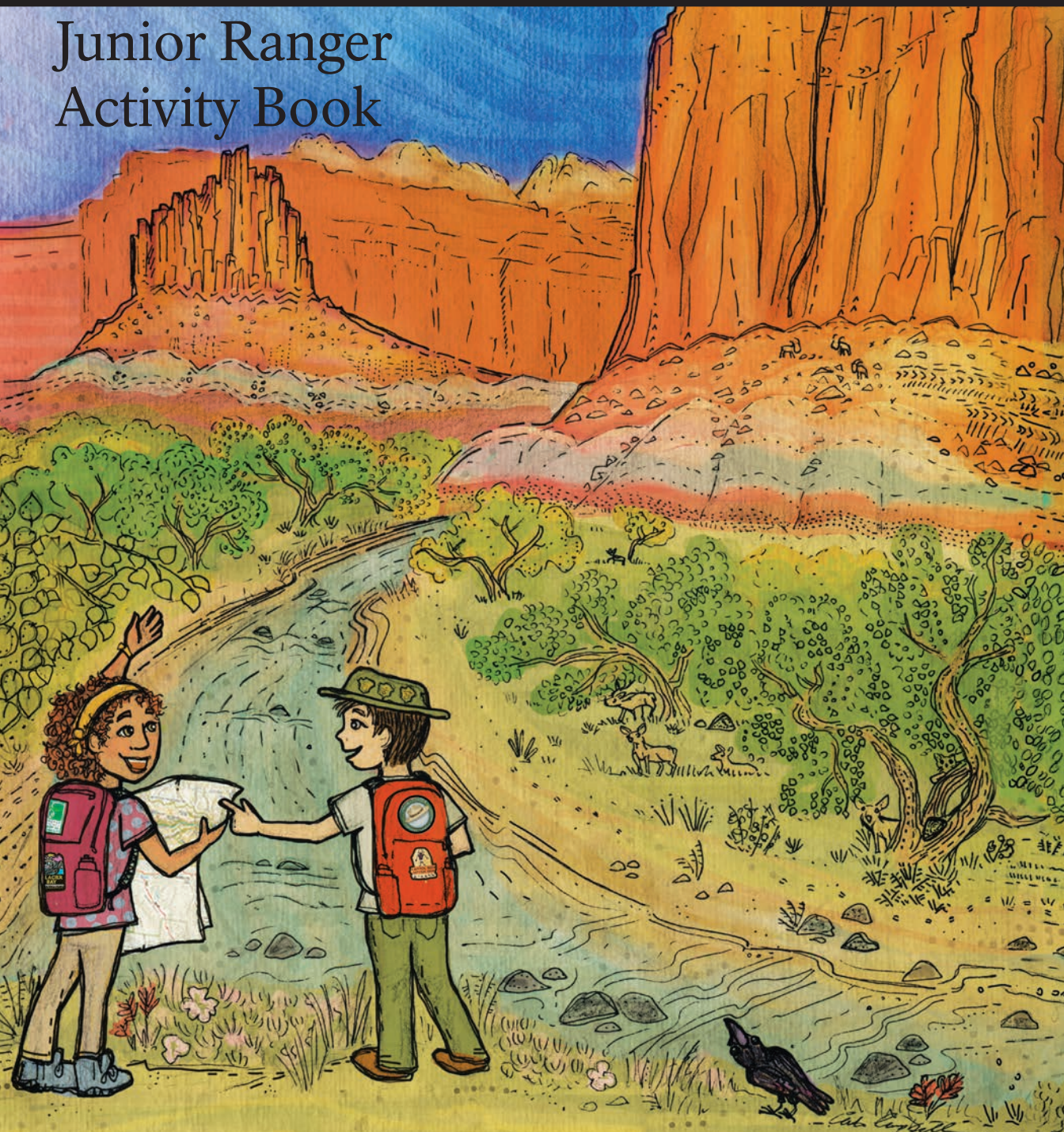
Capitol Reef

National Park Service
U.S. Department of the Interior



Capitol Reef National Park

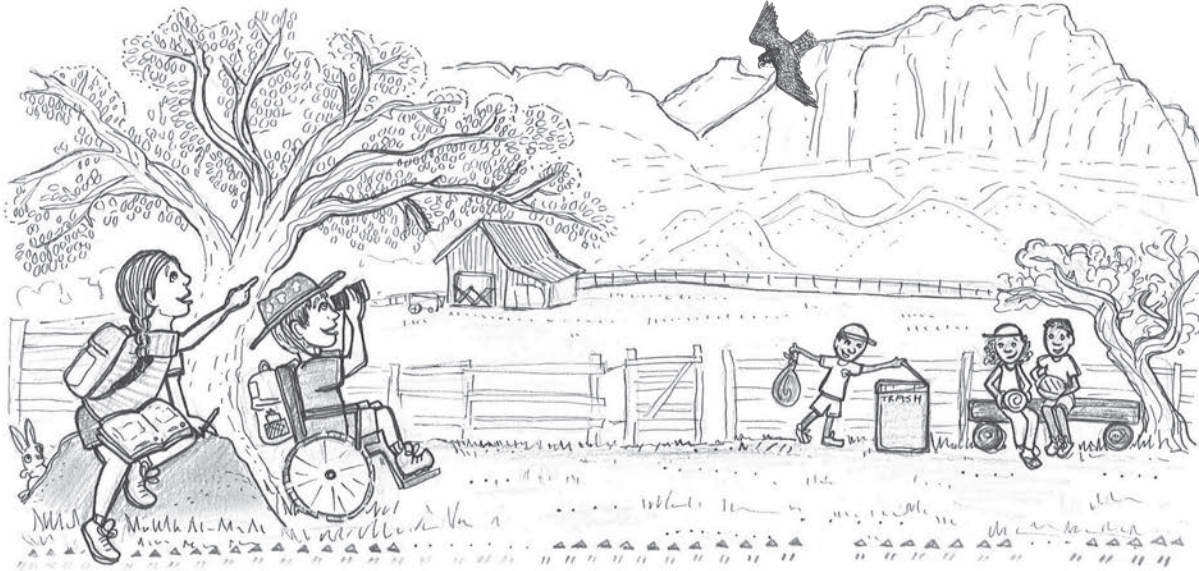
Junior Ranger Activity Book



Name: _____ Age: _____

What is a Junior Ranger?

The National Park Service preserves natural and cultural resources in over 400 units for this and future generations. Junior Rangers support this mission by exploring, learning about, and helping to protect these areas.



How to Become a Junior Ranger:

Complete the required activity: Watch, Learn, and Share.

Complete additional activities based on your age.

Ages 3–5 Choose 4 activities.

