

JUNIOR FORESTER

A PROGRAM OF THE SC FORESTRY COMMISSION

K-2 ACTIVITY BOOK



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This book belongs to: _____

I am _____ years old.

I live in _____, South Carolina.

I completed this book on _____.

K-2 ACTIVITY BOOK

Backpack materials

Grades K-2 activity book, clipboard, pencil, laminated trail map, “Tree ID of SC” booklet, “On the Nature Trail” book, tree cookie, garden trowel, viewfinder, binoculars, magnifying lens, compass and flashlight.

Directions for adult who is assisting the student

Hike along the Learning Trail to find the four “outdoor classrooms.” Each classroom has its own unique educational sign, which will provide answers to the majority of the questions in this activity book. Please use the below map along with the laminated Harbison State Forest trail map to help locate them. Look through the “On the Nature Trail” book for some of the answers, to help identify things you find in the forest, and for other fun activities. An answer key is located in the back of this guide so you can check your student’s learning as you progress.

If you find a cool critter, gently scoop it up in the viewfinder for a closer look without harming it. Make sure to put it back exactly where you found it so it can keep playing its role in our forest ecosystem. Please do not pick any flowers or plants so others can also enjoy their beauty!

Once you have completed this activity guide, bring it to the Harbison State Forest Education Center to get your certificate signed and receive your Junior Forester badge and Smokey Bear prize! Please call the Education Center at (803) 896-8890 if you have any issues out on the trail, and contact Beth Foley at (803) 896-8855 if you have any questions about this program.

Classroom 1: How does a tree grow?

Classroom 2: How trees and forests are renewed

Classroom 3: Forest floor decomposition

Classroom 4: Forest ecosystem



COOL CRITTERS SCAVENGER HUNT

Directions

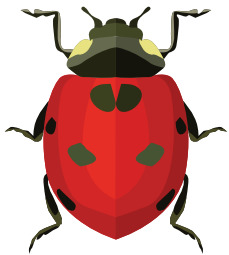
1. While you explore today, try to find all of the items on this scavenger hunt!



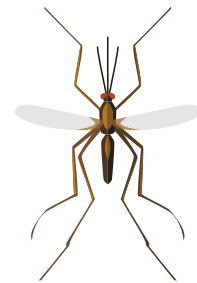
butterfly or moth



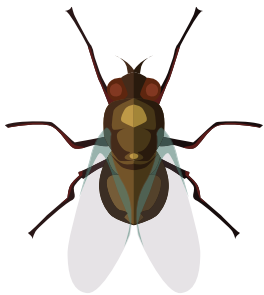
spider



ladybug



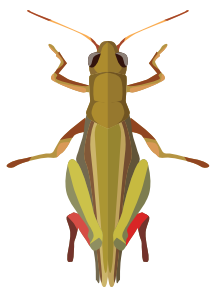
mosquito



fly



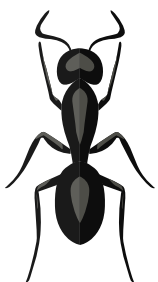
snail or slug



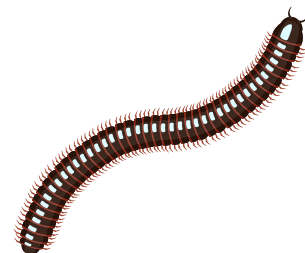
grasshopper or cricket



worm



ant



millipede

TREES ARE JUST LIKE ME!

HIKE TO CLASSROOM 1 FOR HELP WITH THIS ACTIVITY

Trees are living and growing organisms. Believe it or not, they are just like you! Trees need basic resources to survive (food, water, sun, air, nutrients, and space), and so do you (food, water, air, shelter, space). Each part of a tree helps it collect these resources in order to survive.

