

EXPLORE WITH YOUR SENSES



*Ranger Led
Program*

THEME: Five Senses
GRADE LEVEL: Kindergarten
BEST TIME TO PLAN TRIP: Spring or Fall

UNIT RATIONALE

Great Smoky Mountains National Park is an excellent backdrop for students as they explore the natural world with their senses. Lessons in history and animal communities are taught by park rangers as students become actively involved in touching, smelling, seeing and listening to the resource. Establishing a comfort between a child and the outdoor environment is crucial to the future of the National Park Service. A child who learns to safely explore the outdoors with adults may become intrigued and excited to explore other natural areas in their own community. This love of the outdoors is sometimes lost by the draw of today's entertainment technology such as cable television, computers and electronic gaming systems. The purpose of this trip is to create an awareness of the natural world and encourage future learning through family activities in Great Smoky Mountains National Park.

STATE CURRICULUM STANDARDS = TENNESSEE (KINDERGARTEN)

SCIENCE

Embedded Inquiry

- Observe the world of familiar objects using the senses and tools (GLE 0007.Inq.1)
- Recognize that both natural materials and human-made tools have specific characteristics to determine their use (GLE 007.T/E.K-2.1)

Interdependence

- Know that people interact with their environment through their senses (GLE 007.2.2)

The Earth

- Identify non-living materials found on the surface of the earth (GLE 0007.7.1)

Physical Science

- Describe an object by its observable properties (GLE 0007.9.1)

Energy

- Identify the sun as the source of heat and light (GLE 0007.10.1)

ENGLISH

- Develop critical listening skills essential for comprehension, problem solving and task completion (GLE 0001.2.1)
- Develop critical speaking skills essential for effective communication (GLE 001.2.2)





TABLE OF CONTENTS

| Activity | Page |
|--|------|
| Unit Rationale/State Curriculum Standards..... | 1 |
| Table of Contents | 2 |
| Planning Your Trip | 3 |
| Safety | 4 |
| Map to Cades Cove | 5 |
| Map to Sugarlands..... | 6 |
| | |
| Pre-Site Activities | |
| Animals and Their Senses | 7-12 |
| | |
| On-Site Activities at Cades Cove | |
| Park Ranger Directed Lessons | 13 |
| Sensory Rope | 13 |
| Sounds of the Forest | 13 |
| Nature Detectives..... | 13 |
| Hug a Tree | 13 |
| | |
| On-Site Activities at Sugarlands | |
| Park Ranger Directed Lessons | 14 |
| Sensory Rope | 14 |
| Sounds of the Forest | 14 |
| Nature Detectives..... | 14 |
| Hug a Tree | 14 |
| | |
| Post-Site Activities | |
| School Nature Detectives..... | 15 |
| Explore Your National Parks | 16 |
| | |
| Appendices | |
| Parent/Chaperone Letter | 17 |
| Resources and References..... | 18 |



PLANNING A SUCCESSFUL TRIP

EXPLORE WITH YOUR SENSES



AT CADES COVE

SCHEDULE FOR A DAY OF ACTIVITIES IN GREAT SMOKY MOUNTAINS NATIONAL PARK

Morning:

- Arrive at Cades Cove Ranger Station.
- Use the restrooms at the store.
- Reload the bus to travel to the trail head
- Ranger leads group introduction with “Piney the Talking Tree”.
- In two groups, students participate in ranger-led activities
- Stay for picnic lunch on lawn or return to school

AT SUGARLANDS

SCHEDULE FOR A DAY OF ACTIVITIES IN GREAT SMOKY MOUNTAINS NATIONAL PARK

Morning

- Arrive at Sugarlands Visitor Center for restrooms
- Reload the bus to travel to the trail head
- Ranger leads group introduction with the “Talking Chimney”
- In two groups, students participate in ranger-led activities
- Stay for picnic lunch on visitor center lawn or return to school

Planning a Successful Trip

- The Cades Cove picnic area is located prior to the one way Cades Cove driving loop. **DO NOT GET ON THE SCENIC 11 MILE LOOP.** Instead, turn left and follow the signs for the picnic area. The picnic area is located 6 miles west of the Townsend “Wye”.
- There is no cost to use this site or for the program. The rangers will be waiting on your bus to pull into the picnic area. Rangers will show you where to park.
- Safety is of the utmost importance, especially in a National Park. Be sure to read the safety information provided on the following page. You may wish to take the page with you on your trip or send it to your chaperones prior to the on-site experience.

Planning a Successful Trip

- The Sugarlands Visitor Center is located 5 minutes from downtown Gatlinburg on Highway 441. If traveling via the Gatlinburg by-pass, the visitor center is one mile into the park after the by-pass ends.
- There is no cost to use this site or for the program. The rangers will be waiting on your bus to pull into the visitor center. Rangers will show you where to park.
- Safety is of the utmost importance, especially in a National Park. Be sure to read the safety information provided on the following page. You may wish to take the page with you on your trip or send it to your chaperones prior to the on-site experience.



