JUNIOR

An affiliate of the National Park Service and a member of the Alliance of National Heritage Areas.

ACTIVITY JOURNAL

Photo courtesy: Chad Belinfanti

www.arabiaalliance.org



Welcome to THE ARABIA MOUNTAIN NATIONAL HERITAGE AREA!

Get ready to discover the fantastic sites and fabulous history with this guide. As a Junior Ranger, you can earn an official Junior Ranger certificate, a Junior Ranger journal, and a snazzy badge. Share the word about this awesome place with your family and friends.





HOW TO BECOME A JUNIOR RANGER:

- 1. Read the stories about our remarkable places and people in this journal. A visit to the Arabia Mountain National Heritage Area makes the stories come to life.
- **2.** Complete the activities next to these stories at your own pace. These activities can be finished in hours or days.
- **3.** Finish one of the following two steps:
 - a) Fill out the online Junior Ranger pledge at http://arabiaalliance.org/juniorranger. Tell us what you like the most about three places that you visited in the Arabia Mountain National Heritage Area.
 - b) Answer the questions on the "Becoming a Junior Ranger" page in the back of this Junior Ranger Activity Journal. These questions ask about three places in the Arabia Mountain National Heritage Area. Give this journal to a ranger at the Visitor Center desk at:

Panola Mountain State Park 2620 GA Highway 155 SW Stockbridge, GA 30281

Questions? Please email us at juniorranger@arabiaalliance.org. For more information about the Arabia Mountain National Heritage Area, check out our website at



ARABIA MOUNTAIN NATIONAL HERITAGE AREA





SEE 400 MILLION YEARS FROM HERE

1. Bruce Street School, page 28 Park near the Lucious Sanders Recreation Center 2484 Bruce Street Lithonia, Georgia 30058



2. Vaughters' Farm, page 24 3366 Klondike Road Lithonia, Georgia 30038

- **3.** Flat Rock Archive, page 22 3956 Crossvale Road Lithonia, Georgia 30038
- **4.** Parker House, page 20 4835 Flat Bridge Road Stockbridge, Georgia 30281
- **5.** Panola Mountain State Park, page 10 2620 GA Highway 155 SW Stockbridge, Georgia 30281
- 6. AWARE Wildlife Center, page 16 4158 Klondike Road Lithonia, Georgia 30038
- 7. Davidson-Arabia Mountain Nature Preserve, page 14 3787 Klondike Road Lithonia, Georgia 30038
- 8. Monastery of the Holy Spirit, page 32 2625 GA-212 Convers, Georgia 30094

DO YOU KNOW?

At 62.5 square miles in size, the Arabia Mountain National Heritage Area is about half the size of the City of Atlanta. This city is nearly 132 square miles in size.

ARABIA MOUNTAIN NATIONAL HERITAGE AREA

LIKE A BACABAGE BACABAGE The Arabia Mountain National Heritage Area excites your mind, body, and spirit.

Photo courtesy: William Bishop



SEE 400 MILLION YEARS FROM HERE.

Amazing mountains, lakes, rivers, plants, and animals add beauty to the land. Stories about local people inspire hope. Thousands of walkers, hikers, and bikers visit this area each year.

THIS JOURNAL WILL HELP YOU EXPLORE THIS SPECIAL PLACE.

06

MIGHTY MONADNOCKS





This playful word describes mountains that were formed millions of years ago and were once covered in softer rock and dirt. Wind and rainwater wore away the rock and dirt over time. This process is called erosion. Now you see only the hard rock that used to be covered up. Monadnocks are made of hard rock, such as granite or migmatite.



Arabia Mountain 400 million years old

> Panola Mountain 300 million years old

DO YOU KNOW ARABIA MOUNTAIN AND PANOLA MOUNTAIN STAND NEARLY 200 FEET TALL?

That height is about the same as a 17-story building. These two monadnocks are located in the National Heritage Area.



17-story building



SEE 400 MILLION YEARS FROM HERE.

Call these monadnocks ginormous, as in "ji-nor-mous."

These big mounds of rock rise above the surrounding land.

