

Cadette Tree Badge

Supplies Needed

- Paper
- Color Pencils
- Tree field guide (apps, books, or internet, see below)
- Pen or word processing software
- Clean, sharp pruning tools
- Rake
- Mulch (if needed)
- Gardening gloves

Try Some Tree Fun

Supplies Needed

- Paper
- Color Pencils

Activity

Design a Treehouse.

The treehouse design and building process

The first step in designing your treehouse is to gather information about your goals and your resources. This information is the foundation for the rest of the planning, designing and building your tree house.

What are your Goals for the Treehouse Project?

Ask yourself these basic exploratory questions:

- Functional Design
 - Who is going to use the treehouse?
 - What design elements are important to them?
 - What is the minimum floor space required?
- Aesthetic Design
 - What should the treehouse look like?
 - What theme should it have (victorian, simple clubhouse, pirate ship, etc)?
 - What materials should we use to best embody your style and vision?
- Structural Design
 - Should the tree(s) support the treehouse, or should we use some posts for ground support?
- What Resources can be used for your Treehouse Project?
 - The types of resources you have available will affect not only the design process, but also whether or not you plan to build the treehouse yourself.
 - What trees do you have to work with on your property?
 - How much time do you have to devote to the construction process?
 - What is your budget for the treehouse project?
 - Do you have usable materials for part or all of the project?
 - Do you have lodging we can use while in town working on your treehouse?
 - Is there a carpenter or laborer you know who can help? Do they have carpentry and/or tree climbing skills?
- Anything else that may be useful for planning a treehouse construction project?¹

For some inspiration, check out this [YouTube Video](#)

¹ <https://www.treetopbuilders.net/tree-house-design/>

Draw your ideal tree house using an existing tree in your yard, neighborhood park, or Girl Scout Camp. Be sure to label all of the amenities. Share your treehouse design on social media. Make sure to tag @GSCSNJ, using the #GSCSNJBadgesAtHome and #CadetteTreeBadge.

Want to do more?

1. If you were to build your tree house, how much would it cost? What supplies would you need?

Dig into the Amazing Science of Trees

Supplies Needed

- Paper
- Color Pencils
- Tree field guide (apps, books, or internet, see below)

Activity

Be a Naturalist in your Neighborhood

Take a walk in your neighborhood and identify at least five different types of trees.

How to identify types of trees

- **Tree Identification by Leaf**
 - You can use an app, like [SnapLeaf](#) (for iPhones) and [VTree](#) (for Androids)
 - You can use an online resource like [“What tree is that?”](#) from the Arbor Foundation and take their tree quiz.
 - Arbor Foundation also has [field guides](#) that can help identify the tree.
 - NJ Envirothon has a [Tree Identification Guide](#) specific to New Jersey Trees.
- **Tree Identification by Bark**
 - You can use an app, like [SnapLeaf](#) (for iPhones) and [VTree](#) (for Androids)
 - Arbor Foundation has [field guides](#) that can help identify the tree.
 - NJ Envirothon has a [Tree Identification Guide](#) specific to New Jersey Trees.

Draw a “tree map” of your neighborhood with each kind of tree and where they are located. How did those trees get there? Are they native or were they planted there? Include notes on your map for references. **Share your treehouse design on social media. Make sure to tag @GSCSNJ, using the #GSCSNJBadgesAtHome and #CadetteTreeBadge. PLEASE NOTE: if you plan on sharing your map on social media, please do not put any identifying features, like street name, landmarks such as schools or parks, or addresses.**

Want to do more?

Share this map with a friend in your neighborhood. Add GPS locations for the trees and see if your friend agrees in your tree identification.

Find your favorite tree in your neighborhood and make an annotated sketch of the tree that shows layers and levels, from top leaves to bottom roots. Be sure to include three different kinds of plants and animals that use your tree - perhaps for food, fuel, camouflage, medicine or shade. ²

² Girl Scout Tree Badge

Make a Creative Project Starring Trees

Supplies Needed

- Paper
- Pen or word processing software

Activity

Verbal Instruction: Storytelling and the passing of legends is one of the oldest forms of communication for all people. It's how humans understand their world around them or to teach lessons. We do it today in our culture as well. The Grimm Fairy Tales are stories used to teach children lessons, even though we do not call them legends.