SAFETY CONSIDERATIONS AND OTHER IMPORTANT INFORMATION



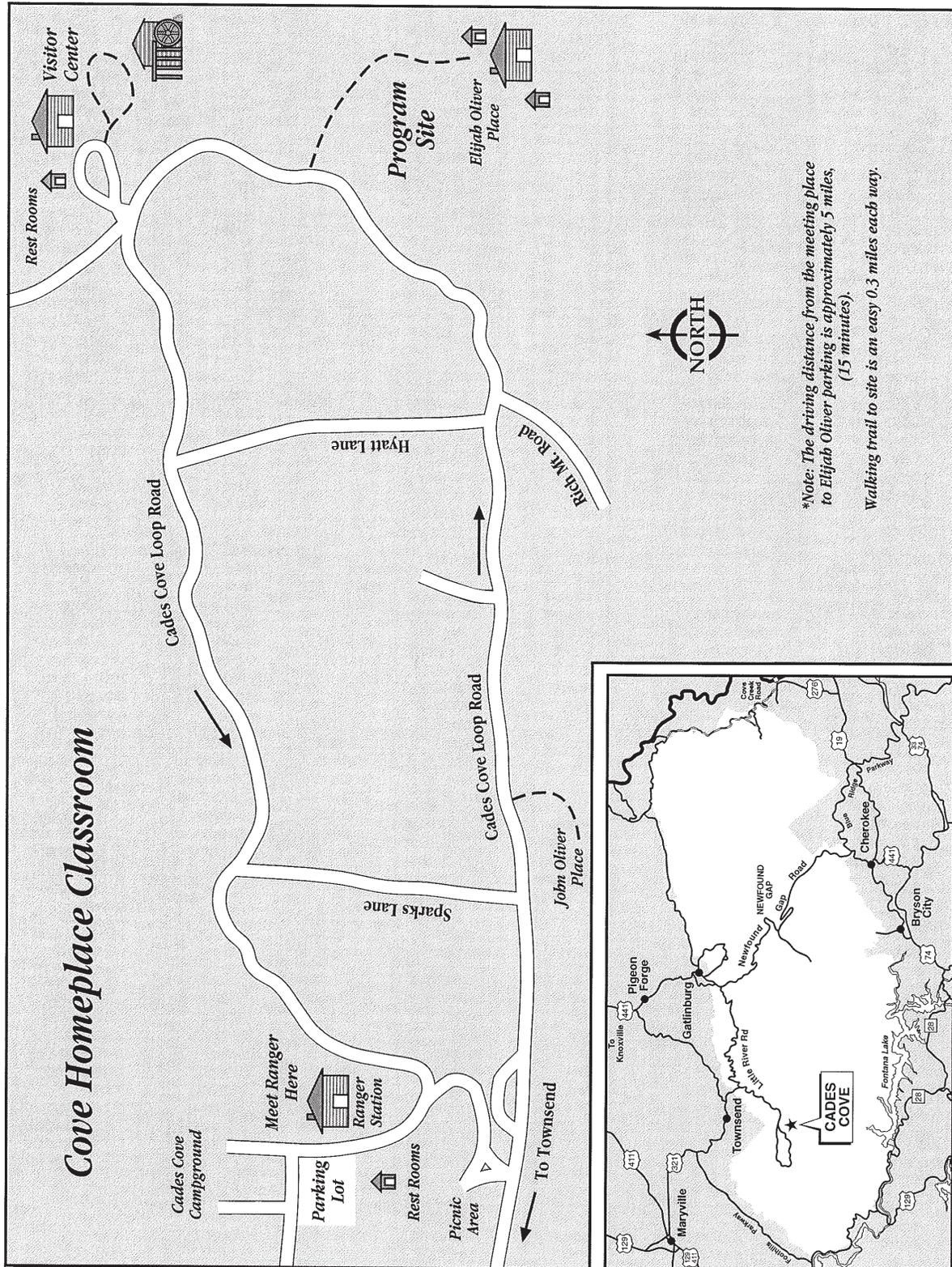
- Great Smoky Mountains National Park is a federally protected public use area. Please help the rangers keep all of the plants and animals protected in the park by not picking the plants or taking anything from the park.
- Please remind your students to wear appropriate footwear and clothing for this extended outdoor experience. Flip flops, slip-on shoes, or sandals are not appropriate for the program.
- Temperatures in some parts of the park can be 10-15 degrees colder than at your school. Long pants and layers are suggested for the program. Pants are the best precaution against cool temperatures, bee stings, ticks, and poison ivy.
- Within the park, cell phones are not always reliable. Rangers will follow the on-site agenda. If an unexpected problem occurs, rangers do carry park radios to make contact with the park dispatch office. For non-emergencies, call the Park Ranger dispatch at 865-436-1230 or contact a park employee.