1. Label the picture of the tree by filling in the blanks using the word bank.

Word bank

Roots

Collects nutrients and anchors tree in soil – Just like your feet and toes

Bark

Protects the tree from injury and disease – Just like your skin

Leaves

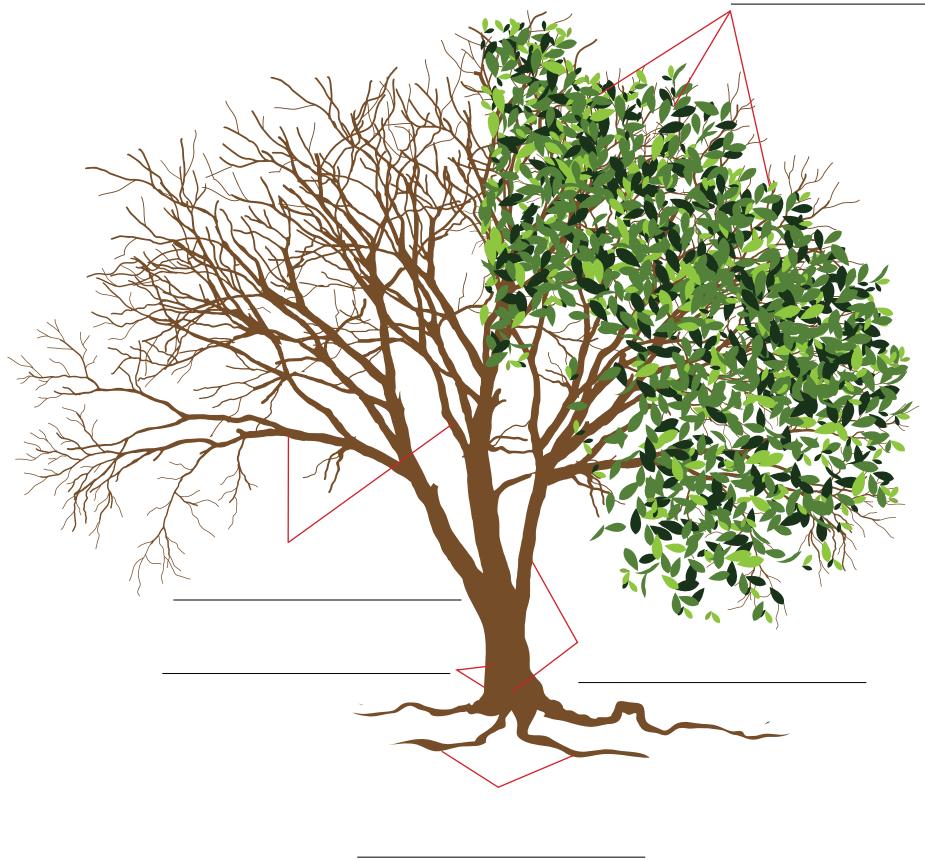
Creates food to feed the tree – Hands feed food to your mouth

Trunk

Supports the branches and crown – Back supports arms and head

Branch

Reaches leaves out closer to the sun – Arms reach out to grab food



2. Draw a picture of your favorite tree that you see today in the space below.

TREES ARE JUST LIKE ME!

HIKE TO CLASSROOM 1 FOR HELP WITH THIS ACTIVITY

All living organisms have a life cycle that includes birth, growth, injury/disease, aging and death. As trees grow, their form and appearance changes, as does their role in the ecosystem.

