

# Tree Identification



There are many great tree ID apps that will ID trees for you. This brochure will help you ID trees.

To take our virtual tree tour visit:

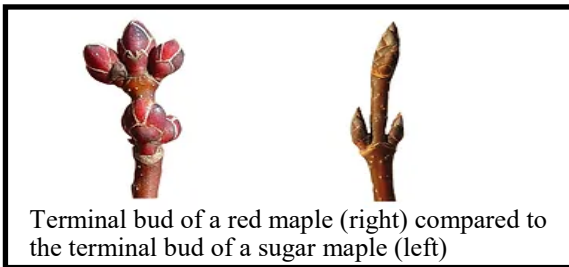
<https://arcg.is/110TD8>



## Buds and Bark Wintertime ID

### Buds

Trees may not have leaves all the time, but you can always find a bud. This is why buds are the most reliable way to identify any tree, especially in the winter time. The easiest buds to look for (the ones that will have the most distinct shape) are the buds at the very end of a branch or twig and are called "terminal buds". For example, the terminal bud on a sugar maple tree is very long and pointy, and can be a great way to tell this tree from other maple species.



Terminal bud of a red maple (right) compared to the terminal bud of a sugar maple (left)

### Bark

While bark is often an overlooked feature, there are some trees (like the American Sycamore) that can be identified just by their bark. The two most important things to note about bark is its texture and coloration. Bark can be smooth or shaggy or have unique patterns in the ridges. Contrary to popular belief, most trees actually have gray bark, not brown.



"Bark: *Platanus occidentalis*" By Arthur Haines. Copyright © 2023

## Fruit and Flowers

### Fruit

In the context of tree identification, "fruit" refers to any type of seed produced by a tree and can include berries, nuts, samaras (winged seeds from maple trees), acorns, and more. Conifers, or cone-bearing trees, are the only trees that don't produce "fruits". Not only can the fruit itself be a good identifying factor, but so can the time of year it is produced.

### Flowers

Like with fruit, time of year is important to note when looking at a tree's flowers. Some trees (like magnolias) have very large, showy flowers, while other trees (such as oak trees) have very small, stringy, pollen covered flowers. The differences in flower type usually have to do with the tree's method of pollination.



The unique flower of a dogwood tree is actually made up of modified leaves.



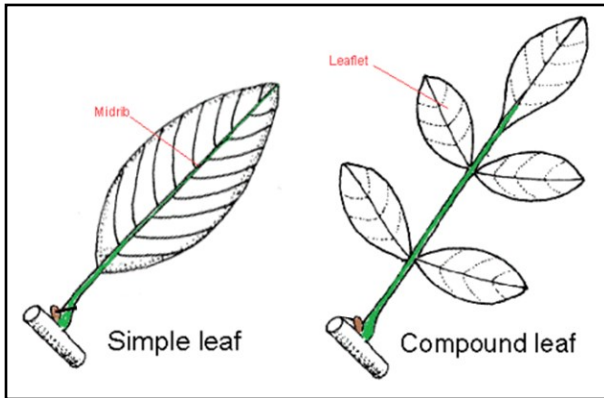
Claytor Lake State Park  
6620 Ben H. Bolen Drive  
Dublin, VA 24084  
Phone: (540)-643-2500

# Leaves

## Simple v. Compound

### Simple Leaves

These are the type of leaves most commonly associated with trees, and for good reason as most trees have simple leaves. This means that each individual leaf is directly attached to the tree by its own stem. In the fall, both the leaf and stem fall together.



"Simple vs Compound Leaf" Forest Preserves of Cook County  
<https://fpdcc.com/wp-content/uploads/2019/03/FPCC-Tree-Shrub-Guide-101217.pdf>

### Compound Leaves

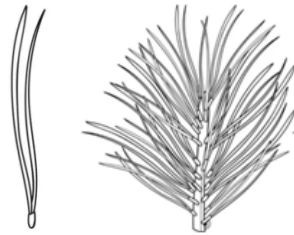
These leaves are a little more complex than simple leaves, and can be difficult to identify as such. Trees with compound leaves have many leaflets (or small leaves) that grow opposite of one another on a central stem (called a rachis). This entire structure is the leaf. In the fall, the rachis falls with the leaflets. If you aren't sure whether the tree you are looking at has compound leaves or not, try looking around the ground below. If you find several long, bare stems on the ground, chances are you have found some discarded rachises.

# Needles

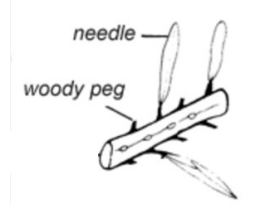
## Evergreen Tree ID

There are several types of trees with needles instead of leaves. These trees include, pines, spruces, firs, and cedars.

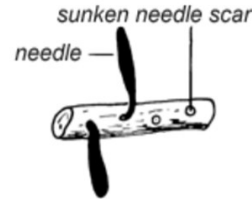
Pine trees have needles that grow in bunches from a single bundle (called a fascicle) along the twigs.



Spruce trees and fir trees have very similar needles, but there is a way to tell the difference. While spruce trees have single needles attached by a woody peg, fir trees have single needles that are attached directly to the twigs in a similar fashion to a suction cup.



Spruce tree needle attachment



Fir tree needle attachment

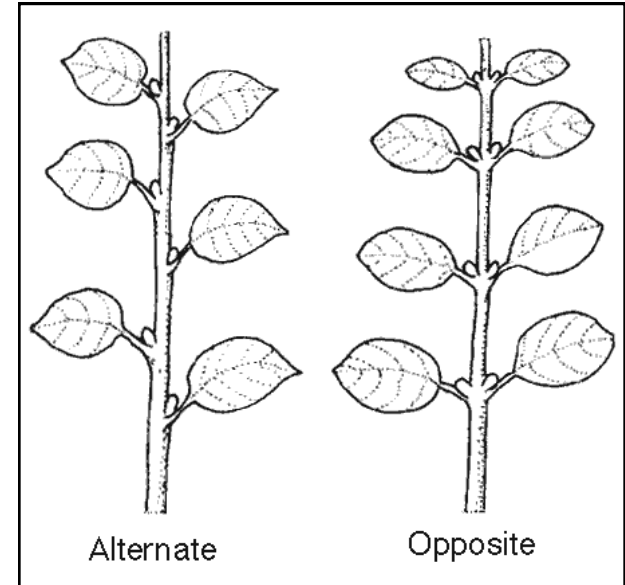
Hemlock trees have very small, flat needles that are attached to the twigs by a small stem.



# Branching Patterns

## Opposite v. Alternate

The first thing to note when identifying a tree is what kind of branching pattern it has. While there are a few types of patterns, the two most common are opposite and alternate.



"Alternate vs Opposite Branching" Urban Tree Alliance  
<https://www.urbantreealliance.org/resources/tree-id/2b/>

The majority of trees have an alternate branching pattern. This means that their leaves, twigs, and branches grow one by one along alternating sides of the branches or trunk.

Opposite branching is far less common than alternate. This is where the leaves, twigs, and stems grow directly across from one another. Trees with an opposite branching pattern include maples, ash trees, and dogwoods (MAD).