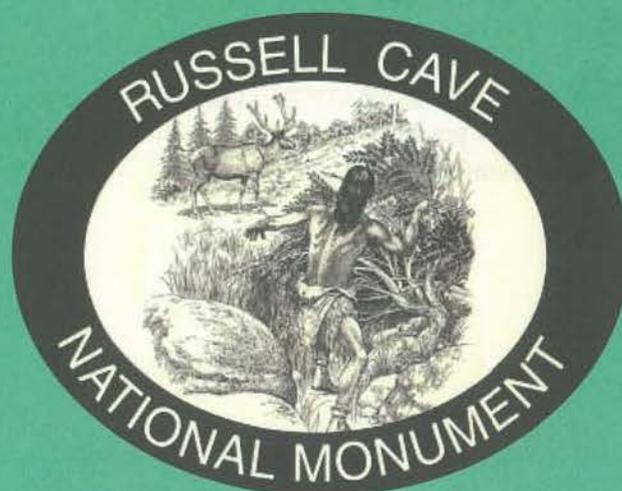




Russell Cave Junior Ranger Activity Book



What Do Rangers Do?



Park rangers have many types of jobs. As a Junior Ranger you can help park rangers protect and preserve Russell Cave and all other national parks. Below is a list of a few duties that rangers have. Which type of job are you most interested in?



INTERPRETATION: Rangers take visitors on guided walks to help them understand the park and its resources. At Russell Cave, rangers help visitors understand how the Native Americans of the area lived by leading tours and demonstrating the use of Native American tools and weapons.

PROTECTION: Rangers take care of the park, keep visitors safe, help injured or lost visitors, and protect the resources inside the park.

RESOURCE MANAGEMENT: Many national parks were created to protect special plants and animals, habitats and cultural resources. Some rangers are also scientists who study these resources to learn about them and protect them.



MAINTENANCE: Some rangers are rarely seen, but their jobs are very important. They keep the litter picked up, the restrooms clean, the trails cleared, and the grass mowed. They make the parks a nice place to visit.

ADMINISTRATION: These are the people that answer the phones, that get the bills paid, and do all the paperwork to keep the park running.

Place your passport stamp here:



This book belongs to: _____

How Do I Become a Junior Ranger?

Become a Russell Cave Junior Ranger by completing the following activities. Then see how many questions you can answer in this book.

- Watch the eight-minute Russell Cave movie.
- Ask a ranger to give you a tour of the cave.
- Participate in a ranger led tools and weapons demonstration and try some of the tools yourself.
- Walk around the park and learn about some of the plants and animals.
- Explore the museum inside the Visitor Center.
- Find the symbol below that matches your age group, and try to answer the questions on that page.

Once you have completed these steps, go to the Visitor Center and show your book to a ranger. You will receive a Junior Ranger badge and certificate to take home with you.



RACCOON — Ages 5-7

Hi! My name is Ricky the Raccoon. You may see me on the ground a lot but I also like to climb trees. Like the Native Americans of Russell Cave, I like to eat fruit, nuts, fish and other small animals. Look for me at the top of the activity pages. Complete the 2 pages where I am found and have fun with the other pages too.



DEER — Ages 8-10

Hi! My name is Bucky the Deer. As a deer, I live in the woods and fields. I eat grass, leaves, fruit and berries for food. I am a quiet animal and can run very fast. Look for me at the top of the activity pages. Complete the Ranger Basics page and 7 or more of the activities that have me at the top of them.



COYOTE — Ages 11 & Up

Hi! I am Kylie the Coyote. I am a very clever and curious animal. I have an excellent sense of smell and sight and I can hear many things humans cannot. You may hear me howling at night. Look for me at the top of each page. Complete the Ranger Basics page and 8 or more of the activities that have me at the top of them.



Ranger Basics

Rangers need a wide variety of skills and knowledge to educate visitors and to protect both the people that come to parks and the parks themselves. Do you have what it takes? Answer the questions below and see for yourself. Read the displays for some of the answers, or ask a ranger for help on the questions that stump you.

