

Hemlock Bluffs Nature
Preserve
Activity Booklet



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TOWN of CARY

Senior
Explorer
(ages 9-12)



This book belongs to:

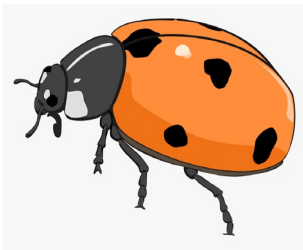
I am _____ years old.

I live in _____ County, in the State of _____, and go to school at:

My address is:

My hobbies are:

I like nature because:



SPECIAL THANKS

Several of the activities in this booklet have been adapted from other sources, listed below:

p. 12 – **Nature's Recyclers** adapted from the Georgia State Parks activity booklet

p. 13 – **Scavenger Hunt** adapted from the Eco-kids "Eyespy...in the Woods."

p. 14 – **Use Your Senses** inspired by the New Mexico activity booklet

p. 15 – **One Little Plant** adapted from the Minnesota Pinelands activity booklet

p. 19 – **Curious Creatures** adapted from a game in *Last Child in the Woods* by Richard Louv

p. 20 – **Comparing Sounds** adapted from the Florida Everglades activity booklet



*Study nature, love nature, stay close to nature.
It will never fail you.
-Frank Lloyd Wright*

CONGRATULATIONS on completing the Hemlock Bluffs Junior Explorer Program! We hope that you have learned a lot and that you had fun completing the activities in this booklet. You are now a Junior Explorer! Take your completed booklet to the front desk in the Stevens Nature Center to receive your prize. Be sure to write your name in the Junior Explorer log and tell your friends about the program!

Welcome to the Hemlock Bluffs Nature Preserve Senior Explorer Program! Use these fun activities to learn about nature here at the preserve and see what you can discover about nature near your home, school, or other places. We hope that by learning about nature, you will want to help conserve it for others to enjoy.

HOW TO BECOME A SENIOR EXPLORER

1. Complete 10 activities in this Senior Explorer booklet, including one from each category:



Around the nature center



Wildlife



Plants



On the trails



Reflection

2. Hike all three trails at the preserve and check them off on the next page.



Program Specialist - Environmental

Park Staff

TOWN OF CARY

TRAILS AT HEMLOCK BLUFFS

Swift Creek Loop Trail
(0.8 miles)

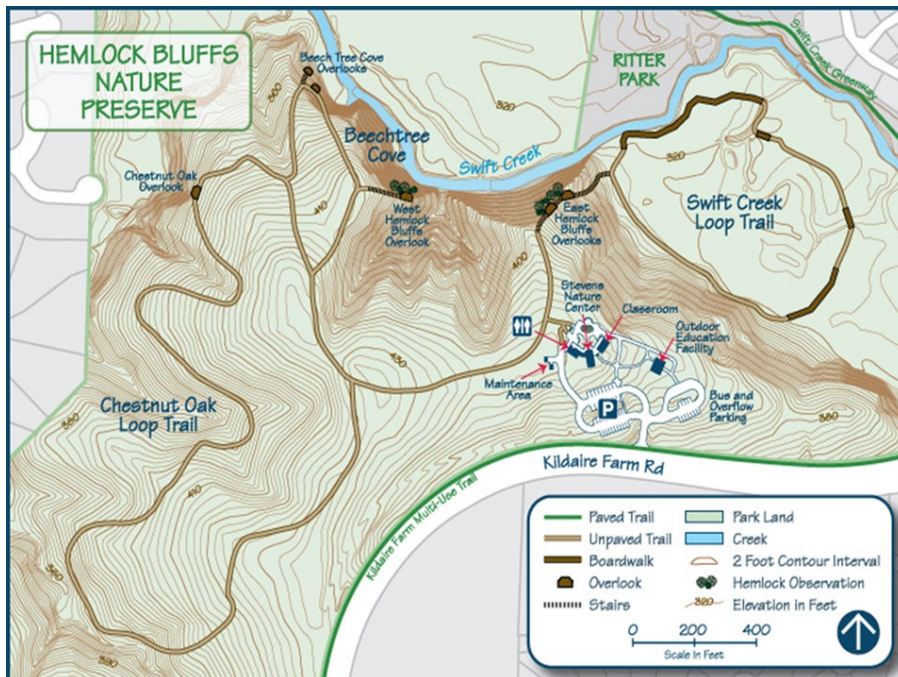
Chestnut Oak Loop Trail
(1.2 miles)

Beech Tree Cove Loop
(0.9 miles)



REFLECTION

Use this space to write a story or draw a picture based on everything you saw and learned at the nature preserve today.