Animals and Plants of Concern in the park

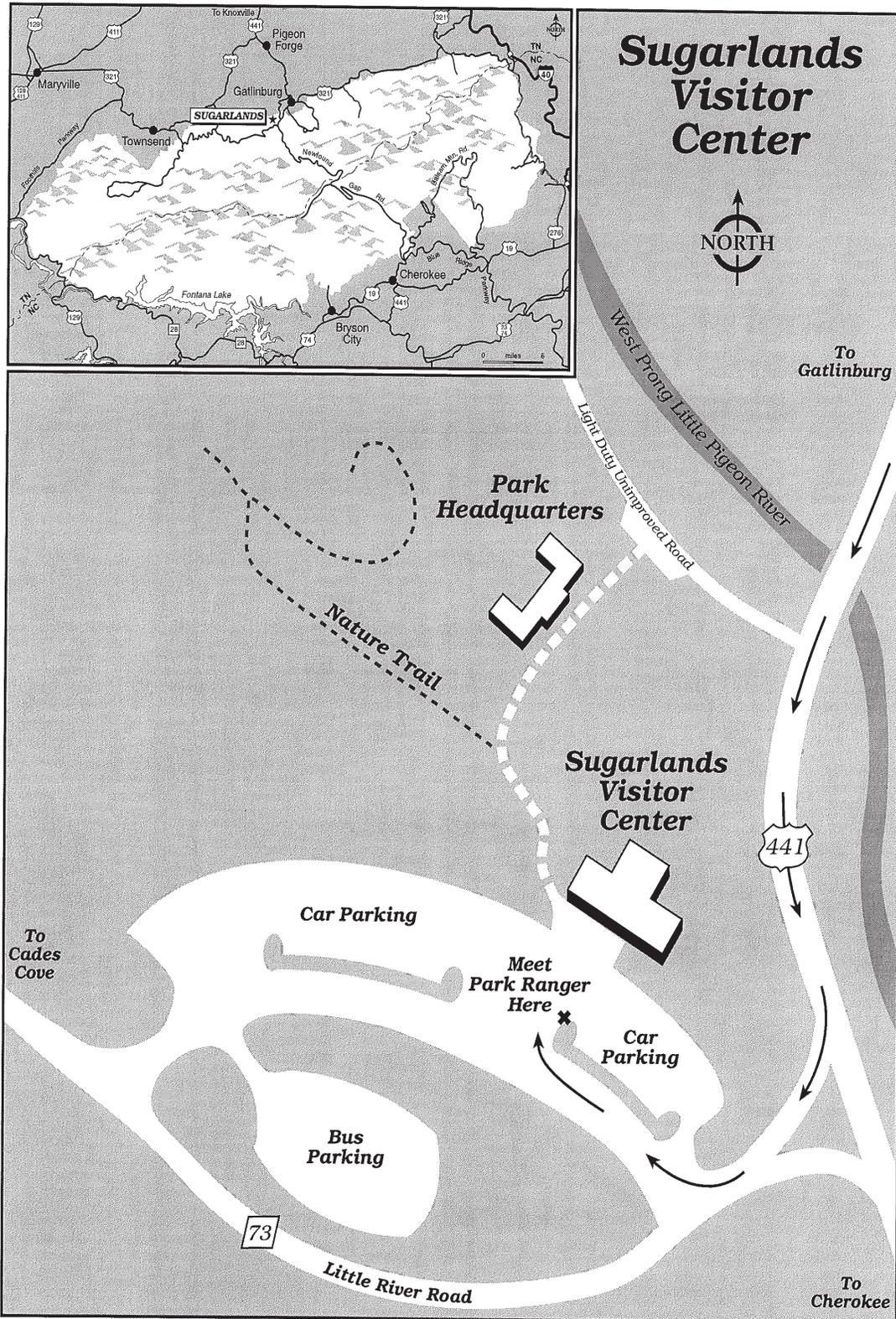
- All animals in the park are wild and their behaviors are unpredictable. Treat all animals with caution.
- Venomous snakes - Two species of venomous snakes live in the Smokies, the copperhead and timber rattlesnake. Students should be cautious where they place their hands and feet.
- Insects - Yellow jacket wasps are the insects of greatest concern. They build nests in the ground along trails and streams and are aggressive when disturbed. Stings cause local swelling and can lead to severe allergic reactions in sensitive individuals. Such persons should carry epinephrine kits.
- Poison Ivy - Poison ivy is a three-leaved plant which can grow on the ground as well as on “hairy” vines up trees. To avoid chances of an allergic reaction wear long pants, stay on trails, and avoid direct contact with vegetation. If contact occurs or is a concern, wash affected parts in cold soapy water immediately.
- It is extremely helpful to rangers leading the program for students to wear clearly labeled name tags with first names only.
- Pets are not allowed on most park trails. Please do not bring them on the field trip.
- For more information about the park (Things to Know Before You Come) please visit the park’s website: <http://www.nps.gov/grsm/planyourvisit/things2know.htm>



MAP TO CADES COVE

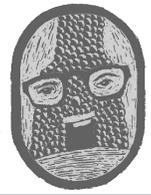


MAP TO SUGARLANDS



PRE-SITE ACTIVITY

ANIMALS AND THEIR SENSES

**Grade Level:**

Kindergarten

Subject Area: Science**Activity time:** 30 minutes**Setting:** Classroom

Skills: Coloring; Critical thinking

Vocabulary: hear; see; smell; taste; touch

Objectives: Aid students in learning how animals use their senses.