1. Who is Russell Cave named after? What was his occupation?
2. Name the plant with three leaves shown in the picture to the right. Should you touch it?
3. Approximately how many miles of passageways does Russell Cave have?
 - A. 40 to 50 miles
 - B. about 100 miles
 - C. 1 or 2 miles
 - D. 7 to 8 miles
4. Why do we not use the left entrance to the cave? Circle all correct answers.
 - A. Russell Cave is home to a rare species of pseudoscorpion, a small animal related to spiders that could fit on your fingertip. We want to protect its habitat.
 - B. Big Foot isn't finished remodeling Russell Cave.
 - C. Rattlesnakes live there and they are venomous.
 - D. Bears live there and they can be cranky.
 - E. The cave sometimes floods and you don't want to get caught in it!
 - F. Rocks sometimes fall from the ceiling and they are harder than you are.
5. You are walking around the park and you find a Native American arrowhead. What do you do with it?
 - A. Pick it up and put it in your pocket.
 - B. Bury it in the ground.
 - C. Tell the ranger about it.
 - D. Sell it to a friend back home.
6. You are hiking in the park on a hot humid day in August. You want to go farther, but you are almost out of water. Should you keep going or turn back?
7. True or False: It is a good idea to drink and snack frequently while hiking and camping.
8. When hiking on a wilderness trail, what type of shoes should you wear?
 - A. Soccer cleats
 - B. Dress shoes
 - C. Hiking boots
 - D. Sneakers
 - E. Sandals
 - F. Waterproof shower shoes
9. What do you do when you find trash along the trail or in the picnic area?



The Story of Russell Cave National Monument

This is the story of how Russell Cave went from being just an ordinary cave in Jackson County, Alabama to being a national monument that thousands of people visit every year. Fill in the blanks using words from the list below.

In 1953, Paul H. Brown, an engineer with the Tennessee Valley Authority (TVA), was searching for places in this part of Alabama to put new power lines when he heard about Native American _____ (objects made by people) being found near a cave in Jackson County. Mr. Brown was also an amateur archaeologist (an amateur is someone who usually does not get paid for what they do). One day, Mr. Brown took three of his friends who were also interested in archaeology to the cave to look for artifacts. They did not need to dig long to find a lot of _____, _____, shell ornaments and _____.

Mr. Brown realized that this could be an important archaeological find and he told someone he knew at the _____ Institution they might be interested in the site. Soon professional archaeologists began an investigation. The Smithsonian and the _____ did a joint excavation of the site. Smithsonian archaeologist Dr. Carl Miller led the expedition. Dr. Miller, along with his wife and 16 coal miners from a nearby community, dug about _____ feet down. They found thousands of items that were from all four prehistoric Native American Periods.

Later on, the National Geographic Society donated Russell Cave to the American people for everyone to enjoy. On May 11th, _____, President _____ proclaimed Russell Cave as a National Monument. In 1962, the National Park Service conducted another excavation, and excavated _____ feet down at a site next to the one dug by the Smithsonian. They found many more artifacts and learned more about prehistoric Native American cultures. A visitor center was built to show the public how important Russell Cave is to archaeological science. In 1967, the new visitor center was dedicated and named after Gilbert H. Grosvenor, the president of the National Geographic Society from 1920-1954. It is the very one you visited to receive your Junior Ranger book.

Word List:

John F. Kennedy

bone tools

10 1/2

National Geographic Society

pottery

Smithsonian

1961

artifacts

32

stone points





At the Movies

Ask the ranger to show you the eight-minute movie on Russell Cave. After the movie, answer the questions below.

1. In what year was Russell Cave declared a national monument?
2. The Palco-Indians, the first culture to make use of Russell Cave, descended from _____ age hunters.
3. What structures, built by the Mississippian Native Americans, resembled pyramids of other cultures such as the Egyptians, Mayans and Aztecs?