1. Label the stages of the tree life cycle by filling in the blanks using the word bank.

Word Bank

MATURE TREE

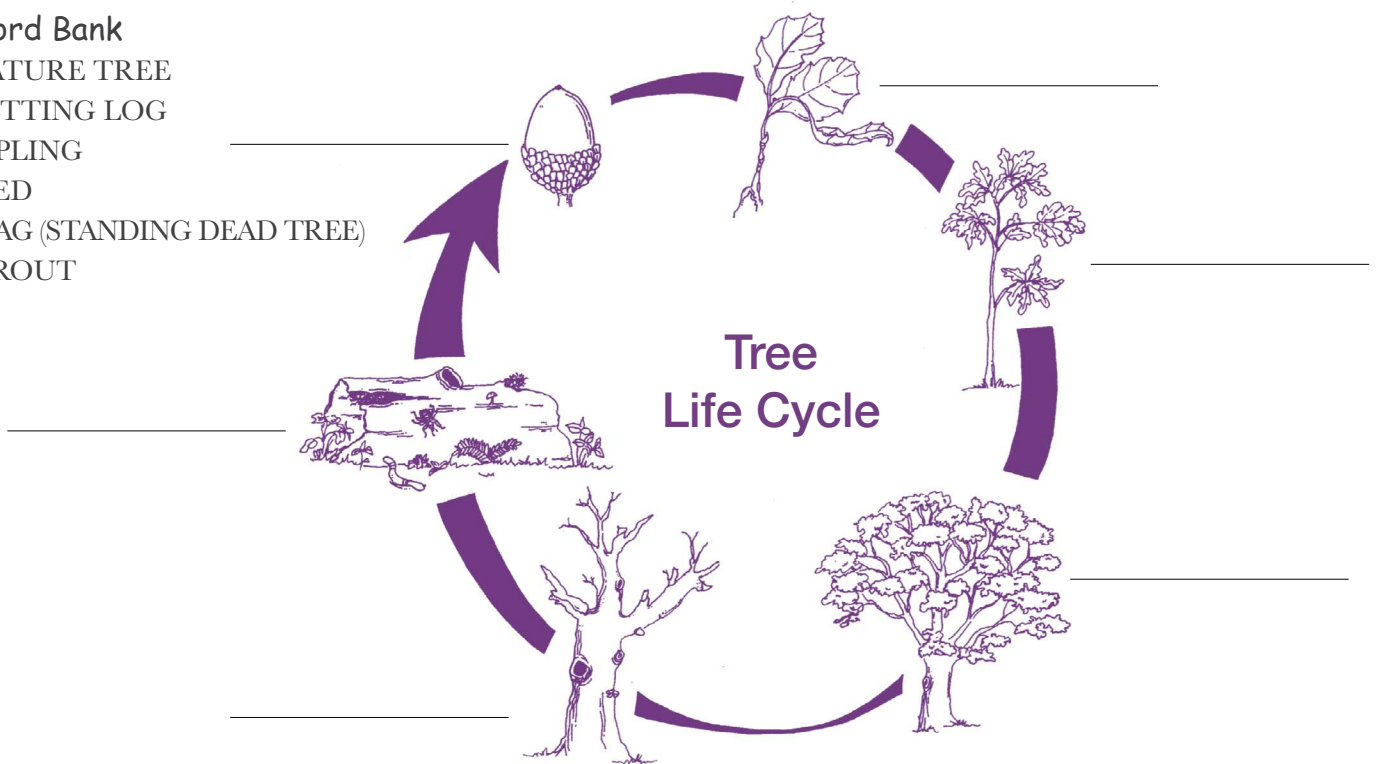
ROTTING LOG

SAPLING

SEED

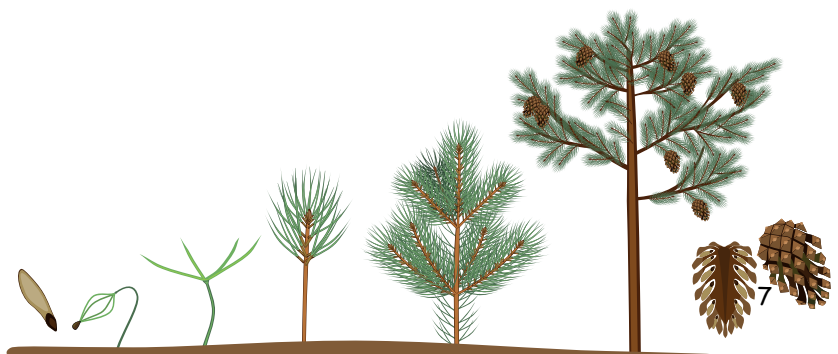
SNAG (STANDING DEAD TREE)

SPROUT



2. By counting a tree's annual growth rings, you can figure out its age. We call a cross-section or a slice of the tree trunk a "tree cookie." How old is the tree cookie in your backpack?