Materials:

- Coloring pages (included)

Background:

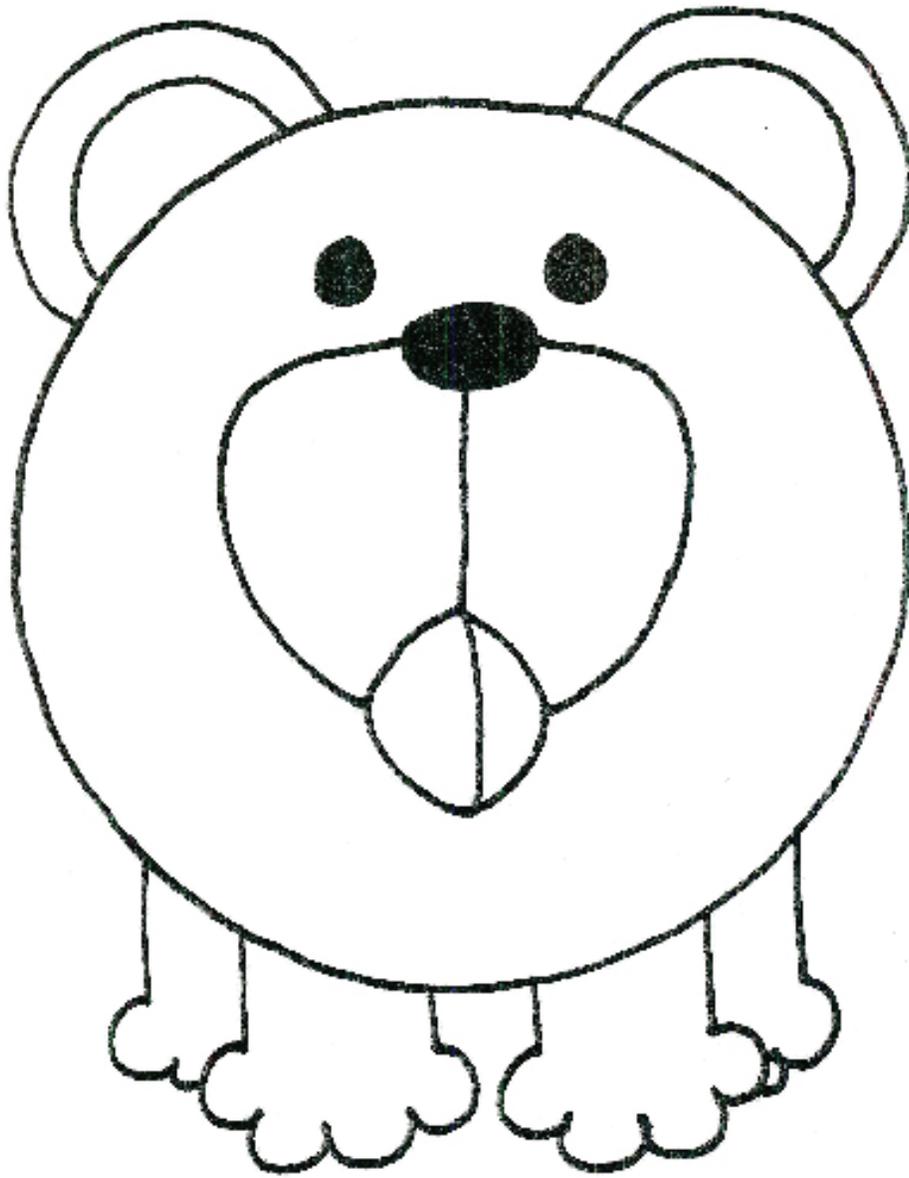
All animals have senses. Though they may not look like you or me, a bear, a frog, and a bird all have parts to their body which help them learn about their environment.

Great Smoky Mountains National Park is home to over 17,000 known different types of animals and plants. The living things of the forest and the streams need to make or find energy from the sun, the plants and sometimes from other animals. How does a raccoon find food? How does a bird make a nest? How does a deer listen for its mother in the forest? The answer to all of the questions is the same: animals use their senses to survive.

