

Plant Science Merit Badge

Important information about how to prepare for a Merit Badge program at Huntley Meadows Park

These programs are 3-5 hours long. Be sure your scout packs a snack/lunch and water. Merit badges are not designed to be completed in one afternoon. To complete the badge, there is some work the scouts need to do outside of the workshop. We call this pre-work. We suggest this is done prior to the badge program date, but we realize this is not always practical or possible. In these cases, we will, if requested, sign partial cards and accept the assignments after the program. To receive credit for the work, your scout must bring/send back all the work to sign off on the blue card.

Please bring to class:

- Pre-Work
- Blue card
- Pen
- Snack/lunch and a drink
- Appropriate clothing to go outside to observe the weather
- Worksheet (useful but not mandatory) <http://usscouts.org/mb/worksheets/Plant-Science.pdf>

The following is required Pre-Work.

Requirement #7:

Name and tell about careers in agronomy, horticulture, and botany. Write a paragraph about a career in one of these fields that interests you.

Requirement #8 Option 3: Field Botany E

Obtain a list of rare plants of your state. Tell what is being done to protect rare plants and natural areas in your state. Write a paragraph about one of the rare plants in your state.

Requirement #8 Option 3: Field Botany F

Choose ONE of the following alternatives [chose #1, #2, OR #3] and complete EACH of its requirements:

(1) Tree Inventory

- (a) Identify the trees of your neighborhood, a park, a section of your town, or a Scout camp.
- (b) Collect, press, and label leaves, flowers, or fruits to document your inventory.
- (c) List the types of trees by scientific name and give common names. Note the number and size (diameter at 4 feet above ground) of trees observed, and determine the largest of each species in your study area.
- (d) Lead a walk to teach others about trees and their value, OR write and distribute materials that will help others learn about trees.

(2) Transect Study

- (a) Visit two sites, at least one of which is different from the one you visited for Field Botany requirement 1.
- (b) Use the transect method to study the two different kinds of plant communities. The transects should be at least 500 feet long.
- (c) At each site, record observations about the soil and other influencing factors AND do the following. Then make a graph or chart to show the results of your studies.
 - (1) Identify each tree within 10 feet of the transect line.
 - (2) Measure the diameter of each tree at 4 feet above the ground, and map and list each tree.

(3) Nested Plot

- (a) Visit two sites, at least one of which is different from the one you visited for Field Botany requirement 1.
- (b) Mark off nested plots, and inventory two different kinds of plant communities.
- (c) At each site, record observations about the soil and other influencing factors AND do the following. Then make a graph or chart to show the results of your studies.
 - (1) Identify, measure, and map each tree in a 100-by-100-foot plot. (Measure the diameter of each tree at 4 feet above the ground.)
 - (2) Identify and map all trees and shrubs in a 10-by-10-foot plot within each of the larger areas.
 - (3) Identify and map all plants (wildflowers, ferns, grasses, mosses, etc.) of a 4-by-4-foot plot within the 10-by-10-foot plot.

Thank you,
Huntley Meadows Staff
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