

# LESSON 4

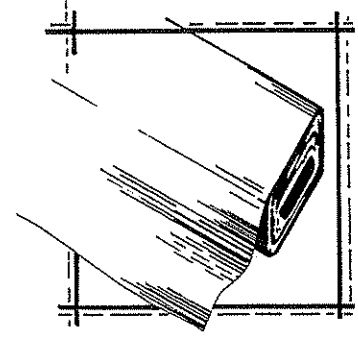
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## TOPIC

Types of Fabric

## TIME

30 minutes



## MATERIALS FROM TRUNK

Quilt (full-size)  
Fabric Sample Blocks  
Cotton Boll  
What's in the Middle?

## OBJECTIVES

- 1) Students will understand that fabric is made from both organic and man-made fibers.
- 2) Students will be able to compare and contrast different types of fabric.

## HISTORICAL BACKGROUND

Silk fibers are produced by silk worms. Whole cloth silk quilts were made in the late 1700s and early 1800s. Most silk quilts, however, were made between 1875 and 1900. Crazy quilts, Log Cabins, String quilts and Fans were popular patterns for silk fabric. Late nineteenth-century silk was often weighted with metallic salts. This gave the fabric more body. The process was very damaging to the silk and is the reason the silk in many old quilts is split and shattered.

Silk can be produced in Kansas. One of the most successful experiments with creating silk in Kansas was started in 1869 by Frenchman Ernest Valetton de Boissiere. He founded the community of Silkville in Franklin County. He planted mulberry trees and imported silk worms from France and Japan. Before the colony folded in 1892, it was producing 250 to 300 yards of finished material a day. De Boissiere's success in producing silk in Kansas encouraged others to do the same. In the late 1800s, more than forty counties had silk projects. The industry, however, did not survive because of the high cost of labor.

Linen is made from the flax plant. Early colonists grew flax and used it in their clothing and bedding. In the 1800s, cotton fabric became increasingly less expensive and replaced linen. It is very rare to find linen in a quilt made after 1850.

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Wool fabric is made from the coats of sheep. In the late 1700s and early 1800s, whole-cloth wool quilts with elaborate quilting were a popular style. They are very rare. Around 1880, wool became the fabric of choice for utility quilts or comforters. These comforters were made of heavier wool and were generally tied. Wool comforters were very popular until the 1950s. Wool was also used in Log Cabin quilts and Crazy quilts made in the late 1800s and early 1900s.

Cotton is the fiber of the cotton plant. Although there have been several attempts to grow cotton in Kansas, commercial production of cotton has not been successful here. Most of Kansas is too cold to grow cotton. Cotton requires a longer summer than exists here.

Most quilts made in the last 150 years have been of cotton. The invention of the cotton gin in 1793 was quickly followed by the construction of spinning and weaving mills in America. In the 1800s, factories produced more fabric at lower prices. As a result, quiltmakers have been able to use a wide variety of colors and designs in their quilts.

Synthetic fibers are man-made. Rayon is the earliest synthetic fabric and was first available in the 1890s. Acetate satins followed in 1919 with nylon and polyester appearing in the 1940s. Today, many different varieties of synthetic fabrics are available.

Today, many fabrics are blends, in other words they are made from more than one type of fiber. Many contemporary quiltmakers use a cotton/polyester blend in their quilts. Part of its popularity stems from reduced wrinkling and brighter colors. Cotton/polyester fabric has been used in quilts since the 1950s.

Sources: Brackman, Barbara. *Clues in the Calico: A Guide to Identifying and Dating Antique Quilts*. McLean, Va.: EPM Publications, 1989, and Richmond, Robert W. *Kansas: A Land of Contrasts*. Arlington Heights, Ill.: Forum Press, 1989.

## VOCABULARY

Batting	A layer of soft, fluffy filler used between the top and the backing of a quilt. The batting provides warmth.
Cotton	The fiber of the cotton plant that is woven into fabric.
Cotton Boll	The pod of a cotton plant that contains the cotton fibers and seeds.
Linen	A fabric made from the flax plant.
Polyester	A fabric made from man-made materials.

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Silk	A fabric made from the fiber produced by silk worms.
Synthetic	A man-made fabric. Rayon is the earliest synthetic (1890s), followed by acetate satins (1919), and later nylon and polyester (1940s).
Wool	A fabric made from the coats of sheep

## *ACTIVITIES*

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- 1) Have the students look at the full-size *quilt* and count the different prints in the quilt. Emphasize the fact that quilts require a lot of fabric.
- 2) Discuss the type of fabric used in quilts by using the *fabric sample blocks*. Explain to the students that all types of fabric can be used in a quilt, including cotton, cotton/polyester blends, linen, silk, wool, and synthetic fabric like polyester. There are two ways the fabric samples can be used.
  - a) The first way is to pass the blocks around so that students can feel the different fabrics as each fabric is discussed (information about each fabric type is on cards with the samples). The information on the cards can be read out loud to the class.
  - b) The *fabric sample blocks* can also be used as a game. Disconnect the ring that holds the fabric samples together. Display the fabric samples. Give the students the cards and ask them to match the card with the correct fabric sample. The correct answer is on the back of each fabric sample.
- 3) Discuss with the students that some fabrics come from fibers that are organic and others that are man-made. Using the fabric sample blocks, make a list of those fabrics that are organic and those that are man-made. Compare the lists. Have the students feel their own clothing. See if they can tell if it is organic or man-made.
- 4) Point out that most quilts are made from cotton and that cotton grows from a plant, therefore it is organic. Show them the *cotton boll* from the trunk. This is how cotton looks after it has been picked. Using *what's in the middle?* allow the students to touch both the polyester and the cotton batting samples in the windows underneath the quilt squares. See if they can guess which is organic and which is synthetic.

## *ASSESSMENT*

### Levels of Achievement

#### For Objective 1

- a) Students recognize that fabric is made from both organic and man-made fibers.
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- b) Students give examples of both organic and man-made fibers.

For Objective 2

- a) Students recognize that the fabrics feel different.
- b) Students are able to match fabrics and correctly name them.
- c) Students are able to distinguish between organic and man-made fabrics.

### *EXTENDED ACTIVITIES*

#### 1) SCRAP BAG:

Gather together a scrap bag similar to one a quiltmaker might use. Make sure all types of fabric are in the bag. Have the students review the *fabric sample blocks*. Once the students are familiar with the feel of different fabrics, have them identify the fabrics in the scrap bag.

#### 2) CLASS SPEAKER:

Invite an accomplished seamstress or tailor to the class. Ask him/her to speak to the class about the use of different fabrics in clothing. Some fabrics are more suited to certain types of clothes than others. Have the speaker explain why.