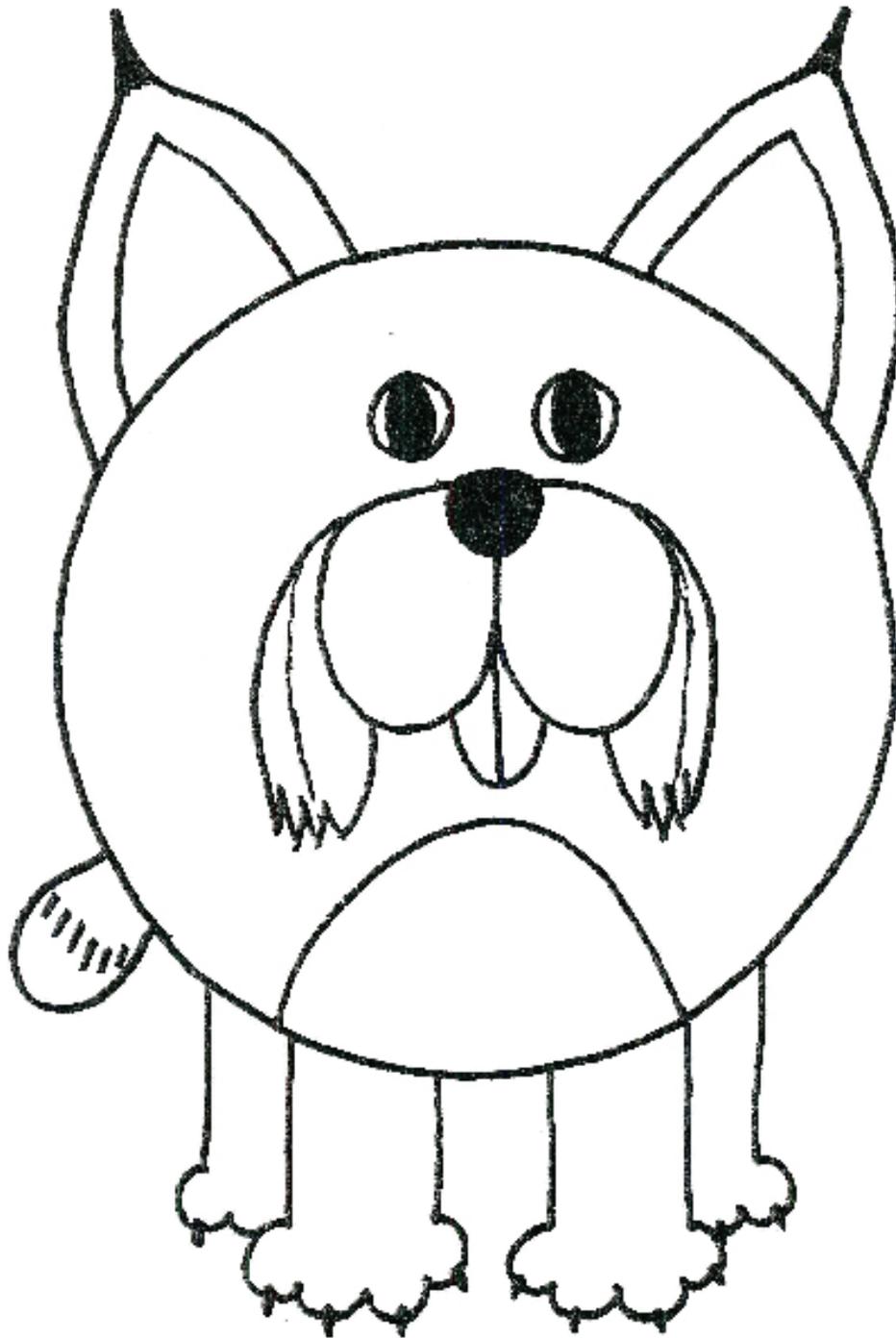
Procedure:

Use the following color sheets to help introduce animals of Great Smoky Mountains National Park to the students and to help reinforce their knowledge of their own senses.

