

An Adventure in Clothing

✻ 4-H Member's Manual I

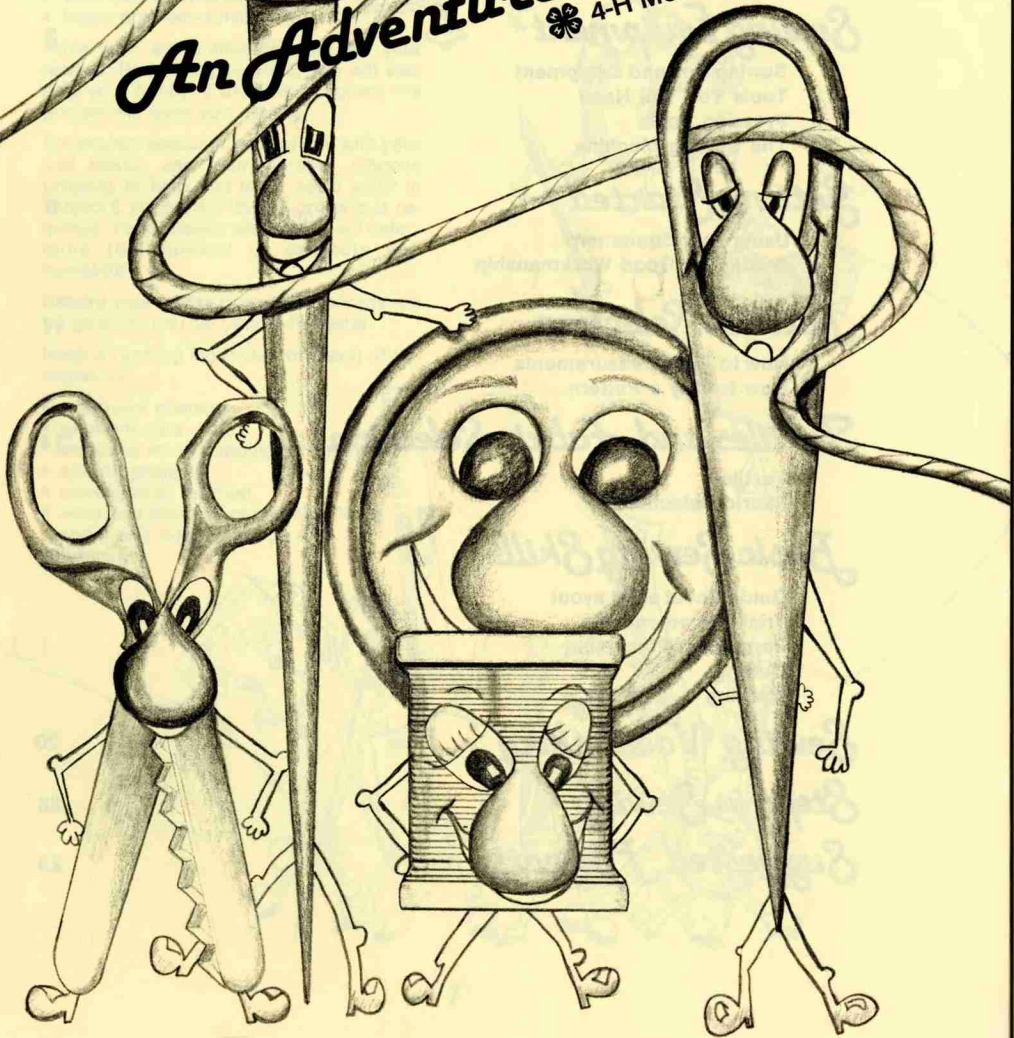


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Sewing is fun! As a beginner you will learn to sew by making simple articles and garments. Go slowly. Follow instructions. Practice on samples. Before long, you will be saying, "I made it myself."

Clothing Project I will help you learn:

- Wardrobe planning.
- Basic sewing skills.
- Wise use of time and energy.
- Basic problem-solving skills.

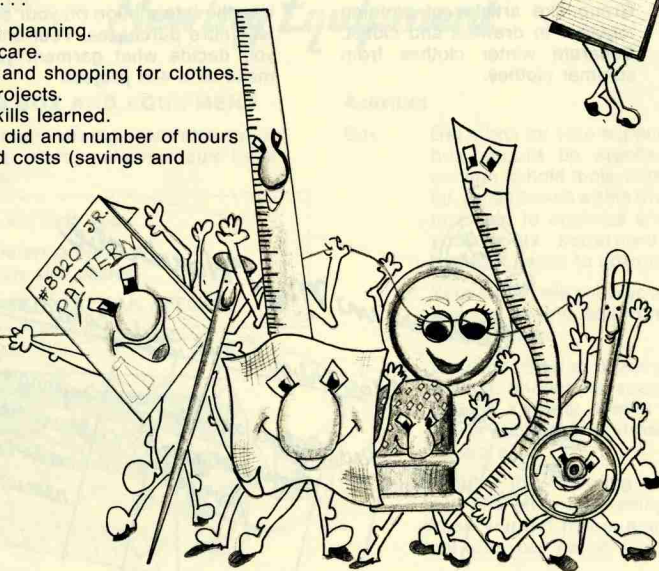
Pride and self-confidence will be your reward. By helping yourself, you will also help your family. If used as designed, the project will save you money.

For project selection help, check with your 4-H leader and your parents. Choose projects to help you learn basic skills in Project I. No set number of projects is required. Your interest and speed will determine the number of projects you complete.

Record your yearly progress. Records will be given to you by your 4-H leader.

Keep a running log (notes or diary) of activities in. . . .

- wardrobe planning.
- garment care.
- selecting and shopping for clothes.
- sewing projects.
- sewing skills learned.
- what you did and number of hours spent and costs (savings and losses).



Wardrobe Planning and Inventory

WARDROBE PLANNING

Ask yourself:

- what's in my wardrobe?
- what do I do?
- what do I need?

Answers to these questions will help you:

- know what clothing you already have.
- locate your wardrobe gaps.
- select clothing for future needs.

Taking inventory:

First: List your activities (daily, weekly and occasional); examples, 4-H club, school, band, church.

Second: Clean out drawers and closet. Sort clothes by stacks: what's too small, to be repaired or recycled, "give aways." Ask your parents for help.

Third: Group like articles of clothing together in drawers and closet. Separate winter clothes from summer clothes.

What are you discovering? That you don't have a blouse to wear with a new jumper? You need a white shirt and tie for dress-up occasions? What the main colors in your wardrobe are? There's nothing in your wardrobe suitable for a special occasion?

Your clothes can play dual roles. One sweater may be worn with more than one garment. A suit might be appropriate for church, a dance, or a 4-H public speaking contest.

A garment you can wear to several occasions is more economical than a garment you can wear to only one event.

Activities

Make a wardrobe inventory. The following chart suggests a way to organize your inventory. You may think of a better one to fit your needs.

Use the information on your chart to plan for future purchases. Your chart will help you decide what garment you need to make as a 4-H project.



