



# Forestry

## Merit Badge Workbook



This workbook can help you but you still need to read the merit badge pamphlet.

This Workbook can help you organize your thoughts as you prepare to meet with your merit badge counselor.

You still must satisfy your counselor that you can demonstrate each skill and have learned the information.

You should use the work space provided for each requirement to keep track of which requirements have been completed, and to make notes for discussing the item with your counselor, not for providing full and complete answers.

If a requirement says that you must take an action using words such as "discuss", "show", "tell", "explain", "demonstrate", "identify", etc, that is what you must do.

**Merit Badge Counselors may not require the use of this or any similar workbooks.**

No one may add or subtract from the official requirements found in Boy Scout Requirements (Pub. 33216 – SKU 637685).

The requirements were last issued or revised in 2017 • This workbook was updated in January 2017.

Scout's Name: \_\_\_\_\_

Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_

Counselor's Phone No.: \_\_\_\_\_

<http://www.USScouts.Org> • <http://www.MeritBadge.Org>

Please submit errors, omissions, comments or suggestions about this **workbook** to: [Workbooks@USScouts.Org](mailto:Workbooks@USScouts.Org)  
Comments or suggestions for changes to the **requirements** for the **merit badge** should be sent to: [Merit.Badge@Scouting.Org](mailto:Merit.Badge@Scouting.Org)

1. Prepare a field notebook, make a collection, and identify 15 species of trees, wild shrubs, or vines in a local forested area.

Write a description in which you identify and discuss the following:

- a. The characteristics of leaf, twig, cone, or fruiting bodies
- b. The habitat in which these trees, shrubs or vines are found.
- c. The important ways each tree, shrub, or vine is used by humans or wildlife and whether the species is native or was introduced to the area. If it is not native, explain whether it is considered invasive or potentially invasive.

*(See the Sample Notebook Page at the end of this workbook)*

2. Do ONE of the following:

- a. Collect and identify wood samples of 10 species of trees. List several ways the wood of each species can be used. *(See the Sample Notebook Page at the end of this workbook)*
- b. Find and examine three stumps, logs, or core samples that show variations in the growth rate of their ring patterns. In the field notebook you prepared for requirement 1, describe the location or origin of each example (including elevation, aspect, slope, and the position on the slope), and discuss possible reasons for the variations in growth rate. Photograph or sketch each example.
- c. Find and examine two types of animal, insect, or damage on trees. In the field notebook you prepared for requirement 1, identify the damage, explain how the damage was caused, and describe the effects of the damage on the trees. Photograph or sketch each example.

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3. Do the following:

a. Describe contributions forests make to:

1. Our economy in the form of products.


2. Our social well-being, including recreation


3. Soil protection and increased fertility.


4. Clean water.


5. Clean air. (carbon cycling, sequestration)


6. Wildlife habitat


7. Fisheries habitat


8. Threatened and endangered species of plants and animals


b. Tell which watershed or other source your community relies on for its water supply.


4. Describe what forest management means, including the following:


## a. Multiple-use management


## b. Sustainable forest management


## c. Even-aged and uneven-aged management and silvicultural systems associated with each type.


## d. Intermediate cuttings.


## e. The role of prescribed burning and related forest management practices.


## 5. With your parent's and counselor's approval, do ONE of the following:

- a. Visit a managed public or private forest area with its manager or a forester familiar with it. Write a brief report describing the type of forest, the management objectives, and the forestry techniques used to achieve the objectives.
- b. Take a trip to a logging operation or wood-using industrial plant and write a brief report describing:
1. The species and size of trees being harvested or used and the location of the harvest area or manufacturer.
  2. The origin of the forest or stands of trees being utilized (e.g., planted or natural)
  3. The forest's successional stage. What is its future?
  4. Where the trees are coming from (land ownership) or where they are going (type of mill or processing plant)
  5. The products that are made from the trees
  6. How the products are made and used.
  7. How waste materials from the logging operation or manufacturing plant are disposed of or utilized.



