

DIG THIS! ARCHEOLOGY CLASSROOM



*Ranger Led
Program*

THEME: Culture, Human Continuum
GRADE LEVEL: Sixth, Seventh, or Eighth grade
BEST TIME TO PLAN TRIP: Spring or Fall

UNIT RATIONALE

The Cosby Creek area provides excellent examples of the diverse cultural history of Southern Appalachia. Through research, mapping, and mock archaeological digs students will study the historic land usage, cultural timelines, and events that shaped this area. Cultures and events studied include Woodland and Mississippian Period peoples, Cherokee and European-American settlement, CCC camps, Civil War skirmishes, logging operations, and present day park usage.

The area's rich history also provides an opportunity to understand and recognize human impacts on the land and factors that influence human settlement. Students exposed to their community's past will hopefully feel pride in their heritage, as well as a connection to a variety of past cultures within the park.

STATE CURRICULUM STANDARDS - TENNESSEE

SIXTH GRADE

SOCIAL STUDIES

Culture

6.1 SPI.1

6.1 SPI.2

6.1 SPI.6

History

6.5 SPI.2

6.5 SPI.5

6.5 SPI.6

ENGLISH/LANGUAGE ARTS

Communication

SPI 0601.2.4

SPI 0601.2.5

SEVENTH GRADE

SOCIAL STUDIES

Geography

7.3 SPI.1

7.3 SPI.18

History

7.5 SPI.2

Individuals, Groups, and Interactions

7.6 SPI.1

ENGLISH/LANGUAGE ARTS

Communication

SPI 0701.2.7

SPI 0701.2.8

EIGHTH GRADE

SOCIAL STUDIES

Culture

8.1 SPI.2

8.1 SPI.3

8.1 SPI.6

Geography

8.3 SPI.3

8.3 SPI.6

History

8.5 SPI.2

8.5 SPI.11

ENGLISH/LANGUAGE ARTS

Communication

SPI 0801.2.7

SPI 0801.2.8





SIXTH GRADE

SOCIAL STUDIES

Culture

6.1 SPI.1 Recognize the basic components of culture (i.e., language, common values, traditions, government, art, literature, lifestyles).

6.1 SPI.2 Identify the job characteristics of archaeologists, anthropologists, geologists, and historians

6.1 SPI.6 Recognize reasons that cultural groups develop or settle in specific physical environments

History

6.5 SPI.2 Recognize the types of early communities (i.e., nomadic, fishing, farming).

6.5 SPI.5 Identify major technological advances (i.e., tools, wheel, irrigation, river dikes, development of farming, advances in weaponry, written language, and printing press).

6.5 SPI.6 Recognize the designation for time dating (i.e., BCE, AD, centuries, decades, prehistoric, historic).

ENGLISH/LANGUAGE ARTS

Communication

SPI 0601.2.4 Select the most appropriate behaviors for participating productively in a team (e.g., contribute appropriate and useful information and ideas, understand the purpose for working as a team, understand the responsibilities of various roles within the team).

SPI 0601.2.5 Identify the functions and responsibilities of individual roles within an organized group (i.e., reporter, recorder, information gatherer, leader, timekeeper).

SEVENTH GRADE

SOCIAL STUDIES

Geography

7.3 SPI.1 Identify and use the basic elements of maps and mapping.

7.3 SPI.18 Analyze the environmental consequences of humans changing their physical environment (i.e., air and water pollution, mining, deforestation, global warming).

History

7.5 SPI.2 Identify reasons why people choose to settle in different places (i.e., occupation, family, climate, natural resources).

Individuals, Groups, and Interactions

7.6 SPI.1 Identify ways family, groups, and community influence daily life and personal choices.

ENGLISH/LANGUAGE ARTS

Communication

SPI 0701.2.7 Select the most appropriate behaviors for participating productively in a team (e.g., ask primarily relevant questions that move the team toward its goal and contribute to the topic of discussion, articulate the goals that have been provided for the team work and ask clarifying questions, come to agreement by seeking consensus or following the majority).

SPI 0701.2.8 Identify the functions and responsibilities of individual roles within an





organized group (i.e., reporter, recorder, information gatherer, leader, timekeeper).

EIGHTH GRADE

SOCIAL STUDIES

Culture

8.1 SPI.2 Identify cultures that contributed to the development of the United States (i.e., Native Americans, African, British, Scottish, Irish, German).

8.1 SPI.3 Recognize the influence of science and technology on the development of early American colonial cultures (i.e., compass, shipbuilding, food storage, printing press, financial markets, weaponry, transportation).

8.1 SPI.6 Interpret a timeline of technological innovations.

Geography

8.3 SPI.3 Interpret examples which illustrate how cultures adapt to or change the environment (i.e., deforestation, subsistence farming, cash crop, dam and road building).