Ages 6–8 Choose 6 activities.

Ages 9–11 Choose 8 activities.

Ages 12–14 Choose 10 activities.

Ages 15+ Complete all 12 activities.



Bring your completed booklet to a park employee for review to earn your badge!

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Written and designed by Emily Van Ness
Illustrated by Caitlin Campbell
caitlincampbellart.squarespace.com

Watch, Learn, and Share

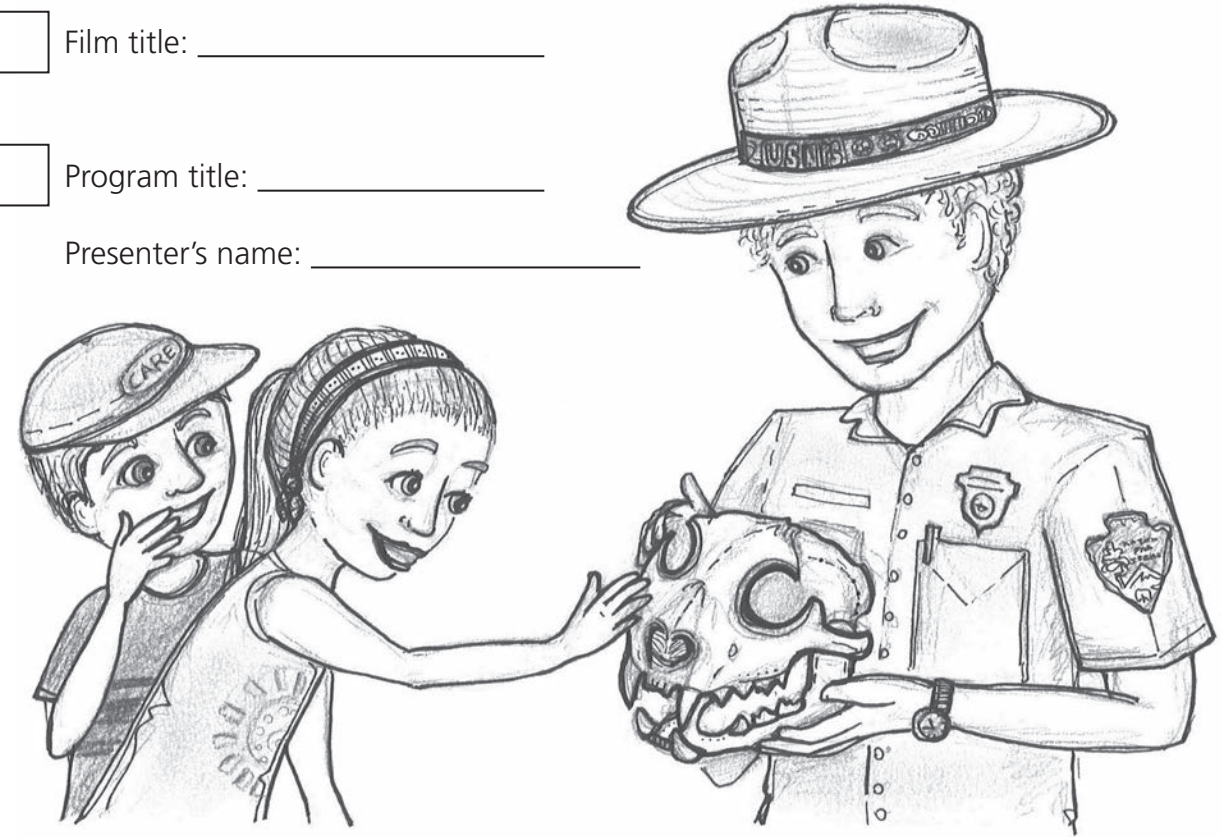
REQUIRED
ACTIVITY

Park rangers present programs to teach visitors about the park. Attend a ranger-led program at Capitol Reef National Park. If you are unable to attend a program, watch the park film at the visitor center.

