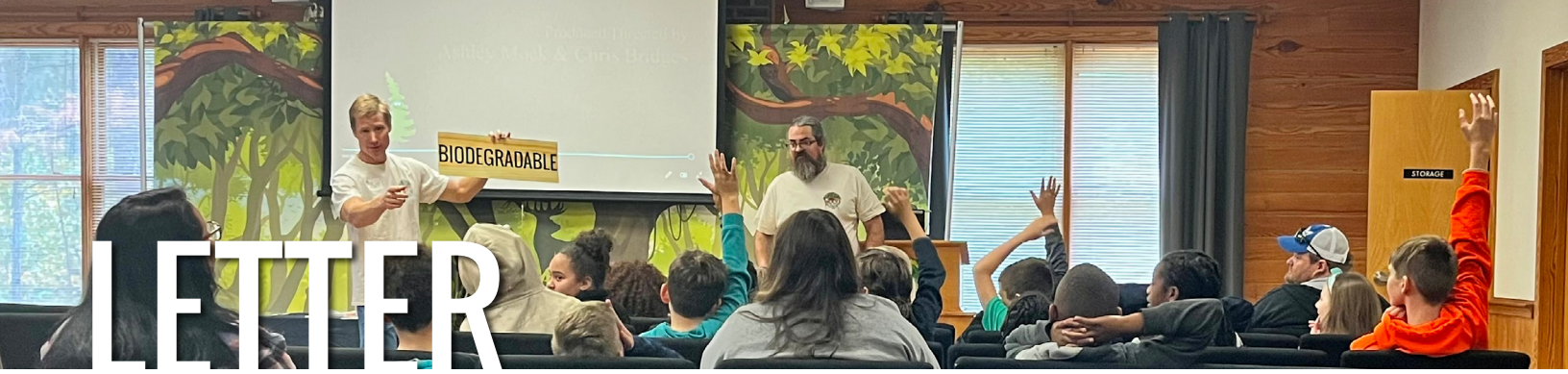
WOOD MAGIC

PRE-VISIT TEACHER INFORMATION
HARBISON STATE FOREST



LETTER
FROM THE COORDINATOR

Fourth-grade teachers,

We hope that you are as excited as we are about South Carolina's Wood Magic Forest Fair! We are busy preparing for your visit - the pizza and tents have been ordered, the T-shirts have been printed, and everyone is gearing up for a great Fair at Harbison State Forest October 23-27! **Please share this letter with the other 4th-grade teachers who will be attending.**

To ensure that your students receive the greatest benefit from this event, we have enclosed a variety of materials and suggestions to prepare them for the visit.

- **Pre-visit Test, "How Much Do You Know About Our Forests?":** These pre-test questions, along with the post-test questions you will receive later, are an important assessment tool we use to obtain grants and other funding. This allows us to offer this program free of charge to your class. **This pre-test should be given before the students view the animated shorts or begin their preparation to come to the Fair.**

- **Animated Shorts – "Forest Fast Breaks":** After your students take the pre-test, please show them the five "Forest Fast Breaks" located on the SC Forestry Commission's education webpage under the "Other education programs and resources" (https://www.scfc.gov/education/other-programs/). Scroll down the page to find and show these animated shorts **before** your students visit the Fair:

  - Forest Fire
  - Reforestation
  - Sustainability
  - Tree Biology
  - Wood Products

- Enclosed you will find a summary of the major points covered in the video and a vocabulary list. There is also a list of suggested activities that you may want to consider doing either after the Forest Fast Breaks or after the Fair. There is also a short activity titled "GIFTS OF A FOREST" that the students often find interesting and rewarding. Please do not return the activity sheets to us. These are yours to keep and are for your own use.

- **"What You Need To Do" list:** This checklist is prepared to help you organize your trip and to properly insure the privacy and safety of the students while at the Fair. It covers such subjects as medical risk, nametags, photographic releases (see enclosed form), inclement weather, discipline, and transportation. This easy- to-use checklist can be helpful in organizing your trip to the Fair.

- **Teacher Critique:** Please take the time to complete the teacher critique of the pre-visit materials. We have received many good suggestions from previous participants and hope to continue to improve upon the experience with your help.