8.3 SPI.6 Recognize how topographical features such as mountain and river systems influenced the settlement and expansion of the United States (i.e., Cumberland Gap, Wilderness Road, Ohio and Tennessee River systems).

History

8.5 SPI.2 Read a timeline and order events of the past.

8.5 SPI.11 Identify conclusions about historical events using primary and secondary sources.

ENGLISH/LANGUAGE ARTS

Communication

SPI 0801.2.7 Select the most appropriate strategies for participating productively in a team (e.g., gain the floor in orderly ways, meet or set deadlines for completing each task, come to agreement by seeking consensus or following the majority).

SPI 0801.2.8 Identify the functions and responsibilities of individuals within an organized group (i.e., reporter, recorder, information gatherer, leader, timekeeper).



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PLANNING A SUCCESSFUL TRIP

DIG THIS! CLASSROOM



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

- Arrive at Cosby Picnic Area
- On-site activities with lunch in between activities
- Reload bus and return to school

Planning a Successful Trip

- The location for this trip is at the Cosby amphitheater, located near the picnic area parking lot. Park rangers will direct your bus driver where to park.
- There is no cost to use this site.
- Arrange to have a teacher or chaperone available for every 10 students. This is most important on the Cosby Nature trail activity.
- 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.

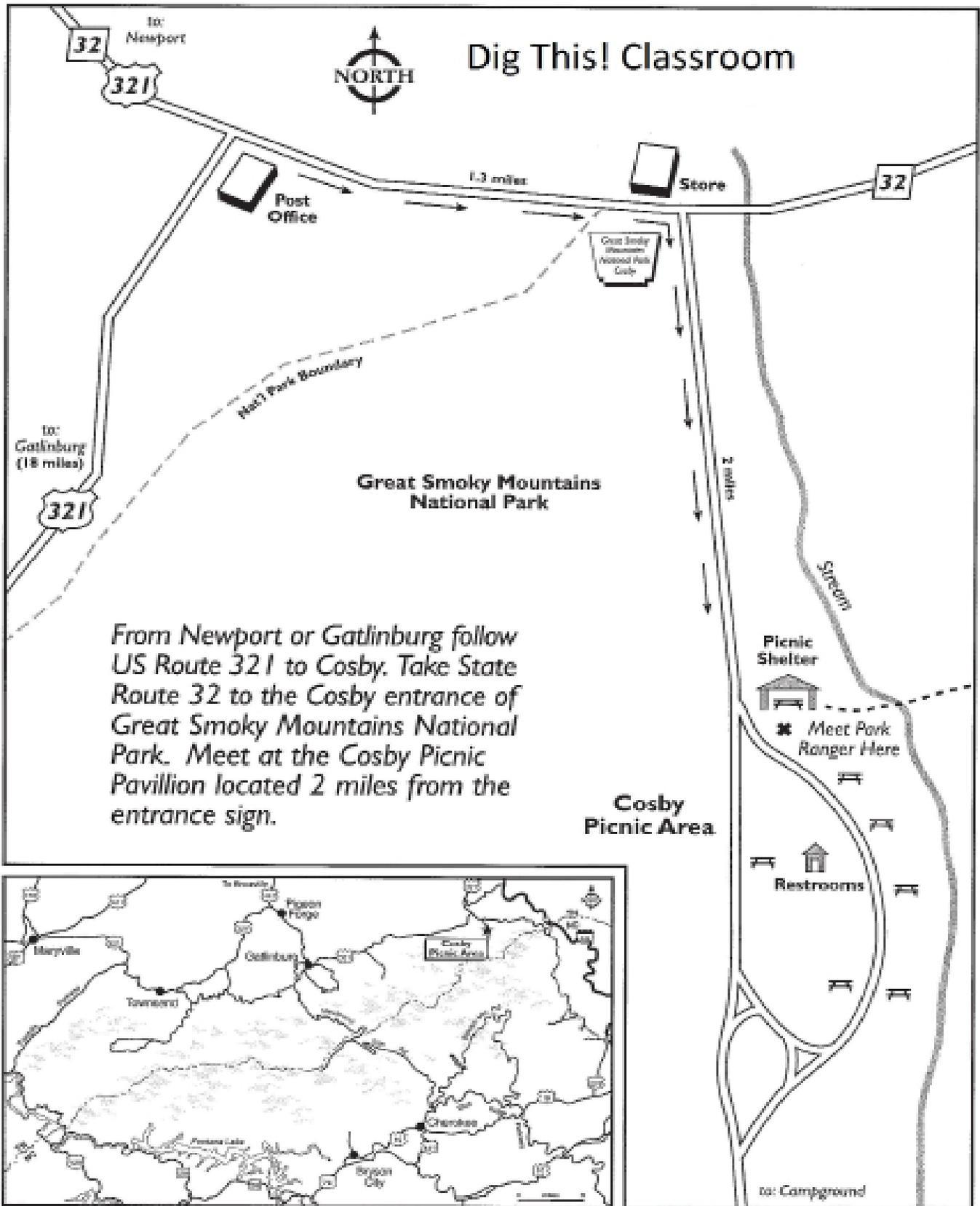
Animals and Plants of Concern in the park

