Nature Trail Walk: General Notes

This guide is designed to make your walk on the Piedmont Nature Trails more engaging and educational. It has been written for a general audience, so you may need to scale the content up or down to meet your group’s needs.

- This guide is designed to be used by as many as 3 groups of 20 participants at a given time. However, it also works with fewer groups or groups with fewer participants.
- Following the instructions in this guide will allow all of the participants to get the same experience, while at the same time utilizing different areas of the Nature Trails to be sure that groups are avoiding each other during their activities.
- It is best if all copies of the student guides and leader guides be printed in color.
- This walk will take 45 minutes to an hour to complete, and will make a loop.

Instructions
1. Print out 1 copy of the Student Guide (pages 2&3) for each pair of students.
2. Print out 1 copy of the Leader Guides for the leaders of each group.
   a. If only 1 group will be participating at a time, print out the Leader Guide for Group A (pages 4-7).
   b. If participants are divided into 2 groups, print out the Leader Guide for Group A (pages 4-7) **AND** the Leader Guide for Group B (pages 8-11).
   c. If participants are divided into 3 groups, print out the Leader Guide for Group A (pages 4-7) **AND** the Leader Guide for Group B (pages 8-11), **AND** the Leader Guide for Group C (pages 12-15).
3. Instruct leaders to read the “Notes” section at the top of their leader guide.
4. Please remember to **Stay On The Path** at all times, and please do not pick leaves or flowers, or otherwise harm plants and animals you may encounter.
Nature Trail Walk Student Guide

Some Things to Remember:
- Please stay on the path at all times, and do not pick any leaves or flowers.
- Be Quiet! You will hear and see more animals if you are quiet.

Tree ID Using Leaves and Seeds:

- Sweet Gum
- Mockernut Hickory
- Red Maple
- Red Oak

Poison Ivy ID:
- Hairy Vine
- Group of 3 leaves
- Remember “Leaves of 3 Let It Be”
Nature Trail Walk Student Guide

Animal Tracks

- Racoon
- Deer
- Dog
- Bobcat
- Great Blue Heron
- Rabbit
- Fox
- Human
- River Otter
- Skunk
Notes:
- You will be travelling on the Streamside Trail, and all trail markers are yellow.
- Trail markers are wooden posts with yellow markings.
- Stop at the trail markers in the **Exact Order Listed Below** to avoid running into other groups.
- Words in red are questions you ask your student
- Words in blue are answers to the questions (be sure to give ample time for students to answer before telling them the answers).
- Words in black are instructions for you.
- Don’t Rush! Plan on spending at least 5-10 minutes for each activity
- Be Quiet! You will hear and see more animals if you are quiet.
- Please stay on the path at all times, and do not pick any leaves or flowers.

Instructions:
From the gazebo, face the education center. Follow the main path on your left around the education center toward the nature trails. After passing through a gate, make an immediate right turn. When the path forms a “T” make a left. Proceed to the following trail markers.

**Trail Marker 3: Tree Identification**
Pass Out the Student Guides.
There are many different kinds of trees in North Carolina. Some are very easy to identify and others can be more difficult. The Guide that I just gave you has pictures of leaves and seeds of a few types of trees that are easy to identify. Using this guide, identify the tree that is next to this trail marker. Remember to look high in the tree for the leaves, and on the ground for seeds and see pods. Do you know what type of tree this is? **Answer:** Sweet Gum
How can you tell what type of tree it is? **Answer:** Star-Shaped Leaves; seed pods are spiky balls.

The Sweet Gum Tree got its name because early settlers used to collect the orange sap and chew it like bubble gum. We don’t recommend it, though. If you want bubble gum, you should get some from the store, it will taste better.

Another Tree that’s easy to identify is the Sycamore. It has grey bark at the bottom, but white bark at the very top. Can you find a sycamore tree, be sure to look at the tops of trees for the white bark? **Answer:** A sycamore is located to the right of the bridge which crosses the stream, about 50 feet from where you stand.
Walk slowly and quietly to the next trail marker. Be sure to stop if you see anything interesting to explore.