- Please return the **"Pre-visit Test," "Photographic Releases,"** and the **"Teacher Critique of Materials"** papers to us **when you arrive in an envelope with your name and school name written on it (one envelope for each teacher).**

Enclosed are directions to Harbison State Forest. Please try to arrive early so that your class has time to get situated before the event begins. Once you arrive, a guide will greet you at the bus and will remain with you throughout the day to take you and your class to each station, and help you with any needs you may have. A limited number of parking spaces are available for chaperones that are driving separately, so carpooling is strongly encouraged. Bus drivers are encouraged to accompany classes throughout the day or can wait in the Environmental Education Center.

At the Fair, each teacher you put on the attendance confirmation form will receive a Wood Magic bag of resources. In it will be an **Educator's Guide** that contains a **post-visit assessment** to administer to your class, activities, lessons, and quite a lot of other classroom resources for your use. The students will also receive a bag containing their goodies and other educational materials. Hopefully, these materials will reinforce their learning as well as serving to remind them of the fun-filled day they had at Wood Magic.

Should you have any questions concerning your visit or responsibilities, please give me a call at (803) 728-5968 or e-mail mschnabel@scfc.gov . Again, **please share this letter with the other 4th-grade teachers who will be attending.** Thank you for planning to attend the Wood Magic Forest Fair. We're looking forward to providing you with a rewarding experience!

Sincerely,

Matt Schnabel
WMFF Coordinator

CHECKLIST

WHAT YOU NEED TO DO

Before the field trip (in advance)

☐ **Transportation**

It is imperative that you double-check to make sure your travel arrangement ensures that you can **arrive about 15 minutes** early and can stay for the entire event. Because of travel distances, it may not be possible for you to arrive back home by your regular dismissal time. Please make sure you have discussed travel times with your principal and transportation department, and that appropriate transportation arrangements have been secured. We cannot easily accommodate schedule changes as it impacts other participating schools and our volunteers.

☐ **Make copies**

Each student will need a copy of the **Pre-visit Test** and **Photo Release Form**. You will need one copy of the **Teacher Critique of Materials**.

☐ **Give pre-visit test**

This pre-test should be given **BEFORE you begin <u>any</u> review of the materials** and animated shorts from your pre-visit package. Bring the student copies of this test along with the Teacher Critique of Materials with you to the Wood Magic Forest Fair and turn in at registration. Do not attempt to grade this test!

☐ **Animated shorts and pre-visit work**

To enhance the content of the Fair, have your students view the Forest Fast Break animated shorts and complete the activities you choose from our suggestions.

Before the field trip (close to the date)

☐ **Teacher critique**

After you have completed the Pre-visit Test, Forest Fast Break animated shorts, and any activities you choose, please complete the Teacher Critique of Materials form **and turn these in at registration once you get to the Fair**.

☐ **Permission forms & medical risk**

As is standard practice for most school field trips, district parental permission forms are recommended for each student who attends the Wood Magic Forest Fair. It is the responsibility of the teacher to ensure that these forms are properly turned in and adequately reviewed. Please be sure to review all medical information, especially allergic reactions to insect bites, etc., before leaving for your day at the Fair. Make sure students have adequate medical supplies if they are allergic. We will be serving popcorn (cooked in coconut oil), pizza, and lemonade, so children with special dietary needs may need to bring their own food. All students, teachers, and chaperones will be fed. It is also recommended that teachers bring first aid supplies for any bumps or scrapes that may occur on the field trip.

☐ **Photo release form**

Also, be sure the parents of your students have given permission for them to be photographed. A **photographic release form** is enclosed for your use. This is an important legal aspect, as we are constantly recording and photographing the activities to use in promotion and news releases. **Turn these into our staff when you arrive**. Also let the photographer know if there are any problems associated with the photographing of your students.

The day of the event

☐ **Arrival**

It is very important that you plan your trip to arrive about 15 minutes early for your day at the Fair. This will give your students time to use the restroom if needed, look at some forestry equipment on display, and meet their guide before going to the introduction. A guide will greet you at the bus and remain with you throughout the day to take you and your class to each station. **Please put your "Pre-visit Test," "Photographic Release," and "Teacher Critique of Materials" forms into an envelope with your name and school name written on it and give it to him or her upon arrival**.