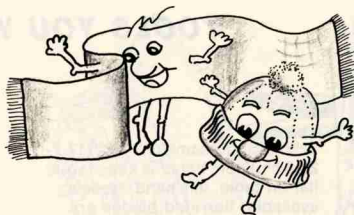
Clothes in My Wardrobe

Item	Season	Color	Fiber Content	Style	Condition	Care
Coats:						
Short	Winter	Red	Outer: 100% nylon Inner: polyester fiberfill	Ski	2 years old, Sleeve hem needs to be resewn	Machine washable, machine dry

WARDROBE INVENTORY SKILLS

After making a list of the clothes you own, did you:

- make a list of clothing items you will need?
- plan an article of clothing to make?
- decide you already have enough clothes, but need to update accessories?
- choose a basic color to use in your wardrobe?
- decide to remake, mend or redecorate a garment you own to save money?
- find you have more clothes than you thought you did?
- discover garments you have not worn in the last year?



Sewing Equipment

SEWING BOX AND EQUIPMENT

Before you begin sewing, learn about your sewing tools. What you have should be of good quality.

Good tools will help you . . .

- *make a better project.*
- *learn a new skill easier.*

BUY THE BEST YOU CAN AFFORD.

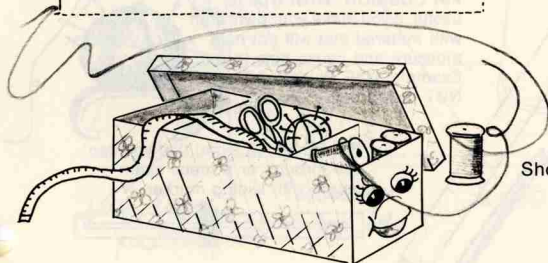
Activities

Box: Get a box for your supplies. The box should be sturdy, large enough to hold tools, and have a lid. Small boxes within the larger box help to organize and keep your tools separated. This makes it easier to do your work.

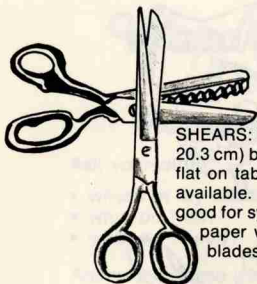
Your leader will show you how to make a sewing box from cardboard boxes.

Decision: Sewing boxes may be bought. Should you spend \$7 to \$15 on a pretty sewing box or buy a better pair of dressmaker scissors?

Shopping: Use the following chart to help you shop for sewing tools. When you get home, mark each tool with your name.

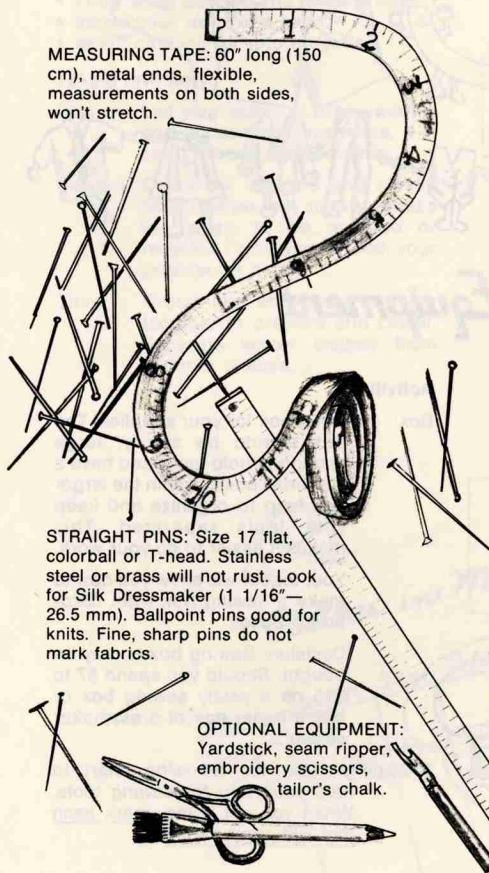


TOOLS YOU WILL NEED



SHEARS: Dressmaker, 7-8" (17.7-20.3 cm) bent handles keep fabric flat on table, left-hand models available. Serrated blades are good for synthetic fabrics. (Cutting paper with shears will dull the blades.)

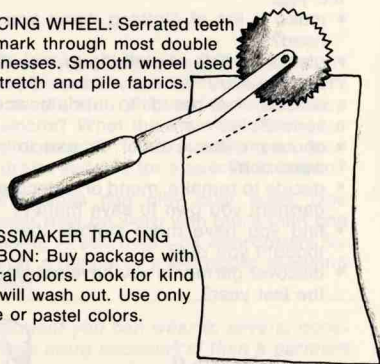
MEASURING TAPE: 60" long (150 cm), metal ends, flexible, measurements on both sides, won't stretch.



STRAIGHT PINS: Size 17 flat, colorball or T-head. Stainless steel or brass will not rust. Look for Silk Dressmaker (1 1/16" — 26.5 mm). Ballpoint pins good for knits. Fine, sharp pins do not mark fabrics.

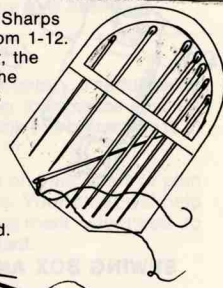
OPTIONAL EQUIPMENT: Yardstick, seam ripper, embroidery scissors, tailor's chalk.

TRACING WHEEL: Serrated teeth will mark through most double thicknesses. Smooth wheel used for stretch and pile fabrics.

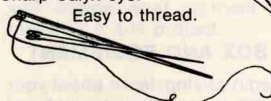


DRESSMAKER TRACING CARBON: Buy package with several colors. Look for kind that will wash out. Use only white or pastel colors.

HAND NEEDLES: Buy Sharps sizes 7-9. Sizes run from 1-12. The larger the number, the shorter and the finer the needle. Hand needles vary in shape of eye, length, and point (sharp, blunt, ballpoint, wedge).

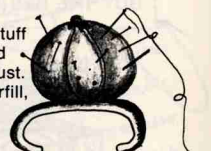


Sharp Calyx-eye: Easy to thread.



THIMBLE: Metal, good indentions. Should fit middle finger snugly but not too tightly. Protects finger. You can sew faster.

PIN CUSHION: Wrist type is useful. If you make your own, stuff with material that will not hold moisture and cause pins to rust. Example: USE Polyester Fiberfill, NOT cotton ball.



RULER: 6" (15.2 cm) that you can see through or a metal seam gauge with sliding marker.



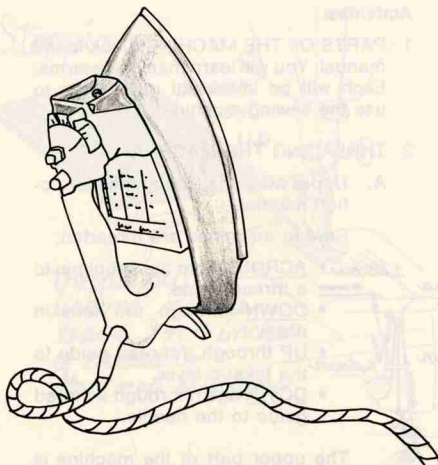
PRESSING TOOLS

You will need a steam iron, pressing cloth, and well-padded adjustable ironing board. It is **very** important to press while making a project. Your finished product will look better and wear better.

Pressing is a lifting and lowering motion with the iron. **Do NOT iron!** Ironing is a back-and-forth stroking motion done after washing.

