Felting, Knitting and Crocheting
Wovens, Knits & Nonwovens
Wovens

- woven on a loom
- consists of vertical (warp) and horizontal (weft) threads that cross each other
- stretches on the bias (diagonal)
Knits

- flexible
- can be constructed to size (hats or socks)
- warp knit (machine): lace, lingerie, tricot, hard to unravel
- weft knit: can be unraveled horizontally, cheaper to produce
Nonwovens

- long strands of fiber that are bonded together via heat, mechanical, chemical, or solvent treatment
- eg: filters, geotextiles, diapers, insulation, medical equipment (surgical gowns)
The Burn Test

*make sure you have water close by in a metal container and are in a well-ventilated area*

- **Cellulose** (cotton, hemp, linen, rayon, bamboo): lights quickly, smell like burnt paper, ash is light grey
- **Protein** (silk, wool, cashmere, alpaca, etc): burns slowly, smell like burnt hair, ash is dark and brittle
- **Synthetics** (nylon, polyester, acrylic): can burn and shrink quickly, may form plastic drip, black smoke

Resource
Felting

Process of creating objects using bonding fibers.
Felting

- earliest examples found in 6000 BCE, origins primarily in Europe and Asia
- used for insulation and protection
- long thorough article

making a robe for Bakhitari shepherds (Iran)
Horse saddle cover, Siberia, 300 BCE
Yurts!
Wet Felting

Using water and soap to create felted objects. Tutorial
Felting other objects!
Fulling

Felting a knitted or woven object after it is made.
Needle Felting

- 19th c. industrial felting machines used rows of sharp barbed needles
- 1980’s became tool for home crafting
Printing Teddy Bears: Disney Research (Scott Hudson)
DEMO: needle felting
Demo project

Make an object out of needle felt.
Knit vs. Crochet

Creating interlocking loops using a continuous strand of yarn
3rd century sock, Egypt using naalbinding technique (one needle knitting)
• ~10th century, Egypt
• knitted Khufic (Arabic) blessings in pattern
• cotton yarn
• 1275, Spain: liturgical gloves
• considered luxury items reserved for royalty or wealthy
by 1400’s, demand rose and knitting guilds and cottage industries established
knowledge of technique spread
British sailors, WWI

Estonian socks
Unraveling for material reuse
Stocking Frame

- 1589, Nottingham England: William Lee
- imitates handiwork of hand knitters
Circular sock machine

Flatbed knitting machine
re-creation of first crochet pattern from 1823

19th century crocheted lace
Freddie Robbins - Anyway
OpenKnit - Gerard Rubio

SOURCE: OPENKNIT.ORG

https://vimeo.com/86987828
DEMO: Knitting Loom
DEMO: crochet
Demo Project

- crochet a line
- crochet a 2D shape
- crochet a 3D shape