3. Draw your life as a tree cookie by making one growth ring for each year of your age in the tree cookie below.



BABY TREES

HIKE TO CLASSROOM 2 FOR HELP WITH THIS ACTIVITY

1. A seed is a “tree egg,” and it contains a baby tree and a supply of baby tree food all wrapped up in a protective covering. Mature trees drop their seeds when they are ready, but need these seeds to travel away from them for a better chance of finding what they need to grow. There are three main ways that seeds are dispersed (moved) from their parent tree that the classroom sign describes. What are those three main ways?

2. Turn to page 31 in the “On the Nature Trail” book and look at the pictures of different types of plant and tree seeds. A seed’s shape and size can give you a clue as to how it is dispersed. Circle the correct dispersal method on the examples below. Then see if you can find these seeds out on the trail!

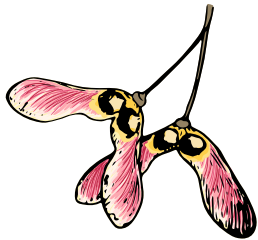


Burr:

ANIMAL

WATER

WIND



Maple seeds:

ANIMAL

WATER

WIND



Dandelion:

ANIMAL

WATER

WIND



Acorns:

ANIMAL

WATER

WIND

♪♪♪ Music of the forest ♪♪♪

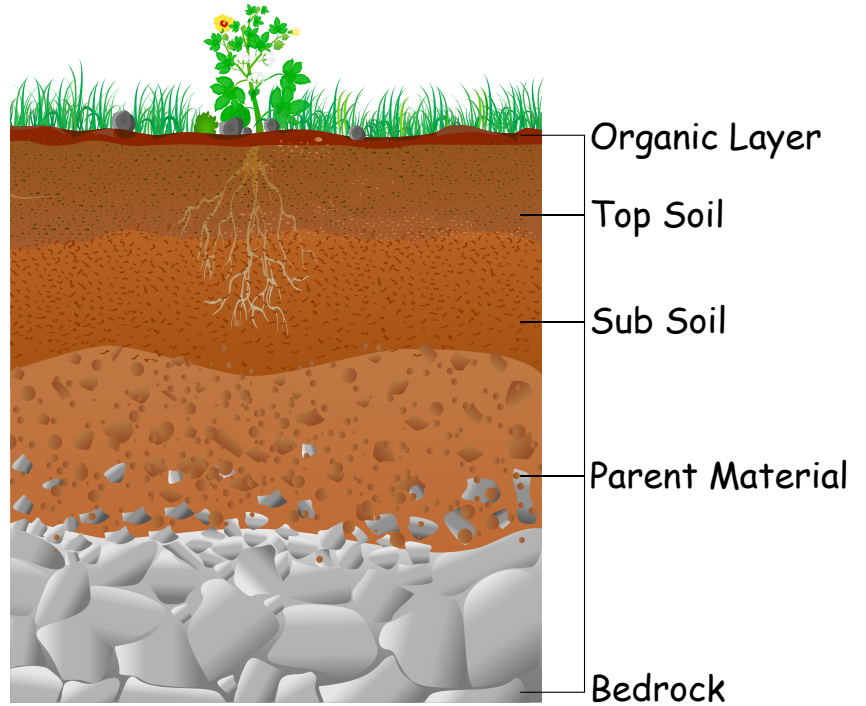
Turn to page 8 in the “On the Nature Trail” book and check out the acorn cap whistle. Can you find an acorn cap and make some music?!?

SOIL IS MORE THAN JUST DIRT!

HIKE TO CLASSROOM 3 FOR HELP WITH THIS ACTIVITY

Why do certain trees and plants grow in some places but not in others? Factors like moisture, sunlight, temperature and even soil type can determine where plants grow. All plants and trees have different needs and grow best in their preferred environmental conditions.