Film title: _____

Program title: _____

Presenter's name: _____



Write two things you learned about Capitol Reef National Park from the film or program.

1. _____

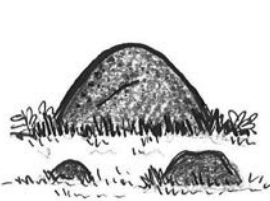


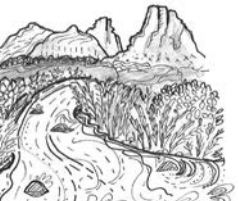



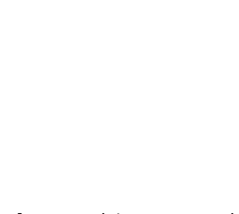


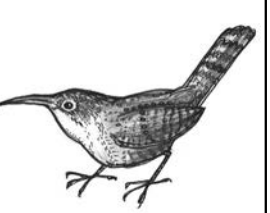


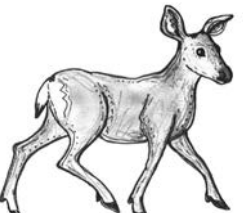

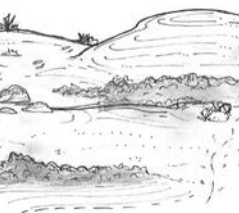
2. _____

ACTIVITY
1

Five Senses BINGO

Animals use their senses to help them survive. An eagle can **see** a rabbit from a mile away. A mother bat can find her baby by **smell**. Crickets have tiny hairs that help them **feel** approaching predators. Foxes can **hear** prey moving underground. **Taste** helps animals avoid poisonous foods. Use your senses to experience the park.

Directions: Cross out the activities you do below. Try to get four in a row, bingo!

 Feel a black boulder	 Taste ripened fruit from an orchard	 See animal scat	 Hear the river
 See a ranger	 Hear footsteps	 Smell a flower	 Feel something smooth Draw it!
 Smell the fresh air	 Feel something rough Draw it!	 Hear a bird	 See a tree
 Hear something noisy Draw it!	 See a deer	 Feel tree bark	 Smell the earth

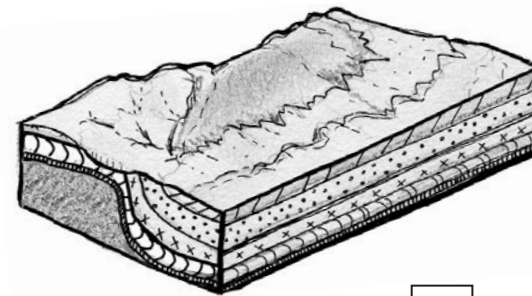
Forming the Landscape

ACTIVITY
2

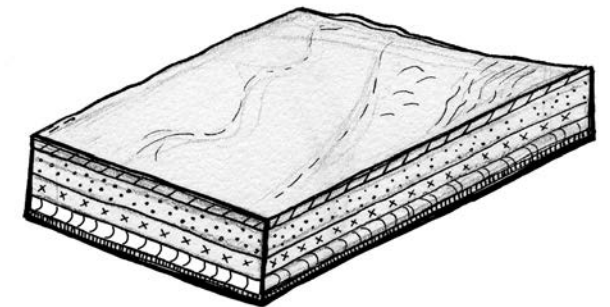
Capitol Reef National Park was created to preserve the Waterpocket Fold, a giant fold or wrinkle in the Earth's crust. This feature was formed by three major geologic processes that changed the landscape.

Directions: Number the three processes below in order from first to last as they occurred through time.

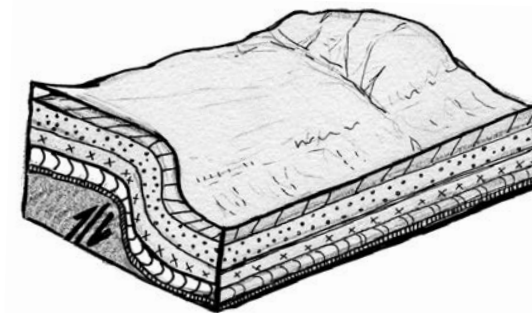
Erosion



Deposition



Uplift



At Capitol Reef, what kind of fold was formed by uplift? Hint: See activity 6.