- 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 COSBY PICNIC AREA



PRE-SITE ACTIVITY: CHRONOLOGY/PROGRESSION OF STYLE



Grade Level: Middle School

Subject Area: Social Studies

Activity Time: 30 minutes

Setting: Indoors

Skills: Analyzing; Comparing; Contrasting; Sequencing

Objectives: To introduce students to how new technology changes everyday items and as a result, impacts culture.

Materials: Cut and use the object images on the following pages for this activity.

Procedure: Have students place each set of cards in the correct chronological order.

Background:

Technological advances often initiate a “progression of style”, changing an objects’ attributes, construction, and appearance over time. This applies to ancient items like spearhead points and pottery, but also applies to modern inventions. In the past items may have taken hundreds of years for a simple change, but in modern times objects’ attributes can evolve rapidly. An understanding of chronology, or the order of

items’ time periods, can help archaeologists to confirm the dates that sites were active.

Examples:

Bottles and Cans: Artifacts like glass bottles and tin cans are commonly found in Great Smoky Mountains National Park. These items can help determine the time period for many sites depending on the style of the bottle and the type of product that it held. For example, many old medicines were sold in small flat bottles with embossed writing. The internet can help confirm manufacturing dates of bottles found, while certain assumptions may be deduced simply by examining materials present.

Glass: Seams in the glass can indicate age, as can the presence of the type of top that was used (corks, metal balls, caps, screw tops are good examples). Glass was initially blown by hand, indicated by seamless bottles in the 1850’s. As factories developed around the region in the 1880’s, seams were a part of the molding process and are found in late 1800’s bottles onward. The placement of the seam can also tell a story.

Cans: Aluminum cans were manufactured in the 1930’s-1960’s with no pull tab. Special tools were carried or incorporated in sales areas to put two holes in a can for drinking. Tabbed aluminum cans appeared in the 1960’s, and present day “pop-tops” were developed in the 1980’s to reduce litter.

Plastic: Plastics were put into

common use in the 1940’s, but were not used for disposable bottles until much later, in the 1990’s. Common soda bottles now are made of recyclable plastic, some containing plant-based materials.

Technology:

A progression of style can be found in many things we take for granted today. How do you listen to music today? How did this device evolve? What about your phone? What about the logo of your favorite restaurant? Even schoolbooks and backpacks have changed over the years. All these things will be artifacts for future archaeologists to uncover. Knowing how they evolved over time can then help us put a time stamp on or chronologize the culture we are studying.





Cut up and place in proper manufacturing order. Notice the differences between embossed and printed surfaces as well as how the script changes.