Soil is the foundation of life on earth! There are many different types of soils (clay, sand, silt), all of which have important properties that plants need to survive. As you go deeper into the ground, you will find different layers, or “horizons,” of soil. Each horizon has unique physical and chemical properties. Look at the classroom sign to see a real life example of soil layers.



Time to get your hands dirty! Find a soft spot on the forest floor and use your garden trowel to dig deep enough to hit a different soil layer. Use your magnifying lens to get a closer look at the soil and organisms that may be in it. Make sure to fill your hole back in after you complete the below investigation!

1. What did you find in the topsoil? (leaves, sticks, etc.)
2. Did the soil color change between the layers? If so, what colors did you see?
3. How did the soil feel? (smooth, sandy, rocky, sticky, etc.)
4. Draw a picture of the area where you got your soil sample below.

FOREST ECOSYSTEM

HIKE TO CLASSROOM 4 FOR HELP WITH THIS ACTIVITY

A forest ecosystem is a complex living system made up of many different plants and animals. All of these organisms interact with each other in some way or another! Look at the classroom sign to learn more about the circle of life or what we call a “food web.”

1. What is the ultimate source of energy that drives the food web? _____

Look at the forest around you and try to find as many living and non-living things as you can! Use your binoculars to find birds in the sky. Use your flashlight to look under a rotting log for insects and mushrooms. Use your magnifying lens to see leaves and bark up close. Close your eyes for a few moments and listen to the sounds around you.

2. What living things did you find in the forest ecosystem?

3. Did you find evidence of wildlife? If so, what did you find?

(Examples: nests, animal tracks - “On the Nature Trail” page 47-, feathers, scat, holes in the ground or trees, chewed leaves or pine cones, scratches on trees, etc.)

4. Find a dead log on the ground and roll it over carefully (check for yellow jackets or snakes before rolling). Roll it back to its original spot when you are done. What critters did you find under a rotting log? Were there mushrooms on it?

(Use pages 11, 19, and 27 in the “On the Nature Trail” book to identify them)

5. What sounds did you hear?



UP, UP, AND AWAY!

You have been looking down and all around the forest, so now it's time to look up! As you hike out of the forest and into the Education Center parking lot, take a look up at the clouds. Did you know that clouds are made of tiny water droplets and sometimes ice crystals?

Look at pages 12 and 13 in the "On the Nature Trail" book to learn more about clouds.



1. What type of clouds are in the sky today? Circle one answer

CIRRUS

CUMULUS

STRATUS

NONE

2. What do these clouds tell you about the weather? Circle one answer.

CHANGING SOON

GOOD WEATHER

RAIN OR SNOW COMING

3. Do any of the clouds in the sky look like a shape, animal, face or some other object? If there are no clouds in the sky, then draw your own fun-shaped cloud.



THIS ACKNOWLEDGES THAT



HAS BEEN RECOGNIZED AS A JUNIOR FORESTER BY
THE SOUTH CAROLINA FORESTRY COMMISSION

JUNIOR FORESTER PLEDGE: "I _____

am proud to be a SC Forestry Commission Junior Forester. I promise to appreciate, respect, and conserve all forest habitats. I also promise to continue learning about the landscape, plants, animals and history of these special places."