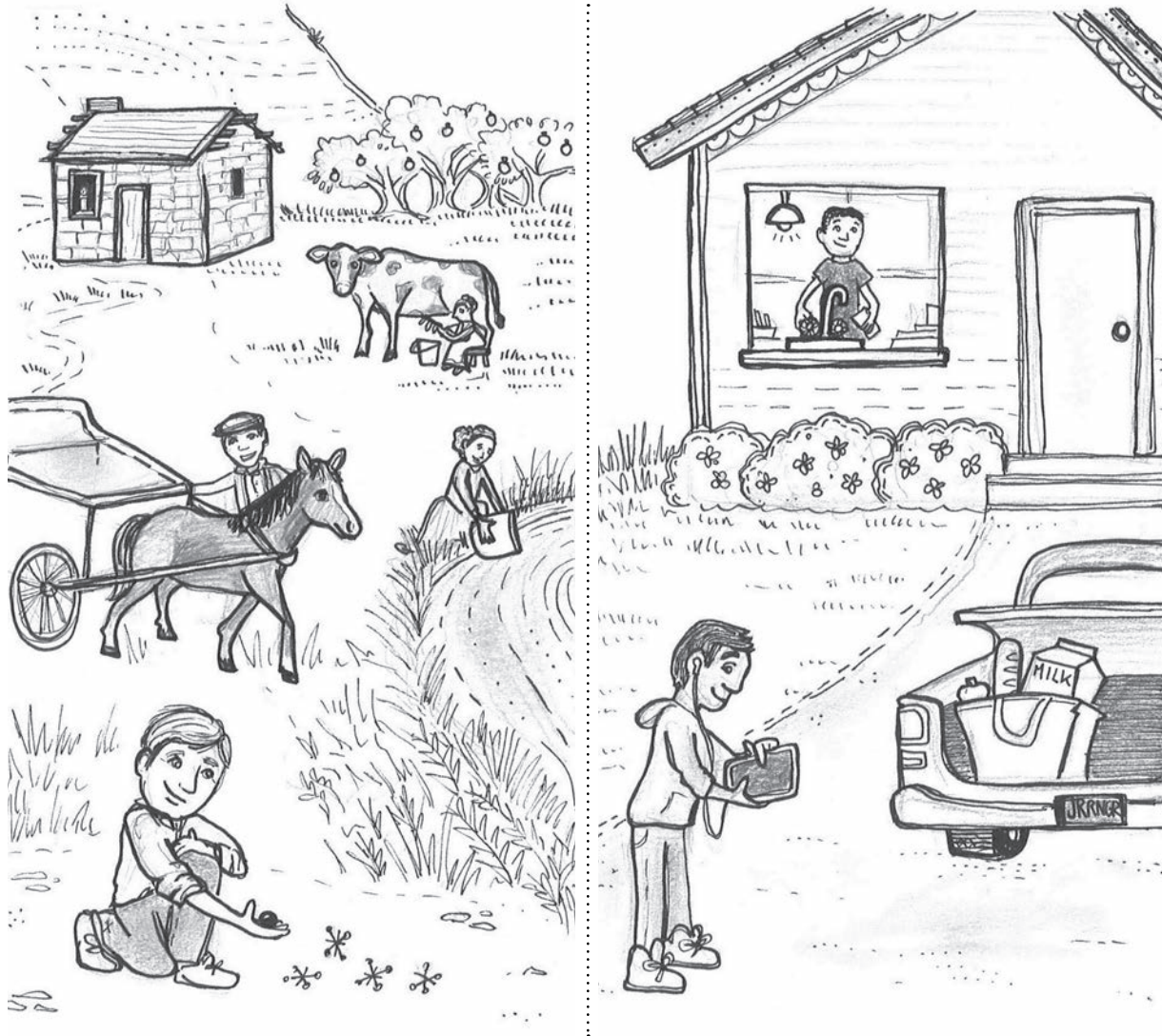
- syncline
- anticline
- monocline

ACTIVITY
5

Mormon Pioneers

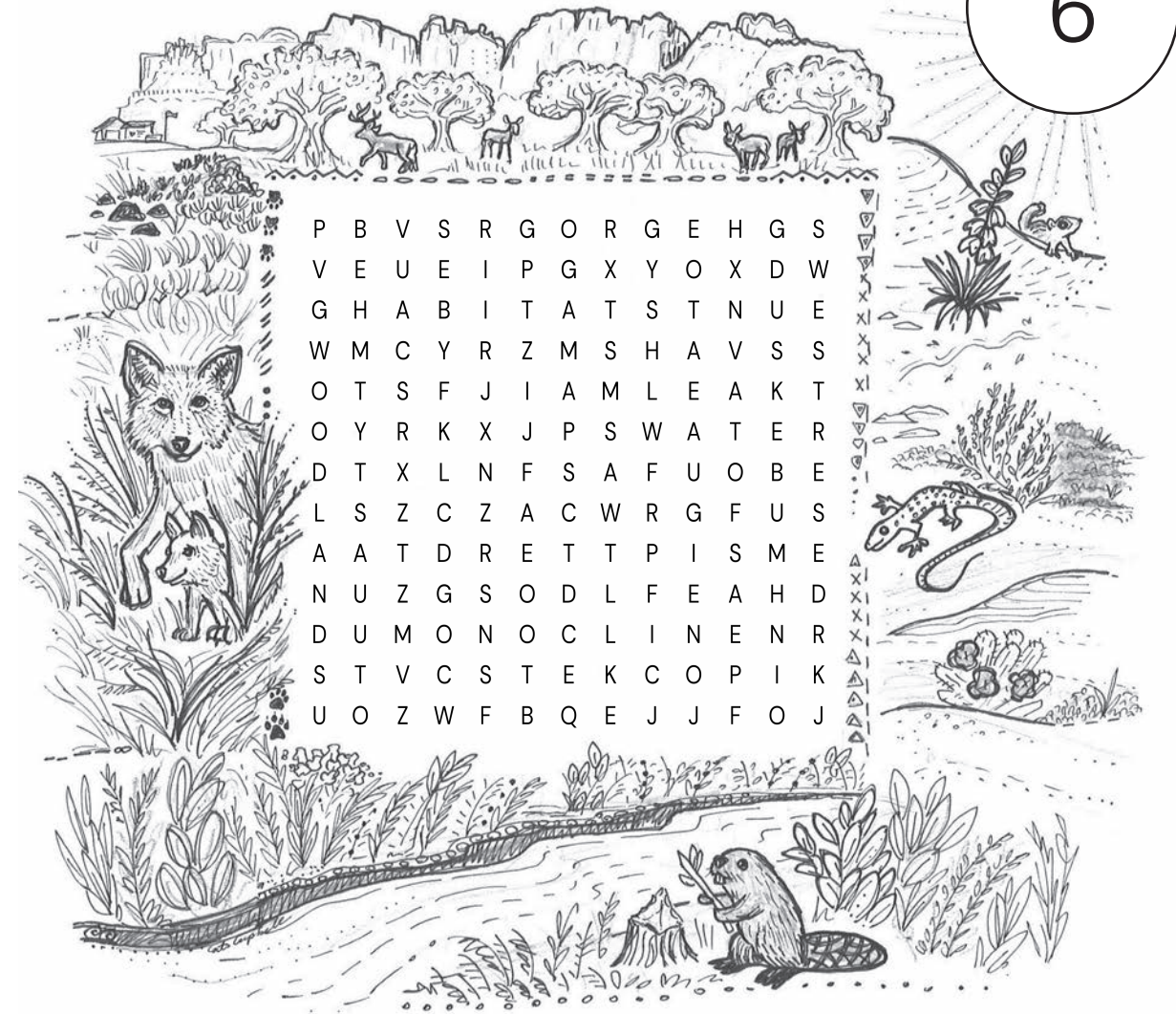
Mormon pioneer families began to settle here in the 1880's. For nearly 80 years they lived without electricity or plumbing. They sewed their own clothing, grew fruits and vegetables, and raised farm animals. The pioneers didn't have many of the items that people use today. What did they use instead?

Directions: Draw lines from items of the past to items of the present that serve the same purpose. Find at least five matches.



ACTIVITY
6

Waterpocket Word Search



Directions: Find and circle the ten underlined words in the word search.

Extending for over 90 miles, the Waterpocket Fold is North America's longest exposed monocline, a one-sided fold. "Waterpocket" refers to the large bowl-shaped pockets of water in the rock, like the Tanks on the Capitol Gorge trail. The fold contains many different rock layers, which provide a variety of habitats for plants and animals. Capitol Reef's grasslands, woodlands, deserts, and riparian zones are home to over 1,000 species of plants and animals.

ACTIVITY
7

Leave No Trace

The Leave No Trace Center for Outdoor Ethics is an organization that protects the environment by teaching people to enjoy it responsibly. Everything in a national park is protected, including the plants, animals, rocks, and rivers. Are the visitors pictured below following park rules and Leave No Trace principles?

Directions: Circle seven appropriate behaviors and draw an X through seven inappropriate behaviors.