☐ **Name tags**

Please provide each student with a personalized nametag for the event. This will be a great help to the presenters, who like to refer to each student by name. It makes the students feel more comfortable as well!

☐ **Discipline**

We expect students to have a pleasant and rewarding experience. It is the responsibility of the teacher to remove or discipline students as you would in your regular classroom. **Teachers are expected to remain with their classes at all times and to monitor their students for inappropriate behavior**.

After the event

☐ **Educator's bags**

Both you and your students will be given Wood Magic bags that contain fun educational materials and other goodies. The teachers' bags will also include an **Educator's Guide** with information, activities and other resources for you to use with your class. Using these materials after you have visited the Fair will greatly enhance the educational aspect of your students' visit.

☐ **Post-test**

Please give the students the Post-Test located in your **Educator's Guide** and mail or scan/e-mail the results back to us in the self-addressed stamped envelope provided in the back of the Educator's Guide. The results of this post-test are an important part of our grant process and it is vital that we receive your results. An answer sheet is provided in the Guide so that you may use the grades for your own purposes if needed.

☐ **Teacher critique**

A critique will be included in your Educator's Guide and is a necessary assessment tool used to evaluate and improve the quality of the Fair. Mail this along with the Post Test results in the self-addressed stamped envelope provided in the front of your teachers' educational packet.

TEST

HOW MUCH DO YOU KNOW ABOUT OUR FORESTS?

Pre-vist test

True or false

Answer the following questions as True (T) or False (F) by placing the letter in the blank.

_____ 1. There are more trees and forests in the U.S. today than there were 100 years ago.

_____ 2. Trees are a non-renewable natural resource.

_____ 3. Prescribed (controlled) fires are used to improve forests and wildlife habitat.

_____ 4. When trees are harvested and brought into a sawmill, every part of the log is used.

_____ 5. The main reason to recycle paper products is to save trees.

_____ 6. Using trees to make everyday products is harmful to the environment.

_____ 7. In South Carolina there are more trees planted and grown each year than are cut and used for wood products.

_____ 8. Forests pollute the air we breathe and the water we drink.

_____ 9. Natural resources such as oil and gas are renewable.

Vocabulary

Match the terms on the right with the statements on the left by placing the correct letter for each in the blanks provided.

_____ 10. Raw materials we use every day that come from the earth.	**A. Non-renewable resources**
_____ 11. Resources that can be planted, grown, used, and replanted again for future generations to use	**B. Natural Resources**
_____ 12. Resources that, once used, cannot be made again or be replaced by nature in our lifetime	**C. Renewable resources**
_____ 13. Materials that are able to be broken down by nature into simpler substances (decomposed)	**D. Recycle**
_____ 14. When a material is used, then collected, reprocessed and made into a new product	**E. Biodegradable**

15. On the back of this paper, make a list of as many things that you can think of that you use every day that come from trees. **Try and list at least ten (10)**.

FOREST FAST BREAKS - MAJOR TOPICS

I. Tree Biology: (Related standard: From Molecules to Organisms: Structures and Processes 4-LS1-1)

a. Trees use water, nutrients, sunlight, and carbon dioxide from the air to produce their own food (through a process called photosynthesis) and grow.
b. The basic parts of a tree are the roots, trunk, crown, and leaves/needles.
c. Trees have layers in their trunk (bark, phloem, cambium, xylem, and heartwood) that all have unique structures and functions to allow a tree to grow.
d. Trees produce annual growth rings whose color and width is determined by growth factors such as sunlight and water.

II. Forest Fire: (Related standard: Earth and Human Activity 4-ESS3-2)

a. Before human intervention, natural-set fires would burn a forest every 5-30 years. These low-intensity fires were good to control underbrush, pests, and reduce competition for the surviving trees.
b. Over 100 years ago in many places in America, we started putting out all forest fires to protect communities. This absence of fire caused underbrush and small trees to build up to unnatural levels increasing the fuel load (**amount of flammable material**). When forest fires did start, the increased fuel load increased the intensity and danger. This damaged trees, water, wildlife habitat, and communities affected by the fire.
c. The removal of trees (**thinning**), the chopping and mulching of underbrush, and small controlled fires in forests can reduce fuel load and wildfire risk. Controlled (**prescribed**) burns imitate the environmental benefits of natural-set fires.