SCFC REPRESENTATIVE SIGNATURE

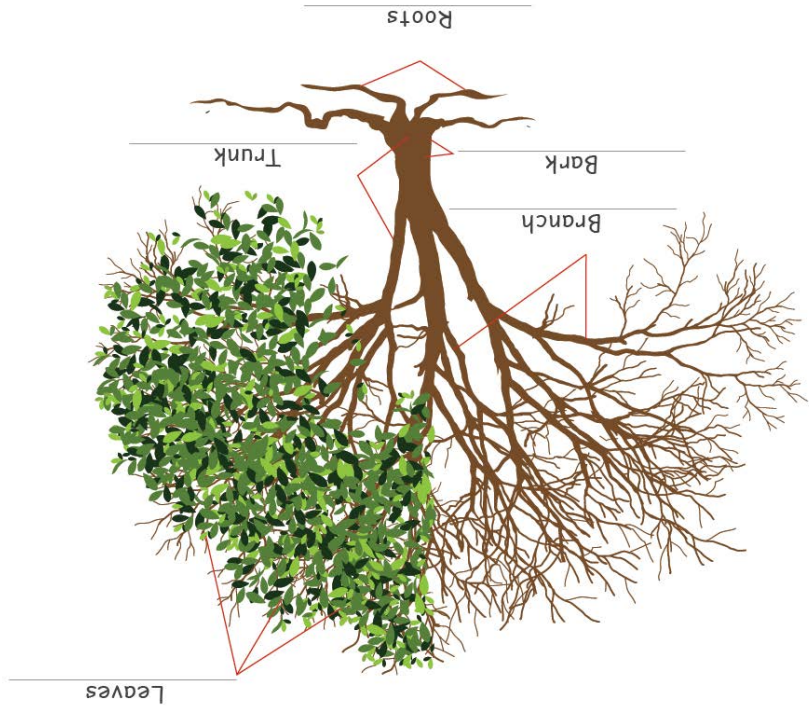
JUNIOR FORESTER SIGNATURE

DATE

ANSWER KEY

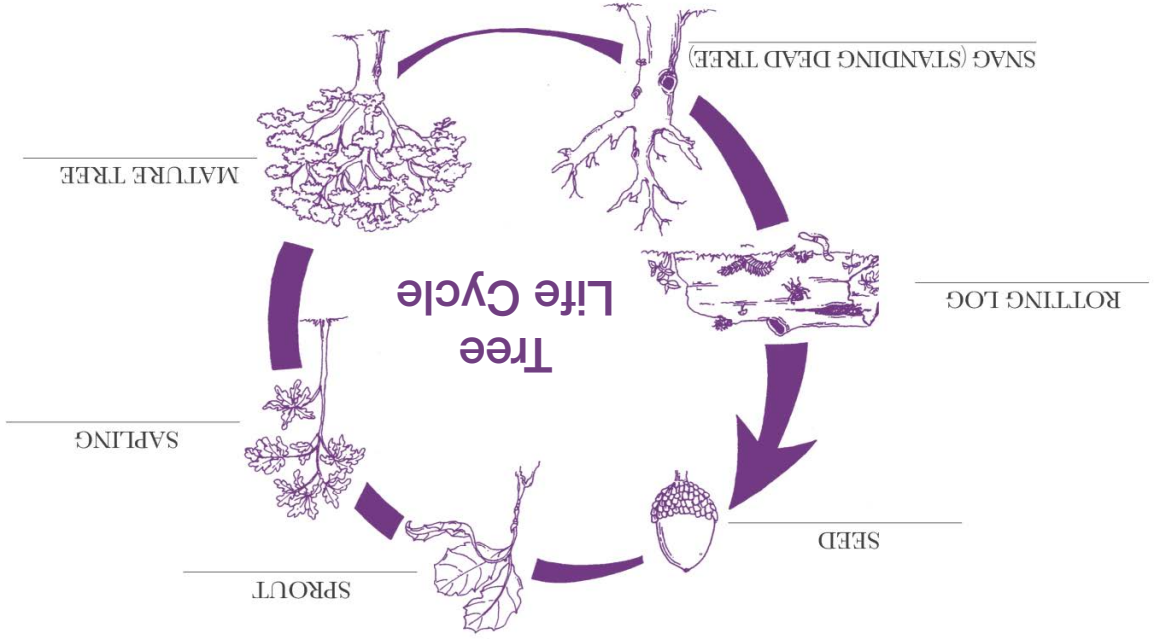
Page 6

1.



Page 7

1.



2. 10

Page 8

1. Animals, wind, water

2. Burrs: animals; maple seeds: wind; dandelion: wind; acorn; water

Page 10

1. Sun