**Trail Marker 7: Decomposition**
Look back down the path that you just walked up. You will see a dead tree, about 7 feet tall, in the middle of the path about 15 feet away. Point the tree out to the students.
Does anyone know what this is? **Answer:** A dead tree. Since it died, what do you think has happened to it? **Answer:** It has decomposed. What does the word decomposition mean? **Answer:** Decomposition is the process where small living creatures feed on dead plants and animals. Eventually this dead plant will be converted into nutrients in the soil.
Some people say that a dead tree can support more life than a living tree. Can you find evidence of life on this decomposing tree? **Answer:** You may find insects, holes, burrows, animal droppings, etc. The Living creatures responsible for decomposition are the “Underground FBI and Special Agent W” Which stands for **Fungus, Bacteria, Insects, and Worms.**

CONTINUED ON THE BACK
**Trail Marker 8: Signs of Life**

This forest is full of creatures of all different types. If we look and listen carefully, we will be able to find evidence of many living creatures. Let’s begin by looking around for signs of animals. See if you can find evidence of animals that may call this forest home. If you aren’t able to see the animals themselves, look for animal signs, like nests, holes and burrows, and tracks. Please remember to stay on the path as we look. Allow students to search the surroundings for several minutes. As a student finds evidence of an animal, point it out to the group and have everyone guess what they think it is.

Sometimes it’s much easier to hear an animal than it is to actually see them. We are going to stand shoulder to shoulder, close our eyes, and listen **quietly** for 1 minute. I want you to count how many different animal noises you hear. Ask students to close their eyes, stand still, and be quiet for 60 seconds. At the end ask students what types of things they heard. They could hear birds singing, insects buzzing, and squirrels rustling in the leaves. They may also hear trucks, people, and other children.

**Trail Marker 13: Animal Tracks**

Have students stand on the bridge and look down at the stream and stream bed.

This creek is very important for the plants and animals of the forest. If you look on the stream bank, you can see many tree roots holding trees into the ground, and digging deep to get to the creek’s water. Animals use this creek for water, shelter, and food. Look closely at the stream and see if you can find signs of animals. Look for fish in the stream, and for animal tracks on the sandy bank next to the stream. Use your guide to identify any tracks you may see in the sand. Which animals do you see? **Could see a variety of animals including dogs, raccoons, birds, deer.**

What do you think each of those animals was doing beside the creek? **Answers will vary.**

**Trail Marker 14: The Education Center**

Move sideways along this path and face the Education Center, which is located just up the hill. Make sure all students can see the buildings.

These buildings were built in 2009. They are very “green” building. Does anyone know what I mean by “green building”? **It is environmentally friendly; it will help protect the earth.** Look at the central building; do you see all of the black panels on the roof? Do you know what they are? **Solar Panels.** Those are panels that use sunlight to create energy. **About 7.5% of the building’s energy comes from those solar panels.** What are some things you can do to save energy at your house? **Turn off lights when not using them; turn down AC, heat, etc.**

Look at the tall metal can at the front of the building on the left; does anyone know what that is? **Rainwater Cisterns.** These are found around the building, they collect rainwater that can be used to water plants. What can you do to save water at your house? **Turn off water while brushing teeth, take short showers, fix leaky faucets.**

**Trail Marker 1: Poison Ivy**

Most plants in the forest are safe. But some are poisonous. Who knows what it means for a plant to be poisonous? They cause harm, either from eating or touching. Look directly across the path from the trail marker. There is a small tree, about 6 7 feet in from the path that has a hairy vine growing up it. Point out the tree and vine to the students. **Does anybody know what that vine is? Poison Ivy.** What makes that plant poisonous? It has oils in it that can cause a rash and itching if they come in contact with your skin. There is a pretty easy way to identify poison ivy. The first is by noticing the vine is very hairy. The other is by looking at the leaves, which are in groups of 3, and can sometimes be shaped like mittens (but not always). Look for leaves on the vine itself. If you can’t find them there, look on your guide to see a picture of poison ivy. If you are going to walk through the woods, it is a good idea to know what poison ivy looks like so you don’t touch it. But even if you can’t identify poison ivy every time, you can use a simple rule to keep you from touching most poisonous plants: **Leaves of 3 let it be.**

Your Walk Is Complete!
Nature Trails Self-Guided Exploration

- Remember to follow the yellow markers, and stop at the trail markers only in the order they are listed on your Instructor Guide.
- Remember to stay on the path at all times, and do not pick leave or flowers, or otherwise disturb living organisms.
- Trail Markers are wooden posts with yellow numbers which correspond to the number on the map on the reverse of this page. The following are photos of the trail markers:
Notes:

- You will be travelling on the Streamside Trail, and all trail markers are yellow.
- Trail markers are wooden posts with yellow markings.
- Stop at the trail markers in the **Exact Order Listed Below** to avoid running into other groups.
- Words in red are questions you ask your student
- Words in blue are answers to the questions (be sure to give ample time for students to answer before telling them the answers).
- Words in black are instructions for you.
- Don’t Rush! Plan on spending at least 5-10 minutes for each activity
- Be Quiet! You will hear and see more animals if you are quiet.
- Please stay on the path at all times, and do not pick any leaves or flowers.

**Instructions:**
From the gazebo, face the education center. Follow the main path on your left around the education center toward the nature trails. After passing through a gate, make an immediate right turn. When the path forms a “T” make a left. Proceed to the following trail markers.

