

Historic Huntley | Huntley Meadows Park

Architecture and Landscape Architecture

This program lasts 4 hours and covers requirements for TWO badges: Architecture and Landscape Architecture.

In class covers requirements 1a, 2, 4 for Architecture and 1 & 2 for Landscape Architecture.

Pework covers requirements 1b, 3c., and 5 for Architecture and 3, 4, and 5 for Landscape Architecture.

Please bring your blue card, snack, drink, and merit badge workbook.

Important information about how to prepare for a merit badge program at Huntley Meadows Park.

Parents, please review the content of a merit badge prior to registering your scout: some badges may be challenging for younger scouts. Also, the class discussions are more interesting if scouts review all the requirements for the badge before the program. The chances of your scout completing all the work for the badge increases dramatically when he is properly motivated and the badge content is age-appropriate.

Merit badges are not designed to be completed in a day and require independent work on the part of the scout outside of the workshop. We call this PREWORK. 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 sign partial cards and accept the assignments after the program.

These programs are 3-5 hours long be sure to pack a snack and water for your scout and that he is dressed appropriately for being outdoors. Though not required, Scout workbooks are very useful and we prefer that scouts use the workbook during the program. Workbooks can be found at: http://meritbadge.org/wiki/index.php/Merit_Badge_Worksheets .

The following is what we will be doing during the Architecture badge, if it is in **RED** it is prework!

Architecture Requirements (Landscape Requirements follow below)

1. Do the following:

IN CLASS a. Tour your community and list the different types of buildings you see. Try to identify buildings that can be associated with a specific period of history or style of architecture. Make a sketch of the building you most admire.

AT HOME b. Select a historical architectural achievement that has had a major impact on society. Using resources such as the Internet (with your parent's permission), books, and magazines, find out how this achievement has influenced the world today. Tell your counselor what you learned.

2. IN CLASS In the Outdoor Code, a Scout pledges to "be conservation minded." Discuss the following with your counselor:

a. The term sustainable architecture. Identify three features typical of green buildings.

b. The difference between renewable building materials and recycled building materials, and how each can be used in construction.

c. The relationship of architecture with its surrounding environment and the community. (Virginia gentlemen built their houses upon hills.)

d. How entire buildings can be reused rather than torn down when they no longer serve their original purpose.

3. AT HOME Do ONE of the following: (we recommend you chose "c" unless you know an architect)

a. With your parent's and counselor's permission and approval, arrange to meet with an architect. Ask to see the scale model of a building and the drawings that a builder would use to construct this building. Discuss why the different building materials were selected. **Look at the details in the drawings and the model to see how the materials and components are attached to each other during construction.**

HELPFUL TIP: PLEASE BE SURE YOU CAN ADDRESS THIS REQUIREMENT IF YOU CHOSE IT!

b. With your parent's and counselor's permission and approval, arrange to meet with an architect at a construction site. Ask the architect to bring drawings that the builder uses to construct the building. While at the site, discuss why the different building materials being used were selected. Discuss how the different building materials and components are attached to each other during construction.

Note: To visit a construction site will require advance planning. You will need permission from your parents, counselor, the architect, and the construction site manager. A construction site is a very dangerous place. While there, you will need to closely follow the site manager's directions and comply with all the safety procedures, including wearing a hard hat, protective eye wear, and proper footwear. Be aware of the changing conditions at the site, and stay with the architect or site manager.

c. Interview someone who might be your client (such as a prospective homeowner or business owner) if you were an architect. Find out what your client's requirements would be for designing a new home or business building. Write a short program including a list of requirements for the project, the functions of the building and site, how the functions relate to one another, and the goals of the project.

4. IN CLASS Measure a room such as one where you live or where your troop meets. Make an accurately scaled drawing of the room's floor plan showing walls, doors, closets, windows, and any built-in furniture or cabinets. Neatly label your drawing with the following: your name, the date, what room you drew, and the scale of the drawing. (Drawing scale: 1/4 inch = 1 foot)

5. AT HOME Find out about three career opportunities in architecture. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

Landscape Architecture Requirements

1. IN CLASS: Go to a completed landscape project that a landscape architect has designed. Before you visit the site, obtain a plan of the design from the landscape architect if one is available.

2. IN CLASS: After completing requirement 1, discuss the following with your merit badge counselor:

(a) Tell whether the design had separate spaces, a defined point of entry, a clear path system, and sun and shade variety.

(b) Discuss how any structures, the designated seating, eating, or parking areas suited the overall design.

(c) Explain how the design reflected consideration for the comfort, shelter, and security of the users.