Your parent or 4-H leader will show you how to press. You will also be instructed in how to use an iron safely.

Take good care of your new sewing tools. Keep them clean, in good working order, and put them back in their place.

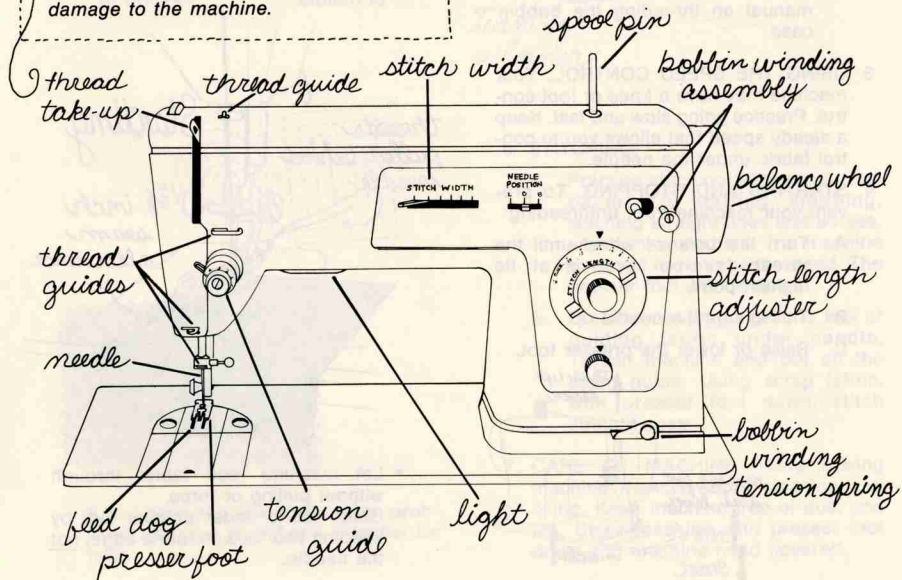


THE SEWING MACHINE

Now the fun begins. Read these important items before starting your project.

Read your sewing machine manual. It will tell you how to use and care for your machine and how to prevent accidents or damage to the machine.

Your leader or parent will give you demonstrations and more information on the sewing machine. Reminders for using the machine are listed.



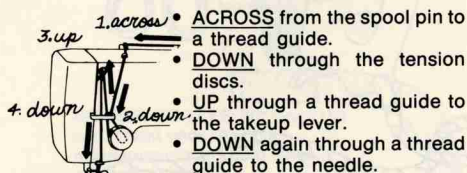
Activities:

1. PARTS OF THE MACHINE. Look in the manual. You will learn many new terms. Each will be important in learning to use the sewing machine.

2. THREADING THE MACHINE.

- A. Upper Machine. Study the instruction manual.

Sewing machines are threaded:



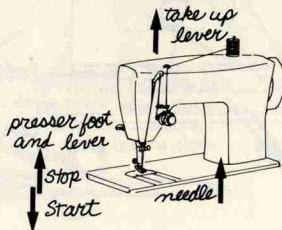
The upper part of the machine is now threaded.

- B. WINDING THE BOBBIN. Have this shown to you. The way to wind a bobbin varies with the sewing machine. Follow the machine manual on threading the bobbin case.

3. USING THE SPEED CONTROL. Your machine may have a knee or foot control. Practice going slow and fast. Keep a steady speed that allows you to control fabric under the needle.

4. STARTING AND STOPPING. To prevent your machine from unthreading:

- A. Turn the balance wheel until the thread take-up lever is at its highest point.
- B. This brings the needle up.
- C. Raise or lower the presser foot.



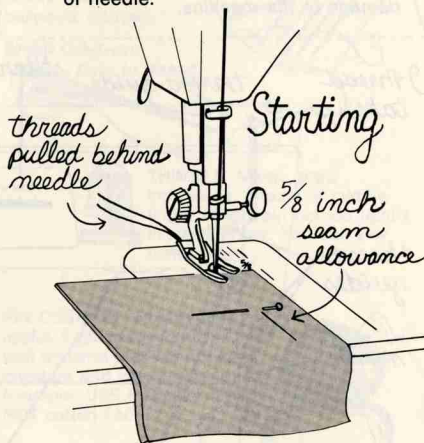
This procedure will also keep the needle from being bent or broken.

You can learn to start and stop the machine without threading it. If you do this, remove the needle. The presser foot should be up.

Always have fabric or paper under the needle when running the machine.

5. SEWING ON FABRIC.

- Check thread take-up lever and needle position.
- Place a double thickness of fabric under presser foot. Center needle on the $\frac{5}{8}$ " (15.9 mm) seamline. Mark $\frac{5}{8}$ " (15.9 mm) with seam guide or tape.
- Pull bobbin and upper threads behind needle to prevent jamming the machine.
- Lower presser foot.
- Turn balance wheel toward you to start motor (this keeps machine from jamming). Press speed control.
- Keep hands lightly on fabric, in front of needle.



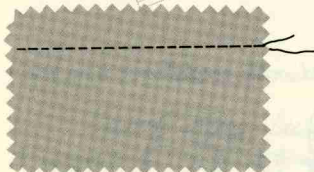
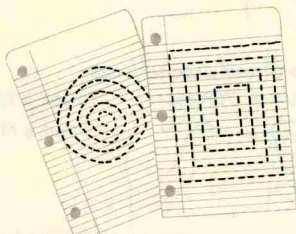
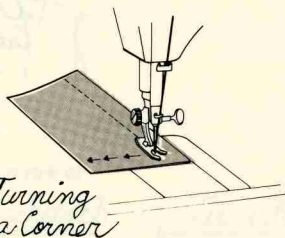
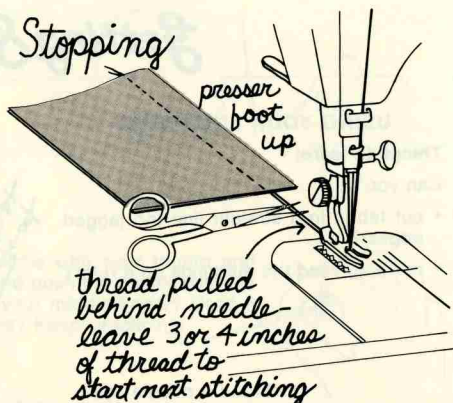
- Let machine feed fabric through without pulling or force.
- Guide fabric under presser foot by keeping your eye on fabric edge, not the needle.

- Stop stitching at fabric edge.
- Turn balance wheel so that take-up lever is at highest point with needle out of fabric.
- Raise presser foot.
- Pull fabric and threads behind needle.
- Clip threads leaving 3-4" (7.6-10.1 cm) of bobbin and upper thread. Tie off threads.

Sewing Machine Skills

Can you . . .

- thread upper part of machine?
- wind bobbin and thread bobbin case?
- stitch a straight line, a curve?
- turn a corner properly?
- backstitch to finish a row of stitching?
- change stitch length?
- recognize correct machine tension?
- name parts of sewing machine?
- select a stitch length for machine basting?
- select a stitch length for fabric used in project?