08

We know that 12 inches is equal to 1 foot. If Arabia Mountain and Panola Mountain are 200 feet tall, how many inches tall are these mountains?

Χ

feet

Answer: 200 feet x 12 inches = 2,400 inches

SCIENTISTS OF THE DEEP

Geologists want to know about the past, present, and future of the Earth.

These scientists take pictures of the Earth with powerful cameras. They use drills to dig for soil and rocks. The pictures, soil, and rocks help geologists learn the history of the mountains. These scientists find out what materials are inside these huge landforms.



With their training, geologists can see the unique qualities of the rock at Panola Mountain, Stone Mountain, and Arabia Mountain. Pretend you are a geologist. What patterns do you see? Describe each rock in a few sentences.

Panola Mountain Granite



Stone Mountain Granite



Arabia Mountain Gneiss



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The word "gneiss" sounds like "nice." This metamorphic rock is created by changes in granite rock caused by heat and pressure. Can you spot the swirl pattern in the Arabia Mountain gneiss?

PANOLA MOUNTAIN



SEE 400 MILLION YEARS FROM HERE.

Of all the monadnocks in the Piedmont region of the southeastern United States, Panola Mountain is the one in its most natural state.

This mountain has never been quarried for its granite rock. In 1980, the National Park Service honored the 100-acre mountain by naming Panola Mountain a National Natural Landmark.

> YOU NEED TO HIKE THIS BIG LANDFORM WITH A RANGER. BE PREPARED FOR MASSIVE FUN.

LIFE IN THE PITS



The rough climate forces plants to deal with heat, wind, and rainwater. But, strong plants find a way to grow in the soil of solution pits. These small dips in the granite form when chemicals from lichen and moss wear away the rock. On Arabia and Panola Mountains, small amounts of soil in solution pits make excellent homes for plants such as moss, lichen, and even flowers. When plants die, the soil in the solution pits deepen, making it possible for larger plants to grow.



Photo courtesy: Hugh and Carol Nourse



Find the words about solution pits in this word search pit.

HEAT MOUNTAIN PIONEER PITS RAINWATER SOIL WIND

М	D	L	Μ	В	F	Х	Μ	Ρ	Q
С	т	R	0	Т	Α	S	0	Т	L
U	F	D	U	В	Ζ	0	Q	Α	Y
Ν	W	J	Ν	W	U	G	R	U	L
н	Е	Α	т	Ι	н	G	Α	W	Ρ
Е	Ζ	V	Α	Ν	R	Е	Т	Q	Т
V	Q	Υ	Ι	D	D	R	Ν	С	0
G	S	J	Ν	н	Ρ	Ν	W	S	Ν
т	0	U	V	Ι	Т	R	Α	J	Е
S	S	Α	Ρ	Ι	Т	S	т	в	Е
С	L	G	κ	Α	F	Ν	Е	н	R
S	Ν	0	D	н	Н	F	R	V	Α

DIAMORPHA AT ARABIA AND PANOLA MOUNTAINS



SEE 400 MILLION YEARS FROM HERE.

As you hike on these mountains, can you spot diamorpha? Try that curious word again:

[die-*ah*-mor-fa]

This plant is also called *Diamorpha smallii* or elf orpine. Diamorpha can be found in small depressions called solution pits at Arabia and Panola Mountains. It brings exciting color to these monadnocks during the late winter.

Can you find diamorpha at both mountains? You will see these plants thriving on the granite rock.





Put on your scientist cap for a moment. Answer these questions:

- What color is the diamorpha now? The color changes over the year. Diamorpha is only red during the months of February, March, and April.
- How tall is this plant?

How deep is the solution pit with the diamorpha?

You can measure the solution pit with the ruler below. Be gentle with the ruler. Avoid stepping into the solution pits and treat plants with care.

2

FIND YOUR WAY

WELCOME TO ARABIA MOUNTAIN!

As you stand at the base of the mountain, how will you find your way to the top? Follow the cairns, pronounced "care-ins."



These piles of natural rock bonded with cement are more than strange stacks of stone. Cairns guide hikers from the trailhead to the mountaintop and back. Follow the cairns to the top and enjoy the view!



