

Comments on the uses of trees and shrubs on the 'Twig Detective' sheet:

Speckled Alder: Speckled Alder is a common shrub, seldom more than twenty feet tall, that grows in wet places. This species of alder has little value, except as a holder of soil along streams.

White Ash: White Ash is a large, straight-trunked tree that grows best in rich, moist soil. The wood is heavy, hard and strong and is particularly well suited for uses such as baseball bats, hockey sticks, oars and the handles of tools like axes and picks. Ash is one of the best firewoods - easy to split and with a long, steady burn.

Quaking Aspen: Aspen is a small tree with long-stemmed, heart-shaped leaves that twist and flutter in the slightest breeze. It is often one of the first trees to appear on ground cleared by fire or logging. The wood is soft and not durable and it is used for pulp and boxes. Aspen is an important browse plant for many animal species; the beaver prefers its bark to all others. Native American tribes used various parts of this tree for many different medicinal purposes.

Beech: Beech is a handsome shade tree with smooth, gray bark. Beech trees bear edible beechnuts, which are a valuable food for wildlife, and were once used as a substitute for coffee. The wood is tough but not durable. It is used for furniture, veneers and pulpwood. The bark, leaves and sap have all been used as sources of medicines of many kinds for centuries.

Gray Birch: Gray Birch is a small, bushy tree with distinctive chalky-white bark that does not peel off in layers. The wood is soft and decays rapidly. The tree has little value.

White Birch: The White Birch is a majestic tree prized in landscape plantings. Native Americans made their well-known birch bark canoes by stretching the stripped bark of this tree over frames made of Northern White Cedar, sewing it with thread made of Tamarack roots and caulking the seams with pine or Balsam fir resin. Birch wood is fairly strong and not too heavy and is used for clothespins, spools, toys and dowels.

Yellow Birch: Yellow Birch is a large forest tree with distinctive silvery-yellow bark that peels in lateral strips. The twigs, when broken, have a pleasant wintergreen smell to them. The wood is heavy and strong and is prized for veneers. It is also used for furniture, flooring and bowls. (The Sweet or Black Birch has dark brown, glossy bark that does not peel, and has a very strong wintergreen smell. The trees can be tapped like Sugar Maples and the fermented sap made into Birch Beer. Oil of wintergreen was once extracted from the bark and used as a flavoring.)

Flowering Dogwood: A small, ornamental tree with showy, white, spring-time flowers (the petals of these flowers are actually over-grown bracts). The hard wood is extremely shock-resistant and is used for small parts like pulleys and mallet heads. Native Americans used the bark and roots for medicine and made a red dye from the roots

Hawthorn: There are many species of Hawthorns in this area and most are thorny shrubs or small trees with crooked interwoven branches. The clustered white or pink blossoms open early in the spring and there are small fruits in the fall. The shrubs have little commercial value.

Shagbark Hickory: A large tree with distinctive shaggy bark. The wood is noted for its strength and was once used for wagon spokes. Today it is used for the handles of tools and for sporting goods. The nuts are very tasty. The pioneers also made a yellow dye from the inner bark.

Horse Chestnut: This non-native tree is a much used ornamental. It bears a large round prickly pod that contains a single, non-edible, nut-like seed. The wood is not used commercially in New England.

Black Locust: Black Locust is a short-lived medium-sized tree native to the Southern U.S. but introduced to New England. Its pods are only 2-4 inches long and often remain on the tree all winter. The wood is very

durable in contact with the soil, a characteristic that once made it the wood of choice for fence posts. Posts of Locust served as corner posts for the colonists' first homes.

Honey Locust: This is a medium-sized tree with feathery leaves and dark seed pods 8-16 inches long that often curl upon drying. The limbs have many-branched thorns on them. The wood is hard and durable in contact with the soil, and is also used for veneers and fuel. Honey Locust is mostly used as an ornamental.

Norway Maple: This is a European species that is widely used as a shade tree along city streets.

Red Maple: A handsome shade tree, showing red in the twigs in all seasons and bright red in fall leaf color. Pioneers made ink and cinnamon-brown and black dyes from a bark extract. The wood is strong but not durable, and is used for pulp, pallets and fuel.

Sugar Maple: These trees yield the sap that is boiled down to make maple syrup. Maple is a leading furniture wood, and is also used for flooring. It is a hard, close-grained wood that makes an excellent firewood. In the fall, the leaves turn red, orange, and the brilliant, bright yellow that is one of the highlights of the New England autumn color.

The Red Oaks: There are many species of native oaks, and they can be difficult to distinguish from one another. Northern Red Oak is a tall, handsome tree, and it is the most important lumber species of the oaks. It has many uses, including flooring, furniture, railroad ties and construction. The acorns are large but very bitter. This oak is an excellent firewood.

The White Oaks: A slow-growing, irregularly spreading tree with strong, durable wood. In colonial times, the wood was important in shipbuilding. It is also outstanding in making tight barrels for whiskey and other liquids. It is used for posts, pilings and flooring. The acorns are an important part of the diet of many animals. Many Native American tribes used the acorns for food, and the bark for medicinal purposes.

Sassafras: Sassafras is a medium-sized tree with one, two and three-lobed leaves - sometimes all on the same branch. The aromatic oil in the roots and bark was once used to perfume soap, and as an ingredient in medicines. Sassafras was used as a tea and also as a flavoring for root beer.