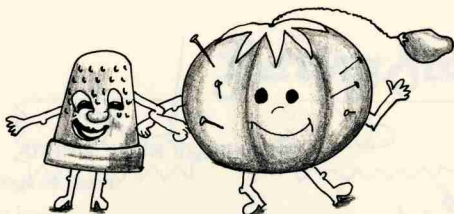
If you have any sewing machine problems, ask your parent or 4-H leader for help.

6. STITCHING.

- Practice stitching with ruled note-paper. Try starting, stopping, stitching straight lines and curves, and turning corners. The machine does not have to be threaded. The presser foot will be down.
- Practice sewing to get the feel of guiding fabric under needle. Thread machine and put on the seam guide. Using scrap fabric, with presser foot down, stitch straight seam.

7. CARE OF MACHINE.

Read sewing machine manual about cleaning and oiling. Keep machine free of dust and lint. Store machine with presser foot down and machine head covered.



GUIDES FOR GOOD WORKMANSHIP

1. CLEANLINESS

Keep your hands clean. Keep all working surfaces free of dust. Clean hands and working surfaces will help you keep your fabric clean.

2. POSTURE

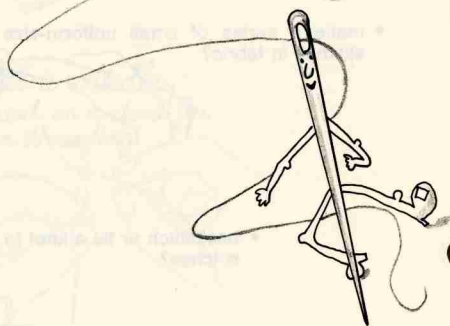
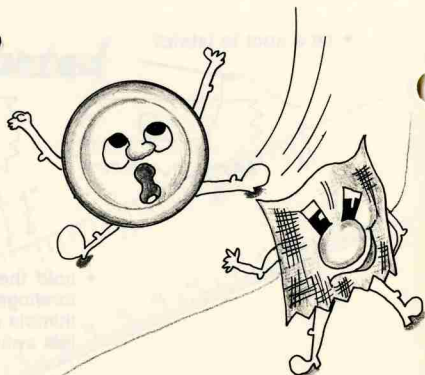
The cutting surface should be high enough to lean over comfortably. While sewing, keep your feet on the floor and sit up straight. These rules will help you avoid backaches.

3. NEATNESS

- Write your name on your sewing tools, pattern envelope, guide sheet and pattern pieces.
- Set up a sewing area; keep all your work in that area. Ask your parent or 4-H leader for help.
- Keep a wastebasket near your sewing table or tape a paper bag to the table for scraps and loose threads.
- Tie off and clip all threads as you stitch.
- Press seams and darts as you finish sewing them.

4. SAFETY

- First, plug electric cord into the sewing machine. Next, plug cord into wall outlet. This will prevent shocks.
- Keep needles in original package, not in pin cushion.
- Store all pins in pin cushion or box, not in your mouth or loose on a table. (Use a small magnet to pick up dropped pins and needles.)
- Always keep sewing box out of small children's reach. Shears, pins and needles can cause serious accidents.
- Properly light your work area (usually left side). Good lighting prevents eye strain and unnecessary mistakes.
- Learn to use the sewing machine, iron, and sewing tools properly.



5. FABRICS

Keep fabric on the table—not in your lap—when sewing at machine or doing handwork. Your work will be more accurate. Also, fabric pattern pieces will not stretch out of shape.

6. PROBLEM SOLVING

Read your pattern guide sheet carefully and study the pictures before beginning. When in doubt about how to do something, check information in 4-H pamphlets, sewing books, or magazine articles. Your 4-H leader or parent will also help you.

7. DECISION MAKING

Many times there is more than one correct way to do a sewing step; for example, selecting a seam finish. Using your fabric scrap, make up sample seams with different seam finishes. Decide which of these seam finishes is best for your project.

Pattern Selection

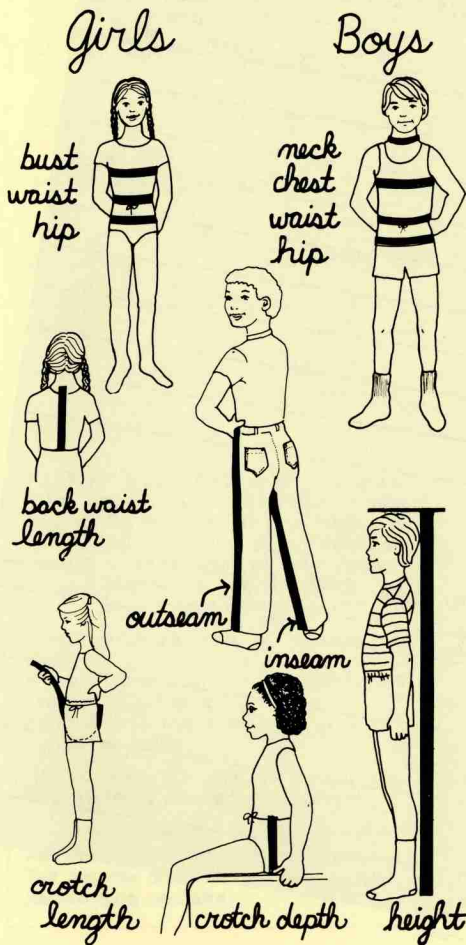
Patterns are bought by size and body type. Take your height and body measurements to learn your correct pattern size. Compare your measurements with those in pattern catalogs.

HOW TO TAKE MEASUREMENTS:

First, learn to read markings on tape measure. The markings are usually at $\frac{1}{8}$ " (3.17 mm) spaces.

Second, have your parent or 4-H leader help you measure. BOYS should wear an undershirt and pair of lightweight trousers that fit. Do not wear a belt. GIRLS should wear undergarments or body suit. To measure hold tape measure firmly around body, not tight. Keep tape parallel to floor.

Third, check pictures for tape placement.



- **CHEST or BUST**—place tape over fullest part, keeping tape straight across back.

- **WAIST**—place tape at natural waistline. To locate waistline, tie a string around your middle.

- **HIP**—place tape at fullest part of hip. For boys 6" (15.2 cm), for girls 7" (17.7 cm) below natural waistline.

- **NECKLINE**. Measure base of neck and add $\frac{1}{2}$ " (12.7 mm).

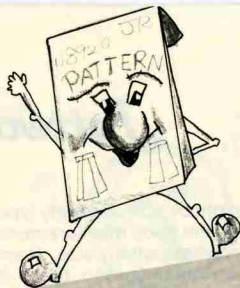
- **BACK WAIST LENGTH**. Bend neck to locate prominent neck bone. Measure from neck bone to waistline. Lift head when measuring.

- **CROTCH DEPTH**. May be taken by:
 - a) subtracting inseam length from outseam;
 - b) seated on firm chair, feet flat on floor measure from waist to chair seat.

- **CROTCH LENGTH**. Place tape from front waistline, between legs to back waistline. Divide this measure where the trouser inseam joins the crotch to get the front and back crotch length. It may be an uneven division.

Activities

- Take your measurements.
- Write your measurements in your record book.
- Shop for pattern for your project.