7. Do the following:

- a. Describe the consequences to forests that result from FIVE of the following elements: wildfire, absence of fire, destructive insects, loss of pollinating insect population, tree diseases, air pollution, overgrazing, deer or other wildlife overpopulation, improper harvest, and urbanization.

<input type="checkbox"/> Wildfire:	
<input type="checkbox"/> Absence of fire:	
<input type="checkbox"/> Destructive Insects:	
<input type="checkbox"/> Loss of pollinating insect population:	
<input type="checkbox"/> Tree diseases:	
<input type="checkbox"/> Air pollution:	
<input type="checkbox"/> Overgrazing:	
<input type="checkbox"/> Deer or other wildlife overpopulation:	

Improper harvest:


Urbanization:


b. Explain what can be done to reduce the consequences you discussed in 7a.


c. Describe what you should do if you discover a forest fire and how a professional firefighting crew might control it.

What to do:


How a professional firefighting crew might control it.


Name your state or local wildfire control agency.

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8. Visit one or more local foresters and write a brief report about the person (or persons). Or, write about a forester's occupation including the education, qualifications, career opportunities, and duties related to forestry.

<p align="center"><b>Requirement resources can be found here:</b>  <a href="http://www.meritbadge.org/wiki/index.php/Forestry#Requirement_resources">http://www.meritbadge.org/wiki/index.php/Forestry#Requirement_resources</a></p>
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**SAMPLE for Req. 1A-1D: Field Notebook Collection Identifying 15 Species of Trees**

*Attach samples here*

Species		
Habitat:		
Characteristics		
Uses:		
Native/Invasive?		



**SAMPLE for Req. 2A: Field Notebook Collection Identifying 10 Wood Samples**

*Attach samples here*

Species

Uses:


*Attach samples here*

Species

Uses:


## **Important excerpts from the Guide To Advancement - 2015, No. 33088 (SKU-620573)**

### **[1.0.0.0] — Introduction**

The current edition of the *Guide to Advancement* is the official source for administering advancement in all Boy Scouts of America programs: Cub Scouting, Boy Scouting, Varsity Scouting, Venturing, and Sea Scouts. It replaces any previous BSA advancement manuals and previous editions of the *Guide to Advancement*.

### **[Page 2, and 5.0.1.4] — Policy on Unauthorized Changes to Advancement Program**

**No council, committee, district, unit, or individual has the authority to add to, or subtract from, advancement requirements.** There are limited exceptions relating only to youth members with special needs. For details see section 10, "Advancement for Members With Special Needs".

### **[Page 2] — The "Guide to Safe Scouting" Applies**

Policies and procedures outlined in the *Guide to Safe Scouting*, No. 34416, apply to all BSA activities, including those related to advancement and Eagle Scout service projects.

### **[7.0.3.1] — The Buddy System and Certifying Completion**

A youth member must not meet one-on-one with an adult. Sessions with counselors must take place where others can view the interaction, or the Scout must have a buddy: a friend, parent, guardian, brother, sister, or other relative—or better yet, another Scout working on the same badge—along with him attending the session. If merit badge counseling or instruction includes any Web-based interaction, it must be conducted in accordance with the BSA Social Media Guidelines (<http://www.scouting.org/Marketing/Resources/SocialMedia>). For example, always copy one or more authorized adults on email messages between counselors and Scouts.

When the Scout meets with the counselor, he should bring any required projects. If these cannot be transported, he should present evidence, such as photographs or adult verification. His unit leader, for example, might state that a satisfactory bridge or tower has been built for the Pioneering merit badge, or that meals were prepared for Cooking. If there are questions that requirements were met, a counselor may confirm with adults involved. Once satisfied, the counselor signs the blue card using the date upon which the Scout completed the requirements, or in the case of partials, initials the individual requirements passed.

Note that from time to time, it may be appropriate for a requirement that has been met for one badge to also count for another. See "Fulfilling More Than One Requirement With a Single Activity," 4.2.3.6.