Shadbush: The shadbushes are a group of closely related species of shrubs or small trees that grow in clumps and bear long-stemmed, sweet fruits with many seeds. The fruit of the Downy Serviceberry, one of the taller members of this group, was used extensively by the first settlers as a filler for fruit pies. Native Americans used the fruit fresh and also dried it for winter consumption. The fruit is a great favorite of birds.

Staghorn Sumac: A small tree growing in large clumps in open areas, sumac is easily recognizable by its cone-like clusters of bright red fruit. A lemonade-like drink can be made from the fruit. The bark and foliage are rich in tannin and were once used to tan leather. The wood is used in the manufacture of fancy boxes and souvenirs.

Willow: There are about one hundred species of willow native to North America. Many of those planted in yards and parks are horticultural cultivars, including the familiar Weeping Willow. The Black Willow is the largest American willow, and the only one used for its wood, which is made into lumber, veneer and artificial limbs. In pioneer times, willow was a source of charcoal. Willow is invaluable in erosion control.

#### Sources:

Eastern Forests. The Audubon Society Field Guide  
Trees and Shrubs of New England. Marilyn Dwelley  
North American Trees. Richard Preston  
Magic and Medicine of Plants. Reader's Digest Assoc.  
Stalking the Wild Asparagus. Euell Gibbons

Comments on Conifers listed in the conifer key

**Arborvitae:** Arborvitae, also called Northern White Cedar, is a medium-sized, evergreen with an angled, buttressed trunk. It grows in northern swamps or uplands. The tree received the name Arbor Vitae after a tea prepared from the twigs saved the lives of sailors suffering from scurvy. The foliage and bark is now known to be high in vitamin C. Native Americans used the wood for canoe frames, and the shredded bark to start fires.

**Red Cedar:** Red Cedar is the most widely distributed eastern conifer. The fragrant wood repels moths and is used to make cedar chests. Colonists prized the wood for building furniture, fences and cabins. The heartwood was once almost exclusively the source of wood for pencils. Cedar oil was used in medicines and perfumes. The juicy 'berry' is favored by birds.

**Balsam Fir:** Balsam is the Christmas tree of choice both for its aromatic scent and because its needles tend to stay on long after the tree has been cut. Almost every part of the tree supplied a medicine for Native American tribes, who used it for cuts, sores, colds and asthma. Frontier doctors made a tea from the bark and used it for chest pain.

**Hemlock:** Hemlock is a graceful shade tree with soft, short needles. It is often found in moist, cool ravines and valleys. Pioneers made a tea from the twigs and brooms from the whole branches. Tannin was once extracted from the bark and used in the production of leather.

**Pasture Juniper:** The Junipers form a group of evergreen, aromatic small trees or shrubs. Pasture Juniper grows widely throughout the U.S. as a shrub or small tree in open areas with poor soil. The branches radiate from the trunk and curve upwards. Its needles are short, very sharp and crowded on the branchlets, making this tree extremely prickly. Juniper has served as a remedy for many ailments and the berry-like, blue cone is used in cooking and as the primary source of the flavor in gin.

**Larch:** This tree, also called Tamarack, is a cone-bearing tree that is not evergreen. The flat, needle-like leaves turn yellow before falling in autumn. Larch grows best in swamps and bogs. Native Americans used the roots of this tree to sew together strips of birch bark for their canoes. The wood is hard and durable and is used for railroad ties, fence posts and telephone poles.

**Austrian Pine:** The Austrian Pine is another non-native, brought over from Europe and used as an ornamental. It is very similar to Red Pine, the easiest way to differentiate the two being that the needles of the Red Pine will snap when bent double whereas those of the Austrian do not break.

**Pitch Pine:** Pitch Pine is an irregularly shaped conifer that grows on windy rocky slopes or in poor soil that few other trees can tolerate. It is the main conifer on Cape Cod. It is extremely fire-resistant. Colonists once used the Pitch Pine as a source of resin, turpentine, and a tar used for axle grease.

**Red Pine:** Red Pine is a common, handsome tree with a straight trunk and an irregular crown. The wood is important in construction and is also used for piles, masts and spars.

**Scotch Pine:** Scotch Pine is not native to America, but has been widely planted as an ornamental and in reforestation. The wood is used in general construction.

**White Pine:** The largest northeastern conifer, stands of white pine once towered over 150 feet in height. Until about 1890 this species was the most important forest tree in North America. The tall, straight trunks were favored for ship masts during Colonial times. Trees over 24 inches in diameter and within three miles of water were called King's Pines and were reserved for the royal navy. Colonists resented this policy and when the American Revolution broke out, the White Pine was the emblem used on the first flag. Native Americans put the bark to use as a soother for wounds and as an ingredient in cough syrups.



Spruce: The Spruces are a group of medium to tall evergreens characterized by stiff, sharp, four-sided needles that most often spread out from all sides of the twig. Spruces are widely planted ornamentals. The wood of some of the spruces is highly prized for use in sounding boards in pianos, violins and other musical instruments. The resin of Red and Black Spruce was once collected and made into Spruce gum, a forerunner of modern chewing gum. Spruce beer was made from the boiled twigs.

Yew: Yews are shrubs with very dark evergreen foliage. They grow in shady, moist or rocky soil, especially under other evergreens. The Yew bears a bright, red, berry-like fruit that is poisonous. Yew is a common ornamental shrub.