III. Reforestation (Related standard: Earth and Human Activity 4-ESS3-1)

a. To supply the wood and paper products we use every day, we need to harvest and replant trees. In America, about 1.5 billion trees are grown and shipped for replanting each year…almost 5 trees for each person.
b. Reforestation can happen naturally or through planting.
c. Trees are a **renewable resource** and reforestation makes the process of growing and harvesting trees sustainable.
d. Sustainable forest management provides jobs, wood products, clean air and water, and wildlife habitat.

IV. Sustainability (Related standard: Earth and Human Activity 4-ESS3-1)

a. Clean water, fish and wildlife habitat, recreation, jobs, and forest products are a few **values of forests**.
b. A sustainably managed forest meets our **environmental**, **social**, and **economic** needs for today and for the future.
c. Scientific research and responsible forest management work together to maintain optimal forest sustainability.

V. Wood Products (Related standard: From Molecules to Organisms: Structures and Processes 4-LS1-1)

a. Trees use **carbon dioxide**, **water**, and **sunlight** to grow and make wood.
b. Wood is used to make lumber, plywood, cardboard, paper, guitars, clocks, and many other solid wood products.
c. Other products that contain wood derivatives include toothpaste, ice cream, artificial bones, and many other products (see http://www.idahoforests.org/wood_you.htm)

VOCABULARY TERMS

FOR FOREST FAST BREAKS

1. **Photosynthesis** - the process by which green plants manufacture simple sugars in the presence of sunlight, carbon dioxide, and water.

2. **Annual growth ring** - the layer of wood produced by a single year's growth of a woody plant.

3. **Forest management** - the practical application of scientific, economic, and social principles to the administration of a forest.

4. **Fuel load** - the total amount of combustible material in a defined space; quantified in heat units or in its equivalent weight in wood.

5. **Prescribed burn** - the planned application of fire to a forest, stand, prairie, or slash pile with the intent to confine the burning to a predetermined area; also known as a controlled burn.

6. **Renewable resource -** a naturally occurring raw material or form of energy which has the capacity to replenish itself through ecological cycles and sound management practices.

7. **Sustainable** - using natural and human resources in a way that does not compromise the needs of future generations.

8. **Thinning** - to reduce the number of trees in a stand of trees.

9. **Wildfire** - any fire other than a controlled or prescribed burn occurring on wild land.

WMFF academic standards

The Wood Magic Forest Fair program and pre/post-visit activities are designed to meet the following fourth grade S.C. Academic Standards:

2021 Science
4-LS1-1, 4-ESS3-1, 4-ESS3-2

SCCCR English/Language Arts
4-I-1.1, 4-I-4.2, 4-I-5.1, 4-W-1, 4-W-1, 4-C-1

SCCCR Math
4-NSBT.2, 4-NSBT.5, 4.NSBT.6, 4-NSF.4, 4.ATO.2, 4-MDA.2

KNOWLEDGE GAINED

HOW MUCH DID YOU LEARN ABOUT OUR FORESTS?

SUGGESTED ACTIVITIES AFTER VIEWING: FOREST FAST BREAKS

1. Have the students look around their classroom and list all the things they observe that come from trees. Have the students first make individual lists without looking at all the things in the classroom that come from trees. Next, divide them into small groups to compare their list and make a group list. Finally, make a classroom list of all the items.

NOTE: A lot of things like their desk, pencils and papers are easy. But don't forget items like soap, crayons, ink, glue, and dyes. See http://www.idahoforests.org/wood_you.htm for a list of items that come from trees. Students may also choose a wood product, do research on how that product is made, create a presentation on their findings, and then present their wood product to the class.

2. Write a persuasive essay that defends the position, "It is important that we have forests for the future." Have students read their paragraphs to the class and compare their reasons and relevant evidence.

NOTE: Use your discretion for this, but accept any answer that mentions the benefits that trees give to us and the environment or any mention that trees are renewable and can be grown over and over.