My Measurements

Measure	Date		Date		Date	
	Inches	Metric	Inches	Metric	Inches	Metric
Height*						
Bust or Chest*						
Waist*						
Hips*						
Back Waist Length*						
Crotch Depth						
Crotch Length—Front						
—Back						
Neckline* (Neckband)						

* Measurements needed to select pattern size.

My Pattern Size and Type

	Date	Date	Date
Blouses, Suits, Coats, Dresses, Jackets			
Pants, Shorts, Skirts			
Shirts			

HOW TO BUY A PATTERN

Take your measurement chart with you to the store. In the pattern department you will find pattern catalogs put out by several different companies. Find the body measurement chart in back of the catalog. These charts give you different body types of patterns and body measurements.

BODY TYPE AND SIZE CHARTS

GIRLS					SIZE
7	8	10	12	14	
					BUST
					WAIST
					HIP
					BACK WAIST LENGTH

YOUNG JUNIOR/TEEN							SIZE
5/6	7/8	9/10	11/12	13/14	15/16		
							BUST
							WAIST
							HIP
							BACK WAIST LENGTH

BOYS				TEEN BOYS				SIZE
7	8	10	12	14	16	18	20	
								CHEST
								WAIST
								HIP
								NECKBAND

PATTERN SIZE. Compare your measurement chart with those in the pattern catalog. For dresses, blouses, coats and jackets, use the chest (bust) measurement. For boy's shirt, go by neckband measurement. For skirts, pants and shorts, use the waist measurement.

If your measurements fall between two sizes. . . .

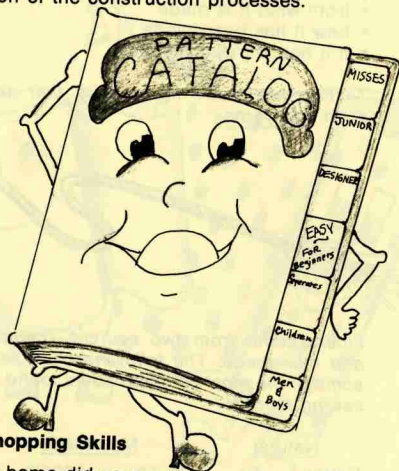
- select smaller size if you are small boned, slight build;
- select larger size if you are large boned, of larger build.

Now you know your size and pattern type. You are ready to select your pattern.

Ask the salesperson to get your patterns. Tell her the brand name, style number, pattern type, and size.

BODY TYPE. The catalog has tabs on the right side. The tabs divide the book by (a) type of clothing (separates, dresses) and (b) types of patterns (Misses, Juniors, Boys/Men). The type of pattern refers to body growth and maturity. Your height and back waist length help determine your body type.

As a beginner, look for patterns labeled Easy or For The Beginner. These patterns have fewer pieces, a limited number of construction details, and more explanation of the construction processes.



Shopping Skills

At home did you:

- have your measurements taken?
- measure someone else to learn the correct technique?
- study your wardrobe inventory before deciding what to make?

At the store did you:

- take your measurement chart with you?
- compare your measurements and body type with the pattern book to select your correct size?
- select your pattern before buying the fabric?
- purchase the correct amount of fabric according to the pattern envelope?
- select interfacings, thread, and notions that are needed?
- copy the information found on the end of the fabric bolt?

Textiles and Fabric Selection

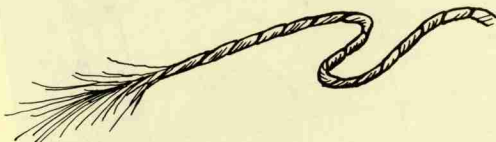
TEXTILES

When we say "textiles," it sounds like a big, strange word. It really is not. The words—"textiles," "fabric" and "cloth"—mean the same.

When you buy fabric or textile products you need to know:

- from what it is made.
- how it has been made.
- if it has any special finish.

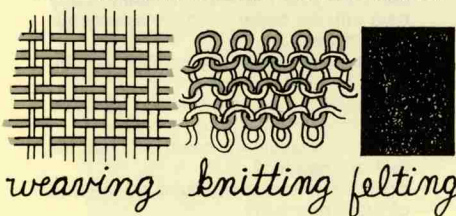
Textiles are made from fibers that are spun into yarns.



Fibers come from two sources—natural and man-made. The following chart lists some of the most common fibers found in sewing fabrics.

<u>Natural</u>	<u>Man-made</u>	
Cotton	Rayon	Acrylic
Wool	Acetate	Spandex
Silk	Nylon	
Linen (flax)	Polyester	

Yarns may be made into fabric by weaving, knitting, or felting.

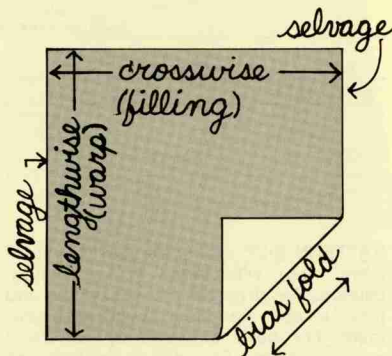


weaving knitting felting

WOVEN fabrics are made when the yarns cross over and under each other on a loom.

The following words are important to know about woven fabrics.

- Grainline: the direction of yarns in fabric.
- Warp: lengthwise yarns. Little stretch. Holds its shape.
- Filling: crosswise yarns. Some stretch.
- Bias: a diagonal line drawn through the right angle where lengthwise and crosswise yarns cross. Very stretchy.
- Selvage: woven finished edge of fabric on the lengthwise grain.



KNITTED fabrics are made by interlocking loops of yarn. This process may be done by hand or machine. Knit fabrics do not wrinkle easily. Most knits return to shape after wearing or stretching.

FELTED fabrics are made by fusing fibers together by heat, moisture and pressure. Felt is made from wool fibers. When man-made fibers are used, a bonding (glue-like) agent is added to help hold the fibers together. The fabric is then called nonwoven.

Finishes added to textiles will make fabrics act in different ways.

Many chemical finishes have been developed to give special features to fabrics. A finish may make a fabric wrinkle free, stain resistant, or water repellent.

It is important not to confuse a fabric fiber with the way the fabric was made; example, "polyester" means the fiber content. It does not mean a knitted fabric.

The three important things to know when selecting a fabric are:

- fiber content.
- fabric construction.
- fabric finishes.

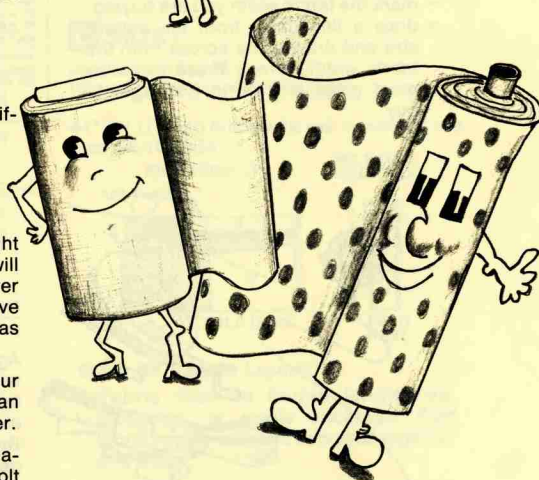
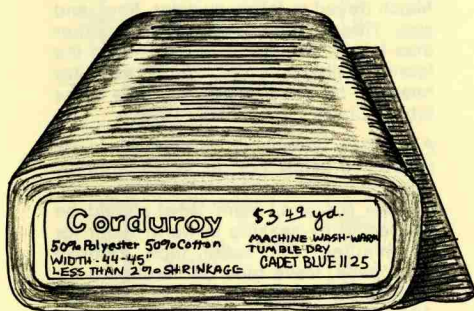
Each one will make the fabric handle differently when you are sewing.

