



Eco-Schools USA at Home: Learning About Forests (LEAF)

AUDIT AND ACTION PLAN

CHART 1. TREE SPECIES DATA

Choose at least one tree in your backyard, on your street, or an adjacent park for which to identify and collect data. To help identify tree species, you can use several different resources, including:

- [Arbor Day Foundation: What tree is that?](#)
- [Tree Apps](#)
- [NWF Guide to Trees](#)

To determine Tree Diameter (DBH*), you will need a measuring tape. You will use this data in the table below to determine Tree Worth using the [My Tree Calculator](#). If you can, collect data on several trees so you can see the differences in tree worth. To [measure Tree Diameter \(DBH\)](#) you will need a rope/string and then a way to measure that string. (*DBH refers to the tree diameter measured at 4.5 feet above the ground.)

1. With the **measuring** tape, **measure** 4.5 feet up the trunk of the tree from the ground.
2. Wrap your string around the tree trunk at 4.5 feet.
3. **Measure** the length of the string to get the circumference of the tree and divide that measurement by 3.14 to get the diameter.

Need visual directions? Check out this video, [Measuring the diameter of trees using a DBH tape](#).
https://youtu.be/z_LTRevV4eA.

CONTINUED ON THE NEXT PAGE.



Location of Tree and #	Type of Tree	Tree Species	Tree Condition	Tree Size in Diameter (feet)	Sun Exposure	Within 60 ft of Building?
#1 –Arlington, VA	Existing	Red Maple	Good	24”	Partial	no
	Existing					
	Existing					
	Existing					
	Existing					

Information to help you fill out the chart above.

- Location (your address or address where the tree is)
- Type of Tree (put existing)
- Tree Species
- Tree Condition (excellent, good, fair, poor, critical, dying, dead)
- Tree size in diameter
- Sun exposure (full, partial, shade)
- Is tree within 60 feet of a building?



CHART 2. TREE WORTH

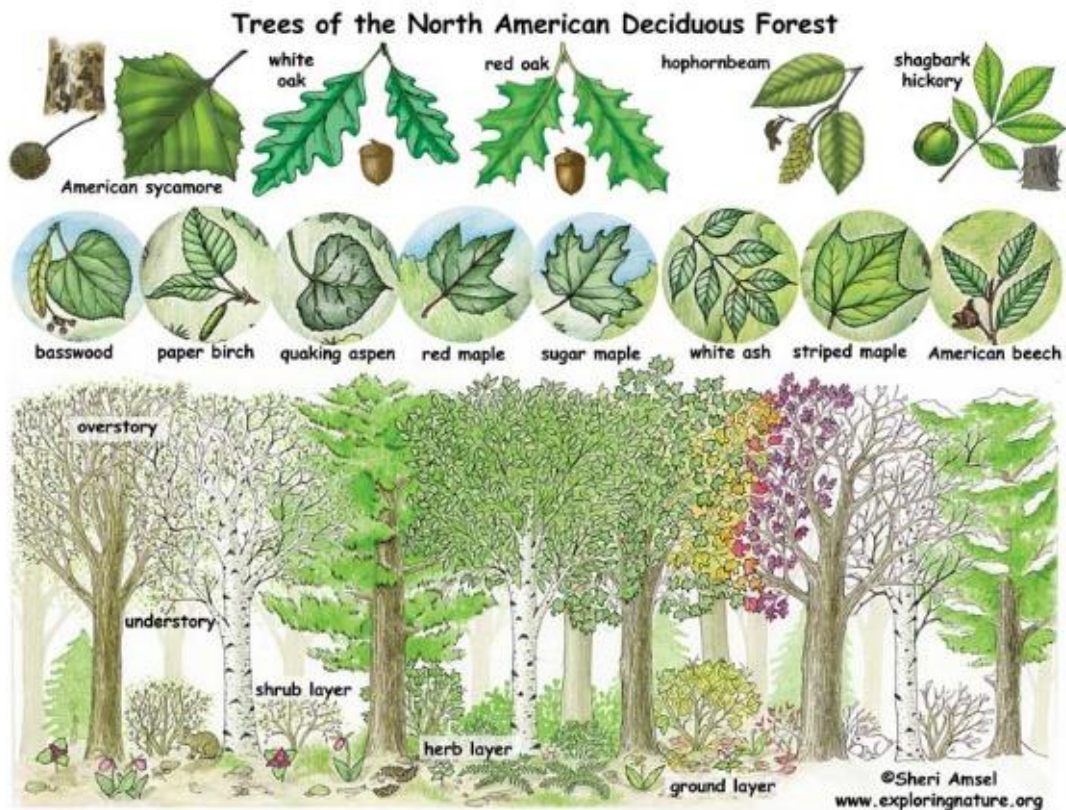
Use the [My Tree Calculator](#) from *itreetools* to collect the data below. Use the information from **Chart 1** to populate the calculator in *My Tree* and then calculate your tree benefits. Transfer the data into the chart below and if you are collecting data on more than one tree, total the overall benefits.

