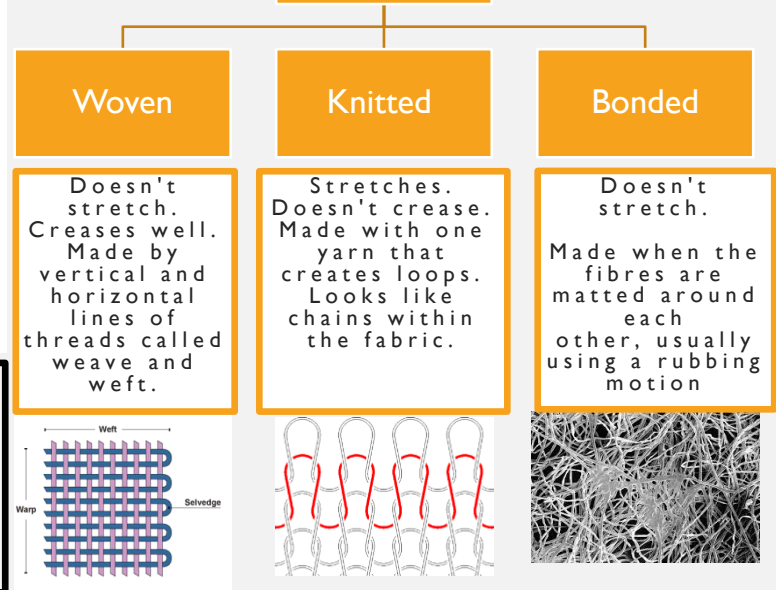


# YEAR 8 – SMART/MODERN TEXTILES WEARABLE

- A** is for **Aesthetics**
- C** is for **Cost**
- C** is for **Customer**
- E** is for **Environment**
- S** is for **Size**
- S** is for **Safety**
- F** is for **Function**
- M** is for **Material**



## Types of Fabric Construction



## Smart and Modern Materials

**Thermochromic**  
Changes colour with heat

**Photochromic**  
React to UV light and change colour

**Reflective Fabrics**  
Use glass beads with refract light and make the light reflect back to the source

**Pressure Response Fabric**  
Soft and bendy material that hardens on impact

**Solvation Chromism**  
Reacts to moisture, changing colour

**Time Response**  
Over time these fabrics change colour or dissolve.



- Sewing Safety!**
- Hair up
  - No talking whilst sewing
  - No trip hazards
  - Machine turned off when threading up
  - Have work prepped

| Natural Fabrics  | Synthetic (Manmade) Fabrics  |
|--|--|
| <b>Cotton</b><br>From cotton plant. Grown in hot climates.                                   | <b>Kevlar</b><br>Lightweight, heat resistant, durable, used for bullet proof vests                                   |
| <b>Silk</b><br>From silk worm or silk spider – the cocoon they are wrapped in is silk fibres | <b>Nylon</b><br>Substitute for silk – started as parachutes in WW2   |
| <b>Denim</b><br>Cotton used in a strong weave pattern  | <b>Elastane</b><br>Incredible stretchy   |
| <b>Wool</b><br>From sheep/goat, spun and often knitted                                       | <b>Polyester Fleece</b><br>Derives from petrolium (plastics)   |
| <b>Leather</b><br>Skin of animals, usually cow   | <b>Gore Tex</b><br>Breathable and waterproof   |
| <b>Felt</b><br>Wool matted together  | <b>When materials are combined to make a new fabric with improved qualities, this is called a COMPOSITE MATERIAL</b> |