FABRIC SELECTION

For Project I select crisp, medium-weight firmly woven fabric. This fabric type will not ravel easily. A solid color or all-over design is easier to use. Some fabrics have to be matched. Do not get a fabric that has to be matched.

AT THE STORE: Go shopping with your parent. A well-informed salesperson can be helpful. Tell them you are a beginner.

After selecting your fabric, copy information from the hang tag or label (fabric bolt end). Keep this information for later use.



What does the label tell you?

- fiber content (100% cotton).
- finishes (preshrunk, permanent press).
- fabric width (distance from one selvage to the other). Usual widths are 36" (91 cm), 45" (115 cm), 54" (140 cm), and 60" (150 cm).
- laundry care (machine wash, tumble dry).
- price per yard [compare \$3 yd/60" (150 cm) wide vs. \$2 yd/45" (115 cm) wide].
- color code (may say "navy" or be a number).
- style name (gingham, kettle cloth).

HOW MUCH FABRIC TO BUY

Pattern envelope backs tell you what fabric and notions to buy. These are:

1. Suggested fabrics suitable for the pattern.
2. Back views of the garment.
3. Standard body measurements.
4. Sewing notions, interfacing, or lining needed.
5. Yardage chart. How much fabric to buy.

To find out:

- mark the view you are making.
- mark your size.
- mark the fabric width you are buying.
- draw a line down from the pattern size and draw a line across from the fabric width. Where these two lines meet gives the fabric (yardage) to buy.

8839 GIRLS' BLOUSE, SKIRT AND LINED VEST

CANADA \$1.60

Extra fabric needed to match plaids, stripes, one-way designs. Use nap yardage and nap layouts for one-way design fabrics. Not suitable for obvious diagonal fabrics.

BODY MEASUREMENTS	Bust	Waist	Hip	26	27	28½	30	32	Ins.
	23	23½	24½	25½	27	28	30	32	"

Sizes	7	8	10	12	
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View 1 or 2 Blouse—Even plaid or plain fabric.

35" or 36"	1½	1¾	2	2¼	Yds.
44" or 45"	1¾	1¾	1¾	1¾	"

View 1 Skirt

35" or 36"	1¼	1¾	1¾	2	Yds.
44" or 45"	1½	1¾	1¾	2	"

View 1 Vest (to be lined)

35" or 36"	½	½	½	½	Yd.
44" or 45"	½	½	½	½	"

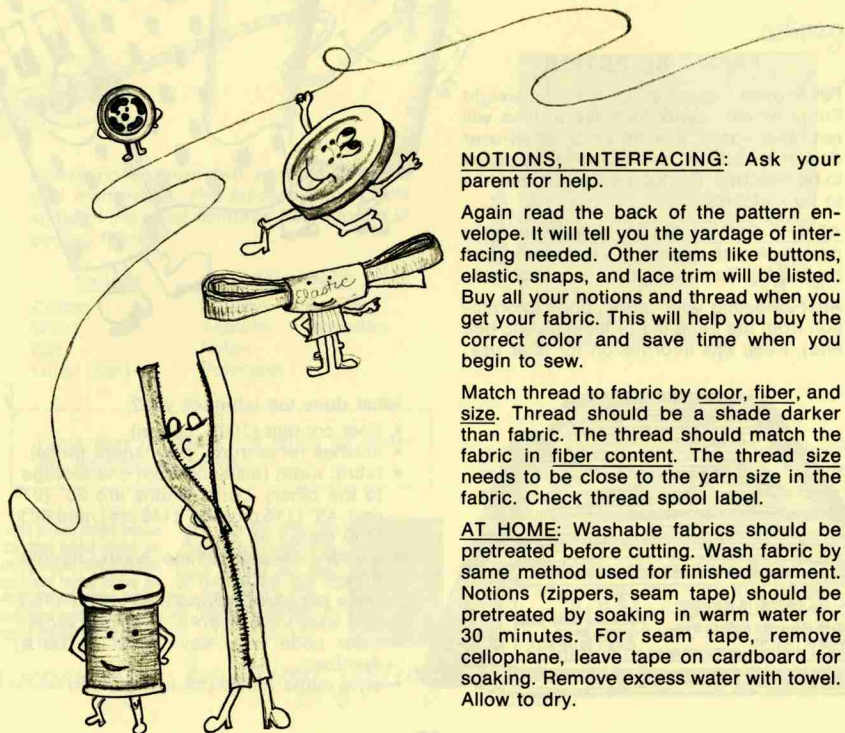
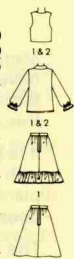
View 2 Skirt and Vest (vest to be lined)

35" or 36"	1½	1¾	2½	2¼	Yds.
44" or 45"	1¾	1¾	1¾	2	"

View 1 or 2 Vest lining—Purchase same amount of fabric as for vest view 1.

*without nap **with nap ***with or without nap

Fabrics—Cotton types: broadcloth, flannel, chambray. Blouse also in silk types. Vest and Skirt also in corduroy and lightweight linen types.



NOTIONS, INTERFACING: Ask your parent for help.

Again read the back of the pattern envelope. It will tell you the yardage of interfacing needed. Other items like buttons, elastic, snaps, and lace trim will be listed. Buy all your notions and thread when you get your fabric. This will help you buy the correct color and save time when you begin to sew.

Match thread to fabric by color, fiber, and size. Thread should be a shade darker than fabric. The thread should match the fabric in fiber content. The thread size needs to be close to the yarn size in the fabric. Check thread spool label.

AT HOME: Washable fabrics should be pretreated before cutting. Wash fabric by same method used for finished garment. Notions (zippers, seam tape) should be pretreated by soaking in warm water for 30 minutes. For seam tape, remove cellophane, leave tape on cardboard for soaking. Remove excess water with towel. Allow to dry.

Basic Sewing Skills

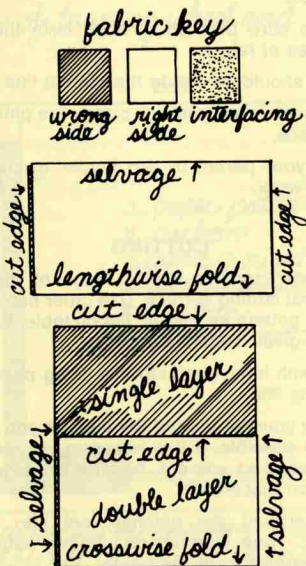
GUIDE SHEET AND LAYOUT

Do not lose the Guide Sheet. It tells you:

1. Number and diagram of pattern pieces.
2. Cutting layout to use.
3. Instructions for lengthening and shortening pattern.
4. Pattern symbols.
5. Construction terms with illustrated uses.
6. Illustrated steps for constructing the garment.

