



## Parents, Volunteers and County Educators:

There are many reasons 4-H youth participate in and continue their project work. Everything done in the “name of project work” will not be done for a competitive grade. While working with members consider using the following to encourage project work.

- ✿ **Fun** – Done just for the fun of learning and trying something new. Enjoyment received from using knowledge and skill. Sense of creativity being expressed. The member is enjoying the process of learning; the focus is not on perfecting technique, skill or knowledge.
- ✿ **Personal Use** – Practical application of project work for day to day living or the act of doing for others. Members have practiced their skills and knowledge producing quality items that will withstand daily use, improve life or bring enjoyment.
- ✿ **Competition** – The member has practiced “like an athlete” and has producing a quality product/project demonstrating their knowledge, skills and abilities, as compared to a quick, simple project. The member fully understands both they and the project are being evaluated and provided constructive comments for continued project growth.

## HOW TO USE THE SKILL MASTER SHEET WHEN WORKING WITH YOUTH

- The mastery sheet is designed as a guide or outline. It contains techniques/skills/knowledge fundamental to project development. Some youth will go beyond the basics for their level and others will have to visit a prior level to gain skills necessary for doing project work at their grade level.

OK Project Guides  
and Resources for  
Design and  
Construction



The terms in the guide will be found in 4-H curriculum/4-H sample cards/sewing books and online resources. Volunteers/project leaders/Extension staff planning and teaching workshops/day camps/project groups/etc. are encouraged to select projects that include skills and knowledge contained in the skill mastery sheet.



National  
4-H  
Curriculum

- The skill mastery sheet is a tool for learning to set and record goals for project work.
  - Setting Goals* - “Things/skills I want to learn making my project.” OR “Things/skills I will learn in the workshop/day camp.”
  - Recording Goals* – “Things/skills I set out to learn.” “Other things/skills I learned in the process.”

Setting Goals - Before starting the project, youth mark things they want to learn, or they will be learning. Depending on the age group, the project leader/volunteer may have the youth go through and mark the things they will be learning based on the project being constructed by the group.

Recording Goals - Once the project is completed, have the youth reflect on what they learned by revisiting what they marked at the beginning and thinking about other things they learned in the process. This is a time to CELEBRATE by checking off everything they learned!

We encourage youth to keep a copy of the sheet in their Portfolio and/or to assist with filling out a 4-H medal form/record book.

If this sheet is used for a competitive event, a new form should be completed for each event. This allows a judge to provide feedback.

## DESIGN AND CONSTRUCTION SKILL MASTERY

Through this project 4-H members will demonstrate the mastery of the design and construction process by selecting and using materials which produce a *product*. The 4-H word for product is "project." There are three primary areas a member is encouraged to learn and grow:

- 1) **Mastery of Subject Matter and Skill** – The act of "*learning to learn*" and applying the information and skill(s) to make something the member can enjoy and be proud of.
- 2) **An understanding and application of the Elements and Principles of Design** - The elements and principles of design are the rules a designer must follow to create an effective and attractive composition - apparel/accessory/home decor/textile/craft/quilt/knitting/crochet/etc. The designer/craftsman/interior designer/textile artist/stylist/retailer/sewer/marketing-communication-specialist/architect/etc. Learn how to successfully use the concept in choosing materials (fabric, patterns, wallpaper notions, paint, fonts, props, etc.) to produce a creative and visually appealing finished product.

### Elements of Design

The elements of design should be included in the finished product/project.

- Line
- Shape and Form(s)
- Texture
- Color
- Space

### Principles of Design

The principles of design should be included in the finished product/project.

- Harmony
- Proportion/Scale
- Balance
- Rhythm
- Emphasis

### 3) **Personal Creativity**

The life skills of "*critical thinking and decision making*" are being applied in the creative process. Items should show creativity and originality, along with an application of design principles and elements. Ask yourself, "*How have I shown personal creativity and applied the design principles and elements to the finished product?*" "*What makes my finished product unique to that of my peers?*"