### **[7.0.3.2] — Group Instruction**

It is acceptable—and sometimes desirable—for merit badges to be taught in group settings. This often occurs at camp and merit badge midways, fairs, clinics, or similar events. Interactive group discussions can support learning. The method can also be attractive to "guest experts" assisting registered and approved counselors. Slide shows, skits, demonstrations, panels, and various other techniques can also be employed, but as any teacher can attest, not everyone will learn all the material.

There must be attention to each individual's projects and his fulfillment of *all* requirements. We must know that every Scout—actually and *personally*—completed them. If, for example, a requirement uses words like "show," "demonstrate," or "discuss," then every Scout must do that. It is unacceptable to award badges on the basis of sitting in classrooms *watching* demonstrations, or remaining silent during discussions.

It is sometimes reported that Scouts who have received merit badges through group instructional settings have not fulfilled all the requirements. To offer a quality merit badge program, council and district advancement committees should ensure the following are in place for all group instructional events.

- A culture is established for merit badge group instructional events that partial completions are acceptable expected results.
- A guide or information sheet is distributed in advance of events that promotes the acceptability of partials, explains how merit badges can be finished after events, lists merit badge prerequisites, and provides other helpful information that will establish realistic expectations for the number of merit badges that can be earned at an event.
- Merit badge counselors are known to be registered and approved.
- Any guest experts or guest speakers, or others assisting who are not registered and approved as merit badge counselors, do not accept the responsibilities of, or behave as, merit badge counselors, either at a group instructional event or at any other time. Their service is temporary, not ongoing.
- Counselors agree to sign off only requirements that Scouts have actually and personally completed.
- Counselors agree not to assume prerequisites have been completed without some level of evidence that the work has been done. Pictures and letters from other merit badge counselors or unit leaders are the best form of prerequisite documentation when the actual work done cannot be brought to the camp or site of the merit badge event.
- There is a mechanism for unit leaders or others to report concerns to a council advancement committee on summer camp merit badge programs, group instructional events, and any other merit badge counseling issues—especially in instances where it is believed BSA procedures are not followed. See "Reporting Merit Badge Counseling Concerns," 11.1.0.0.
- There must be attention to each individual's projects and his fulfillment of all requirements. We must know that every Scout—actually and personally—completed them.

It is permissible for guest speakers, guest experts, or others who are not merit badge counselors to assist in the counseling process. Those providing such assistance must be under the direction of a registered and approved counselor who is readily available onsite, and provides personal supervision to assure all applicable BSA policies and procedures—including those related to BSA Youth Protection—are in place and followed.

### **[7.0.3.3] — Partial Completions**

A Scout need not pass all the requirements of one merit badge with the same counselor. It may be that due to timing or location issues, etc., he must meet with a different counselor to finish the badge. The Application for Merit Badge has a place to record what has been finished—a "partial." In the center section on the reverse of the blue card, the counselor initials for each requirement passed. In the case of a partial completion, the counselor does not retain his or her portion of the card. A subsequent counselor may choose not to accept partial work, but this should be rare. A Scout, if he believes he is being treated unfairly, may work with his unit leader to find another counselor. An example for the use of a signed partial would be to take it to camp as proof of prerequisites. Partials have no expiration except the Scout's 18th birthday. Units, districts, or councils shall not establish other expiration dates for partial merit badges.

### **[7.0.4.8] — Unofficial Worksheets and Learning Aids**

Worksheets and other materials that may be of assistance in earning merit badges are available from a variety of places including unofficial sources on the Internet and even troop libraries. Use of these aids is permissible as long as the materials can be correlated with the current requirements that Scouts must fulfill. Completing "worksheets" may suffice where a requirement calls for something in writing, but this would not work for a requirement where the Scout must discuss, tell, show, or demonstrate, etc. Note that Scouts shall not be required to use these learning aids in order to complete a merit badge.