LAYOUT: This is a plan for placing the pattern pieces on the fabric. Great care must be taken in placing the pattern. If pattern pieces are not cut correctly, the garment will not hang properly.

To pick the layout to use: find your pattern size, garment view, fabric width and check to see if the fabric has a nap. Circle the layout on the guide sheet.



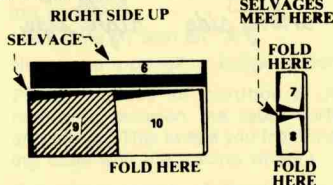
Equipment Needed for Pattern Layout:

- dressmaker silk pins
- dressmaker shears
- measuring tape
- ruler: 14" (35.5 cm) dressmaker type
- table and/or cutting board
- guide sheet
- colored pencils
- iron and ironing board

C SKIRT

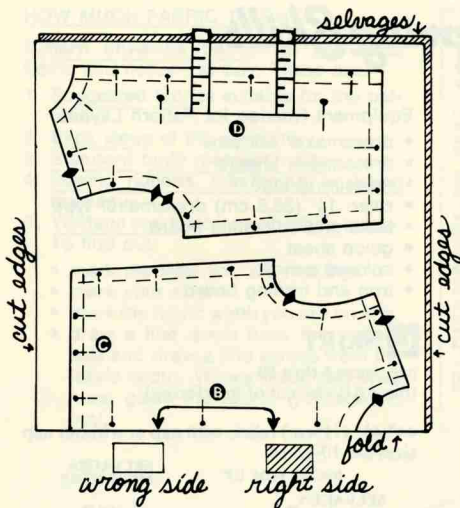
use pieces 6 thru 10
(piece 6 is also cut of interfacing)

44" 45" (115cm) fabric with nap or without nap
sizes 6-8-10-12-14



Steps for Pattern Layout:

- Fabric may be folded lengthwise, crosswise, or single thickness. Fold fabric wrong side out, selvages together and even.
- Place fabric on table, countertop, or cutting board. Care should be taken to prevent scratches to table top.
- Cut pattern pieces apart. Leave a pattern margin around each piece.
- Press paper pattern with warm iron (no steam). This removes wrinkles. You will then be able to cut the fabric pieces to the exact sizes.
- Study pattern pieces and layout. Cut two of each piece to give a right and left side. Some pieces may call for four (example: cuffs) and some for one (example: waistband). When cutting a single thickness the right side of fabric is usually up (facing you).



TRIAL PLACEMENT

1. Position pattern pieces on fabric as close as possible without overlapping.
2. Measure so that grainline arrows are parallel to the selvage.
3. Place pieces exactly on the fold. No fabric should show.
4. Hold pattern pieces with several pins either on the foldline or on the grainline arrow.
5. Recheck—are all pieces present that you need?
6. All fabric should be on the table. Fold the extra fabric so it does not hang off the table.

PERMANENT PLACEMENT

Pinning: Start at one corner, smoothing pattern pieces as you go and continue around pattern.

Place pins 3" (7.6 cm) to 4" (10.1 cm) apart; pins should be perpendicular (\perp) to the stitching line.

Take up $\frac{1}{8}$ " (3.17 mm) width of fabric with the pin.

Make sure pins go through both thicknesses of fabric.

Pins should be inside the cutting line.

Recheck layout after all pieces are pinned in place.

Ask your parent or 4-H leader to check your work.

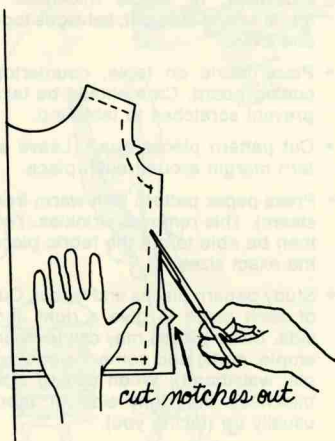
CUTTING

Use dressmaker shears, edge of blade against cutting surface. Use other hand to keep pattern and fabric flat on table. Your cutting will be more accurate.

Cut with long, even strokes along pattern cutting line.

Move yourself around the table as you cut when possible. If it is necessary to move the fabric as you cut, be sure to recheck pattern placement.

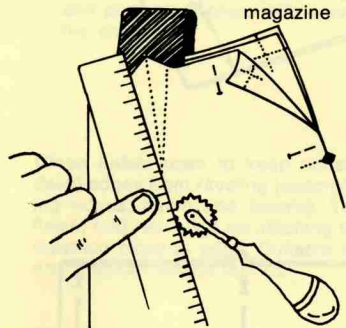
Cut around the notches, not into the fabric. (See illustrations.) Leave pattern pieces pinned to the fabric.



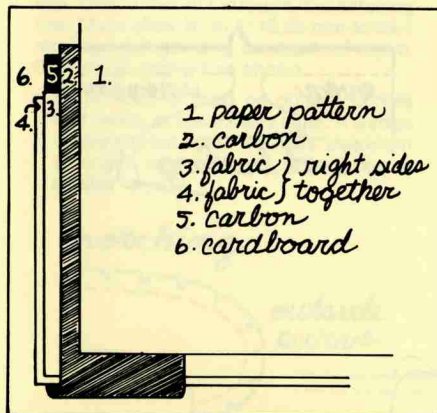
MARKING

Several ways can be used to transfer pattern marking to the wrong side of the fabric. Of these, dressmaker tracing carbon is the easiest and most accurate method for beginners.

Equipment Needed: tracing wheel
dressmaker tracing
carbon
ruler
cardboard or
magazine



Uses of tracing wheel and ruler.



Placement of carbon on double thickness fabric

What To Mark:

1. All construction symbols: dots, pleats, foldlines, center front (CF), center back (CB), buttonholes, top of shoulder.
- 2.* Curved stitching lines: neck and armhole.
3. Darts: stitching line, across the point, and foldline of dart.
- 4.* Stitching lines of seams if you have no sewing experience. (Marking the corners will help you turn the fabric correctly.)

* Optional

Instructions:

1. Use white or a contrasting pastel color of carbon. (Never use red, navy, or green.) Strips of 3" (7.6 cm) are easy to use. Place waxy or shiny side of carbon against wrong side of fabric.

Use a ruler to help you guide the tracing wheel.

Mark dots (•) with an "X."

Never use a pencil or ballpoint pen.

2. Place a piece of cardboard or a magazine between the table surface and fabric. (This keeps you from marking table with the tracing wheel.)
3. Two thicknesses of fabric can be marked together. Carbon paper is placed between the paper pattern and fabric.

Test pressure needed to transfer carbon to bottom layer.

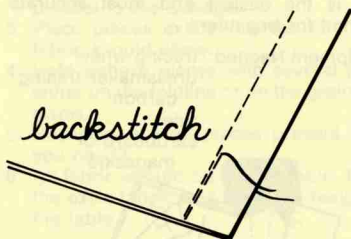
CAUTION: Bearing down too hard may cause carbon to show on right side of fabric.

4. After all markings are made, you are now ready to go to the sewing machine. Remove all pins and the paper pattern.

REMINDER: Dressmaker carbon is always used on the wrong side of the fabric. Test the carbon color on a fabric scrap for clearness and to see if it will wash out. The steam from an iron will remove some carbon markings. Red, navy, and green colors are hard to remove. Steaming may set these colors.

