

## Sewing Skills for STEAM I, II and III

### STEAM – I (not eligible for State Fair)

Exhibits must be made from medium weight woven fabrics that will sew and press smoothly, flannel/ fleece is acceptable. Solid color fabrics or those having an overall print are acceptable. NO PLAIDS, STRIPES, NAPPED or JERSEY KNIT. Patterns should be simple without darts, set-in sleeves, and collars. Raglan and kimono sleeves are acceptable

1. Identify sewing tools and their purpose
2. Using a color wheel
3. How to accurately measure your body to purchase the correct pattern size
4. Learn to identify knit, woven and felted fabrics
  - How to select woven fabric, flannel and fleece in solid colors or all over prints that are appropriate for STEAM – I (plaids, stripes, napped fabric and jersey knits are NOT used in STEAM – I).
  - Learn grain lines, selvage and folded edge
5. Identify natural and synthetic fibers
6. Learn the sewing machine parts and how to properly operate the machine.
7. Sewing Skills for STEAM I
  - Pattern use: what the pattern markings mean, how to lay out and cut the pattern
  - Straight seams
  - Seam finishes: Zigzag or Clean Finish
  - Curved seams
  - Notching and clipping
  - Facings
  - Under stitch
  - Hand stitching: Running, Basting, Backstitch, Whipstitch, Overcast, and slip stitch
  - Hemming
8. Upcycling – identify and select appropriate recyclable materials and develop ideas for 'upcycling'

### STEAM – II (eligible for State Fair)

1. Choosing fabric – STEAM II you can use fabrics used in STEAM I plus knits, and specialty prints
2. Learn more about the different fibers
3. How to properly press a garment
4. Learn how to adjust a pattern to fit your body
5. Learn how and when to use interfacing
6. Sewing Skills for STEAM II
  - Finishes: Over edge or serged
  - How to do darts and gathers
  - Techniques used to put in buttonholes and attaching buttons
  - Clipping and notching around curves and corners
  - Hand Stitching: Slip, Catch and Invisible stitches
  - Zippers: Lap, Center, Fly-front and Exposed
  - Pockets: Patch, Welt, Inset, Inseam, Flap and Gusset
  - Sleeves: Set-in, Raglan, Kimono and Dolman
  - Cuffs and Plackets
  - Collars
  - Waistbands: Straight, Contour, Stretch and Faced

### STEAM III (eligible for State Fair)

1. Getting to know your serger.
2. Learning tools to properly press your garments
3. Learn more about fibers, fabrics and special fabrics
4. Sewing Skills for STEAM III
  - Seam finishes: French, flat-felled and rolled hem
  - Boning
  - Zipper: Invisible
  - Tailoring techniques: Stay tape, lapels, tailored sleeve cap, shoulder pads, bound buttonholes
  - Couture Techniques: Hong Kong finish, hand-picked zipper and French tacks

# Beyond the Needle Skills

All levels-Use what you learned in the Design Basics Chapter in the Beyond the Needle Project Manual to create original designs on garments or accessories.

## Beginner Level (not eligible for State Fair)

1. Use fabric spray paint to refurbish a t-shirt with an original design. (page 51)
2. Repurpose used garments by removing patch pockets from used garments, embellishing them and reattaching to a different garment or accessory. (page 54)
3. Create a repeated pattern on a garment or accessory using purchased or created stamps and fabric paint. (page 57)
4. Add a design to a garment using purchased or created stencil and fabric paint. (page 63)
5. Hand paint designs on a garment or accessory using fabric paints. (page 68)
6. Highlight an area of a garment with buttons. (page 71)

## Advanced Level (eligible for State Fair)

1. Manipulate fabric to add interest to garments or accessories by ruffling, smocking, pleating, tangling, or adding texture. (page 109)
2. Attach a two-dimensional shape to a fabric base using machine, hand or reverse applique. (page 117)
3. Create a design on fabric, garment or accessory by hand painting and machine stitch a design. (page 122)
4. Create a design on fabric, garment or accessory by using beads. (page 127)

## Intermediate Level (eligible for State Fair)

1. Use synthetic or natural dye to change the color of fabric, garment or accessory. (page 75)
2. Change the color of a garment or accessory by using dye and one of these methods: Resist (Shibori or Batik). (page 79)
3. Create a design on fabric, garment or accessory using bleach. (page 81)
4. Age the appearance of fabric, garment or accessories by using coffee or tea. (page 85)
5. Decorate fabric, garment or accessory by using decorative stitching. (page 90)
6. Decorate fabric, garment or accessory by using grommets and eyelets. (page 95)
7. Change the color of a garment or accessory using the ice dye technique. (page 98)
8. Change the color of a garment or accessory using oatmeal as a resist and then dyeing it. (page 101)
9. Change the color of a garment or accessory using rust's staining qualities. (page 104)