



# Textile

## 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 Scouts BSA Requirements (Pub. 33216 – SKU 653801).

The requirements were last issued or revised in 2004 • This workbook was updated in June 2020.

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

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

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


Fiber;


Fabric;


Textile:


**Workbook © Copyright 2020 - U.S. Scouting Service Project, Inc. - All Rights Reserved  
Requirements © Copyright, Boy Scouts of America (Used with permission.)**

**This workbook may be reproduced and used locally by Scouts and Scouters for purposes consistent with the programs of the Boy Scouts of America (BSA), the World Organization of the Scout Movement (WOSM) or other Scouting and Guiding Organizations. However it may NOT be used or reproduced for electronic redistribution or for commercial or other non-Scouting purposes without the express permission of the U. S. Scouting Service Project, Inc. (USSSP).**

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,


Textile

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

spandex,


sliver,


yarn,


spindle,


distaff,


loom,


cellulose,


sericulture,


Textile

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

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,		

Textile

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

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:


When working on merit badges, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088). Important excerpts from that publication can be downloaded from <http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf>.  
You can download a complete copy of the *Guide to Advancement* from <http://www.scouting.org/filestore/pdf/33088.pdf>.