Leave No Trace Seven Principles

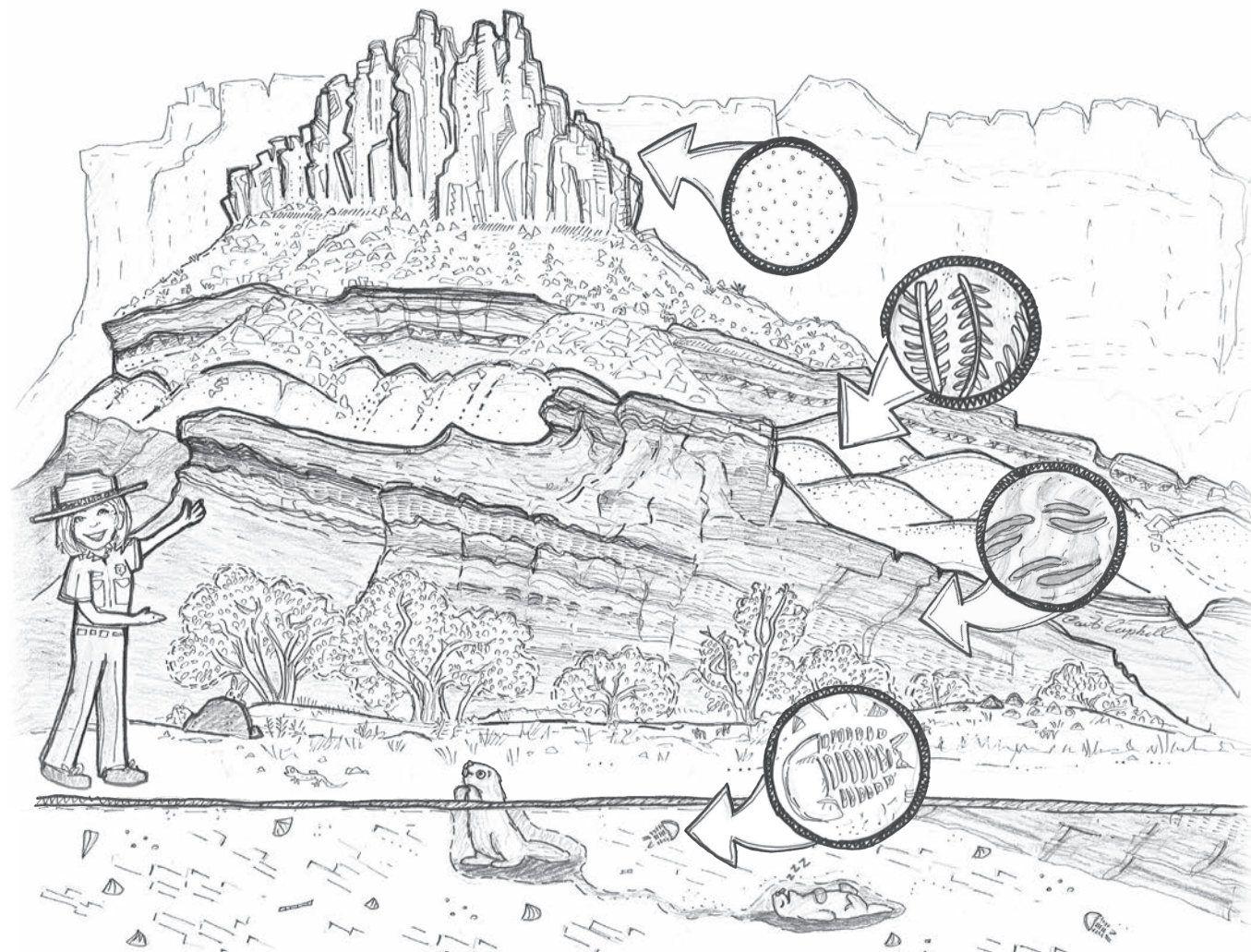
1. Plan Ahead and Prepare
2. Travel and Camp on Durable Surfaces
3. Dispose of Waste Properly
4. Leave What You Find
5. Minimize Campfire Impacts
6. Respect Wildlife
7. Be Considerate of Other Visitors

ACTIVITY
8

Stories in Stone

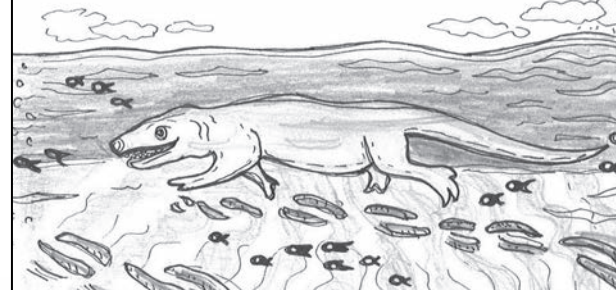
Capitol Reef's rock layers were deposited from 275 to 74 million years ago and serve as an excellent record of the Mesozoic era. Studying rock layers helps us understand what the Earth was like long ago. Sandstones, mudstones, and limestones tell different stories of past weather conditions and environments. Fossils help us learn about the plants and animals that existed.

Directions: Find the Castle outside the visitor center. Use clues in the rock layers pictured below to determine what the environment was like when these layers formed. Draw a line between each rock layer and its ancient environment.

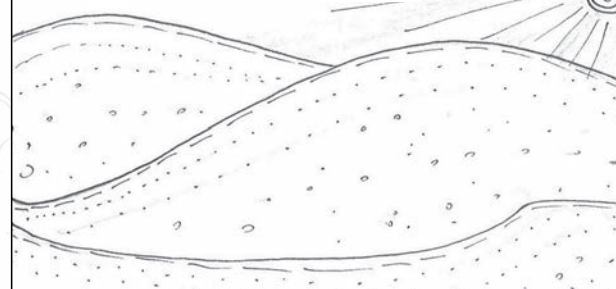


Ancient Environments

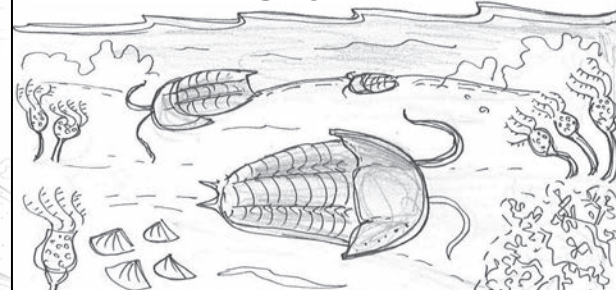
MOENKOPI FORMATION



WINGATE SANDSTONE



KAIBAB LIMESTONE



CHINLE FORMATION



Rock Types

There are three main types of rocks on Earth. The layers of the Castle are **sedimentary**, made of tiny sediments deposited by erosion and cemented over time. Siltstones and mudstones typically form soft sloping layers that are easily eroded. Sandstones tend to form towering cliffs because they are harder and more resistant to weathering.