(d) Discuss how the choice of trees, shrubs, and ground covers used in the project contributed to its appeal and function.

3. AT HOME: Identify five shrubs, five trees, and one ground cover, being sure that you select examples of different shapes, sizes, and textures. With the help of your counselor** or a local nursery, choose **plants that will grow in your area. Bring pictures** of the different planting materials or, if possible, examples of their branches, leaves, or flowers to a group such as your troop or class at school. **Be prepared to tell how you might use each in the design of a landscape and the maintenance that would follow.**

4. AT HOME: After obtaining permission from the appropriate authority, look at and study a place of worship, school grounds, or a public building and identify where most people arrive by bus or car. Then do the following:

(a) **Using a measuring tape, measure** and draw the main site entry and its nearby area. **Define the scale of your drawing.** Be sure to include the driveway and sidewalk or path that leads to the building's main entry. Indicate any sidewalks, structures, trees and plants, lights, drains, utilities, or other site furnishings within the study area. **Make two copies of this plan and save the original, then do 4b and 4c using the copies.**

(b) On one copy of your site plan, use directional arrows to indicate where the water drains across the site, where ditches occur, and where water stands for a longer period of time.

(c) Decide how you can make the place safer and more comfortable for those using it. Redesign the area on another copy of the plan. You may want to include new walks, covered waiting areas, benches, space-defining plantings of trees and shrubs, and drainage structures.

5. AT HOME: Find out about three career opportunities in landscape architecture. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

HELPFUL HINTS FOR REQUIREMENTS 4 & 5

For number 4 you are being asked to make a simple site plan of the entry area for a church, school, or other public building. A site plan is not a drawing, it's more like a map. Like a map, the view is from above. Buildings are just rectangles on the page. Here's an example of a landscape site plan of a church entry:



You are also asked to make this plan “to scale.” That means 1) you must go to the site and measure all the important features. The requirement says to use a tape measure (not Google Earth or Maps). Make a rough sketch plan with all the measurements written down. Then, when you go home, 2) you have to make a careful plan drawing with a ruler to show those measurements in proper portion to fit on your paper – a scale drawing. For example, let’s say the front of the church is 50 feet wide and the main walkway is 200 feet long and your paper is 11 inches tall. If you draw at a scale where 1 inch equals 25 feet, then the entry to the church would be 2 inches wide and the walkway would be 8 inches long. If you use graph paper, you can use the boxes instead of inches. You might decide that 1 box will equal 5 feet. Then the church would be 10 boxes wide and the walkway 40 boxes long. You may have to experiment a bit to find the right scale but start by figuring out the scale that will fit your largest measurement on the page. Everything on the drawing should be drawn at the same scale. Here’s a YouTube video that shows how to make a scale drawing of a room: [How to Draw to Scale](#).

For requirement #5. Remember to bring in pictures of the plants you select and to choose plants that will grow in Northern Virginia. Below are resources to assist you in selecting 5 shrubs, 5 trees, and 1 ground cover. Be Conservation Minded! Plant natives! You are not required to select native plants to meet this requirement. However, by using native plants in your landscape designs you know, first, that you have chosen plants will grow in your area. In addition, it is likely that these plants will be healthier than many non-native plants and require less maintenance. Another advantage is that they help native insects and animals. Planting natives can also help to avoid “invasive” plants such as honeysuckle or kudzu, that can damage the ecosystem.

Native Shrubs: <http://www.fairfaxcounty.gov/parks/greenspring/infosheets/nativeshrubs.pdf>

Native Trees: <http://www.fairfaxcounty.gov/parks/greenspring/infosheets/nativetrees.pdf>

Native Ground Covers: <http://www.fairfaxcounty.gov/parks/greenspring/infosheets/groundcover.pdf>

Use Google to find photos of native plants or use illustrated guides such as:

<http://nebula.wsimg.com/e4e149a621e7fe59916869e61a84dbce?AccessKeyId=3787409C771EB71DC1C&disposition=0&alloworigin=1>

<http://plants.usda.gov/java/>

How you might be prepared to use each in a design of a landscape:

Use of plants can be visual: you can create a living painting with plants that will change seasonally.

Or it can be more practical: to provide shade or to feed wildlife or even to help manage water flow and improve water quality.

Here are resources on some practical plant uses:

<http://www.fairfaxcounty.gov/parks/greenspring/infosheets/nativeplantsforbirds.pdf>

<http://www.fairfaxcounty.gov/parks/greenspring/infosheets/butterfliesandmoths.pdf>

https://pubs.ext.vt.edu/426/426-043/426-043_pdf.pdf

Huntley Meadows Park

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