Tree # (species & diameter-inches)	Land Use Stormwater Runoff-gallons	Annual CO ₂ Captured- pounds (lbs.)	Total Annual Overall Tree Benefit-dollars
Ex. #1 Red Maple/24"	487.16 gallons	39.42 lbs.	\$13.10
TOTAL			



CHART 3. WILDLIFE HABITAT

Using the chart below, collect data on the different species of wildlife you observe in your forest or tree(s) looking out a window, in your backyard, or at a nearby forest, park, or green space. Make sure you look at all levels or layers of your tree/forest, including the canopy, understory, and forest floor. **If you are looking at just one tree and not an entire forest ecosystem, still observe all levels of the tree, especially on the trunk, the leaves, and stems, and even on the ground adjacent to the tree.** Get up close, and if you have a magnifying glass see what else you might find! If you cannot go outside and explore a forest or tree and with permission, find some tree/forest images online. **Optional:** Make sketches of the different wildlife species you see and try to identify them using field guides or online apps.





Wildlife Species	Forest Floor	Understory	Canopy
Mammals			
Birds			
Insects			
Amphibians			
Decomposers			

Examples of animals in the different families.

- **Mammals** (ex. squirrels, raccoons, deer)
- **Birds** (owls, songbirds, woodpeckers)
- **Insects** (ants, beetles, flies, weevils, caterpillars)
- **Amphibians** (frogs, salamanders)
- **Decomposers** (worms, insects)



MY ACTION PLAN – PAGE 1

What is the problem, concern, or needed improvement, and why is it needed? Consider how the problem you identified is affecting you, your family, and or the community.

Example. I learned that trees are essential for wildlife and help reduce impacts like increased temperatures due to climate change by providing shade. After conducting my audit, I observed that there were very few trees on my street and very few wildlife species using these trees. I want to increase the number of trees on my street.

Your response.

What three action(s) will I take? Consider how to persuade yourself, your family, and or your friends to change their behavior and try new things.

Example.

- 1) *I will learn who in my community can help us get more trees planted.*
- 2) *I will learn how to protect the health of existing trees on my street or my backyard.*
- 3) *I will share my plan with my family and see how we can work together to implement it.*

Your response.



MY ACTION PLAN-PAGE 2-OPTIONAL

How will I check our progress to see how we are doing?

Example.

- 1) I will complete a post-action audit.
- 2) If I can implement my plan, I will monitor my newly planted or protected trees and take photos or draw pictures of their progress.

Your response:

What will it look like, or what will happen if I solve the problem or make improvements?

Example.

I will have more knowledge about the benefits of trees and forest ecosystems. If I'm able to plant or protect trees at home, I will create more wildlife habitat, reduce carbon in the atmosphere and reduce storm runoff.

Your response.

What materials will I need to solve the problem or make improvements?

Example.

- audit worksheet and pencil
- measuring tape or ruler
- magnifying glass
- family time to talk about our progress
- string/rope for measuring diameter of tree
- binoculars

Your response.