The context of a legend is almost as important as the legend itself! We must use our critical thinking skills to understand the legends shared with us, especially when they come from a culture that is different from your own. We have included two stories from a local indigenous tribe below. Before reading the stories, we encourage you and your girls to visit the Nanticoke Lenni-Lenape website, listed in the footnotes, or to look over [We Are Still Here!](#), an article written in partnership with the The Nanticoke Lenni-Lenape Indian Tribe in Bridgeton, NJ.

Remember a well-informed and culturally respectful Girl Scout is a well-rounded Girl Scout!

Create a Tree Legend

"Lenape (pronounced "Leh-NAH-pay") ancestors were those who inhabited New Jersey, Delaware, southern New York and eastern Pennsylvania at the time the Europeans came. We called ourselves "Lenni-Lenape," which literally means "Men of Men", but is translated to mean "Original People." From the early 1600's, the European settlers called the Lenape people "Delaware Indians."³

Read two local Lenape legends to understand what a legend is:

[The Story of the Maple Tree](#)

[The Sugar Maple and the Woodpecker](#)

Write a legend of your own. Legends are as unique and complex as the people who write them. The legend you are writing is meant to have meaning to your own life. Use an experience you have to create your tree legend.

Share your tree legend on social media. Make sure to tag @GSCSNJ, using the #GSCSNJBadgesAtHome and #CadetteTreeBadge.

Want to do more?

Learn more about the [Nanticoke and Lenape Confederation](#)

Explore the Connection between People and Loggers

Supplies Needed

Activity

Debate logging, clear-cutting, and deforestation

People cut down trees for a variety of reasons. Create a pros and cons list for both the trees and humans. Do research to understand the issue at hand.

Set up a virtual debate with a fellow cadette. You can use Facetime, What's App or

³ <https://nanticoke-lenape.info/history.htm>

Google Hangouts to host your debate. You can invite parents, friends, family, or other Girl Scouts to the debate.

Help Tree Thrive

Supplies Needed

- Clean, sharp pruning tools
- Rake
- Mulch (if needed)
- Gardening gloves


Activity

Tend to a Tree in Your Community

Find a tree that needs some help. Most trees in the community are not pruned as much as they should be. Ask permission before tending to a tree in your community. Ask a parent for help, if needed.

Pruning Tips

- Tools
 - Use clean, sharp tools.
 - Sanitize your tools in between pruning different trees.
- Cutting
 - Always cut to a bud, lateral branch, or main trunk.
 - Do not leave stubs.
 - Use the three-cut method for large limbs which are more than two inches in diameter.
 - When pruning back to a main stem or another branch, do not make a flush cut. Instead make a cut outside the raised branch collar. The collar contains chemicals that are a barrier against pathogens and help the tree form woundwood.
 - Do not remove more than one-quarter of the living crown of a tree at one time. If it is necessary to remove more, do it over successive years.
- Common myths
 - Dress the wound. For most species, dressings can damage the formation of woundwood. The only benefit of wound dressings is to prevent introduction of pathogens in the specific cases of Dutch elm disease and oak wilt.
 - When removing a branch from a tree, the final cut should be flush with the stem to optimize healing. First of all, trees don't "heal," they seal by compartmentalizing wounds and generating woundwood over the wounded area. Flush cutting removes the "branch collar," creating a larger wound than if the branch were removed outside the collar. The spread of decay inside the tree is greater with flush cuts.
 - Tree topping is the proper way to prune a tree. No. Tree topping is the most detrimental form of pruning. Topping a tree creates large wounds that allow rot and fungal decay to enter the tree. Topped trees are more likely to break apart in storms than trees that retain their natural shape.
- Timing
 - Anytime is the best time to remove broken, diseased, or damaged wood.
 - Structural pruning is best done in the dormant season (roughly December to mid-March). When leaves are down from deciduous trees, you can see and evaluate the tree's structure.
 - For some trees that flower in early spring, pruning is best after flowering; while other flowering species should be pruned in the dormant season to reduce the chance of transmitting disease. [Check with your local arborist.](#)



Congratulations! You have completed the Cadette Tree badge. Purchase your badge at the [Girl Scout Shop](#).