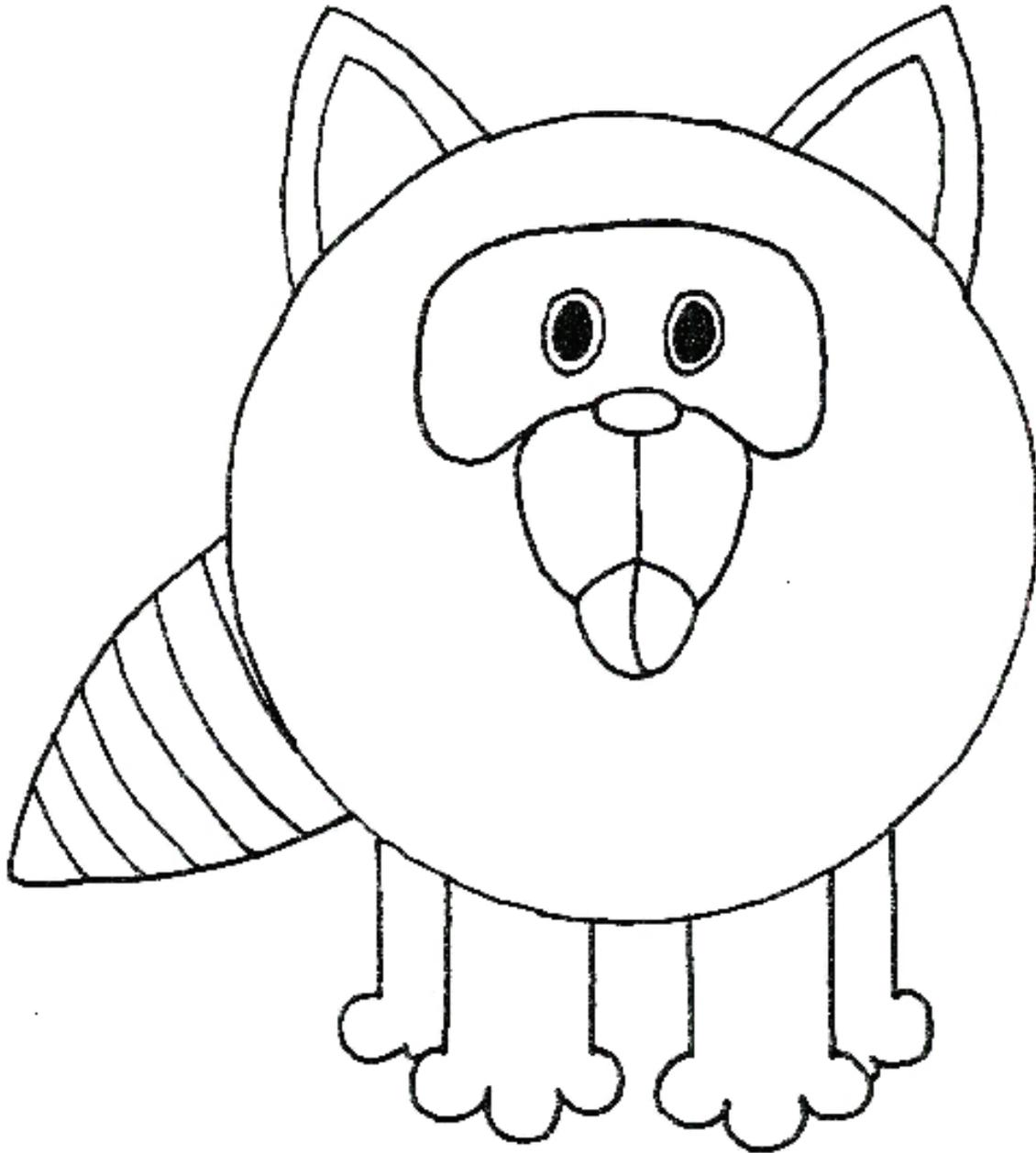




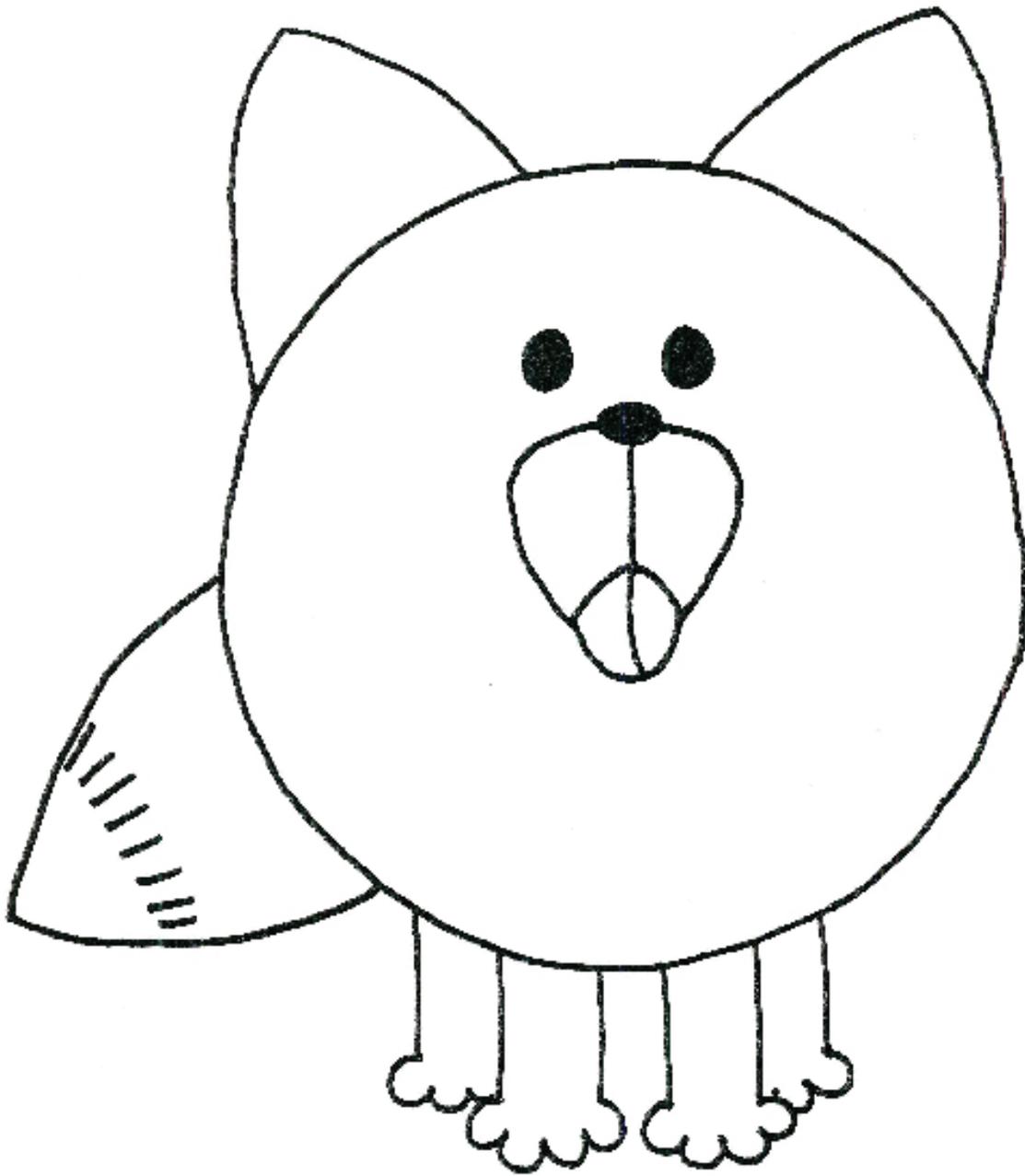
I am a Black Bear. My nose
can _____ food that is far
away.