See the kiosk at the main trailhead for a full-sized map



COMPARING SOUNDS

Find any spot in the preserve where you can listen quietly.
What sounds do you hear? Write them below.

Preserve Sounds

Natural sounds (made by animals, plants, or natural elements like wind and water)

Man-made sounds (made by people and machines)

Try this experiment again at home.

Backyard Sounds

Natural sounds

Man-made sounds

Where did you hear more man-made sounds?

Where did you hear more natural sounds?

Which did you enjoy more?

Circle the sounds you heard in both places!

WHY IS HEMLOCK BLUFFS SPECIAL?

Hemlock Bluffs is home to Eastern Hemlock trees. These trees are normally only found in the mountains of western North Carolina – 200 miles away! The hemlocks in the nature preserve live along the bluffs (small cliffs) which face north, providing cooler, mountain-like temperatures. Flowing along the bluffs, Swift Creek creates a moist environment that helps support the hemlocks.



Why do YOU find Hemlock Bluffs special?

GET READY FOR YOUR HIKE . . .

To keep our nature preserve looking good for our visitors and to make sure all the plants and animals have a nice place to live, we have some rules:

1. **Stay on the Trail**
2. **Don't Litter**
3. **Leave Nature in the Preserve
(No Collecting!)**

THE SENIOR EXPLORER PLEDGE:

As a Senior Explorer, I promise to help protect and care for Hemlock Bluffs Nature Preserve. I will continue exploring outside in nature, and I will tell my family and friends about the cool things I learned.

Signed: _____



CURIOUS CREATURES

As you explore Hemlock Bluffs find evidence of 9 creatures. Evidence may include actually seeing an animal, or it could be discovering tracks, nests, and other signs that an animal has passed by. Draw or describe the 9 things you found in the spaces below.



HEMLOCK BLUFFS AFTER DARK

Hemlock Bluffs is not only fun during the daytime - sunset brings out a whole new side of the nature preserve! Animals that are mostly active at night are called **nocturnal**.

Unscramble these words and connect them to their pictures.

DAALSAMRNE

NCORACO

PMOSUSO

WOL

BTA



OWL



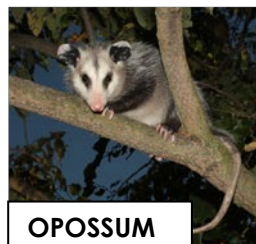
BAT



RACCOON



SALAMANDER



OPOSSUM



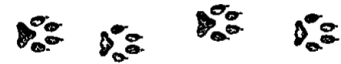
TAKE A WALK AROUND THE STEVENS NATURE CENTER EXHIBIT HALL

Be sure to check out all the different habitats on display

TRACK ID

When animals leave footprints, we call those the animal's **tracks**. Use the track table in the nature center lobby to match the animal with the following descriptions:

1. Which track looks like a dog's prints?



2. Which track has an opposable thumb?



3. Which animal leaves hoof prints?



4. Which track looks like a small child's footprint?



At home, go outside with your parents and find a smooth spot in the sand or dirt where you can make your own track! You can leave your shoe on or go barefoot to see what a real human track looks like! Once you see your track, draw it below. Which animal track does it look most like?