Rocks that have been altered by extreme heat and pressure are **metamorphic**. This type of rock cannot be seen in the park, but it exists deep underground.

The third rock type is formed by molten rock, like the black boulders in the park. What type of rock are they? Unscramble the bolded letters in the four rock layer names to fill in the blanks and find out.

I _ _ _ _ **U** _ _



ACTIVITY
9

Ancient Cultures

From 300 to 1300 C.E., the Fremont River Valley was home to a group of Native Americans that archaeologists referred to as the Fremont Culture. Modern Native American tribes have other names for their ancestors; the Paiute know them as *Wee Noonts* (People Who Lived the Old Ways) and the Hopi call them *Hisatsinom* (People of Long Ago).

They hunted bighorn sheep and mule deer, gathered seeds and nuts, and planted corn, beans, and squash. They also painted pictographs and carved petroglyphs into the canyon walls.

Directions: Visit the Petroglyph Panel, located 1 mile (1.6 km) east of the visitor center on Highway 24.

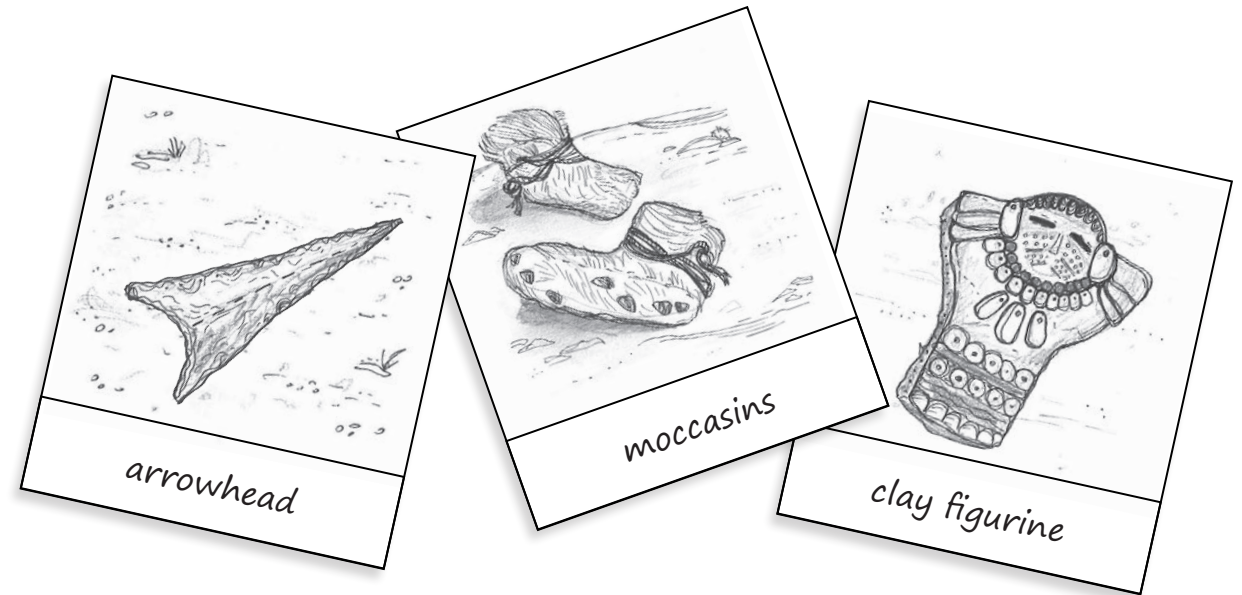
- Use the space below to draw one of the images you see at the Petroglyph Panel. (Remember to draw on your paper and **not** on rocks, trees, or other parts of nature.)



- What do you think the images mean?

- Why is it important to protect the rock markings?

Many Fremont artifacts have been found in the park. Artifacts help archaeologists understand past cultures.



- What is the best thing to do if you find an artifact in the park?
 - Bring it home to keep it safe.
 - Leave it alone.
 - Bring it to a ranger.
 - Take a picture of it and tell a ranger where it is.