### EXHIBITS – Items for competitive use.

- ADC exhibits should be unique to *Apparel Design & Construction* and should not be included in any project/product from the Interior Design and Construction (IDC) or Hobby & Textile Design and Construction (HTDC) categories.
- IDC exhibits should be unique to *Interior Design & Constructions* and should not be included in any project/product from the Apparel Design & Construction (IDC) or Hobby & Textile Design & Construction (HTDC) categories.
- HTDC exhibits should be unique to *Hobbies, Textiles Design & Construction* and should not be included in any project/product from the Apparel & Design (IDC) or Interior Design and Construction (IDC) categories.
- The finished project/product should illustrate the mastery of skills and knowledge unique to the division:

Apparel Design & Construction (ADC)

Design and Construction (IDC)

Hobby & Textile Design & Construction (HTDC) categories

This sheet is completed by the 4-H member to reflect on what was learned making the exhibit. Mark only those things you learned. Look up terms/words if you can't remember or don't know what they mean.

**Grades  
9-12**

Name

County/Club

Year 20

Class Number

Class Name

Brief Description of Project

Apparel Design and Construction – Grades 9-12	
Tools and/or Techniques	Construction Knowledge and/or Skill Gained <b>4-H member is to place a check <input checked="" type="checkbox"/> in the boxes for each skill learned or knowledge gained in the construction of this project.</b>
Applique	<input type="checkbox"/> Applique is a decorative embellishment sewn on by machine or hand. It can be described as a contrasting fabric(s) design applied in a flat, decorative manner. An applique can be a single piece or a multi-layer design.
Buttons and Buttonhole	Continued to learn about buttons and buttonholes producing a product appropriate for end use, as well as a design feature. <input type="checkbox"/> Corded Buttonhole <input type="checkbox"/> Hand sewn buttonhole <input type="checkbox"/> Bound buttonhole <input type="checkbox"/> Covered button
Bias Tape	<input type="checkbox"/> Learned to make bias tape – self fabric or contrast fabric. Applied to interior or exterior of the finished product.
Care	Continue to learn and understand the relationship of fiber content and care instructions on the final product. <input type="checkbox"/> Fiber content of my garment Care for my garment: <input type="checkbox"/> machine wash and dry <input type="checkbox"/> machine wash and line dry <input type="checkbox"/> hand wash and line dry <input type="checkbox"/> hand wash and lay flat to dry <input type="checkbox"/> dry cleaning
Collar/Cuff	Continue to learn about collar/cuff design and construction - collar (with or w/out facing), interfaced, smooth, balanced, outer edge lies flat or almost flat against the garment; corners or edges do not roll upwards; edge stitched, understitched or top stitched when appropriate; points are sharp or curves are smooth; seams graded and facing secured and not visible. <input type="checkbox"/> Collar with front placket – knit collar or self-fabric <input type="checkbox"/> Tailored Collar – used on coats, blazer, sport coat, etc. <input type="checkbox"/> Standing collar – two pieces, collar, and band <input type="checkbox"/> Lapped cuff with continuous-bound placket or shirt-sleeve placket <input type="checkbox"/> French cuff <input type="checkbox"/> Decorative Accent – collar/cuff focal point by style, color, trim, special feature, etc.
Couture Technique/ Historic Technique	<input type="checkbox"/> Scalloped technique – learn and apply technique to a project <input type="checkbox"/> Couture technique(s) applied to project (specify) <input type="checkbox"/> Historic technique(s) applied to project (specify)