Draw a cairn for Arabia Mountain. The picture of an existing cairn can inspire you.

LEAVE NO TRACE



Marvelous plants and views attract thousands of visitors each year to both Arabia Mountain and Panola Mountain. Our walking and biking

trails are delightful too! You can lend a hand to save our beautiful mountains for future hikers. Follow the Leave-No-Trace Principles from the Center for Outdoor Ethics.

1. PLAN AND PREPARE

Bring plenty of water and a cell phone for your hike. Wear the right clothes and shoes for the weather. A map or a guide makes the hike more enjoyable.

2. TRAVEL ON DURABLE SURFACES

Stay out of the solution pits and follow cairns or blazes on the trails. Blazes are the colored markings on the ground and trees.

3. GET RID OF WASTE PROPERLY

Th

Take all of your trash, leftover food, and litter with you.

4. LEAVE WHAT YOU FIND

Look at, but do not touch, cultural or historic objects. Remember, don't pick the flowers. Leave rocks where they lie on the ground.

5. RESPECT WILDLIFE Watch wildlife from a distance.

6. BE KIND TO OTHER VISITORS

Be courteous to other hikers on the trail.

WITH YOUR HELP, OUR MOUNTAINS CAN REMAIN A GREAT PLACE TO VISIT.

AWARE WILDLIFE CENTER

Owls, squirrels, skunks, turtles, and other wild animals love the tree-

covered areas around Atlanta. When injured or hurt, local animals make their home at the AWARE Wildlife Center. Found at the base of Arabia Mountain, the AWARE Wildlife Center nurses injured wildlife until they are ready to return to the wild.



HAVE YOU SEEN ANY INJURED WILDLIFE IN YOUR NEIGHBORHOOD?

AWARE educates the public about wild animals through tours and school visits. This nonprofit organization treats the wounds of wild animals with medicine and love. Find out more information about these animals at awarewildlife.org.

Let's learn more about some of the amazing animals at this center. When they are healthy, how do these animals stay alive?

- Barn owls are one of the most popular of all owl species. Circle the features that help these animals survive.
 - a. Good eyesight and hearing
 - b. Soft feathers for a quiet flight when they hunt for animals to eat
- c. A neck that can be turned almost all the way around
- d. Powerful claws and feet to grab food



Answers: I (a., b., c., and d. – all four!), 2 (d.), 3 (b.), 4 (c.).

WILD ABOUT ANIMALS



What do you think about their funny nicknames?

- Flying squirrels don't have to touch the ground! These animals glide in the air using the thick skin between their front and back legs. Flying squirrels can cover more than _____ in a single glide.
 - a. 75 feet

c. 125 feet

b. 100 feet

- d. 150 feet
- To save itself from harm, a striped skunk can spray a strongsmelling fluid as far as _____.
 - a. 8 feet c. 15 feet
 - b. 12 feet d. 20 feet

Do you like "Stella Luna"?



Greetings, "Marc Antony"!

- 4. When they are scared, box turtles:
 - a. dig a hole in the ground and then hide in it.

c. pull their heads, tails, and limbs into their shells.

- b. scream and look for cover.
- d. spit a gooey liquid on the ground.



DO YOU KNOW THAT AWARE STANDS FOR THE ATLANTA WILD ANIMAL RESCUE EFFORT?

SOUTH RIVER

runs through the middle of the Arabia Mountain National Heritage Area.

Parts of the South River flow in areas where many people live.

A cance ride on this urban river carries you through history. Native Americans paddled the South River centuries ago in long, narrow cances. In the 1820s, the river saw a change as European Americans settled the land.

This 60-mile-long river starts north of Hartsfield-Jackson International Airport in East Point. Water from the South River eventually becomes part of the Altamaha River, which scientists describe as the largest free-flowing river in Georgia.

STREAM AHEAD



SEE 400 MILLION YEARS FROM HERE.





Volunteers with the South River Watershed Alliance check the condition of the river year-round. They work hard to keep the river in tip-top shape so people can paddle a canoe in it or walk along the water's edge.