4. What nocturnal (awake at night) animal lives in Russell Cave?



This is part of the ruins of the Mississippian city of Cahokia, near present-day Collinsville, Illinois. The wooden staircase was built more recently, but they mimic the ancient steps. This structure is 100 feet high, 955 feet long and 775 feet wide.

Russell Cave Geology



Geology is the study of the planet Earth, the materials that make up the earth, and how these materials change overtime. Geology includes the study of rocks, minerals and soil. It also includes the study of how caves such as Russell Cave are formed. From the movie you watched, you learned a little about how Russell Cave was formed and about some of the formations often found in Russell Cave and other caves. Answer these questions after watching the movie.

1. What type of rock is Russell Cave made out of? _____
2. _____, a cave formation that looks like flowing rock or melted rock, is formed by water flowing down the cave wall and leaving mineral deposits behind.
3. _____ is one of the main factors in cave formation and development.
4. As you can see when you visit the cave shelter, the floor of the right side of the cave is much higher than the floor of the left side. Geologists think this was caused by the ceiling in the right side of the cave collapsing and causing a pile-up of rocks over thousands of years. Also, periodic flooding in the left side of the cave has caused a build-up of rocks and dirt, which formed the steep hill that we now see in front of the cave. Below, draw or sketch what the cave looks like from the boardwalk (both the left and right entrances).
5. Now draw what you think it may have looked like many thousands of years ago.



Russell Cave Museum

As you browse around the museum, write the answers to these questions when you find them.

1. How many acres of land did the National Geographic Society purchase from Oscar Ridley?
2. Which President made Russell Cave a National Monument?
3. What kinds of food did Native Americans gather?
4. In the early Woodland Period, Native Americans began to weave baskets and make pottery. What do you think they carried in baskets and pots during this time?



5. How did Native Americans boil their water?
6. Over how many years were Native Americans using Russell Cave?
7. Native Americans used many parts of the animals they hunted. They wasted little or nothing. Next to each animal part below, write an example of the way it was used.

Animal hide:

Animal bones:

Fish bones:

Skin:

Prehistoric Puzzle

In the Russell Cave Visitor Center, you can find some mysterious objects labeled, "Prehistoric Puzzle" or "History's Mysteries". Look at them all. Draw your favorite object below. Then draw what you think the Native Americans used the object for, or what you would use it for. Use your imagination.





Russell Cave Word Search



Find the answers to each of these questions below, and then find and circle the answer in the word search on the next page. All the answers will come from the word bank. You may want to save this page for last as these answers will come from the museum, the cave, the boardwalk or the video. Remember, if you get stuck, you can always ask a ranger!

Word Bank:

Atlatl
tanager
maize
Archaic

Paleo-Indian
Mississippian
Woodland
Kennedy

Cherokee
gatherers
hunters

First period Native Americans live here _____

A bright red bird seen at Russell Cave _____

A tribe that possibly made use of the cave during the historic times _____

Which President made Russell Cave a national monument _____

Most recent period that lasted from 800 AD-1500 AD _____

Native American period that lasted from 7000 BC-1000 BC _____

Native American period that lasted from 1000 BC- 800 AD _____

Archaic spear-throwing device _____

A staple crop farmed by Native Americans _____

Archaic Native Americans are known as _____ and _____

Russell Cave Word Search



Find the words from the word bank on the previous page.

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



The Cave

As you explore the cave, read all the exhibit signs to find the answers to these questions.

RUSSELL CAVE EXCAVATION

1. When did the excavations of Russell Cave take place?
2. How many tons of artifacts were found?
3. What organizations performed the excavations?
4. How far did they dig down?



PALEO-INDIANS

1. When was the Paleo-Indian Period of Native American history?
2. What artifacts found in Russell Cave may have come from the Paleo-Indian Period?



ARCHAIC PERIOD

1. The Archaic People, who lived from 7000 BC to 1000 BC, were also known as _____ and _____.
2. From which river did the Archaic People gather their shellfish?



