



# Textile

## Merit Badge Workbook

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

The work space provided for each requirement should be used by the Scout to make notes for discussing the item with his counselor, not for providing the full and complete answers. Each Scout must do each requirement.

No one may add or subtract from the official requirements found in **Boy Scout Requirements** (Pub. 33216 – SKU 34765).

The requirements were last issued or revised in 2004 • This workbook was updated in March 2012.

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 improving this workbook to: [Workbooks@USScouts.org](mailto:Workbooks@USScouts.org)

1. Discuss with your merit badge counselor the importance of textiles. In your discussion, define the terms fiber, fabric, and textile. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fiber; \_\_\_\_\_

Fabric; \_\_\_\_\_

Textile: \_\_\_\_\_

Give examples of textiles you use every day. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Do the following:

- a.  Get swatches of two natural-fiber fabrics (100 percent cotton, linen, wool, or silk; no blends).
  - Get swatches of two synthetic-fiber fabrics (nylon, polyester, acrylic, olefin, or spandex).
  - Get a sample of one cellulosic fabric (rayon, acetate, or lyocell).
- b. Give the origin, major characteristics, and general content of each type of fiber obtained for 2a.

Natural Swatch type: \_\_\_\_\_

Origin: \_\_\_\_\_

Major characteristics: \_\_\_\_\_

General content: \_\_\_\_\_

Natural Swatch type: \_\_\_\_\_

Origin: \_\_\_\_\_

Major characteristics: \_\_\_\_\_

General content: \_\_\_\_\_

Synthetic Swatch type: \_\_\_\_\_

Origin: \_\_\_\_\_

Major characteristics: \_\_\_\_\_

General content: \_\_\_\_\_

Synthetic Swatch type: \_\_\_\_\_

Origin: \_\_\_\_\_

Major characteristics: \_\_\_\_\_

General content: \_\_\_\_\_

Cellulosic Swatch type: \_\_\_\_\_

Origin: \_\_\_\_\_

Major characteristics: \_\_\_\_\_

General content: \_\_\_\_\_

Explain the difference between a cellulosic manufactured fiber and a synthetic manufactured fiber. \_\_\_\_\_

\_\_\_\_\_

c. Describe the main steps in making raw fiber into yarn, and yarn into fabric. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. Assume you will soon buy a new garment or other textile item. Tell your counselor what fiber or blend of fibers you want the item to be, and give reasons for your choice. \_\_\_\_\_

\_\_\_\_\_

3. Do TWO of the following:

- a. Visit a textile plant, textile products manufacturer, or textile school or college. Report on what you saw and learned.
- b. Weave a belt, headband, place mat, or wall hanging. Use a simple loom that you have made yourself.
- c. With a magnifying glass, examine a woven fabric, a nonwoven fabric, and a knitted fabric. Sketch what you see. Explain how the three constructions are different.
- d. Make a piece of felt.
- e. Make two natural dyes and use them to dye a garment or a piece of fabric.
- f. Waterproof a fabric.
- g. Demonstrate how to identify fibers, using microscope identification or the breaking test.

4. Explain the meaning of 10 of the following terms: warp, harness, heddle, shed, aramid, spandex, sliver, yarn, spindle, distaff, loom, cellulose, sericulture, extrusion, carbon fibers, spinneret, staple, worsted, nonwoven, greige goods.

warp, \_\_\_\_\_  
\_\_\_\_\_

harness, \_\_\_\_\_  
\_\_\_\_\_

heddle, \_\_\_\_\_  
\_\_\_\_\_

shed, \_\_\_\_\_  
\_\_\_\_\_

aramid, \_\_\_\_\_  
\_\_\_\_\_

spandex, \_\_\_\_\_  
\_\_\_\_\_

sliver, \_\_\_\_\_  
\_\_\_\_\_

yarn, \_\_\_\_\_  
\_\_\_\_\_

spindle, \_\_\_\_\_  
\_\_\_\_\_

distaff, \_\_\_\_\_  
\_\_\_\_\_

loom, \_\_\_\_\_  
\_\_\_\_\_

cellulose, \_\_\_\_\_  
\_\_\_\_\_

sericulture, \_\_\_\_\_  
\_\_\_\_\_

extrusion, \_\_\_\_\_  
\_\_\_\_\_

carbon fibers, \_\_\_\_\_  
\_\_\_\_\_

spinneret, \_\_\_\_\_  
\_\_\_\_\_

- staple, \_\_\_\_\_  
\_\_\_\_\_
- worsted, \_\_\_\_\_  
\_\_\_\_\_
- nonwoven, \_\_\_\_\_  
\_\_\_\_\_
- greige goods. \_\_\_\_\_  
\_\_\_\_\_

5. List the advantages and disadvantages of natural plant fibers, natural animal fibers, cellulosic manufactured fibers, and synthetic manufactured

	Advantages	Disadvantages
Natural plant fibers,		
Natural animal fibers,		
Cellulosic manufactured fibers		
Synthetic manufactured fibers		

Identify and discuss at least four ecological concerns regarding the production and care of textiles.

- 1 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 2 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 3 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 4 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Explain to your merit badge counselor, either verbally or in a written report, five career possibilities in the textile industry.

- 1 \_\_\_\_\_  
\_\_\_\_\_
- 2 \_\_\_\_\_  
\_\_\_\_\_
- 3 \_\_\_\_\_  
\_\_\_\_\_
- 4 \_\_\_\_\_  
\_\_\_\_\_
- 5 \_\_\_\_\_  
\_\_\_\_\_

Tell about two positions that interest you the most and the education, cost of training, and specific duties those positions require.

Position 1: \_\_\_\_\_

Education: \_\_\_\_\_  
\_\_\_\_\_

Cost of Training: \_\_\_\_\_  
\_\_\_\_\_

Specific Duties: \_\_\_\_\_  
\_\_\_\_\_

Position 2: \_\_\_\_\_

Education: \_\_\_\_\_  
\_\_\_\_\_

Cost of Training: \_\_\_\_\_  
\_\_\_\_\_

Specific Duties: \_\_\_\_\_  
\_\_\_\_\_

**Requirement resources can be found here:**  
[http://www.meritbadge.org/wiki/index.php/Textile#Requirement\\_resources](http://www.meritbadge.org/wiki/index.php/Textile#Requirement_resources)

## Important excerpts from the [‘Guide To Advancement’](#), No. 33088:

Effective January 1, 2012, the ‘Guide to Advancement’ (which replaced the publication ‘Advancement Committee Policies and Procedures’) is now the *official* Boy Scouts of America source on advancement policies and procedures.

- **[ Inside front cover, and 5.0.1.4 ] — 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 disabilities. For details see section 10, “Advancement for Members With Special Needs”.)
- **[ Inside front cover, and 7.0.1.1 ] — 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. [Note: Always reference the online version, which is updated quarterly.]
- **[ 7.0.3.1 ] — The Buddy System and Certifying Completion**  
Youth members must not meet one-on-one with adults. 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. 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 certification. 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.
- **[ 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 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. Because of the importance of individual attention in the merit badge plan, group instruction should be limited to those scenarios where the benefits are compelling.
- **[ 7.0.3.3 ] — Partial Completions**  
Scouts need not pass all requirements with one counselor. 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, he or she does not retain the counselor’s 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 Scoutmaster 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 18th birthday.