<p>Crochet</p>	<p>Continue learning to read and understanding crochet instructions and symbols and try new stitches.</p> <p><input type="checkbox"/> Relief medallions and motifs used for applique or design feature.</p> <p><b>Stitches:</b></p> <p><input type="checkbox"/> Waffle (or rib) stitch    <input type="checkbox"/> Picot (Irish crochet)    <input type="checkbox"/> Cluster stitch  <input type="checkbox"/> Popcorn stitch    <input type="checkbox"/> Star stitch    <input type="checkbox"/> Puff stitch  <input type="checkbox"/> Afghan stitch    <input type="checkbox"/> Hairpin lace    <input type="checkbox"/> Broomstick crochet</p> <p><b>Freelance options:</b></p> <p><input type="checkbox"/> Combining crochet with another material (i.e. leather, fabric, metal, plastic, etc.)  <input type="checkbox"/> Working with fine thread or cloth strips  <input type="checkbox"/> Multicolored patterns (jacquards) using charts  <input type="checkbox"/> Draft pattern for a fitted garment  <input type="checkbox"/> Create original design</p>
<p>Fabric</p>	<p>Continue to learn about fiber content, care, grain line (warp vs weft), woven vs knit, etc.</p> <p><input type="checkbox"/> Natural fibers – source, characteristics and care of cotton, linen, wool/hair, silk and/or jute  <input type="checkbox"/> Synthetic fibers –source, characteristics and care of nylon, polyester, acrylic, rayon, metallic, etc.  <input type="checkbox"/> Woven fabric –batiste, broadcloth, chino, looped, jacquard, crape, tweed, gabardine, organdy, oxford, etc.  <input type="checkbox"/> Non-woven –felt, netted, lace, batting, insulation, disposable textiles, foam, etc.  <input type="checkbox"/> Knit – tricot, raschel, rib knit, jersey, etc.  <input type="checkbox"/> Pile fabric – polar fleece, velvet, velveteen, chenille, corduroy, flannel, terrycloth, fake fur, etc.</p>
<p>Fasteners</p>	<p>Selected and applied appropriate fastener for end use and aesthetics when applicable.</p> <p><input type="checkbox"/> Fashion Snap/Gripper Snap/ring prong snap    <input type="checkbox"/> Snap tape or Hook and Eye tape  <input type="checkbox"/> Magnetic Closure    <input type="checkbox"/> Frog Closure/metal frog-like closure  <input type="checkbox"/> Self-covered snap or hook and eye    <input type="checkbox"/> Button loops – self fabric, thread, elastic, etc.  <input type="checkbox"/> No-sew Hook &amp; Bar</p>
<p>Hem</p>	<p>Learned to select the best hem and hem depth for the project, easing fullness and using hemming tools for best results.</p> <p>Hemming by machine – check the stitch you used</p> <p><input type="checkbox"/> Blind stitch    <input type="checkbox"/> Stretch stitch    <input type="checkbox"/> Serged Overlock and/or Hemstitch</p> <p>Hemming by hand – check the stitch you used</p> <p><input type="checkbox"/> Slip-stitch    <input type="checkbox"/> Blind stitch    <input type="checkbox"/> Catch stitch/Herringbone stitch    <input type="checkbox"/> Hemming stitch  <input type="checkbox"/> Decorative Hem – faced, bound, embroidered, scalloped, etc.</p>
<p>Interfacing/Under lining/Interlining</p>	<p>Continue to learn how to enhance garment structure and when to use appropriate interfacing product.</p> <p><input type="checkbox"/> Underlining – Applied to garment pieces for additional shape, structure and body.  <input type="checkbox"/> Tailoring Interfacing - Hair Canvas (fusible or sew-in) and/or Weft fusible  <input type="checkbox"/> Interlining – Additional layer added for warmth, placed between the garment and lining.</p>
<p>Knitting – w/needles, loom, and board/machine</p>	<p>Continue learning to read and interpret knitting instructions and symbols, understanding gauge and tension, joining pieces with appropriate seam, new stitches, and care.</p> <p><b>Knitting with hand-held needles:</b></p> <p><input type="checkbox"/> Mixed color(s) to create design other than stripes    <input type="checkbox"/> Creating eyelets, holes, loops  <input type="checkbox"/> Bobbin knitting    <input type="checkbox"/> Carry yarn    <input type="checkbox"/> Reading a graph    <input type="checkbox"/> Duplicate stitch  <input type="checkbox"/> Knit with four needles or circular needles</p> <p><b>Stitches or patterns:</b></p> <p><input type="checkbox"/> Rib stitch variation (specify)  <input type="checkbox"/> Seed stitch    <input type="checkbox"/> Double stitch    <input type="checkbox"/> Window pane check  <input type="checkbox"/> Basket rib    <input type="checkbox"/> Basketweave    <input type="checkbox"/> Cable    <input type="checkbox"/> Duplicate stitch  <input type="checkbox"/> Other stitch(s) (specify)</p>