Remember these tips when you visit any stream of water:

- 1. Go only in safe areas and have fun!
- 2. Bring a first-aid kit if you can.
- **3.** Wash your hands before you eat any food.
- Wear old shoes or boots. They may get wet and muddy.
- 5. Do not touch any wildlife or plants that you find.
- 6. Do not taste any water or plants.
- **7.** Stay with your group at all times. You can enjoy the water even more with your family or friends.

YOU CAN BE A FRIEND OF THE SOUTH RIVER TOO.

Help us see how this peaceful river is doing.



When you see the South River, answer these questions:

- **1.** What color is the river?
- **2.** Is the water deep or shallow?
- **3.** Do you see fish swimming in the South River?

IN 1830,

Aaron Parker built his family home on 2,700 acres of land along the South River.



Take a look at the picture of the Parker House.

This house is modest in size, but it is an important building to save because of its history. It is listed on the National Register of Historic Places. The Parker House is the oldest home in Rockdale County. People lived in the house for more than 170 years.

This home stood at the center of the Parker family's plantation, where as many as 24 enslaved people farmed cotton and wheat. Buildings such as slave cabins and barns once dotted Parker's land, but this home is the last remaining building.

The Parker House is an example of a "Plantation Plain" style home. These homes are usually two rooms wide and one room deep. They often sit two stories above the ground and were usually built of logs, wood, brick, or stone in the South between 1820 and 1850.

PARKER HOUSE

SECOND FLOOR PLAN





Can you find out the size of the two-story Parker House? Another way to think of the size of a building is the total floor area. An architect created these drawings below, called floor plans, for the work to preserve the home. Floor plans can tell us the location and length of walls, windows, and built-in pieces for each floor of the Parker House.



20

FLAT ROCK COMMUNITY



Enslaved people worked on farms in this area until slavery ended in 1865. Across the South, freed slaves started new lives and created communities such as Flat Rock.

Families enjoyed close bonds in Flat Rock. Churches like Flat Rock United Methodist Church played an important role in the community. This continues today.

Flat Rock Methodist Church

Life in Flat Rock wasn't always easy. African Americans could not own land on major roads, and many families worried about their safety and finding work.

Known as the Great Migration, over six million African Americans left the South for the promise of new jobs and a better life in northern cities. Many in Flat Rock didn't want to leave their homes, so they stayed to keep their community alive.

FARMING A FUTURE



SEE 400 MILLION YEARS FROM HERE.



Would people in the Flat Rock community move to other areas in the United States too? Would they have a better life in another part of the country?

T. A. Bryant Sr. wanted to keep the Flat Rock community together. He was a smart business leader. Mr. Bryant bought 43 acres of land from John South for \$600 in 1925.



How much money did Mr. Bryant spend for each acre of land?



Flat Rock Methodist Church Trustees in 1909

Mr. Bryant sold pieces of his land to fellow African Americans. This group wanted to stay in the place where they owned land.

Flat Rock was a farming community. The farmers grew crops such as cotton, corn, and wheat. They raised cows, chickens, and pigs. Mr. Bryant's family has lived on this historic land for a long time. Flat Rock is one of the oldest communities in the Atlanta area. This land is a part of the Arabia Mountain National Heritage Area.

VISIT THE FLAT ROCK ARCHIVE.

This cultural center tells the public about the great history of the Flat Rock community and DeKalb County.

The answer is about \$13.95 per acre.

VAUGHTERS' FARM

DEKALB COUNTY WAS THE DAIRY CAPITAL OF THE SOUTHEASTERN UNITED STATES IN THE 1930S.

Farms in this county made more milk products than others in the region did.

More than 50 dairy farms operated in DeKalb County during the 1930s and 1940s. Vaughters' Farm was one of the last dairy farms to operate in the county.

S. B. Vaughters paid \$4,230 for the 146-acre piece of land in 1946. This amount equals \$51,400 in today's dollars. He taught at the nearby Murphey Candler School. The teacher built a barn over the next ten years. His cows made dairy and beef products. Mr. Vaughters used local granite to build a house for his family. A seventh-grade student helped him.

