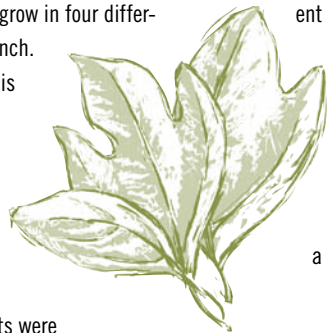


blowing in the wind, and this is how The path that leads from Edgar Hall to University Hall is lined with **FLOWERING CRABAPPLES**, which are cousins of the apples we eat. These trees are planted more for their beautiful pink, white, and red spring blossoms than for their tiny, bitter fruits. Bees especially love to visit the sweet flowers. Though the fruits are not very tasty to humans, they are safe to eat if you wash them well and have an adult who is able to help you make sure you have the right tree. Other fruits and berries can be harmful to humans, so it's very important to make sure you know what you are eating! Some people make jelly from crabapples.



As you walk back toward the center of campus, stop by the **SASSAFRAS** tree, which grows on the lawn between the crabapples and Sandusky Street. The sassafras is interesting because the leaves can grow in four different shapes on the same branch. Can you find all four? This tree, which is in the same plant family as avocado and cinnamon, has oils in its leaves and roots that have a strong, nice smell when crushed. In fact, the roots were once the primary flavoring in root beer, along with molasses. Try chewing on a leaf (since we know this is safe to do with this plant!), then spit it out and see what you think it tastes like ... I think



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## Ohio Wesleyan University



ARBORETUM GUIDE

# TREE TREK for kids

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Arboretum



This Tree Trek is for you to have fun while getting to know the trees that grow around Ohio Wesleyan University and many other places in this area—maybe even in your own yard.

## INTRODUCTION

Explore and see if you are able to identify the trees listed here. With some practice, you'll be able to spot these trees in other places, and you can learn interesting facts about how humans and animals use them for food and medicine. It is possible for you to teach your eyes to notice little things in nature, such as hairs on the bottom of a leaf or what kind of fruits various animals like to eat.

Smelling and touching are great ways to get to know a tree! Try feeling the bark and crushing leaves to get a good sniff. You can learn about a tree that is far away by noticing how tall it is, what shape the crown (branches and leaves at the top) is, how many trunks there are, and what patterns there are in the bark. Up close you can learn about a tree by measuring with your arms how big around the trunk is and noticing what the leaves, fruits, flowers, bark, and roots look like. Remember that trees are living things that can be harmed and damaged. Take care to let them grow as they are without breaking or carving them. In many ways, trees are not just a part of our environment; they are our relatives. Enjoy getting to know them!

## Trek

A good place to begin the Tree Trek is directly behind Slocum Hall at the giant Ginkgo tree. If you would like, you can make a collection of leaves from each tree you visit.

The **GINKGO** tree is called a "living fossil" because it has been on earth longer than any other kind. Individual trees can live to be 3,000 years old! Ginkgo trees are either male or female, unlike most other trees, which are both at once. The ginkgo located behind Slocum Hall is a female, and in the fall, it produces fleshy orange seeds that look like berries. These seeds smell bad (like rotten butter), but they may have medicinal uses. A male ginkgo grows in front of Sturges Hall. Notice the unusual fan-shaped leaves on the ginkgo; you can make your own "fossils" by placing a sheet of paper over flattened fallen leaves and rubbing across the top with a pencil or crayon. Your rubbings will look similar to the real ginkgo fossils that have been discovered, some of which date back 270 million years.



Walk along the leftmost path that leads down toward Phillips Hall. As you turn to walk down the little hill, notice the tall bushes that grow along the paths—these are **LILACS**, and in early May they produce sweet-smelling bunches of purple flowers.

To the left of the path, behind University Hall is a tall **EASTERN COTTONWOOD** tree, whose leaves flutter in the wind. If it is late May or early June, you will easily be able to determine how the cottonwood got its name: its seedpods open and release their seeds, which are attached to puffy, white strands like cotton. When all of the seedpods burst, the air is filled with the soft seed fluffs



the tree spreads its seeds to grow new trees. Pick up one of the triangle-shaped leaves and look at the shape of the leaf stem. What do you notice? This shape is the reason the leaves flutter so much on the branches. Also notice the unique wavy edges.

As you look down the path, what trees stand out the most to you? It might be the giant **SYCAMORES**, growing tall with white and grey patchy bark that looks like camouflage. The bark is very rigid and flakes off as the trunk widens to bolster the growing tree. Sycamores also can be identified by their big, broad leaves (which might be bigger than your face!) and green fruit balls dangling from the branches. If there is a fruit within reach tear it open and see the surprising inside of these hard balls: hundreds of little seedlike fruits attached to hairy fluffs! Why might the tree attach these hairs to its seeds? (Hint: think of the Cottonwood tree)



Next to the American Beech is a **SUGAR MAPLE** tree. It is common for these two trees to grow next to each other in forests.

One of the most common trees in this area, the sugar maple gets its name from the sweet, sugary sap that is tapped in the spring to make maple syrup. (Ohio is the #4 state for producing maple syrup in the U.S.) One way you can learn to identify the sugar maple is by the fruits, which grow papery “wings” and flutter down on the wind. Some people call these helicopters and whirligigs; what name would you give them? You might recognize the leaf of the sugar maple from the Canadian flag. Notice that some leaves on the tree are more full and flat like a plate, while others have deeper cutouts, like a hand. One reason trees produce differently shaped leaves is that leaves growing in the shade need to catch as much sunlight as possible to grow, so they have more surface for sunlight to strike. Leaves in full sun keep from drying out by having less surface for the sun to heat. Where do the sun and shade leaves grow on our sugar maple?