I am a Bobcat. I have good eye sight. I can ___ even when it is dark outside.



I am a Raccoon. My hands are good for _____ things in the forest and for picking up food.



I am a Red Fox. I use my tongue to _____ eggs and berries. Yum!

ON-SITE ACTIVITIES

PARK RANGER DIRECTED LESSONS AT CADES COVE



Grade Level:

Kindergarten

Subject Area: Science

Activity time: 1.5 hours

Class size: Maximum of 50

Setting: Outdoors in the park

Skills: Communicating, Critical thinking; Describing; Listening; Observing

Vocabulary: animal; color; community; compare; family; hear; nature; observe; respect; rules; see; senses; shape; size; smell; soil; taste; touch

Objectives: Teach students that by using their senses, they can enhance their overall experience in the park.

Materials: All provided by park rangers

Background:

The following is a brief description of your on-site activities. These activities will be led by park staff, but please be familiar with them, as the classroom teacher may be asked to assist on-site.

Piney the Talking Tree (10 minutes)

As students unload the bus, the park ranger will lead the entire group to the start of the nature trail. At this point a discussion of safety in the forest will take place. Students will be asked to identify their 5 senses. The park ranger will then lead the entire group down the paved path to meet the “Talking Tree”. The “Talking Tree” will tell a short story to the student and ask for responses to several questions.

The group will be divided into two groups and will follow the park rangers to participate in the following activities:

Sensory Rope (20 minutes)

Students will be asked to close their eyes and feel their way along a sensory rope to touch and smell objects of the forest. After all have walked alongside the rope, the ranger will ask for guesses from the group as to what was discovered with their senses.

Sounds of the Forest (20 minutes)

Students will sit and listen to a variety of recorded animal sounds from Great Smoky Mountains National Park. The ranger will ask students which animal is making the recorded sound. The ranger will show students a photograph of the correct animal.

Nature Detectives (20 minutes)

Students will be shown the proper techniques of using a magnifying glass. Students will then receive a magnifying glass and will be directed to search the forest floor using only their eyes to uncover the microscopic world. Student will be asked to report back to the ranger with verbal descriptions of their findings.

Hug a Tree (20 minutes)

This activity reinforces a rule of safety. If a person becomes lost in the woods, remember to “Hug a Tree”. By staying in one place, a lost visitor can be located easier by rescue teams. The ranger will demonstrate how to “Hug a Tree”, then students will participate in a game where paired students get to find a tree by using their sense of touch.



ON-SITE ACTIVITIES

PARK RANGER DIRECTED LESSONS AT SUGARLANDS

**Grade Level:**

Kindergarten

Subject Area: Science**Activity time:** 1.5 hours**Class size:** Maximum of 50**Setting:** Outdoors in the park**Skills:** Communicating, Critical thinking; Describing; Listening; Observing**Vocabulary:** animal; color; community; compare; family; hear; nature; observe; respect; rules; see; senses; shape; size; smell; soil; taste; touch

Objectives: Teach students that by using their senses, they can enhance their overall experience in the park.

Materials: All provided by park rangers

Background:

The following is a brief description of your on-site activities. These activities will be led by park staff, but please be familiar with them, as the classroom teacher may be asked to assist on-site.

The Talking Chimney (10 minutes)

As students unload the bus, the park ranger will lead the entire group to the start of the nature trail. At this point a discussion of safety in the forest will take place. Students will be asked to identify their 5 senses. The park ranger will then lead the entire group down the paved path to meet the “Talking Chimney”. The “Talking Chimney” will tell a short story to the student and ask for responses to several questions. The park ranger will then lead the group back to the start of the trail again to divide the group into 2 smaller groups.

Each small group will follow the park rangers to participate in the following activities:

Sensory Rope (20 minutes)

Students will be asked to close their eyes and feel their way along a sensory rope to touch and smell objects of the forest. After all have walked alongside the rope, the ranger will ask for guesses from the group as to what was discovered with their senses.

Sounds of the Forest (20 minutes)

Students will sit and listen to a variety of recorded animal sounds from Great Smoky Mountains National Park. The ranger will ask students which animal is making the recorded sound. The ranger will show students a photograph of the correct animal.

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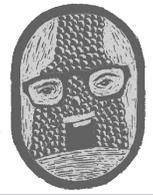
Hug a Tree (20 minutes)

This activity reinforces a rule of safety. If ever a person becomes lost in the woods, remember to “Hug a Tree”. By staying in one place, a lost visitor can be located easier by rescue teams. The ranger will demonstrate how to “Hug a Tree”, then students will participate in a game where paired students get to find a tree by using their sense of touch.



POST-SITE ACTIVITY

SCHOOL NATURE DETECTIVES

**Grade Level:**

Kindergarten

Subject Area: Science

Activity time: as times allows

Setting: Outdoors in the schoolyard

Skills: Communicating, Critical thinking; Describing; Listening; Observing;

Vocabulary: animal; color; compare; nature; observe; see; shape; size; soil

Objectives: Teach students that through careful observation, there are many things waiting to be discovered.