<p>Knitting – w/needles, loom and board/machine <b>Continued...</b></p>	<p><b>Knitting with loom and board:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Multiple-color designs</li> <li><input type="checkbox"/> Creating eyelets or holes</li> <li><input type="checkbox"/> Joining tubes, sections, etc.</li> <li><input type="checkbox"/> Combining knitting with another material (i.e., leather, fabric, metal, plastic, etc.)</li> </ul> <p><b>Stitches or patterns:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Seed Stitch    <input type="checkbox"/> Rice stitch    <input type="checkbox"/> Moss stitch    <input type="checkbox"/> Single stitch</li> <li><input type="checkbox"/> Box stitch    <input type="checkbox"/> Cables    <input type="checkbox"/> Basketweave</li> <li><input type="checkbox"/> Other stitch(s) (specify)</li> <li><input type="checkbox"/> <b>Machine Knitting</b> – Use of knitting machine.</li> </ul> <p><b>Freelance Options:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Combining knitting with another material (i.e. leather, fabric, metal, plastic, etc.)</li> <li><input type="checkbox"/> Draft pattern for a fitted knitted garment (include pattern)</li> <li><input type="checkbox"/> Knitted lace attached to a garment or article</li> <li><input type="checkbox"/> Pattern stitch (new pattern)</li> </ul>
<p>Lining</p>	<p>Lining preserves shape, improves appearance, adds durability, preserves grain and bias lines, create a free-flowing drape, etc.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Learned how to select, cut, and attach lining.</li> <li><input type="checkbox"/> Underlining – Applied to garment pieces for additional shape, structure and body.</li> </ul>
<p>Marking</p>	<p>Continue to learn how to transfer pattern markings to fabric and use marking in construction</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Marking with tailor tack</li> </ul>
<p>Mitered Corners</p>	<p>Learned how to miter a corner and applied to clothing, accessory, curtain, quilt, etc.</p>
<p>Needle and Pins</p>	<p>Continue to learn about different hand and machine needles and sewing pins</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Double machine needle – used for sewing two colors of thread in a decorative stitch/pattern/top stitching</li> <li><input type="checkbox"/> Other specialty needle/pin (specify)</li> </ul>
<p>Pattern and Layout</p>	<p>Pattern</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Choose pattern and fabric that complement each other or that play to the primary design feature of the fabric design or pattern lines</li> <li><input type="checkbox"/> Flat Pattern Design – drafted and constructed my own pattern using this method</li> <li><input type="checkbox"/> Drape Pattern Design - drafted and constructed my own pattern using this method</li> </ul> <p>Pattern alteration</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Design alteration to a commercial pattern - a neckline, waist, collar, hem, etc.</li> <li><input type="checkbox"/> Combined two or more patterns to produce final garment.</li> </ul>
<p>Pocket</p>	<p>Learned to apply a pocket for practical or decorative purpose</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Side pocket – Angle and shape can be many different styles. Pocket consists of 2-3 pieces – pocket piece, a pocket facing that finishes the pocket edge and a yoke that ends up behind the finished opening.</li> <li><input type="checkbox"/> Welt pocket – single, double, or double with flap</li> </ul>
<p>Pressing</p>	<p>Continue to learn new pressing techniques and try new pressing equipment</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Specify “new” equipment</li> </ul>
<p>Repair/Restore/Remodel/Recycled/Upcycled</p>	<p>Learned to repair, restore, or remodel apparel, housing equipment, etc.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Specify technique(s)</li> </ul>

# Apparel Design and Construction (ADC) – SKILL MASTERY SHEET



Seam	Continue to learn and apply new seam techniques <input type="checkbox"/> Lapped seam <input type="checkbox"/> Tucked seam <input type="checkbox"/> Slot seam  Learned to sew an enclosed seam <input type="checkbox"/> French or Mock French seam <input type="checkbox"/> Flat-felled seam
Seam Finish	Continued to learn new seam finishes, applying the best finish for my project. <input type="checkbox"/> Bound Edge – custom made or commercial bias tape <input type="checkbox"/> Hong Kong
Serger	Continue to learn my serger <input type="checkbox"/> Apply ribbing at neckline, sleeves and or waist <input type="checkbox"/> Made trim using specialty yarns and/or thread on serger <input type="checkbox"/> Apply special thread, yarn or decorative trim with serger <input type="checkbox"/> Other specialized setting or attachment (specify)
Sewing Machine	Learning more about my sewing machine <input type="checkbox"/> Specialty sewing machine foot (specify)
Sleeves	Continue to learn to set in sleeves. Type of Sleeve <input type="checkbox"/> Set-in <input type="checkbox"/> Flat inset <input type="checkbox"/> Cap <input type="checkbox"/> Raglan <input type="checkbox"/> Kimono
Staystitching	<input type="checkbox"/> Learned to stay stitch points of stress - with or without grain.
Tailoring	Learning to tailor – hand and/or machine pad stitching, lining, interfacing, hand work, specialized equipment, shoulder pads, etc. <input type="checkbox"/> Specify technique(s) learned and applied
Trim(s)	Learned to apply trim. <input type="checkbox"/> Applied decorative trim – piping, pique, rick rack, braid, lace, beads, ribbon, soutache, etc.
Zipper	Learned to select and apply a zipper appropriate to the design and/or end use. <input type="checkbox"/> Separating Application <input type="checkbox"/> Front Flyer Zipper/Trouser Zipper – with zipper placket <input type="checkbox"/> Handpicked Zipper Learn how to insert zipper by hand for closure
BONUS - Skills learned from previous level(s)	We encourage members to continue to learn skills from the previous levels. Please list NEW skills learned or attach the skill level sheet(s) as a supplement. The list or attachment does not substitute for learning a minimum of two new skills for your Age Level.