3. Nature is a great teacher! Try these activity ideas from Project Learning Tree to connect your students and students' families to the outdoors and nature. Go to https://www.plt.org/activities-for-families/, then choose an activity that would fit into your setting or a lesson at school. These inquiry-based activities cover all the subject areas.

4. Have the students write a narrative on "What would a day without trees be like?".

5. Make a bulletin board (physical or digital) or have students make drawings about forests, forest products, or life in a forest. Students can bring in magazine pictures or actual items to add to the bulletin board.

Answers to student activity: Gifts of a Tree

All of the items on the activity "Gifts of a Tree" come from trees or have parts that come from trees except LEATHER BELT, SILVERWARE, and GLASS JAR.

GIFTS OF A TREE

Please give after the pre-test is administered!

Circle the items below that come from trees or may contain parts that come from trees.

Greeting cards	Tables	Drinking cups
Egg cartons	Beds	Baseball cards
Milkshakes	Poultry feed	Diapers
Musical instruments	Hair spray	Toothpaste
Mouthwash	Silverware	Envelopes
Boxes	Fences	Glass jar
Cosmetics	Paint	Turpentine
Photographic film	Vinegar	Cellophane tape
Eyeglass frames	Oxygen	Houses
Clothes	Shelves	Medicine
Paper	Furniture	Food
Leather belt	Chewing gum	Magazines

TEACHER CRITIQUE

OF MATERIALS

Please return the pre-visit questions and this teacher critique in an envelope to your guide when you arrive.

Your name: _____

School: _____

Please take a few moments to let us know your professional opinion of the materials and activities that were presented in this packet. We are particularly interested in how we can improve this material in the future. You may use the back for additional comments.

I. Animated Shorts – "Forest Fast Breaks"

A. Was the video suitable for your grade level?

B. Was the vocabulary terms suitable for your grade level?

C. Were the suggested activities "HOW MUCH DID YOU LEARN ABOUT OUR FOREST?" suitable for your grade level? (If not, please make suggestions)

D. Was the activity – "GIFTS OF A TREE" suitable for your grade level?

E. In what ways not mentioned above would you improve the materials you have been given?

F. In what ways would you suggest we improve the application process and communication between the Wood Magic staff and the visiting educators?

PHOTOGRAPHIC RELEASE

FOR THE WOOD MAGIC FOREST FAIR

I (We), _____ understand that photographs and video may be taken throughout the
parent/guardian

course of the Wood Magic Forest Fair. Furthermore, I understand that these photographs and video may be used by the sponsors of the Wood Magic Forest Fair in programs, presentations, and promotional publications.

I hereby give permission for the image of _____, as contained in the photographs and
child's name

video described in the above paragraph, to be used in such not-for-profit official programs, presentations, and publications as staff members of the sponsors of the Wood Magic Forest Fair deem appropriate to their needs and goals.

