



The Need for Trees

Pierre Native Plant Arboretum and Nature Area

Trees are very important to people, animals, insects, fungus, and even other trees. This is because trees provide so many things for people and the forest, including shelter, habitat, food and oxygen. This TRACK Trail Adventure will help you identify six of the most common trees found along this trail.



Use this brochure to identify and learn about trees as you hike around the Arboretum. Come back and explore often. Nature changes daily!

TRACK your hike at kidsinparks.com and get **FREE** prizes!



Thanks for joining us on the trail today! Visit our website to find more TRACK Trail™ adventures near you!

The next generation of stewards will help preserve the world's plants, animals, natural lands and our heritage. What will you do to make a difference?



Kids in Parks...
Providing a network of fun-filled adventures that get kids and families active outdoors and connected to nature.



TRACK Trail Partners



Kids in Parks Founding Partners



Tree Cycle

Just like trees, seeds come in different shapes and sizes. With a little help from soil nutrients, moisture and sunlight, seeds can sprout into seedlings. For most tree species, when the sprout has reached 4 feet tall and up to 4 inches in diameter it becomes a sapling. Saplings officially become trees when their trunks are thicker than 4 inches in diameter at chest height.

Tree Cycle Checklist:
Can you find a...

Seed? _____

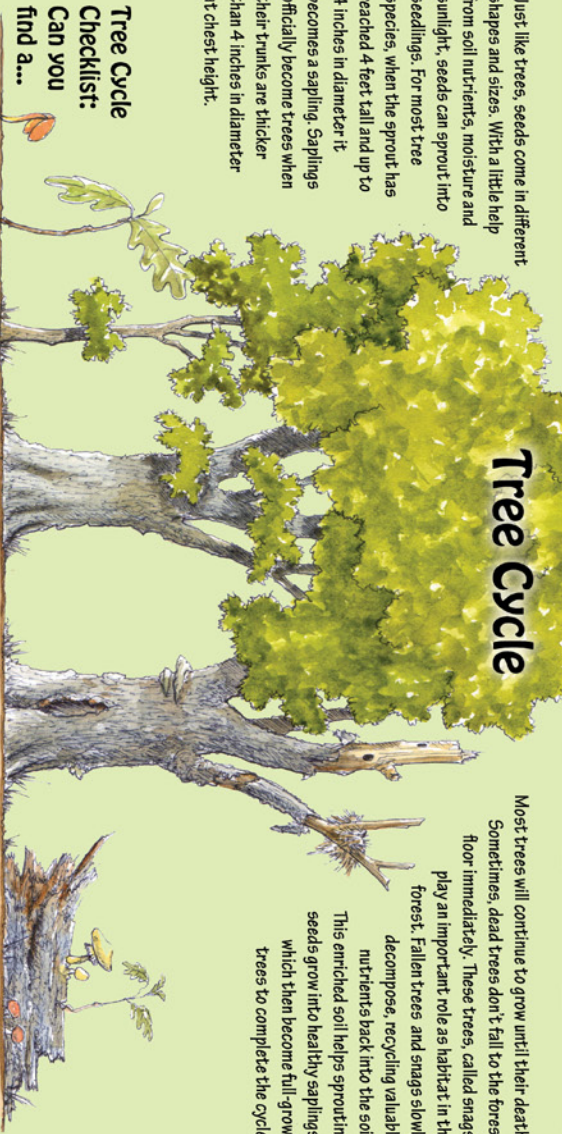
Seedling? _____

Sapling? _____

Tree? _____

Snaag? _____

Fallen Log? _____



Most trees will continue to grow until their death. Sometimes, dead trees don't fall to the forest floor immediately. These trees, called snags, play an important role as habitat in the forest. Fallen trees and snags slowly decompose, recycling valuable nutrients back into the soil. This enriched soil helps sprouting seeds grow into healthy saplings, which then become full-grown trees to complete the cycle.

☐ **Eastern Red Cedar** (*Juniperus virginiana*)



Actually not a cedar but a juniper, this tree is the only evergreen native to the area. Cedar is planted in shelterbelts for year-round wind protection and wildlife habitat. Smell the leaves and you'll know why Native Americans used them as air fresheners. Although they look like berries, the purple pea-sized balls are actually cones. The durable wood is used for fence posts, house siding and furniture.