WOODLAND PERIOD

1. When did Native Americans begin planting their own crops?



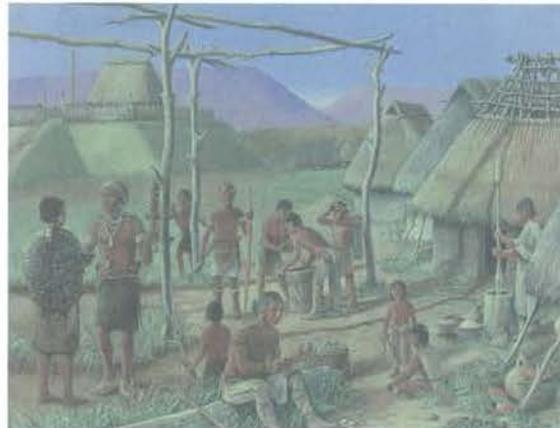
2. What hunting tool replaced the atlatl during the Woodland Period?

3. What leading technological achievement came from this period?

MISSISSIPPIAN PERIOD

1. Mississippian Native Americans were also called _____.

2. Why did Mississippian Native Americans build mounds?



3. What were three staple crops Native Americans grew for food?

4. How far away did Mississippian People trade?



Bird Watching

Russell Cave is one of 50 sites on the North Alabama Birding Trail, a series of roadside sites across northern Alabama that are wonderful for birdwatching. Read the sign at the beginning of the boardwalk on birds. Under each picture, write the name of the bird then answer the questions below.



Alabama is one stop on these birds' migration routes. What does migration mean?

Name at least one of the three major threats to neotropical migrants.

Tools and Weapons

Ask a park ranger to give you a demonstration of prehistoric tools and weapons. The ranger can show you how to use the different tools and weapons that the Native Americans who lived in Russell Cave used every day, such as the atlatl, the bow and arrow, the blow gun and the pump drill. You may even be able to try some of them yourself!

Using the pump drill.



Do you think it would be easy or hard to use the pump drill?

Could you drill a hole?

Throwing with the atlatl.



How do you think using the atlatl would affect your ability to throw the spear?

Using the bow and arrow.



Could you hit your target?

If you had to use a bow and arrow to hunt for food, would you be eating dinner tonight?





Flora and Fauna of Russell Cave

Flora is another word for the plants of an area, and **fauna** is another word for animals. So, the "Flora and Fauna of Russell Cave" means the "plants and animals of Russell Cave." On these two pages are some of the most recognizable plants and animals of our park. As you walk around the park - on the boardwalk, the nature trail, the picnic area, and around the Visitor Center - try to find each of these plants. You might even see some of the animals. During the summer, you will be able to identify the trees by their leaves, but during the winter it will be more difficult because you will need to identify them by the bark. Under each picture, write which tree, plant or animal you think it is. When you get stuck, use the word bank or ask a ranger.

Word Bank:

Oak Tree
Magnolia
Shagbark Hickory

Fern
Maple tree
Tulip Poplar

Food
Crayfish
Squirrel

Clothing
Tools
Diurnal











The bones of 28 deer have been found in Russell Cave. This shows us that deer were very important to Native Americans. What do you think deer were used for?



(Hint: Look closely at the bark.)



This man is holding a little brown bat. Bats are nocturnal; a nocturnal animal is one that is awake at night. A diurnal animal is one that is awake during the day.

What type of creature are you, nocturnal or diurnal?



This creature was an important source of food for Native Americans. The bones of 187 of these animals were found in Russell Cave. What is it?



Here is an animal that can camouflage itself, which means it blends in with its surroundings. See if you can find it and tell us what animal it is. (Hint: It's beside the leaf.)



Parts of a Tree

Each part of a tree has a special job. Read the clues below to figure out what part of the tree is being described. Label those parts on the corresponding picture. This is a common tree at Russell Cave. See if you can find one.

- I'm dead on the outside, but alive on the inside.
- I come in many colors.
- Protection is my job.
- Some would say I am the tree's skin.

What am I? _____

- The tree needs me and I need the tree.
- I am a factory.
- I help feed the tree both when I am alive and when I am dead.
- My job is photosynthesis.
- Check me out this fall.
- I can change color.

