Fabric Construction
Fabric Construction Methods

- Plain Weave
- Twill Weave
- Satin Weave
- Felted (Non-Woven)
- Knitted
Weaving

• The process of interlacing two sets of yarns placed at right angles to each other.

• Two sets of yarns
  – Warp Yarns- Lengthwise yarns
  – Weft Yarns- Crosswise yarns
Plain Weave

- A basic weave, that is a simple alternate interlacing of warp and filling yarns. Any type of yarn made from any type of fiber can be manufactured into a plain weave fabric.
Plain Weave Fabrics

- Basket Weave
- Batiste
- Broadcloth
- Calico
- Canvas
- Challis
- Chambray
- Chiffon
- Crepe
- Crepe de Chine
- Duck
- Flannel
- Gauze
- Georgette
- Gingham
- Madras
- Muslin
- Organdy
- Organza
- Oxford
- Poplin
- Shantung
- Taffeta
Twill Weave

• A basic weave that has a diagonal effect on the face, or right side, of the fabric. In some twill weave fabrics, the diagonal effect may also be seen clearly on the back side of the fabric.
Twill Weave Fabrics

• Denim
• Wool Flannel
• Gabardine
• Twill
• Tweeds
Satin Weave

- A basic weave, characterized by long floats of yarn on the face of the fabric. The yarns are interlaced in such a manner that there is no definite, visible pattern of interlacing and, in this manner, a smooth and somewhat shiny surface effect is achieved. The shiny surface effect is further increased through the use of high luster filament fibers in yarns which also have a low amount of twist. A true satin weave fabric always has the warp yarns floating over filling yarns.
Satin Weave Fabrics

- Brocade
- Jacquard
- Sateen
- Satin
- Damask
- Charmeuse
- Satin Faced Crepe
Knits

- Fibers are twisted into Yarns which are looped together into Fabric.
Knit Fabrics

• Weft Knits- also called filling.
  – Jersey (t-shirts)
  – Rib Knits (used on necklines & sleeve cuffs)

• Warp Knits
  – Swimwear- 4-way stretch
  – Tricot- (lingerie)
Knitting

- **Wales** - Lines of loops that run the length of knitted fabrics.
- **Courses** - Lines of loops that run crosswise on the knitted fabric.
- **Gauge** - The number of stitches or loops per inch in a knitted fabric.
Wales & Courses
Knit Fabrics

- Jersey
- Double Knit
- Panne Velvet (shown)
- Pointelle
- Tricot
- French Terry
Non-woven Fabrics

Made directly from fibers rather than being made into yarns.

Fabric Names-

• Felt
• Fleece
• Ultrasuede©
• Vinyl
Bonded Fabrics

- Method of permanently joining two layers of fabric together in some way such as with a chemical adhesive or fusible web.
Quilted Fabrics

- Quilted fabrics are made by “sandwiching” a layer of padding between two layers of fabric. These layers are then joined either with thread stitching or “ultrasonic stitches. (Basically stitches made my stitching with a heated pin that melts the layers together at the stitches.)
Pile Fabrics

- Pile Fabrics have loops or yarn ends projecting from the flat woven or knit surface.
  - Fabrics:
    - Corduroy *(shown)*
    - Velvet
    - Velveteen
    - Terrycloth