Over the course of many years, farmland in DeKalb County became neighborhoods with houses and roads. The State of Georgia bought Vaughters' Farm in 2002 so we can continue to enjoy this special place.

PICTURE THIS!



SEE 400 MILLION YEARS FROM HERE.

Visitors to the Arabia Mountain National Heritage Area know that Vaughters' Farm is a picture from the past.

They love to see the old, white barn; the big trees; and the sea-blue skies. During a hike at Vaughters' Farm, you may find birds, wild turkeys, and deer. This meadow has been their home for a long time.

Vaughters' Farm is a delightful setting for making landscape art. Beautiful places and flowers inspired painter Vincent van Gogh to create exciting paintings in the 1880s. He used bold colors and curvy shapes in his work.





Make landscape art from this picture of the farm with your colored pencils or markers.



TECHNOLOGY



Do you see the straight edges of the outcroppings at Arabia Mountain?

These spots on the mountain often show where quarrying took place.

GRANITE INDUSTRY

Granite quarry companies attracted European immigrants and African Americans to DeKalb County.

People were excited by the promise of new jobs. Think of a quarry as a mining site where workers remove stone from the ground.

By 1880, quarry workers used drills, explosives, and huge machines to "raise a ledge." This task called for the worker to separate chunks of granite rock from the outcroppings at Big Ledge, Arabia Mountain, Pine Mountain, and Rock Chapel.



ROCK AROUND THE COUNTRY



SEE 400 MILLION YEARS FROM HERE.



The workers sliced the large granite sheets into smaller rocks using saws. They shipped the granite rock on trains to sites around the United States, starting from Atlanta.

See the workers' skills with the granite rock on the buildings in the Arabia Mountain National Heritage Area. Buildings at the United States Military Academy in New York and the United States Naval Academy in Maryland also show their work. The granite rock can be seen in paving curbs on streets in the Atlanta area.

> CAN YOU FIND A GRANITE BUILDING IN YOUR NEIGHBORHOOD?

UNFAIRNESS ON THE BOOKS

THE HISTORIC BRUCE STREET SCHOOL

changed the lives of many African Americans in DeKalb County.

The Bruce Street School was built in 1938 for African American students. For many years, black students were sent to different schools because of a legal system called segregation.

Between the 1890s and the 1950s, white and black children had to go to different schools in the South. In the Lithonia area, schools such as the Bruce Street School supported African American students only through seventh grade, so teenagers had to move far away from their families if they wanted to keep going to school.



BRUCE STREET SCHOOL



In the 1960s, two new Bruce Street Schools opened—a high school and an elementary school. Since it was no longer needed, the old Bruce Street School closed. Even though the old building has fallen apart, some of the original walls can be seen today.

Take a look at the walls of the old school.



People are working to use this historic building again.

This process is called adaptive reuse.



What is your idea for using this building again?

COLLECTING ORAL HISTORY

An oral history is the collection of living people's memories about their lives.

A picture of the school helped former Lithonia Mayor Marcia Glenn Hunter give an oral history. She talked about her school days at the Bruce Street School.



Photos courtesy: Marcia Glenn Hunter



"I loved school. It was the beginning of my love for people and leadership."

- Marcia Glenn Hunter

TELL ME MORE



To l	earn more about how to gather an oral history, try the following activity:
1.	Ask an adult questions about his or her life. Be sure to get your parents' approval to talk to this person.
2.	Think about using a cell phone to record the interview. You can also take notes while the person answers the questions.
3.	Ask these questions:
	a) When were you born?
	b) Tell me about your childhood. Where did you live?
	c) What was the name of your elementary school?
	d) What was one of your favorite times at the school?
4.	Save the recording as the start of an oral history collection.

THANKS FOR YOUR WORK! YOU ARE SAVING HISTORY.

MONASTERY OF THE HOLY SPIRIT

Trappist monks have chosen a higher calling for more than a thousand years. This group is part of the Catholic Church.