Why? _____

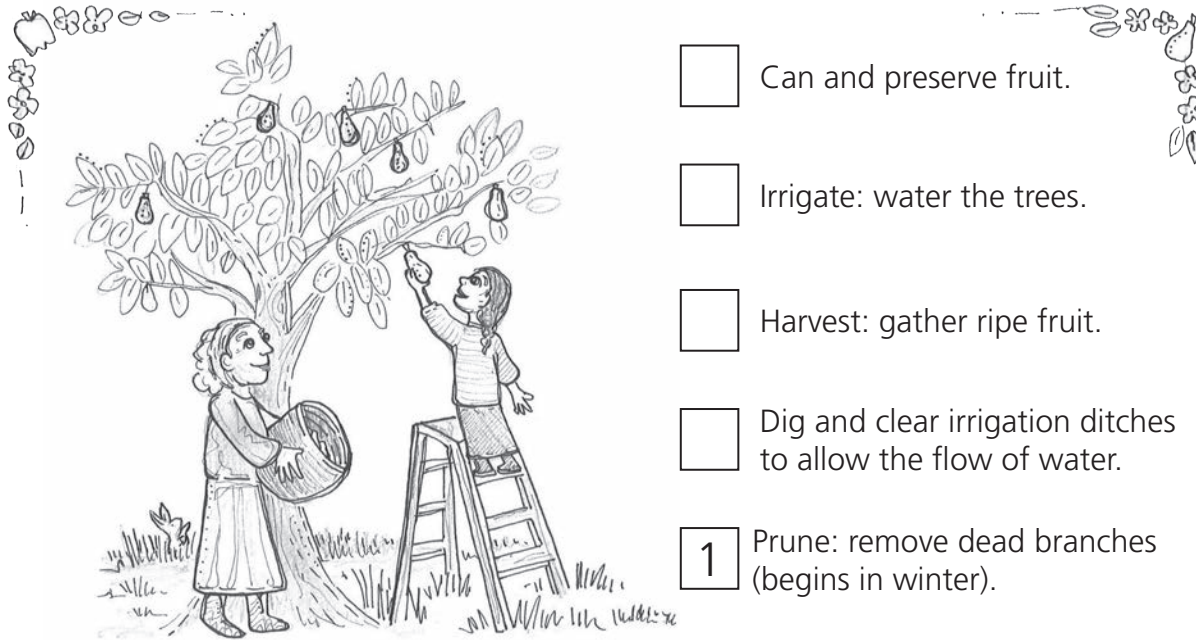
ACTIVITY
10

Fruita Orchards

Tucked in among the cliffs, Fruita occupies a unique area. Fertile soils, deposited by waterways, have created an oasis for farming in the middle of a desert.

Mormon pioneers grew orchards in Fruita and sold and traded fruit to make a living. This rewarding work was often difficult due to natural flooding, drought, and a necessity for year-round effort. The pioneers' perseverance allowed them to inhabit this special place and provide neighboring towns with nutritious and delicious foods.

Directions: Orchards require labor throughout the seasons, including winter. Finish labelling the chores from one to five in order as they are completed throughout the year.



- Can and preserve fruit.
- Irrigate: water the trees.
- Harvest: gather ripe fruit.
- Dig and clear irrigation ditches to allow the flow of water.
- 1 Prune: remove dead branches (begins in winter).

Changes to the climate may increase the frequency of extreme temperatures, droughts, and flooding. How could the changing climate affect the orchards in the future?

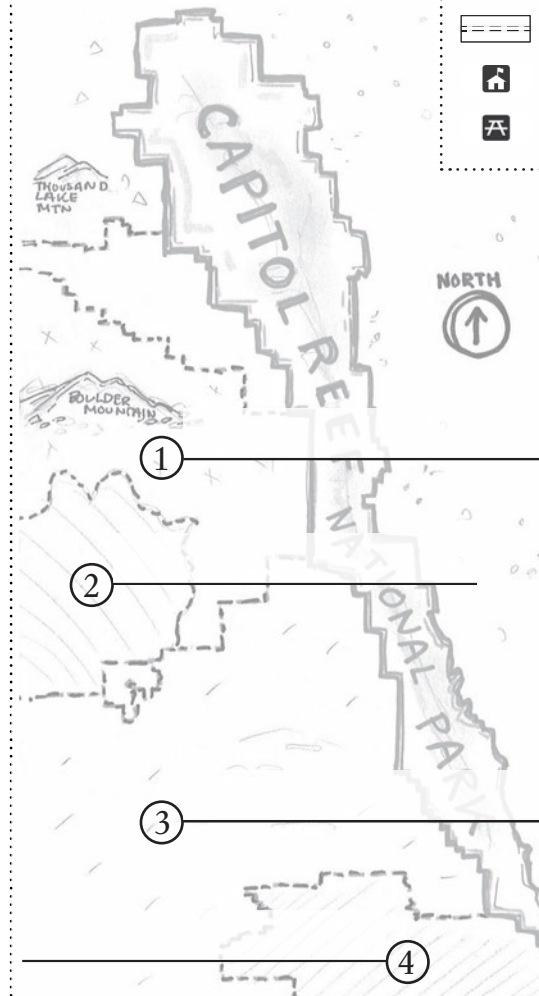
Wilderness Preservation

ACTIVITY
11

The Waterpocket Fold territory was the last to be mapped in the contiguous 48 states. Many areas of the park remain rugged and remote. Almost 75% of the park is managed as **Wilderness**, an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.

Directions: Get a free map from the visitor center. Use it to fill in the blanks.

1. Label the four federal public lands that border Capitol Reef to the west.



2. Label the missing blanks on the legend.

		19mi 31km	
	PICNIC AREA		

3. The "River ford" is located on the _____ Road.

4. How many primitive campgrounds are in the park? _____

5. What kind of vehicle is needed to get to the Strike Valley Overlook?

6. Why are wilderness areas important?
List three reasons.



JUNIOR RANGER CERTIFICATE



_____ is a Junior Ranger at
Capitol Reef National Park



Cancellation stamp

Park representative's signature