What am I? _____

- You'll only find me at certain times of the year.
- I can be very large or very small.
- I start out as something else.
- I am eaten by many animals, especially birds.
- I can help to grow more trees.

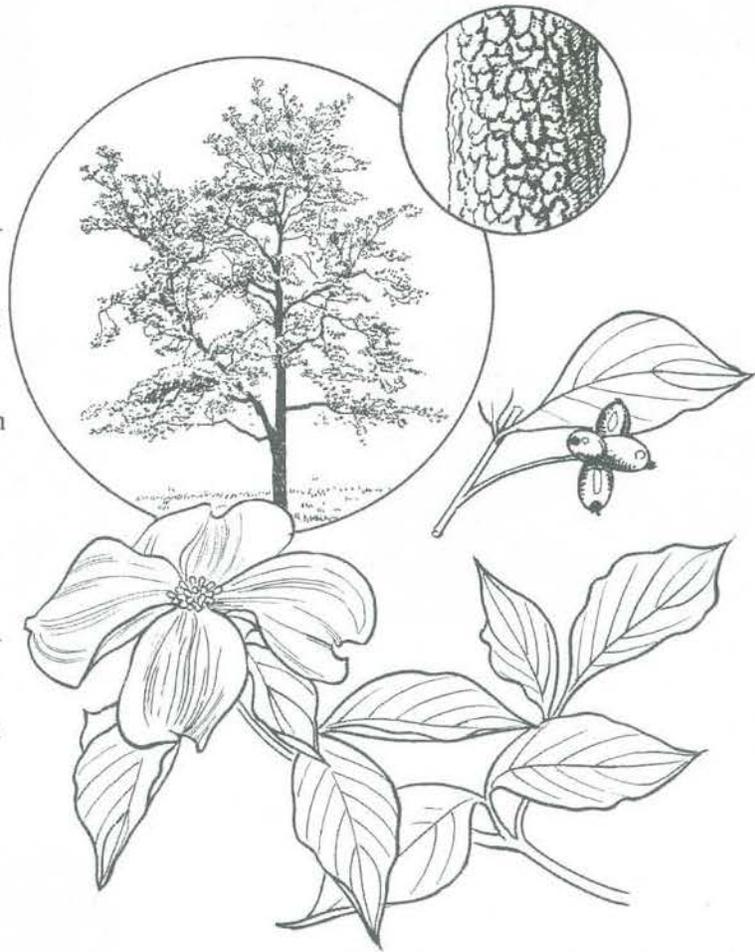
What am I? _____

- I am not fond of heights.
- I am often not visible.
- I have "hair".
- I help keep the tree standing.
- I am very thirsty.

What am I? _____

- I am an unopened package.
- I am often covered with scales.
- I will someday be a leaf or a flower.
- I am on the tree year round.
- I am found on the tree's twigs.

What am I? _____



Bonus Question:

What tree am I? _____

What Do Junior Rangers Do?



Visiting Russell Cave and completing the activities in this book are only the first steps in being a Junior Ranger. Below are a few ideas of things you can do every day as a Junior Ranger to explore, learn and protect our national parks

- Enjoy and take care of Russell Cave and other national parks.
- Explore Russell Cave to learn all about the history and culture of the Native Americans that lived in Russell Cave, the geology of Russell Cave and the nature of the surrounding area.
- Go home and tell all of your family members and friends about Russell Cave and what you learned.
- Find a special place near your home to explore, enjoy and learn about nature, rocks and history.
- Visit other national parks and become a Junior Ranger there, too.
- Go online to www.nps.gov/webrangers and learn how to become a Web Ranger.
- Go to www.nps.gov/ruca to learn even more about Russell Cave.





CONGRATULATIONS!

You have now completed the Russell Cave Junior Ranger Program! Bring your booklet up to a ranger at the Visitor Center so you can receive your badge and certificate.



This booklet was created as part of the Junior Ranger Ambassador Program, a partnership between the National Park Service and the Student Conservation Association, to improve the Junior Ranger experience in the National Parks.