



# Fabric Types

Distinguish between the different types of fabric construction--woven, knit, and nonwoven. At the conclusion of this lesson, members should be more familiar with what a woven fabric looks and feels like as well as a knit and a nonwoven.



## Background

All fabrics are made from either natural fibers, and/or man-made fibers. They can be made from all natural fibers, all man-made fibers, or both. You use clothes for covering, protecting and even decorating yourself. You must have different types of clothes for different occasions like your casual attire, office wear, party dresses, your night suit and so on. Clothes are made from fabrics and today many types of fabrics are available in the market. Do you know what these fabrics are and how they are made? How do they come in so many different varieties? Why do some fabrics shine more than the others? Why are some fabrics light in weight whereas others are heavy?



## Activity I Instructions (30 minutes)

1. The leader will hand out a fabric construction chart to each member. Explain to the members how this activity will work: the leader will be handing out a fabric sample for each of the three spaces on the chart. Members will then need to staple or tape the sample into the corresponding space. Finally members will take notes on the specific fiber in the space provided as the leader goes over the overhead outline with them.
2. The chart begins with three bulleted spaces for notes about fabric construction--have the members copy the information into the corresponding spaces.
3. Begin the chart procedure as a class, starting with wovens. Hand out the woven samples, wait a bit for the members to staple them to their papers, and start going over the information on the note outline transparency.
4. After you have finished going over the characteristics of the woven fabric, move on to knits repeating the steps.
5. Go through the same steps for nonwovens as you have done previously.
6. Finally, you come to the four bullets designated for information on blended fibers and fabrics. Go over the corresponding information on the note outline and have members complete the lines on the chart. At this point, you may want to have members turn the chart over and complete the remaining notes on the attached outline.
7. Discuss reflect and apply questions.



## Reflect and Apply Questions

1. What are the steps to take fiber and turning it into fabric?
2. What is the difference between woven and knit?
3. What is the grainline (lengthwise) and what is a positive of cutting the fabric to this line?



**Other Related Resources:** Fabric Chart & Notes



**References** Adapted from: Utah Education Network

### Time

30 minutes total

### Activity I Materials

- 1 1/2 inch square sample pieces of fabric from each of the three fabric constructions listed on the chart (woven, knit, nonwoven)--enough for the entire class
- Staplers or tape dispensers
- A copy of the fabric construction chart for each member
- A transparency copy of the Fabric Construction Notes

### Space Required

Room with table space for each youth and space to complete their examples.



### Before the Meeting

Set up the activity table with all supplies. Youth will collect their supplies after background introduction and return to their seats.



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**Other Related Resources:** Fabric Chart & Notes



**References** Adapted from: Utah Education Network

# Fabric Construction

## Blends, Yarns, Threads, and Fabrics

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Fabric Construction	Explanation	Example

## Blended Yarns, Threads, and Fabrics

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# FABRIC CONSTRUCTION CHART NOTES

## FABRIC CONSTRUCTION

- fibers are created into yarns
- yarns are then woven or knit into fabrics
- fabrics are used to create projects

## BLENDED YARNS, THREADS, AND FABRICS

- blends were created to utilize the positive characteristics of each fiber
- different fibers that have been combined into one fabric, usually one natural and one synthetic
- **EXAMPLE:** polyester/cotton blend- the original cotton characteristics are improved and the fabric becomes more wrinkle resistant, stronger, and mildew resistant

## WOVENS

- a woven fabric consists of warp and weft yarns
- weaving occurs when two or more yarns are woven together at right angles to make a fabric
- strong and easy to sew on
- suggested for beginners to use

## GRAIN (LINE)

- **selvage:** parallel to lengthwise grain; the tightly woven edges of the fabric
- **lengthwise:** parallel to the selvage; stronger threads (warp threads)
- **crosswise:** at right angle to the lengthwise threads; perpendicular to the selvage (weft threads)
- **bia:** diagonal angle; runs at a 45-degree angle to the selvage edge; provides stretch

## KNIT

- knitting- yarns are fashioned by needles into a series of interlocking loops to make a fabric
- knits provide stretch
- knits don't need a seam or edge finish; will not fray
- ball point needle is recommended for sewing on knits
- single knit fabric curls to the right side when stretched
- interlock knit is thicker than single knits and when stretched they don't curl

## NON-WOVEN/ FELTING

- made when fibers are pressed together using heat and moisture
- examples include: felt and non-woven interfacing

## NAP

- short fibers that create texture on fabric
- use a nap layout
- treat the same way as a one-way directional fabric



# Fabric Types

Distinguish between the different types of fabric construction--woven, knit, and nonwoven. At the conclusion of this lesson, members should be more familiar with what a woven fabric looks and feels like as well as a knit and a nonwoven.

## Activity Reflect and Apply Questions

### 1. What are the steps to take fiber and turning it into fabric?

Fibers are turned into yarn and then yarns are woven or knit into fabrics

### 2. What is the difference between woven and knit?

**Weaving** occurs when two or more yarns are woven together at right angles to make a fabric

**Knitting** yarns are fashioned by needles into a series of interlocking loops to make a fabric

### 3. What is the grainline (lengthwise) and what is a positive of cutting the fabric to this line?

Parallel to the selvage; stronger threads (warp threads)



REFLECT AND APPLY  
ANSWER SHEET