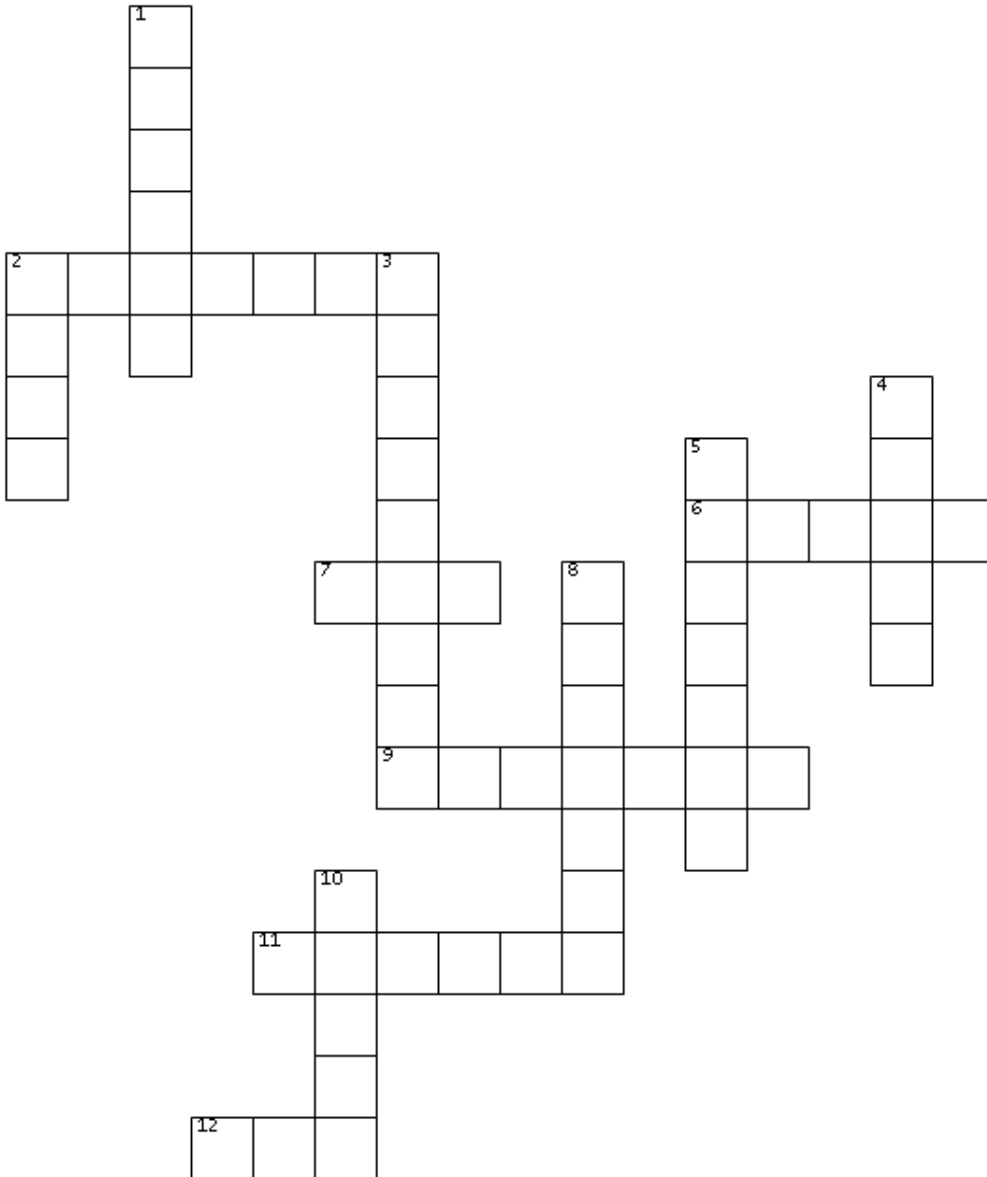




CAPTIVATING CROSSWORD

Explore the Stevens Nature Center to find the answers to the clues below and fill in the crossword.

Hint: None of the answers come from the Timeline Wall



TERRIFIC TREES

Trees come in all shapes and sizes. Look around your yard or the nature preserve and try to find the biggest tree you can (make sure to stay on the trail!).