☐ **Cottonwood** (*Populus deltoides*)



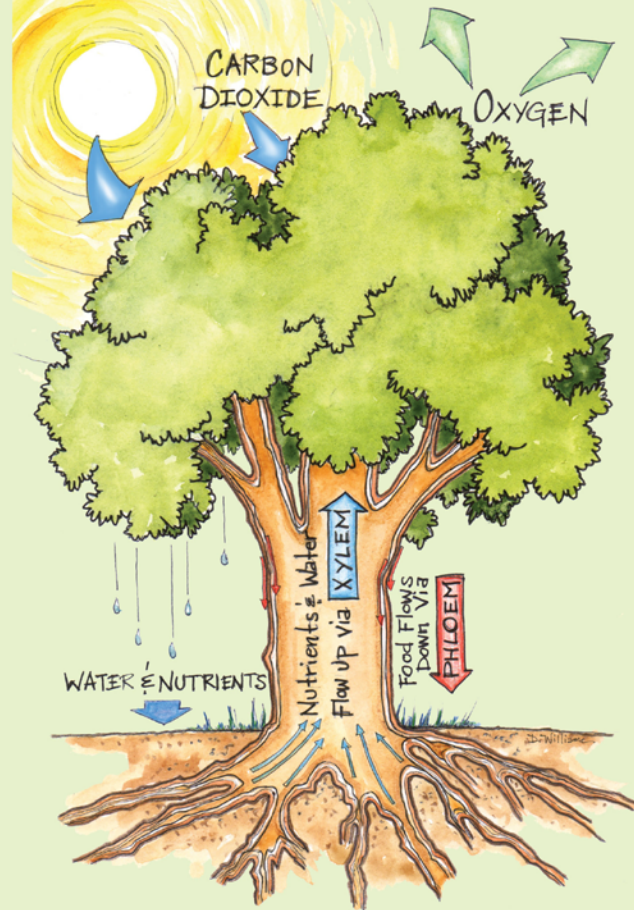
Cottonwood is the largest and fastest growing tree in South Dakota. The tree is native to moist soils along streams and wetlands throughout the state. Native Americans ate the young sprouts and inner bark because of its nutritive value and sweetness. The wood is used for making boxes, crates and pallets.

☐ **Bur Oak** (*Quercus macrocarpa*)



This native, long-lived tree is often called mossy cup oak because of the fringed margin of the cup that covers about half of the acorn. Bur oak is a drought-resistant tree that has taproots that can grow to be fourteen feet long. The 6-12" long leaves have 5-9 rounded lobes. Most of the large bur oaks were harvested by pioneers for cabins, fence posts and fuel. Acorn soup or mash was a staple of many pioneers.

The Need to Know How Trees Grow



Plants and trees have the ability to make their own food in a process known as **photosynthesis**. They do this by sucking water and nutrients from the soil up through their xylem and into their leaves. The water and nutrients are combined with carbon dioxide and sunlight to make a sugary food called **glucose**. This food then travels down through the phloem to the rest of the tree, so it can grow.

Illustrations by David Williams, Wagon 'n' Works

☐ **Black Hills Spruce** (*Picea glauca*)



South Dakota's official state tree, the Black Hills spruce is a unique variation of the white spruce, and occurs naturally only in the Black Hills. The needles are shorter and less prickly than those of the blue spruce. The cones are much smaller too. The winged seeds provide food for birds, squirrels and chipmunks, while the dense foliage is excellent for nesting.

☐ **Hackberry** (*Celtis occidentalis*)



Look for corky warts or ridges on the gray bark of hackberry trees. The coarsely serrated, lance-shaped leaves are thin and sometimes sandpapery. The purple fruit ripens in the fall but remains on the tree for several months. This tree is sometimes called sugarberry because the ripe berries are very sweet.

☐ **American Linden** (*Tilia americana*)



The dense crown (branches and leaves) and large heart-shaped leaves make the American linden an attractive street or lawn tree. The seed bracts have a parachute-like leaf attached to each cluster of seeds, allowing the wind to disperse the seed some distance. Native Americans and pioneers used the inner bark as a source of fiber for rope, mats, fish nets, and baskets.