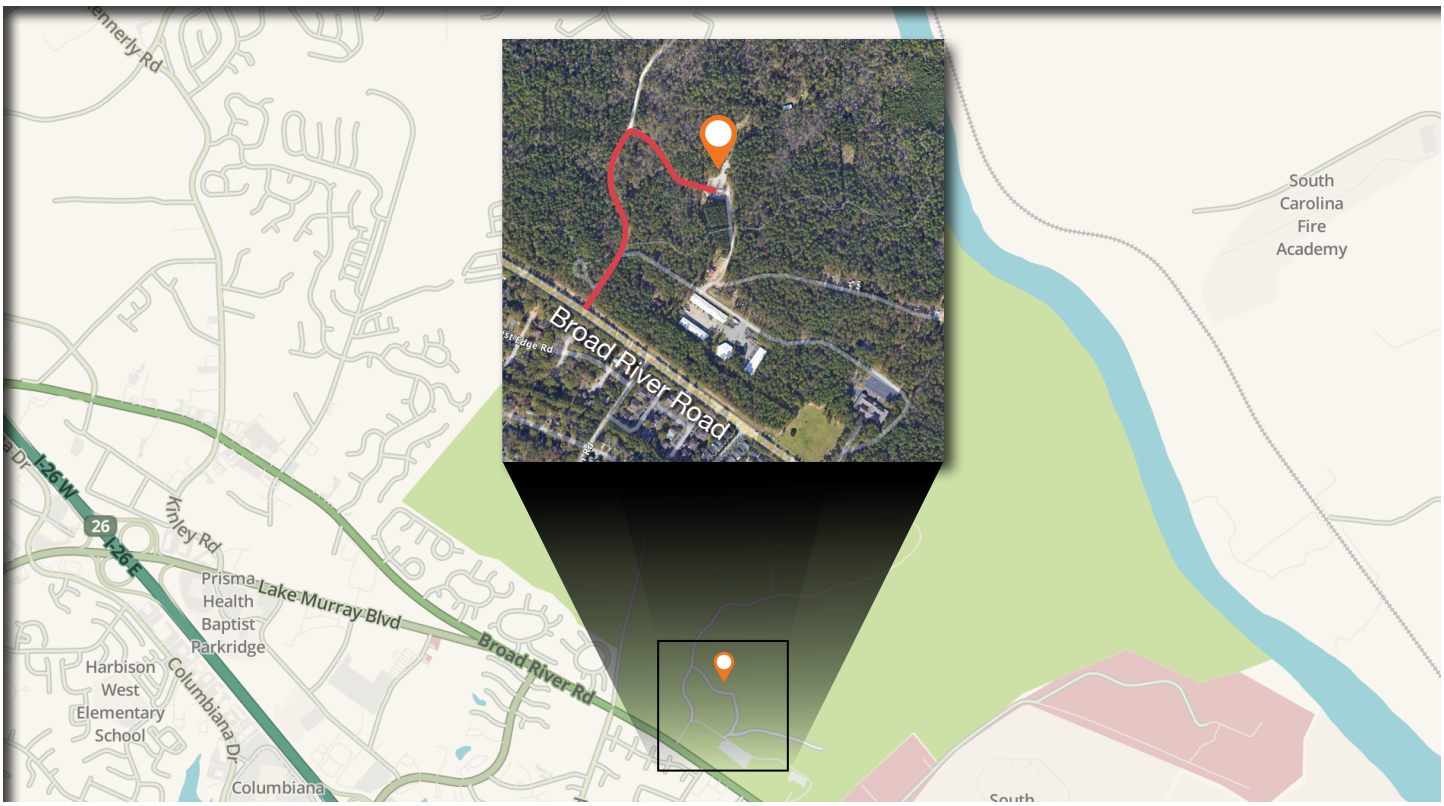
Furthermore, I understand that I will receive no compensation for the use of said photographs or video and that I will receive no notification of their use.

_____

Signature of Parent or Guardian Date

DIRECTIONS

TO HSF ENVIRONMENTAL EDUCATION CENTER



HSF Environmental Education Center, 5600 Broad River Road, Columbia, SC 29212 • Phone: (803) 896-8890

From I-20

Take the Broad River Road Exit. Travel West on Broad River Road (toward Irmo) about 3.5 miles until you reach the S.C. Forestry Commission Headquarters (5500 Broad River Road). Go past the Headquarters for a few hundred yards until you reach the Harbison State Forest Entrance on the right. (NOTE: During heavy traffic you may want to take the I-26 directions.)

From I-26 heading South

Take Exit 102-B (Hwy. 60 Lake Murray Blvd.) and head East until this road merges into Broad River Road. Go through two stoplights. Just a few hundred yards past the second stoplight you will see the entrance to Harbison State Forest on the left.

From I-26 heading North

Take I-26 to Exit 103 (Harbison Blvd.). Turn left at the light and proceed to Broad River Road. Turn right, go through one traffic light, then turn left at the Harbison State Forest road sign

Use a mapping program such as Google maps to determine the distance and time needed to reach Harbison State Forest Environmental Education Center from your location.