Give your tree a hug! Do your arms fit all the way around it? Yes No

About how wide around do you think your tree is? Make an estimate. _____

Now, measure your tree! You are measuring the **circumference**, the distance around the trunk. Try and measure it at about chest height.

Don't have a flexible measuring tape? Wrap a piece of yarn around your tree, mark the end, then measure the yarn using a normal ruler or yard stick.



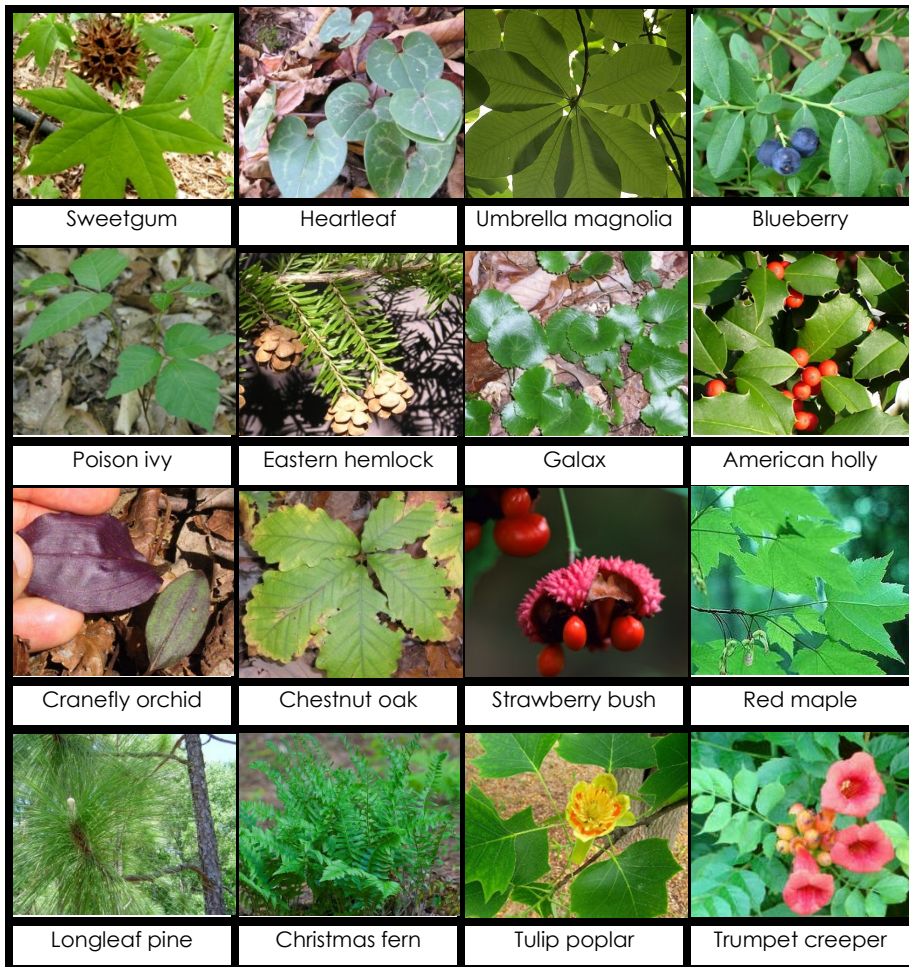
My tree's circumference = _____

Can you identify what type of tree you measured? *If you need help, take some pictures of your tree and show them to one of our staff members in the nature center!*



BUDDING BINGO

Hemlock Bluffs is home to a wide variety of plants, from trees to vines to shrubs. Look high and low to mark off each one as you find it in the courtyard or on the trail. Try to get at least four in a row but aim to find as many as possible! (Hint: some of these are featured on our trail signs! Be sure to look around when one of these plants is mentioned.)



