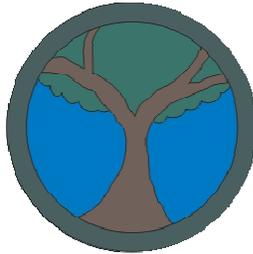


Forest Exploration

Girl Scout Junior Badge

Girl Scouts of Wisconsin – Badgerland Council



Forests are an important ecosystem in the United States and throughout the world. In addition to providing habitat for many interesting plants and animals, they are also very important to humans. These activities will help you explore forest ecosystems. Choose at least 6 of the requirements to do.

1. Plants and Climate

You might already know that the climate of a region has a big influence on the type of plants that grow there. You wouldn't expect to see palm trees growing in Alaska, nor would you expect to see a cactus growing in a forest in northern Wisconsin. Different plants are adapted to thrive in climates with different amounts of precipitation, different amounts of sunlight, and different temperatures. Not only does climate influence plants, but plants can influence climate as well. As plants use water, block the wind, and shade the ground, they are altering the climate around them. Learn more about the relationship between plants and climate by investigating the role of plants in the water cycle, the effect of drought on plants, or the ways that plants can influence temperature and/or wind speed.

2. Wood Products Past and Present

People have relied on forest resources throughout history. Make a list of some of the ways you and your family use wood products. Do a bit of library or Internet research to find out what things are direct and indirect forest products. Once you have compiled your list, visit with an older person in your community or an older relative and ask him or her about how forest products were used when he or she was growing up. Talk about the ways in which forest products are used differently between the two time periods, and what has caused these changes. Also consider how wood products were used by native cultures prior to European settlement of the United States.

3. The Seasonal Forest

In order to survive changing weather conditions, the plants and animals of Wisconsin's forests have strategies for living through different seasons. Just as people prepare for the different seasons by wearing warmer clothes and spending more time inside, plants and animals also dress and behave differently during the different seasons. Phenology is a word used to describe the relationship between seasons and changes in nature. To witness some

of the changes that occur in the forest with changes in the season, visit the same forest at different times of the year. Each time you visit the forest, document the appearance of the forest with pictures, sketches, or words. Also record what the weather is like and what animals you see at each visit. Once you have finished compiling your journal, flip back through the seasons and consider how the changes that happen to the plants and animals through the seasons are adaptations that help them survive.

4. Become a Steward

Land stewards are important people that work to preserve, restore and educate others about natural resources. Several world famous conservationists have lived and worked in Wisconsin, including Aldo Leopold, John Muir, and Gaylord Nelson. To complete this requirement, learn about the work of famous land stewards or develop your own stewardship plan for restoring or preserving forests.

5. Tree ID

Learn how to use a guidebook or key to identify trees based on their physical characteristics. Determine the names of at least 6 different tree species.

6. Forest Recyclers

Like most natural ecosystems, forests recycle. This doesn't mean that they separate their aluminum cans and plastic out of the trash the way that human recyclers do, but it does mean that the resources of the forest are continually reused. This recycling occurs through the process of decomposition. Learn about decomposition and why it is important for forests.

7. The History of a Tree

Trees can grow to be very old, very tall, and very big around. Each year that a tree is alive, in addition to growing taller, its trunk also grows bigger around. A growth ring consisting of a light and dark circle is added to the outside of the tree's trunk, just under the bark, each year. You can discover many things about the life of a tree by examining its rings, including its age and history. Scientists called dendochronologists study tree ring growth, and they try to learn something about the past climate and environmental conditions of an area by analyzing how well trees grew during that era. Look at a tree stump or a disk from a tree trunk and examine the growth rings. Count the number of annual rings to estimate the age of the tree. Are all of the rings the same size? What might cause a tree to grow more or less than usual during a given year?

8. Forest Plant - Animal Relationships

The plants of a forest provide many resources for animals. Without the food and shelter that is provided by trees and other forest plants, forest animals would not be able to survive. But this exchange is not always one-sided; plants sometimes benefit from the activities of animals. Play a game, write a story, read a book, or have a discussion about the ways that plants and animals are dependent on each other.