**Trail Marker 1: Poison Ivy**
Pass Out the Student Guides.
Most plants in the forest are safe. But some are poisonous. Who knows what it means for a plant to be poisonous? They cause harm, either from eating or touching. Look directly across the path from the trail marker. There is a small tree, about 6-7 feet in from the path that has a hairy vine growing up it. Point out the tree and vine to the students. Does anybody know what that vine is? Poison Ivy. What makes that plant poisonous? It has oils in it that can cause a rash and itching if they come in contact with your skin. There is a pretty easy way to identify poison ivy. The first is by noticing the vine is very hairy. The other is by looking at the leaves, which are in groups of 3, and can sometimes be shaped like mittens (but not always). Look for leaves on the vine itself. If you can’t find them there, look on your guide to see a picture of poison ivy. If you are going to walk through the woods, it is a good idea to know what poison ivy looks like so you don’t touch it. But even if you can’t identify poison ivy every time, you can use a simple rule to keep you from touching most poisonous plants: Leaves of 3 let it be. Walk slowly and quietly to the next trail marker. Be sure to stop if you see anything interesting to explore.

**Trail Marker 3: Tree Identification**
There are many different kinds of trees in North Carolina. Some are very easy to identify and others can be more difficult. The Guide that I just gave you has pictures of leaves and seeds of a few types of trees that are easy to identify. Using this guide, identify the tree that is next to this trail marker. Remember to look high in the tree for the leaves, and on the ground for seeds and see pods. Do you know what type of tree this is? Answer: Sweet Gum
How can you tell what type of tree it is? Answer: Star-Shaped Leaves; seed pods are spiky balls.

The Sweet Gum Tree got its name because early settlers used to collect the orange sap and chew it like bubble gum. We don’t recommend it, though. If you want bubble gum, you should get some from the store, it will taste better. Another Tree that’s easy to identify is the Sycamore. It has grey bark at the bottom, but white bark at the very top. Can you find a sycamore tree, be sure to look at the tops of trees for the white bark? Answer: A sycamore is located to the right of the bridge which crosses the stream, about 50 feet from where you stand.
**Trail Marker 4: Animal Tracks**

Have students stand on the bridge and look down at the stream and stream bed. This creek is very important for the plants and animals of the forest. If you look on the stream bank, you can see many tree roots holding trees into the ground, and digging deep to get to the creek’s water. Animals use this creek for water, shelter, and food. Look closely at the stream and see if you can find signs of animals. Look for fish in the stream, and for animal tracks on the sandy bank next to the stream. Use your guide to identify any tracks you may see in the sand. Which animals do you see? Could see a variety of animals including dogs, raccoons, birds, deer. What do you think each of those animals was doing beside the creek? Answers will vary.

**Trail Marker 6: Decomposition**

Look back down the path that you just walked up. You will see a dead tree, laying across the path with stairs leading over it. Point the tree out to the students. Does anyone know what this is? Answer: A dead tree. Since it died, what do you think has happened to it? Answer: It has decomposed. What does the word decomposition mean? Answer: Decomposition is the process where small living creatures feed on dead plants and animals. Eventually this dead plant will be converted into nutrients in the soil. Some people say that a dead tree can support more life than a living tree. Can you find evidence of life on this decomposing tree? Answer: You may find insects, holes, burrows, animal droppings, etc. The Living creatures responsible for decomposition are the “Underground FBI and Special Agent W” Which stands for Fungus, Bacteria, Insects, and Worms.

**Trail Marker 9: Signs of Life**

This forest is full of creatures of all different types. If we look and listen carefully, we will be able to find evidence of many living creatures. Let’s begin by looking around for signs of animals. See if you can find evidence of animals that may call this forest home. If you aren’t able to see the animals themselves, look for animal signs, like nests, holes and burrows, and tracks. Please remember to stay on the path as we look. Allow students to search the surroundings for several minutes. As a student finds evidence of an animal, point it out to the group and have everyone guess what they think it is. Sometimes it’s much easier to hear an animal than it is to actually see them. We are going to stand shoulder to shoulder, close our eyes, and listen quietly for 1 minute. I want you to count how many different animal noises you hear. Ask students to close their eyes, stand still, and be quiet for 60 seconds. At the end ask students what types of things they heard. They could hear birds singing, insects buzzing, and squirrels rustling in the leaves. They may also hear trucks, people, and other children.