ACROSS

2. A type of salamander that moves to the temporary pools to lay eggs during the late winter months
6. River _____, one of the many animals you can find along the banks of Swift Creek
7. A fallen tree
9. Our namesake; a tree that can be found on the north-facing bluffs
11. An owl that uses its special camouflage to roam the preserve both day and night
12. Grey _____, a member of the dog family that can climb trees

DOWN

1. A type of home used by animals such as crayfish and muskrats
2. A standing dead tree
3. A tool used to perform prescribed burns (2 words)
4. The American _____, a species of tree with very smooth bark
5. A type of butterfly that migrates to Central America
8. The Hemlock Woolly _____, an insect that kills hemlock trees
10. A groundcover plant that thrives on cool, moist bluffs

GARDENS

The gardens that we plant are beautiful, but they can be helpful to people and animals too. Visit each of our gardens and match each to their description

RAIN GARDEN



This garden can give new life to old and broken household items

RECYCLE GARDEN



This garden can give visitors a quiet hideaway

BACKYARD GARDEN



This garden helps collect and re-use water diverted from impervious surfaces like roofs, driveways, and streets

*Not sure where to find this one?
Ask in the nature center!*

What sorts of things do gardens provide for wildlife?

1. _____
2. _____
3. _____



ONE LITTLE PLANT

Look around the courtyard or one of the trails for a plant that you like. Once you have found that plant, *sit on the path* next to it and examine it more closely.

What do the leaves look like? Describe or draw the shape and features. Do the same with the bark, if it has any.

Are there any flowers, seeds, fruit, etc? What color are they? What do they look like?

Where did you find your plant? _____

What does it smell like? _____

If you were the first to discover this plant, what would you name the plant? _____

Sketch your plant below!



USE YOUR SENSES

When you open your senses to nature you will discover more than you could imagine! Find a spot to sit and be quiet. Just concentrate on where you are for at least 5 minutes.

Start by closing your eyes and **listen** to the sounds of the trail. What do you hear? Write down 4 things you heard.

- 1) _____ 2) _____
3) _____ 4) _____

Look around the spot where you are sitting. Do you see rocks at the base of a tree? A squirrel running with an acorn? Mushrooms on a log? Write down 4 things that you observed.

- 1) _____ 2) _____
3) _____ 4) _____

Stay in the same area but **smell** what is around you. Do the trees smell alike? Write down two plants you smelled and what they smelled like.

- 1) _____
2) _____

Lastly, use your sense of **touch** to observe what is surrounding you. Make sure to be gentle! Are things around you rough? Soft? Write down two things you felt and what they felt like.

- 1) _____
2) _____

It's fun to try this at home too!



CRITTER CAMS

It can be hard to spot animals in the preserve, but there are many creatures living hidden lives all around you! Find the **Urban Wildlife** display and video in the exhibit hall.

What is one tip the video gives for finding wildlife?

Watch at least one of the wildlife camera videos of each of these animals:

- | | |
|----------------------------------|--|
| <input type="checkbox"/> Coyote | <input type="checkbox"/> White Tailed Deer |
| <input type="checkbox"/> Raccoon | <input type="checkbox"/> Fox |
| <input type="checkbox"/> Opossum | <input type="checkbox"/> Other Wildlife |

Describe your favorite wildlife moment from the videos. Did anything surprise you?



NATURE'S RECYCLERS

Here at Hemlock Bluffs, we know it is very important that we recycle things when we are done with them, so that we waste as little as possible. Did you know that nature does the same thing? Nature wastes nothing.

Find two of Nature's recyclers shown below and write down which trail you found it on.



A small creature
that enriches the soil



An animal that lives
in the hole of a tree



An animal eating
plants, fruit, or nuts



Life on a decaying
log

Now that you have seen how nature recycles, do some recycling of your own! Write down 3 items that you recycle at home:

1. _____
2. _____
3. _____



SCAVENGER HUNT

As you walk along the trails, stop and look more closely at your surroundings. You can find some interesting things! Below is a list of different things you can find using your senses. Find at least 10 and write down what they are.

Something that is.....

Prickly:

Sharp:

Rough:

Round:

Slippery:

Smelly:

Soft:

Squishy:

Stretchy:

Tiny:

Triangular:

Wet:

Beautiful:

Cold:

Dry:

Hairy:

Hard:

Heavy:

Hot:

Large: