

# 2026 LANCASTER COUNTY MIDDLE SCHOOL ENVIROTHON

## FORESTRY

### NORTHERN WHITE CEDAR:

- 🌲 A conifer that is useful for lumber, fences, log cabins, and house shingles.
- 🌲 Wildlife like whitetail deer and snowshoe hare *browse* on branching. This type of cedar also gives shelter to wildlife in harsh winter weather.
- 🌲 Squirrels, porcupines, sparrows, and warblers all use the Northern white cedar in their habitat.
- 🌲 Can be planted and trimmed to make a thick hedge as a natural fence in a backyard.
- 🌲 This evergreen's leaf is flattened with scale like shoots. Produces a small pinecone that grows upright from the branch.
- 🌲 Tree shape is arrowhead-like or in the shape of a pyramid. Can have more than one trunk.



### BLUE SPRUCE:

- 🌲 An evergreen with stiff, very sharp needles that radiate straight out from twig. Needles are silvery blue to dark greenish blue.
- 🌲 The pinecone fruit is 2-4 inches in length. Cones are light brown with flexible scales that give a jagged edging appearance.
- 🌲 Blue spruce grow slowly, gaining less than 2 feet in height each year.
- 🌲 Can be planted in a backyard to withstand wind and provide a windbreak for homes.
- 🌲 Wildlife will take cover or shelter beneath branching at the trunk or hide within branches.
- 🌲 Blue spruce can handle changes in temperatures, along with some types of air pollution, and draughts.



### PIN OAK:

- 🌲 A deciduous tree with *alternate, simple* leaves with u-shaped *lobes* along the margin.
- 🌲 Its fruit is an acorn recognized by a thin flattened cap attached to the 1/2 inch long acorn nut.
- 🌲 The shape of the mature tree has a distinctive shape with lower branches pointing down, branches in the middle going straight out from the trunk, and upper branches reaching upwards. This branching pattern is very noticeable in winter.
- 🌲 This is a fast-growing tree; if healthy it will add 2 feet each year.



- 🌳 Acorns are eaten by songbirds, white-tailed deer, squirrels, and small rodents. They are also a favorite of many types of ducks.

### DOWNY SERVICEBERRY:

- 🌳 A deciduous shrub or small tree reaching up to 40 feet.
- 🌳 Showy white 5-petalled flowers bloom in drooping bunches before or with the emergence of leaves.
- 🌳 Leaves are alternate, simple, ovate, 1 ½ to 3 inches long with finely serrate margins.
- 🌳 Edible fruits are round red to purple berries about ¼ inches across hanging in small clusters; they ripen in early to mid-summer
- 🌳 Twigs are slender and flexible with ½ inch-long pointed buds. Slightly hairy buds are light yellow-green to red in color.
- 🌳 Name from the tree blooming as thawing ground allowed for burial services for people who passed throughout colonial winters. Alternate folklore name Shadbush marks the seasonal running of shad when the flowers are in bloom.
- 🌳 Common in eastern and mid-western forests. Feeds over 40 species of birds and mammals and is excellent in pies and jams.



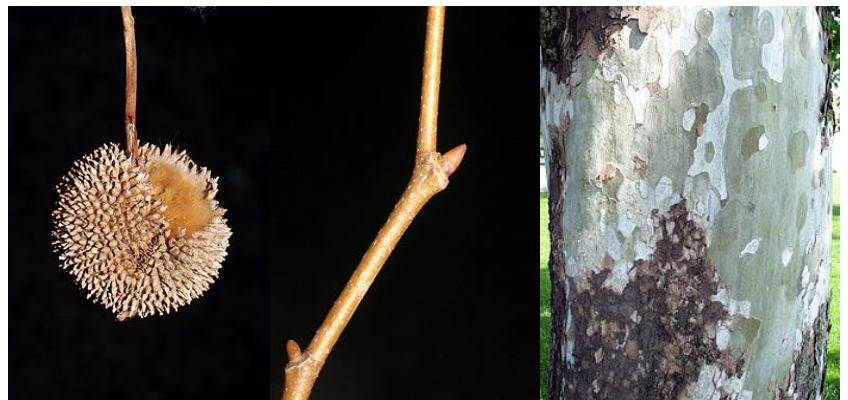
### SILVER MAPLE:

- 🌳 Medium to large deciduous tree, reaching up to 100 feet. Thrives naturally on floodplains and stream banks; was widely used in landscaping because of fast growth, fall color, and fine foliage.
- 🌳 *Opposite* leaves are 2 ½ to 5 inches long with 5 deeply *palmate sinuses*. Lobe margins are coarsely serrate. Leaves are reliably light green above and pale, silvery white below.
- 🌳 Dense clusters of greenish to reddish flowers bloom very early, long before leaves appear.
- 🌳 The fruit is a winged seed, or *samara*, with spreading “wings” 1 ½ to 2 ½ inches long.
- 🌳 Twigs are relatively stout and chestnut-brown to reddish with an unpleasant odor when crushed. Round flower buds are often in large conspicuous clusters.
- 🌳 Valuable wildlife tree in *riparian* areas. Provides abundant seed in late spring for birds and small mammals, *cavities* shelter some ducks, songbirds, flying squirrels; beavers eat the bark, and deer and rabbits browse twigs.



### AMERICAN SYCAMORE:

- 🌳 Massive spreading deciduous tree common throughout eastern and central U.S. Though a riparian tree, its “camouflage” white and gray *exfoliating* bark and adaptability led to widespread landscaping use.



- Leaves are large (4 to 8+ inches) alternate, simple, 3 to 5 lobed and *palmately* veined. Margins are coarsely toothed.
- Tiny flowers appear in dense, round, stalked clusters. Flower clusters mature to tightly packed spherical seed balls. Individual seeds are ½ inch long and winged with tan fluff.
- Twigs are obviously zig-zagged, stout, and orange-brown in color. *Stipule scars* surround twigs and terminal buds are absent.
- Sycamore produces *biomass* more rapidly than almost every other tree in the East.
- Seeds are consumed by wildlife. Cavities in old trees are nesting sites for birds and mammals.

### VIRGINIA CREEPER:

- Climbing vine forming ground cover or ascending to 50+ feet with supporting stems several inches in diameter.
- Leaves alternate, palmately *compound*, 4 to 8 inches across. Each leaf bears 5 elliptical *leaflets* with coarsely toothed margins, shiny green above and paler below.
- Inconspicuous flowers bloom in summer, maturing to long-stemmed blue-black ¼ inch berries in late summer.
- New stems slender, light brown with many reddish *lenticels*. Conical orange-brown buds occur opposite *tendrils*. Look for adhesive pads on the tendril ends.
- Bark gray-brown, becoming coarsely hairy from aerial roots and tendrils.
- Very valuable for wildlife: berries are bird food, leaves and stems feed mammals, leaves provide shelter.



### EASTERN REDBUD:

- Large shrub to small (30 foot) tree with short, often twisted trunk and spreading branches.
- Showy pink to light purple edible pea-like flowers. Flowers are ½ inch across and cluster along trunks and branches before leaves appear.
- Alternate, simple, heart-shaped leaves, 3 to 5 inches long and wide with an *entire* margin.
- Fruits are flattened, dry, brown pods 2 to 4 inches long with flat, elliptical, ¼ inch brown seeds.
- Twigs are slender, zig-zag, and nearly black. Tiny leaf buds are chestnut in color; round flower buds may form large clusters on older growth.
- One of most important native flowering trees for wildlife; critical early nectar source for bees.



## COMMON LILAC:

- ✎ Deciduous shrub, multi-stemmed, suckering, reaching up to 15 feet.
- ✎ Opposite, simple, ovate, heart-shaped leaves 2 to 4 inches long, 1 ½ to 3 inches wide with entire margins.
- ✎ Showy, fragrant, light purple, pink, to white flowers in 4 to 7-inch *terminal* clusters. Flowers mature to ½ inch-long dry, brown seed capsules.
- ✎ Stout angled (almost 4-sided) or ridged brown twigs. Lenticels and crescent-shaped leaf scars are raised. Large green buds turn purple in the winter.
- ✎ Bark is smooth and gray to gray-brown but becomes shreddy with age.
- ✎ Flowers attract hummingbirds and butterflies. Some caterpillars feed on the foliage.



## WINTERBERRY:

- ✎ Multi-stemmed upright shrub reaching 10 to 15 feet in height.
- ✎ Deciduous holly with simple leaves, 2 to 3 inches long, egg to lance-shaped, with sharply toothed margins.
- ✎ *Dioecious*. Both male and female flowers are stalked, clustered, and greenish-white with 5-7 petals.
- ✎ Round reddish orange to red ¼ inch *drupes* in clusters of 2 to 4 ripen in fall but persist through winter.
- ✎ Twigs are slender and gray with light lenticels; buds and leaf scars are small. Bark is thin, smooth, and grayish-brown.
- ✎ Fruits feed small mammals and nearly 50 species of birds in winter when other food sources are scarce.



## AMERICAN HOLLY:

- ✎ Small to 40-foot evergreen tree with pyramidal form and branches typically from crown to ground.
- ✎ Leathery, shiny, alternate, simple, elliptical 2 to 4-inch leaves with spiny-toothed margins.
- ✎ Dioecious, green-white flowers; female flowers with a pleasant odor.
- ✎ Fruits are red berry-like drupes, ¼ inch across and containing ribbed nutlets; mature in fall and persist on tree into winter.
- ✎ Twigs slender with rusty *pubescence*; buds are small, reddish brown, and pointed. Regardless of age, bark is smooth and gray.
- ✎ Important for wildlife with nectar for bees, berries for game birds and songbirds, and shelter for birds and small mammals.



### **JAPANESE MAPLE:**

Small tree, 10 to 25 feet in height, round crown, often with multiple stems and low branches.

Opposite, simple leaves, 2 to 5 inches long and wide with 5 to 7 deeply palmate lobes. Lobes have serrated margins. Commonly deep red in fall.

Inconspicuous red to purple terminal flower clusters bloom in spring. Mature in late summer to reddish brown (double) samaras,  $\frac{3}{4}$  to 1 inch long.

Twigs are smooth and slender, green to red. Buds are conical and green to red.

Bark is smooth and gray and somewhat fluted.

Native in Korea, Japan, and China; widely planted as an ornamental.



### **AMERICAN BEAUTYBERRY:**

Low maintenance, easy-to-grow, long-lived perennial, and a food source for many birds, including robins, cardinals, mockingbirds and woodpeckers.

Opposite, simple, elliptical to ovate, serrated margin, 3 to 5 inches long, fuzzy above and below, green above, white woolly beneath.

Flowers are small, pink to bluish, tubular, appearing from leaf axils in mid to late summer.

The fruit is numerous in clusters, small, 1/4 inch in diameter, bright purple, and ripens in late summer to early fall.

A deciduous shrub that can reach 5-6 feet in height.

The purple fruit makes the beautyberry a favorite for decorating in making wreaths, and flower arrangements

Roots, leaves, and branches were used by various Native American tribes for medicinal purposes to treat malaria, rheumatism, dizziness, stomachaches, and dysentery. Though not very palatable raw since they tend to be bitter, they can be cooked and sweetened to make jellies, sauces, and wines.

In the early 1900s, farmers would crush the leaves and place them under the harnesses of horses and mules to repel mosquitoes and other biting bugs. The leaves contain a chemical (callicarpinal) that may repel mosquitoes. Gently crush the leaf and rub it against the skin to release the chemical.



## SPOTTED LANTERNFLY (SLF):

- 🌳 *Invasive* leaf or planthopper from Asia. First seen in North America in Berks County in 2014.
- 🌳 As *planthoppers*, they feed on sap. Now spreading throughout PA, SLF's prefer grapes, maples, black walnuts, and birches however, there are more than 18 trees and plants that the Spotted Lanternfly has been know to eat in its life cycle.
- 🌳 The spotted lanternfly goes through 5 transitions in its lifecycle: egg, instar 1, instar 2, instar 3, and adult.
- 🌳 It's best to control and squish the bug in its egg and instar phases to lower the population of adults.
- 🌳 As an adult, the spotted lanternfly feeds on so much sap sugars from trees and plants, it can't process the sugars and the sugars drip from their body causing a sticky mold on any surface including tree leaves. This mold can rapidly decrease the process of photosynthesis for the tree. This causes a great stress to the tree.
- 🌳 Another control for this invasive species is to remove the Ailanthus tree also known as Tree of Heaven. The Ailanthus is invasive as well, native to the bug's habitat. Scientist know that the Ailanthus is part of the bug's life cycle. Removal of the tree slows the bug's life cycle and reduces the population.
- 🌳 While research continues about how to slow the bug down, you can help by squishing eggs, instars, and adults.