8-track tape



Cylinder phonograph



Reel to reel tape



Cassette Tape



Compact Disc



MP3



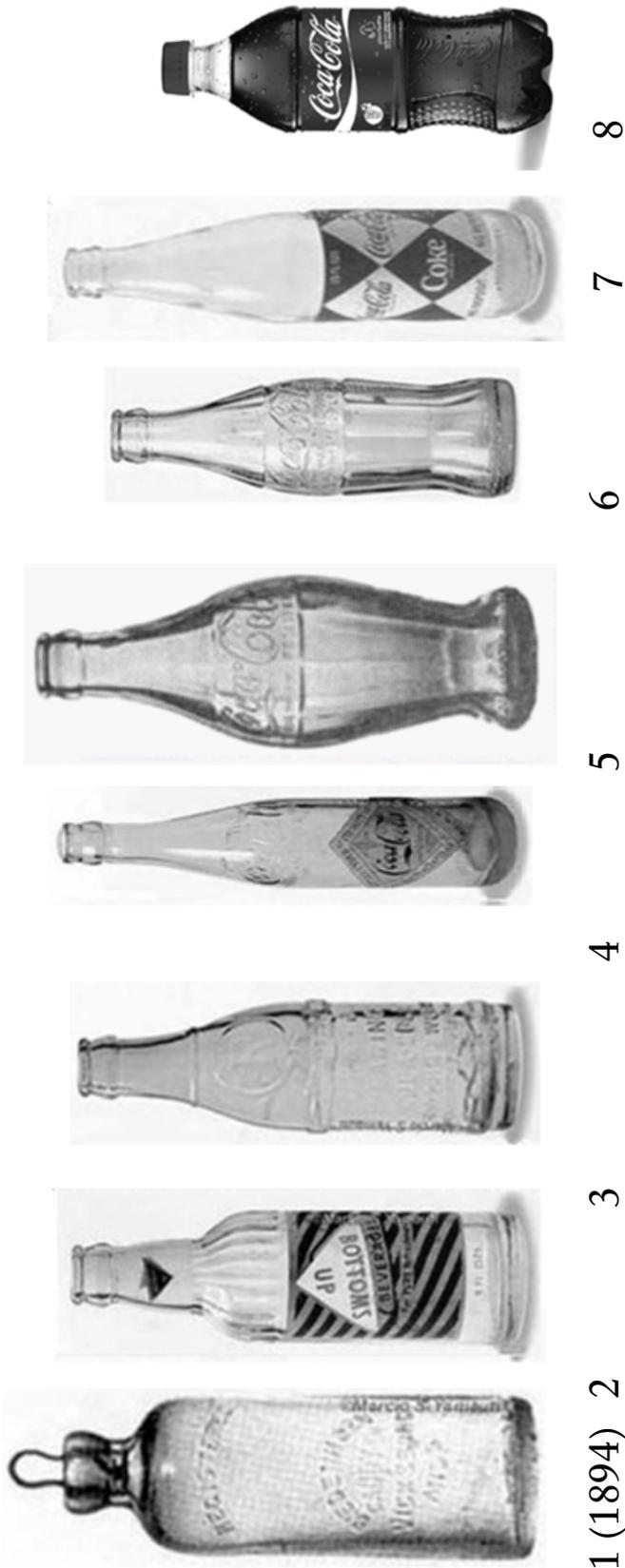
Disc Phonograph



Mini Disc

Cut out the graphics and arrange in order of manufacture date.

PRE-SITE ACTIVITY: CHRONOLOGY/PROGRESSION OF STYLE ANSWER



Recorded sound history:

- 1) Cylinder Phonograph -1870s
- 2) Disc Phonograph - 1910
- 3) Reel to reel tape – 1940s
- 4) 8-Track Tape – 1960s
- 5) Cassette Tape – 1970s
- 6) CD – 1980s
- 7) Mini-disc -1990s
- 8) MP3 – 2000s

ON-SITE ACTIVITY

PARK RANGER DIRECTED LESSONS



Grade Level: Middle School

Subject Area: Social Studies

Activity Time: 3 hours

Class Size: Maximum 50 students

Setting: Outdoors

Skills: Analyzing; Comparing; Contrasting; Describing; Estimating; Hypothesizing; Listening; Observing; Sequencing

Vocabulary: anthropology; archeologist; archeology; artifact; civilization;

Objectives: Students will study the rich culture in Great Smoky Mountains National Park, while learning the importance of not impairing the resource while doing so.

Materials: Study materials provided by park rangers

Background:

During the on-site experience, students will examine archeological artifacts and visit sites containing archeological history.

Context and Classification (30 minutes)

Although artifacts represent events and time periods, they often reveal inaccurate information if removed from their context or original location. Students will discover how the act of moving an artifact can affect context of site, making it more difficult to research and leaving an incomplete picture.

Who Lived Here? (45 minutes)

Archeology actually disturbs the landscape in which artifacts are studied; therefore, an excavated site can never be put back together exactly how it was found. As the National Park Service tries to keep archeological digs to a minimum, we will use small sandboxes as our “dig sites”. Students will uncover clues to hypothesize who lived in the area.

Nature’s Timekeeper (1.5 hours)

Students will walk along a nature trail to examine nature’s timekeeper. By observing clues in the landscape, the class will have opportunities to measure a timeline of the forest through several activities.



POST-SITE ACTIVITY STEWARDSHIP



Grade Level: Middle School

Subject Area: Science

Activity Time: 30 minutes

Setting: Classroom

Skills: Applying;
Communicating; Connecting

Vocabulary: conservation;
protection; stewardship

Objectives: To understand what the term “Stewardship” means and how students can become a steward in their school and their community.

Materials: Internet access

Procedure:

To view the Stewardship podcast video go to

<http://www.thegreatsmokymountains.org/eft/10modules.html> Turn the microscope knob that appears on the computer screen to Section 7, Backyard Stewardship. Click “Watch Video” and view video. Ask students how they can become stewards within their own school and community.



POST-SITE ACTIVITY

EXPLORE YOUR NATIONAL PARKS



Grade Level: Middle School

Subject Area: Science

Activity Time: 30 minutes

Setting: Indoors

Skills: Varying skills depending on activities selected

Vocabulary: Varying vocabulary depending on activities selected

Objective: 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 as well as participate in on-line activities to further

your knowledge 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 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