Walk to the back of Phillips Hall. At the very edge of campus, next to the Sulphur Spring, is one of the most beautiful and interesting trees on campus: the **BALDCYPRESS**. It is distinctive with its shredded reddish bark and needle-like leaves. In the fall, the tree loses its leaves in a unique way, by dropping the entire little branches that hold the leaves. Baldcypresses tend to grow in swampy areas and grew in huge forests in the swamps that once covered the southeastern part of the United States. It is possible that the thickening at the bottom of the trunk (called buttressing) helps these trees stand strong in the hurricanes that strike the southern states. Baldcypresses rarely topple, even in hurricane winds!



While you're here, check out the Sulphur Spring, made up of water that bubbles up from the ground and contains sulfur, a mineral that gives off the smell of rotting eggs. Despite the bad smell, the water has long been considered to be good for your health, and the University is located here because of the Sulphur Spring, which brought visitors to Delaware from all parts of the U.S. in the 1800s. Just across the path from the spring you'll find a **SWEET-GUM** tree, recognizable by its spiky “gumballs” and star-shaped leaves. Each gumball is in fact a cluster of many little flowers that turn into many little fruits. The sweetgum's leaves turn red, yellow, and purple in the fall, making it one of the most beautiful trees in the area. If you are able to reach a leaf, see if you can see the tiny little hairs on the underside of the leaves. Now crush the leaf—does it have a sweet smell?



The tree growing behind the sweetgum is an **OHIO BUCKEYE**, the state tree of Ohio. Another name for this tree is the Stinking Buckeye, named so because all parts of the tree, including leaves, flowers, twigs, and bark, give off a bad smell. This smell is meant as a warning to humans and other animals not to eat parts of this tree because it is poisonous, although some animals are able to eat the fruits. The best buckeye for us to eat is the chocolate and peanut butter kind, which unfortunately doesn't come from trees. In fall, the buckeye tree drops big, hard fruits that contain two or three smooth, brown seeds. Try breaking a fruit open and see if you agree with the Native Americans, who thought the seeds look like the eyes of male deer and so gave the tree the nickname of “buck's eye.”

Wander through the lawn along the Delaware Run, the stream that borders campus. There are many types of trees that like to

grow by water. One of these is the **AMERICAN BASSWOOD**, a tall tree on the stream bank with branches that sweep down to the ground and whose trunk does not grow straight up like many of the other trees. The heart-shaped leaves of the basswood are special because they are uneven at the bottom; we say these leaves have an oblique, or lopsided, base. Look for flowers in June, which grow in sweet-smelling clusters. These are pollinated by bees, which make excellent honey from the flowers' nectar. If it is later in the season, these flowers turn into light brown little nuts that hang in the cluster with a light, papery leaf attached. The wind catches these leaves and blows the little nuts away. Or they fall into the stream and float away on the water, with the tree's seeds inside, to possibly be planted and grow into new trees. Can you spot sycamores growing nearby?



As you follow the stream, you will meet a path that leads toward Edgar Hall. To the left of the path, between the Delaware Run and University Hall is one of the fiercest trees around, the **HONEYLOCUST**. The trunk and twigs of this tree grow long, branching thorns. Be careful, they are as sharp as they look! This tree is in the same family of plants as beans, the legume family, and one thing these plants share is compound leaves. Examine the branches and you can see that there are many tiny “leaves” growing along a “stem”, and that the entire stem of leaves actually makes up only one leaf. Plants in the legume family also grow seedpods, which are almost a foot long on the honeylocust. The pods and beans inside contain a lot of nutrition, and many animals love to eat them, including cows, pigs, squirrels, rabbits, possums, crows ... and humans! These pods ripen in late September to mid-October and can be opened up to show a green, slimy pulp inside. If you are with an adult, try tasting this pulp; you will find it very sweet, like honey. This is how the honeylocust gets its name. What name would you give this tree?



**Conclusion:** I hope you enjoyed the Tree Trek! As you can see, there are many more trees than those included here. If you want to learn more, look for books and field guides about trees and other plants at the library. But remember, even if you don't know its name or anything about it, there is a lot you can discover just by observing, comparing, smelling, and touching. More than anything, you can get to know a tree by hanging out with it!



Take the path that leads away from Merrick Hall toward the Science Center. Just past the four-way intersection you'll find an **AMERICAN BEECH** hanging over the path. The beech has distinctive smooth grey bark that some people think looks like an elephant's leg. When a beech tree loses a branch or is scarred for some other reason, the bark heals itself, sometimes creating what look like eyes and other shapes. Do you see any pictures in the beech bark? You have probably seen squirrels or chipmunks collecting nuts and seeds from trees and burying them in the ground to save for winter, but you probably didn't know that blue jays do this too! Blue jays love to eat beechnuts, and are one of the only kinds of bird to carry nuts away to bury in the ground, just like a squirrel. This helps the bird by providing a store of food for later, and helps the tree by planting its seeds, some of which will sprout into new trees if the blue jay is forgetful.