

Trees



Marjorie Merriweather Post, who once lived at Hillwood, enjoyed spending time in her gardens where you'll find a variety of plants including many different types of trees. Explore Hillwood's gardens to learn more about trees, create tree-inspired art, and discover ways to help trees thrive.

How to Earn Your *Shapes in Nature* Badge:

- Complete all five "Try This!" activities in this booklet.
- Use a Hillwood map to find the locations mentioned.
- Mark the checkbox next to activities you've completed.
- Show your troop leader your completed packet. Your troop leader can purchase Tree badges from the Girl Scout Council of the Nation's Capital.

Step 1 — Try some tree fun: Take a tree trip and go birding to discover how garden trees support birds

Try This!

Check here when you complete this step.



Visit the **C.W. POST TENT** to meet Sam Krause—a birding guide, photographer, and conservationist—to learn about how Hillwood’s gardens and trees help support birds.

Try these activities with her:

- ☐ Identify and name local birds
- ☐ Use binoculars to see what birds you can find in Hillwood’s gardens
- ☐ Ask about how gardens and trees help support bird life

Meet Sam Krause, a birding guide, photographer, and activist.

Sam was first introduced to birding when she was nine years old. As a young girl, she wanted to work as a veterinarian to help injured animals and to photograph animals from around the world.

She now leads birding walks in parks across the DC area, where she educates people about birds and their ecosystems. She has traveled the world to study birds and to teach people about their importance and beauty.

Her mission in life is to advocate for the protection of birds and their many habitats.



Step 2 — Dig into the amazing science of trees: Sketch and label the parts of a tree

Try This!

Check here when you
complete this step.



Visit Hillwood's **CUTTING GARDEN** to see the leaves on the ginkgo tree starting to bud in early spring.



Ginkgo leaves have a distinct fan-like shape. They are bright green in summer and turn golden yellow in fall.

In the space below, draw a picture of the ginkgo tree.
Label the following parts of the tree:

- **Roots:** Secure the tree to the ground and collect water and nutrients from the soil
- **Trunk:** The tree's main stem that helps bring water and nutrients up from the roots to the leaves
- **Branches:** Limbs that grow from the trunk and support the leaves
- **Leaves:** Attached to branches, they convert energy from the sun into food



Bonus project: Visit the **ART PROJECT** to make art inspired by the ginkgo tree. Decorate a placemat with paper cutouts of fan-shaped ginkgo leaves.

Step 3 — Make a creative project starring trees: Craft a wire tree sculpture

Try This!

Check here when you
complete this step.



Take a look at some of the trees growing at Hillwood and notice the pattern of their branches.



Dawn Redwood
(Location: Motor Court)



American Elm
(Location: Lunar Lawn)



Ginkgo
(Location: Cutting Garden)

Trees are an example of fractal branching. A large branch grows out of the trunk of a tree. That large branch then divides into smaller branches, which divide into smaller branches again, and so on, over and over in a repeating pattern.

A fractal is a never-ending pattern that repeats over and over again in different sizes and scales, like branches on a tree.

Visit the **ART PROJECT** to make a wire tree sculpture. Create a fractal branching pattern as you start with all your wire grouped together to form the large tree trunk and then branch out into smaller and smaller branches.

Step 4 — Explore the connection between people and trees: Create a dream tree garden

Try This!

Check here when you complete this step.



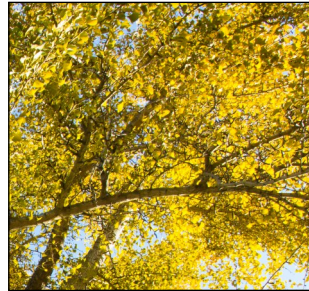
As you walk through Hillwood's gardens, notice the variety of trees. You'll find trees of many different shapes, sizes, and colors.



Japanese Maple



Blue Spruce



Ginkgo



Cherry Blossom

When planting trees, landscape architects think about what types of trees can grow and thrive in the climate where the garden is located. They also think about how trees will look in a particular garden and how the space will be used.

For example, a vase-shaped tree with its branches reaching upwards like an upside-down triangle works better for lining a walkway than a weeping willow, with branches trailing towards the ground.

In the space below, sketch a design for your dream tree garden. Think about what color trees you want, what shape they are, and how you want to use the space.

Step 5 — Help trees thrive: Learn about how Hillwood cares for its trees by pruning them

Try This!

Check here when you complete this step.

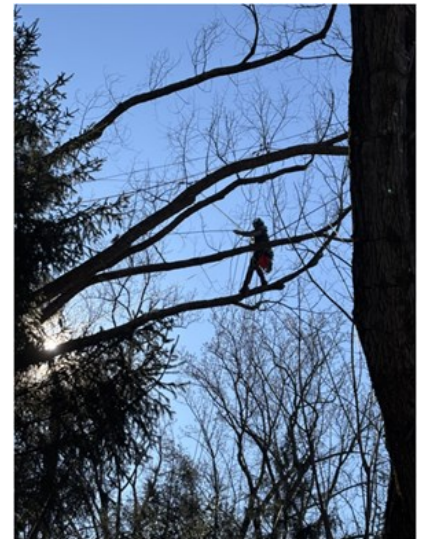


Gardeners and arborists who care for trees must regularly prune (or trim) the trees to keep them healthy.

Removing dead or dying branches helps trees by:

- Encouraging new growth
- Providing more exposure to sunlight
- Preventing decay and pests from spreading
- Keeping the tree balanced, strong, and stable

In this photo an arborist, supported by strong ropes, climbs a tree in Hillwood's gardens to reach tree branches that need to be removed.



Another reason for pruning trees is to give them an attractive shape.

Visit Hillwood's **JAPANESE-STYLE GARDEN** to find the Hollywood juniper, pictured below.



This Hollywood juniper is trimmed in a style called cloud pruning.

Cloud pruning is used in Japanese gardens and gets its name from the rounded, cloud-like shape that the foliage (leaves) is pruned into.

The pruning exposes the bark so visitors to the garden can enjoy the beauty, shape, and color of the tree's bark and branches, as well as its bright-green evergreen needles.