

CADETTE TREES BADGE – MEETING 1

Badge Purpose: When you've earned this badge, you'll have gone to the root of what trees are all about—and branched out as a naturalist.

Activity Plan Length: 1.5 hours

Time	Activity	Materials Needed
10 minutes	Getting Started <ul style="list-style-type: none"> Girls recite the Girl Scout Promise + Law 	<input type="checkbox"/> (Optional) Girl Scout Promise and Law poster
15 minutes	Name That Tree! <ul style="list-style-type: none"> Get to know the native trees in your region. 	<input type="checkbox"/> Phone or computer with internet access <input type="checkbox"/> White paper
35 minutes	Natural Navigator <ul style="list-style-type: none"> Head outside and use trees to find your way. 	<input type="checkbox"/> Phone or computer with internet access <input type="checkbox"/> Compass
20 minutes	Maple Tasting <ul style="list-style-type: none"> Conduct a maple syrup taste test. 	<input type="checkbox"/> Maple syrup (at least three different types) <input type="checkbox"/> Small cups (preferably clear) <input type="checkbox"/> Pen and paper
10 minutes	Wrapping Up	<input type="checkbox"/> (Optional) Make New Friends lyrics poster

Getting Started

Time: 10 minutes

Materials Needed: (Optional) Girl Scout Promise and Law poster

Welcome everyone to the meeting, recite the Girl Scout Promise and Law.

Activity #1: Name That Tree!

Time: 15 minutes

Badge Connection: Step 2 – Dig into the amazing science of trees

Materials Needed: Phone or computer with internet access; white paper

Prep Needed:

- Download the Leafsnap app.



1. Familiarize yourself with the different types of native trees in your area. (You can also check your local library for field guides.)
 - Minnesota: bit.ly/minnesotatreeguide
 - Wisconsin: bit.ly/wisconsintreeguide
2. During the following activity, as you walk through the woods, see if you can identify any of the trees from the native tree list. Prior to heading out, download the Leafsnap app (leafsnap.com) to identify trees based on photographs of their leaves. Remember to bring a sheet of white paper with you (the recognition software works best if you photograph the leaf on a white background).

Activity #2: Natural Navigator

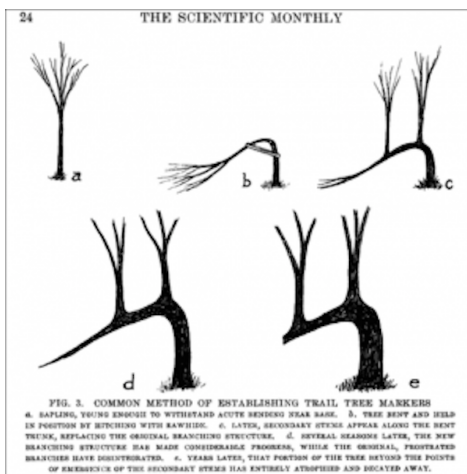
Time: 35 minutes

Badge Connection: Step 1 – Try some tree fun; Step 2 – Dig into the amazing science of trees; Step 4 – Explore the connection between people and trees

Materials Needed: Phone or computer with internet access; compass

Prep Needed:

- Prior to the meeting, find an outdoor space (with trees!) where you can take a walk with your troop.
1. Do you know what the oldest living organisms on Earth are? Trees! The longest living non-clonal (that means just one individual) organism on Earth is the Bristlecone Pine tree (*Pine longaeva*) in California that's been measured to be over 5,000 years old.
 2. Trees are such an incredible resource—they remove pollution from the atmosphere, clean our drinking water, and are home sweet home to an array of wildlife across the world. (Read more tree facts here: www.arborday.org/trees/treefacts.)
 3. Trees can also help you find your way if you get lost in the woods. Indigenous people used trees as markers to indicate directions along the trail or to indicate nearby resources, like water or medicinal plants. These marker trees would be bent as saplings (when they were about $\frac{3}{4}$ inch in size) and then tied down; as the tree grew, the trunk of the tree would bend sharply away from the center of the tree and then turn up again.



4. Take a hike into the woods and flex your natural navigation skills—see if you can use trees to help you find your way. Use trees as your reference point to determine which way is north. Once you think you've found north, use your compass to double check your guess. Keep these tips in mind:
 - Trees want sunshine (after all, it's how they "eat"). Trees are never truly symmetrical—growth tends to be heavier on one side than the other. The south-facing side of the tree will tend to be fuller and have more branches.
 - The sun also influences the growth of individual branches. Tree branches on the south-side tend to grow more vertically, up towards the sun.



Activity #3: Maple Tasting

minutes

Time: 20

Badge Connection: Step 1 – Try some tree fun

Materials Needed: Maple syrup (three different types); small cups (preferably clear); pen and paper

Prep Needed:

- Set up the maple syrup tasting station (pour maple syrup into individual tasting cups).
- 1. Maple syrup and maple sugar are some of the oldest agricultural products produced in the US. Maple syrup production requires a specific climate, so Minnesota and Wisconsin are two of the few states in the US that produce maple syrup.
- 2. Maple syrup is made from sap collected from maple trees during the sugaring season (usually mid-February through April). Trees need to be at least 30 – 40 years old before they're hearty enough to withstand being tapped for syrup. The syrup produced early in the season tends to be clear and light in taste, and becomes darker and stronger in flavor as the season progresses.
- 3. Conduct your own maple syrup tasting to see if you can pick out the different flavor notes in different maple syrups—then pick your favorite!
- 4. Gather at least three different types of maple syrup (check your local co-op to see if they have maple syrup in the bulk aisle if you don't want to buy regular-sized bottles of the stuff).
- 5. If you're tasting multiple grades of maple syrup, start with the lightest color of maple syrup and work your way to the darkest syrup—this way, the stronger flavors won't affect the more delicate tastes of the lighter syrup.
- 6. For each type of syrup that you'll be tasting: pour out a small amount into tasting cups (enough for each girl to try). Then, follow the tasting steps:
 - See: What color is the syrup? How viscous is it (how does it "flow"? Slowly or quickly?)?
 - Swirl: Gently swirl the syrup in the cup to blend the aroma (the "bouquet").
 - Smell: What smells do you detect in the syrup? Do the lighter syrups smell different than the darker ones?
 - Sip: Take a small sip of the syrup.
 - Savor: Do you detect any "flavor notes," perhaps like vanilla, nuttiness, or woody flavors?
- 7. Take notes after tasting each syrup, then rank which one(s) you liked the best!

Wrapping Up

Time: 10 minutes

Materials Needed: (Optional) Make New Friends song lyrics poster

Close the meeting by singing Make New Friends and doing a friendship circle.

More to Explore

- Field Trip Ideas:
 - Take a trip to the arboretum to see native and non-native species of trees.
 - Tap and make your own maple syrup! Check your local nature center, parks department, or the GSRV website to find events.
- Speaker Ideas:
 - Invite an arborist, master gardener, or nursery owner to your meeting to talk about how to care for trees.
 - Invite an artist or woodworker to your meeting to talk about how they use trees and wood in their art or craft.