**General Comments (youth/project leader/judge) –** We encourage thoughts and comments, so an additional sheet can be added.

**Apparel Design and Construction – Grades 9-12**

Design Knowledge and/or Skill Gained - The elements and principles of design are important in coordinating fabrics and patterns that are visually pleasing to eye, the body, and communicate a sense of style.

**4-H member is to check the box  for each principle and element learned, identified and/or applied to the construction of this project.**

	Pattern Design	Fabric/Yarn Design	Notion Design
Elements of Design	<input type="checkbox"/> Line <input type="checkbox"/> Shape and Form(s) <input type="checkbox"/> Texture <input type="checkbox"/> Color <input type="checkbox"/> Space	<input type="checkbox"/> Line <input type="checkbox"/> Shape and Form(s) <input type="checkbox"/> Texture <input type="checkbox"/> Color <input type="checkbox"/> Space	<input type="checkbox"/> Line <input type="checkbox"/> Shape and Form(s) <input type="checkbox"/> Texture <input type="checkbox"/> Color <input type="checkbox"/> Space
Principles of Design	<input type="checkbox"/> Harmony <input type="checkbox"/> Proportion/Scale <input type="checkbox"/> Balance <input type="checkbox"/> Rhythm <input type="checkbox"/> Emphasis	<input type="checkbox"/> Harmony <input type="checkbox"/> Proportion/Scale <input type="checkbox"/> Balance <input type="checkbox"/> Rhythm <input type="checkbox"/> Emphasis	<input type="checkbox"/> Harmony <input type="checkbox"/> Proportion/Scale <input type="checkbox"/> Balance <input type="checkbox"/> Rhythm <input type="checkbox"/> Emphasis

Briefly share how the three design features (pattern, fabric, and notions) came together in the finished projects look.

**Apparel Design and Construction – Grades 9-12**

Use this section to evaluate your creativity on the finished project. *What is creative expression?* Creativity starts with basic knowledge about the subject, personal motivation, flexible and original thinking, being able to take risks and ask questions and an ability to imagine different and workable solutions.

<b>4-H member is to check the box <input checked="" type="checkbox"/> for each principle and element learned, identified and/or applied to the construction of this project.</b>	Creativity Excelled	Creativity Recognized	Creativity doesn't quite Click
<b>Creative Appeal</b> – first look makes good impression and draws you in	<input type="checkbox"/> Unique and flattering	<input type="checkbox"/> Nice but not unique	<input type="checkbox"/> Unique but a few too many risks taken
<b>Creative Functionality</b> – safe, fun, and usable	<input type="checkbox"/> Exciting, fresh, and usable	<input type="checkbox"/> Similar to peers work	<input type="checkbox"/> Too much without purpose or not functional
<b>Creative Understanding</b> – illustrates an understanding of blending facts and technique	<input type="checkbox"/> Obvious quality technique learned and understood	<input type="checkbox"/> Applied a variety of techniques	<input type="checkbox"/> Technique needs more work to pull look together
<b>Creative Organization</b> – elements and principles of design and construction create a total look	<input type="checkbox"/> All details well performed creating a unique finished project	<input type="checkbox"/> Thought present in an ordinary sense, little risk	<input type="checkbox"/> Details conflict, distract or overpower each other

Youth Signature

Date