**Trail Marker 15: The Education Center**

Move sideways along this path and face the Education Center, which is located just up the hill. Make sure all students can see the buildings. These buildings were built in 2009. They are very “green” building. Does anyone know what I mean by “green building”? It is environmentally friendly; it will help protect the earth. Look at the central building, do you see all of the black panels on the roof? Do you know what they are? Solar Panels. Those are panels that use sunlight to create energy. About 7.5% of the building’s energy comes from those solar panels. What are some things you can do to save energy at your house? Turn off lights when not using them, turn down AC, heat, etc. Look at the tall metal can at the front of the building on the left, does anyone know what that is? Rainwater Cisterns. These are found around the building, they collect rainwater that can be used to water plants. What can you do to save water at your house? Turn off water while brushing teeth, take short showers, fix leaky faucets.

Your Walk Is Complete!
Streamside Trail
1/2 Mile
Numbers refer to self-guided tour on yellow brochure.

Oak Hickory Trail
3/4 Mile
Use lettered posts to help you navigate the trail.

North Carolina Botanical Garden
Nature Trails Self-Guided Exploration

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Nature Trail Walk Leader Guide: Group C

Notes:

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**Trail Marker 14: The Education Center**

Move sideways along this path and face the Education Center, which is located just up the hill. Make sure all students can see the buildings.

These buildings were built in 2009. They are very “green” building. Does anyone know what I mean by “green building”? It is environmentally Friendly. It will help protect the earth. Look at the central building, do you see all of the black panels on the roof? Do you know what they are? Solar Panels. Those are panels that use sunlight to create energy. About 7.5% of the building’s energy comes from those solar panels. What are some things you can do to save energy at your house? Turn off lights when not using them, turn down AC, heat, etc.

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**Trail Marker 13: Animal Tracks**

Have students stand on the bridge and look down at the stream and stream bed.

This creek is very important for the plants and animals of the forest. If you look on the stream bank, you can see many tree roots holding trees into the ground, and digging deep to get to the creek’s water. Animals use this creek for water, shelter, and food. Look closely at the stream and see if you can find signs of animals. Look for fish in the stream, and for animal tracks on the sandy bank next to the stream. Use your guide to identify any tracks you may see in the sand. Which animals do you see? Could see a variety of animals including dogs, raccoons, birds, deer. What do you think each of those animals was doing beside the creek? Answers will vary.

**Trail Marker 12: Signs of Life**

This forest is full of creatures of all different types. If we look and listen carefully, we will be able to find evidence of many living creatures. Let’s begin by looking around for signs of animals. See if you can find evidence of animals that may call this forest home. If you aren’t able to see the animals themselves, look for animal signs, like nests, holes and burrows, and tracks. Please remember to stay on the path as we look. Allow students to search the surroundings for several minutes. As a student finds evidence of an animal, point it out to the group and have everyone guess what they think it is.

CONTINUED ON THE BACK
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**Trail Marker 7: Decomposition**

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Some people say that a dead tree can support more life than a living tree. Can you find evidence of life on this decomposing tree? Answer: You may find insects, holes, burrows, animal droppings, etc. The living creatures responsible for decomposition are the “Underground FBI and Special Agent W” Which stands for Fungus, Bacteria, Insects, and Worms.

**Trail Marker 5: Poison Ivy**

Most plants in the forest are safe. But some are poisonous. Who knows what it means for a plant to be poisonous? They cause harm, either from eating or touching. Look directly behind the trail marker. There is a large tree with a hairy vine growing up it. Point out the tree and vine to the students. Does anybody know what that vine is? Poison Ivy. What makes that plant poisonous? It has oils in it that can cause a rash and itching if they come in contact with your skin. There is a pretty easy way to identify poison ivy. The first is by noticing the vine is very hairy. The other is by looking at the leaves, which are in groups of 3, and can sometimes be shaped like mittens (but not always). Look for leaves on the vine itself. If you can’t find them there, look on your guide to see a picture of poison ivy. If you are going to walk through the woods, it is a good idea to know what poison ivy looks like so you don’t touch it. But even if you can’t identify poison ivy every time, you can use a simple rule to keep you from touching most poisonous plants: Leaves of 3 let it be.

**Trail Marker 3: Tree Identification**

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How can you tell what type of tree it is? Answer: Star-Shaped Leaves; seed pods are spiky balls.

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Another Tree that’s easy to identify is the Sycamore. It has grey bark at the bottom, but white bark at the very top. Can you find a sycamore tree, be sure to look at the tops of trees for the white bark? Answer: A sycamore is located to the right of the bridge which crosses the stream, about 50 feet from where you stand.

Your Walk Is Complete!
Piedmont Nature Trails

Streamside Trail
1/2 Mile
Numbers refer to self guided tour on yellow brochure.

Oak Hickory Trail
3/4 Mile
Use lettered posts to help you navigate the trail.

Restroom
Bench
Kiosk

0 100 200 Feet

North Carolina Botanical Garden
Nature Trails Self-Guided Exploration

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