Materials:

- Magnifying glasses received from field trip
- Inventory list
- Trash bags

Procedure:

Just as many exciting discoveries were made during the class trip to Great Smoky Mountains National Park, there are many places to explore within your school yard. Allow students to use their magnifying glasses back at school to make an inventory list just like the one in the national park.

Once completed, ask students if the list looked longer or shorter. Were any of the same types of items found? Why or why not? Is your school yard bigger or smaller than the national park (the park is 500,000 acres).

While visiting Great Smoky Mountains National Park students heard from park rangers about the importance of keeping the forest clean of trash. When people visit special places like national parks, they should be sure to pack out all of their trash and garbage.

Schools are also special places that should be kept clean. As a service learning opportunity are there places within your school that students could help to clean up? Any trash on the school grounds? Litter in the halls? Find an opportunity for stewardship and encourage students to keep their school clean.



POST-SITE ACTIVITY

EXPLORE YOUR NATIONAL PARKS

**Grade Level:**

Kindergarten

Subject Area: Science**Activity time:** 30 minutes**Setting:** Indoors

Skills: Varying skills depending on activities selected

Vocabulary: Varying vocabulary depending on activities selected

Objectives: To teach students about the various aspects of the National Park Service.

Materials: internet access

Background:

The Great Smoky Mountains are world renowned for their diversity of plant and animal species. This great variety makes the park an exemplary outdoor laboratory for the study of relatively undisturbed native flora, fauna, physical environs, and processes of the Southern Appalachians. The park is the largest federally preserved and protected upland area east of the Mississippi River offering park visitors a refuge from the stresses of everyday life.

You and your students can learn more about this special place

of the National Park Service and other federally protected lands. Please check out the following web addresses:

Especially for Kids

To learn how to become a web ranger for the National Park Service, go to:

www.nps.gov/webrangers

To learn how to become a Junior Park Ranger at Great Smoky Mountains National Park or other parks, go to:

www.nps.gov/learn/juniorranger.htm

Especially for Teachers

For a comprehensive understanding of the background and development of the National Park Service, that is perfect for teachers and others those who need the maximum amount of accurate information in the minimum amount of time, go to: <http://www.ParkTraining.org> The U.S. Department of Education is pleased to announce the newly remodeled and updated Federal Resources for Education Excellence (FREE) website. It now provides richer, more expansive resources to teachers and students alike. There are over 1,500 resources to take advantage of at FREE ranging from primary historical documents, lesson plans, science visualizations, math simulations and online challenges, paintings, photos, mapping tools, and more. This easily accessible information is provided by federal organizations and agencies such as the Library of Congress, National Archives, National Endowment for the Humanities (NEH), National Gallery of Art, National Park

as well as participate in on-line activities to further your knowledge Service, Smithsonian, National Science Foundation (NSF), and National Aeronautics and Space Administration (NASA). Go to: <http://www.free.ed.gov/>



PARENT/CHAPERONE LETTER



Greetings Parents/Chaperones:

Park rangers are pleased to be presenting an educational program to the students in Great Smoky Mountains National Park. In order to achieve the goals for a successful program, the park rangers will need your assistance in the following ways:

(These points will help to ensure that park rangers and teachers will be able effectively conduct the lessons and activities throughout the trip.)

- The program will be conducted outside and there will be some hiking throughout the trip. Prepare your student with appropriate footwear, long pants, layers, and rain gear.
- If your child is bringing a lunch from home, we recommend that students bring water to drink and a lunch with minimal packaging. Soft drinks are usually left unfinished by students, and remaining sugary drinks cannot be poured out on the ground. (Minimally packaged lunches lead to less trash being left behind or scattered by the wind. Additionally, this reduces the accumulated trash to be disposed).

If you are a chaperone attending the field trip:

- Please be an active part of the lessons. Keep up with the group and listen to the information being given in the case that you may be called upon to assist (handing out materials, sub-dividing groups etc.).
- Please do not hold conversations with other chaperones or use a cellular phone while the rangers are teaching the students.
- Refrain from smoking during the trip. If you must smoke, please alert a ranger or teacher and remove yourself from the group.
- Please be aware that the program will be conducted outside and that there will be some hiking throughout the trip. Prepare yourself with appropriate footwear, long pants, layers, and rain gear.
- We recommend that parents and students bring a small towel in their backpacks to sit on at lunch (there are no picnic tables at the program site).

Thank you for your needed assistance. We look forward to meeting you on the program!

Sincerely,

The Education Staff at Great Smoky Mountains National Park



RESOURCES AND REFERENCES



- Aloian, Molly, and Bobbie Kalmon. The Life Cycle of a Flower. Crabtree Publishing Company, 2004.
- Artwork on pages 7-11 by Sharon Kim, Great Smoky Mountains National Park.
- Condon, Marlene. The Nature Friendly Garden. Stackpole Books, 2006.
- Mazer, Anne. The Salamander Room. Dragonfly Paperbacks, 1994.
- Press, Judy and Betsy Day. Animal Habitats. Williamson Books, 2005.
- VanCleave, Janice. Play and Find Out About Nature. Jossey-Bass, 1997.