These men live in religious places called monasteries for the rest of their lives. Life is simple in these communities. The monks pray to God seven times every day. They want to help people. In 1948, 21 Trappist monks left their home at the Abbey of Gethsemani in Kentucky. These men started a new monastery in Conyers, Georgia. They needed workers to build a big new church. This building would have spaces to live, eat, study, and reflect.

More than 50 other monks joined their brothers. They built the Monastery of the Holy Spirit over the following decade.





EE 400 MILLION YEARS FROM HERE



Monks at the Monastery of the Holy Spirit feel a special sense of solitude in the Abbey Church. They love the silence of the sacred space. When visitors spend time alone here, they find the joy of solitude too.

Take a quiet walk from the historic barn to the Abbey Church. Enjoy the rolling hills, the calming trees, and the open skies. How does this peaceful place make you feel?

Stand on your own in the cloister in the Monastic Heritage Center. A cloister is an open space with buildings at the edges. Relax your mind as you look at the pure landscape and tall columns. The columns look like large stone posts. This addition at the Monastery of the Holy Spirit was completed in 2011. Are you enjoying your solitude in this space?

CAN YOU FIND THE JOY OF SOLITUDE?

a quiet space: no running televisions, radios, computers, or personal gadgets. For five minutes, take in the silence of the space. Write down three adjectives to describe your time alone.



FAITH-INSPIRED ARCHITECTURE

THE ABBEY CHURCH AT THE MONASTERY OF THE HOLY SPIRIT

was built with concrete but laid with a deep faith in God. Inspired by traditional church design, the monks built the Abbey Church with their own hands. Using drawings started by architects, the monks created a sacred space for worship and contemplation that reflects the traditions of churches across the world.

Dozens of monks poured the tall concrete walls, high arches, and graceful columns of this church. They laid the terrazzo floor, constructed the wooden pews, and added the huge wooden ceiling in the main worship area. Today, the monks reflect and sing in the pews.

ARE YOU READY TO DISCOVER THE CHURCH?

AMAZING COLORS



SEE 400 MILLION YEARS FROM HERE.

The concrete on the walls of the monastery

looks smooth, but this building material can be made of small rocks, sand, water, and a powder called Portland cement.

Do you see the different colors of light inside the Abbey Church?

The monks used stained glass for the windows. This glass had lots of colors. Today, sunlight comes through blue-, violet-, and rose-colored glass to bring cool light into the space.

At the far end of the church, yellow, orange, and crimson flood the space with warm light. Do you see the cool and warm colors? These different colors from the stained glass draw the eye to the altar, where monks lead worship services.

You can be a stained glass designer, too. Make a design for a stained glass window in the Abbey Church. Do you want to feel cool? Use cool-colored pencils such as blue, violet, and rose for your window. Decades after its completion, the Monastery of the Holy Spirit inspires the imagination and the spirit.



BECOMING A JUNIOR RANGER

You are close to becoming a JUNIOR RANG



SEE 400 MILLION YEARS FROM HERE.





Tell us what you liked the most about three places that you visited in our National Heritage Area.

1.	 •••
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TAKE THE JUNIOR RANGER PLEDGE





SEE 400 MILLION YEARS FROM HERE.

READ THE PLEDGE BELOW AND SIGN YOUR NAME.



JUNIOR RANGER PLEDGE I promise to:

- **1.** Treat the Earth and all living things with care and respect.
- **2.** Tell others about my discoveries.
- **3**. Encourage my friends and family to protect special buildings and places.
- 4. Be a friend of nature and a champion of history.
- 5. Come back!



(Sign here to become an official Junior Ranger.)

CONGRATULATIONS! YOU HAVE FINISHED THE JUNIOR RANGER ACTIVITY JOURNAL.

Now you are an official Arabia Mountain National Heritage Area Junior Ranger!

THE ARABIA MOUNTAIN NATIONAL HERITAGE AREA

was designated by an act of Congress in 2006. The nonprofit Arabia Mountain Heritage Area Alliance developed this Junior Ranger Activity Journal in cooperation with the partners who preserve, protect, and promote the compelling history, dynamic culture, and engaging granite landscapes of this National Heritage Area.



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