South Carolina Forestry Commission

SCFC EDUCATION PROGRAMS

Professional development opportunities for teachers

PROJECT LEARNING TREE

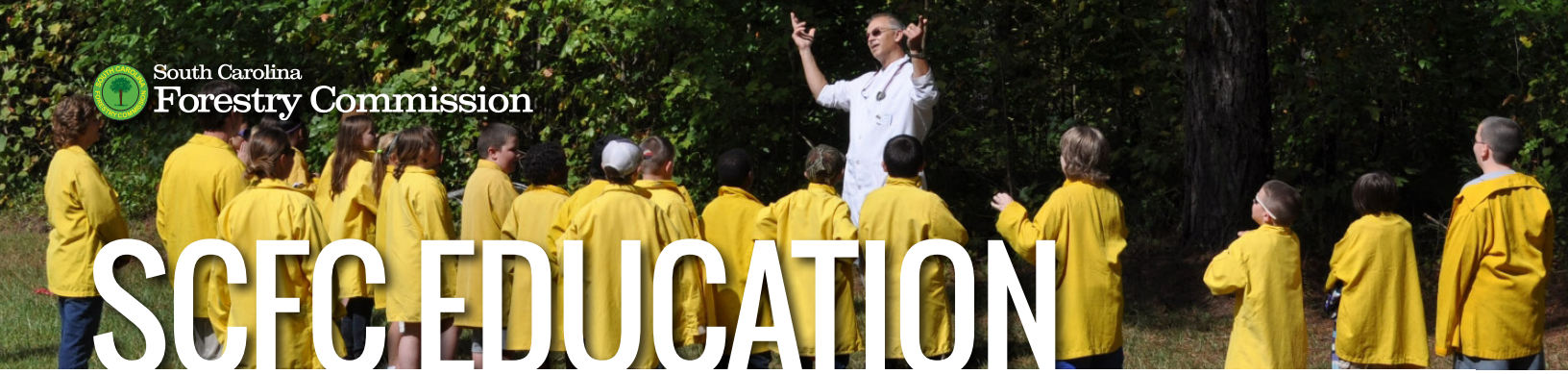
Project Learning Tree is an award-winning environmental education program designed for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. PLT materials supplement existing curriculum and are aligned to state and national standards. Each guide book has hands-on, interdisciplinary activities that "teach students how to think and not what to think" about environmental issues.

Contact: Matt Schnabel, Environmental Education Coordinator
mschnabel@scfc.gov | (803) 896-8892 | www.scfc.gov/education/project-learning-tree/

SC SUSTAINABLE FORESTRY TEACHERS' TOUR

Spend five days learning about the original green industry in our state — forestry! This course will take you from seed to finished product and everything in between to provide a comprehensive look into the impact forests have on our state's environment, economy, and quality of life. You will receive training in Project Learning Tree materials as well as other materials for use in your classroom. The cost of $150 covers all meals, lodging, transportation during the tour, materials and 60 renewal credits or 3 hours of non-degree graduate credit from the College of Charleston. Course is conducted during the third week of June each year.

Contact: Emily Oakman, Forestry Association of SC Director of Landowner Outreach, Forestry Education and Programs
eaokman@scforestry.org |(803) 798-4170 | www.scforestry.org/teacher-s-tour



South Carolina Forestry Commission

SCFC EDUCATION PROGRAMS

Programs for students

WOOD MAGIC FOREST FAIR

The Wood Magic Forest Fair is a free, fun, forestry-fact-filled field trip and festival for fourth-graders. This four-hour program of forestry-related educational experiences and demonstrations combines hands-on activities with visually engaging presentations to teach children about the importance of forest lands to wildlife, the economy, and our daily quality of life.

Contact: Matt Schnabel, Environmental Education Coordinator
mschnabel@scfc.gov | (803) 896-8892 | www.scfc.gov/education/wood-magic/

SCHOOL PROGRAMS

We offer hands-on, engaging and fun learning experiences in person at Harbison State Forest, at your school, and virtually, live or on demand. All programs have been written to address South Carolina's 2021 science standards. Programs include a pre-visit activity that prepares students to get the most out of their visit to the forest. Programs are offered for kindergarten through high school.

Contact: Beth Foley, Environmental Ed. Assistant Coordinator
bfoley@scfc.gov | (803) 896-8855 | www.scfc.gov/education/school-programs/

OTHER PROGRAMS

To discuss other opportunities for your students (Geocaching, Junior Forester, Boy Scouts, Girl Scouts, 4-H Clubs, FFA, summer camps, speakers, etc.) to learn about South Carolina's forests and forestry, contact Assistant Environmental Education Coordinator **Beth Foley** at bfoley@scfc.gov or (803) 896-8855. Please visit www.scfc.gov/education/other-programs/ for more information.