Sewing Vocabulary

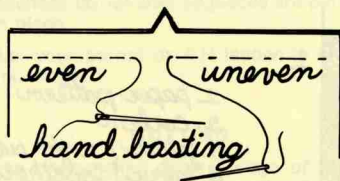
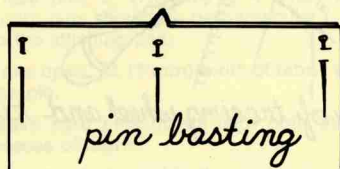
Backstitch: used to secure threads at end of seam instead of knot. By hand—take two or three stitches in the same place. By machine—to start, put needle in fabric $\frac{1}{2}$ " (12.7 mm) from the edge, reverse stitch lever and stitch backward to edge, then continue forward. Stitch to end of seam, reverse; stitch back again for $\frac{1}{2}$ " (12.7 mm).



Basting: temporary sewing done by pinning or with loose thread stitches. Stitching may be done by hand or machine.

The purpose of basting is to hold two layers of fabric together for fitting or to control fabric when permanent stitching.

- **PIN BASTING:** place pins at right angles to stitching line. Have cut edges even; pin seam ends and notches first. Add more pins where needed.
- **HAND BASTING:** even—short stitches equal distance apart. Use in areas that need control of easing. Use single thread, contrasting color. Uneven—short stitches taken about 1" (2.6 cm) apart. Used for marking or where less control is needed.
- **MACHINE BASTING:** pin baste first; set machine to longest stitch. Use contrasting thread color. Remove pins as you stitch.



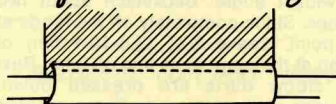
To prevent crooked seams and broken machine needles, remove pins just before the needle stitches the fabric.

Casing: creating an enclosed area through which elastic or a drawstring is pulled to gather up the garment to fit the waist, wrist or neckline. This method may also be called "tunnel." Two methods for making a casing are:

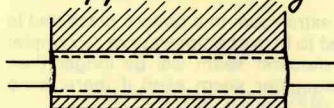
1. Fold down: part of garment is folded down and stitched in place. An opening is left to insert string or elastic.
2. Applied: a separate piece is placed either inside or outside the garment and stitched in place with openings at the ends.

casings

1 fold-down casing

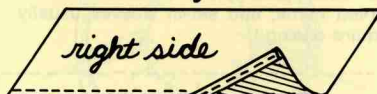


2 applied casing



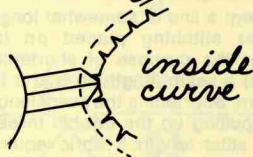
Clean finish: used to keep construction detail edges from raveling (examples: facing edges, hems and seams). To clean finish, fold raw edge on stitching line and topstitch close to edge. Suitable for light and medium weight fabrics.

clean finish



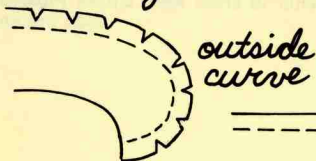
Clipping: a small snip with shears into the seam allowance. It allows the fabric to spread on an inside curved seam and to lie flat when turned (example: neck facing). Clip to, but not through, the stitching line. Make clips $\frac{1}{4}$ " to 1" (6.35 mm to 25.4 mm) apart depending on depth of curve. Clip inside corners as shown.

clipping

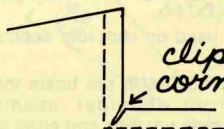


- **NOTCHING** is used on outside curves and points of collars and cuffs. A wedge of fabric is cut out at intervals. Use when a longer line must be turned into a smaller area.

notching



clip corner



corners

Dart: usually a triangular fold of fabric used to give ease over body curves. Start stitching $\frac{1}{2}$ " (12.7 mm) from the edge at the widest angle. Backstitch about two stitches. Stitch completely off the fabric at the point. Leave 3-4" (7.6-10.1 cm) of thread at the point to be tied off later. Bust and elbow darts are pressed down. Shoulder and waistline darts are pressed toward the center front (CF) or center back (CB).

Ease: extra room in a pattern piece that is needed to fit over a body curve. (Example: back shoulder seam will be longer than front shoulder seam even if there is no dart.)

Easing: method for making a longer seamline fit a shorter seamline. Ease in a seam is marked on the paper pattern by two dots. (Examples: shoulder seams, curved hems, and set-in sleeves usually require easing.)

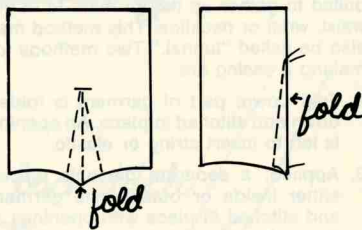
The longer edge is always fitted to the shorter. Hold the longer piece of fabric on top toward you.

Ease stitching: a line of somewhat longer than regular stitching placed on the seamline for the purpose of shortening (drawing up) a seam length so that it fits another seam. Shortening the seam length is done by pulling up the bobbin thread. (Example of stitch length: If fabric requires a stitch length of 12, use 10 for easing.)

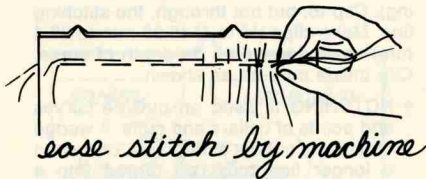
Ease stitching is used on shoulder seams and curved hems.

- For **SHOULDER SEAMS**, pin baste the back and front shoulder seams together, matching notches and ends of the seams. Hold one end of easing threads with a pin. Gently pull bobbin thread and slide the fabric on the thread to create gathers. As the longer piece is adjusted to the shorter, most of the gathers will be pushed out, leaving a shaped seamline that fits smoothly.

dart



easing



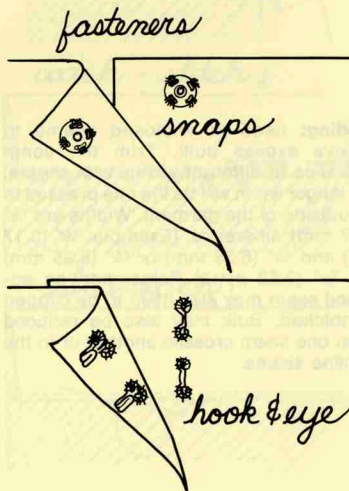
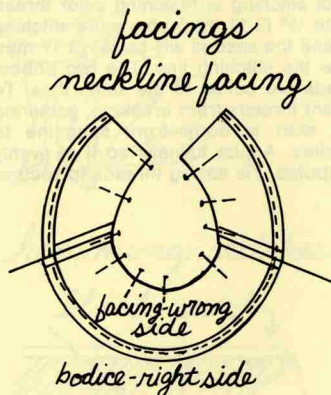
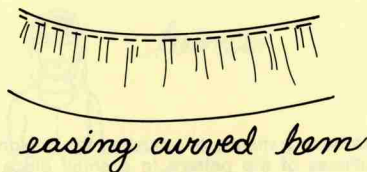
- For **CURVED HEMS**, ease stitch $\frac{1}{4}$ " (6.35 mm) from edge of hem through one thickness of fabric. Match seams at the side, CF and CB. With a pin pull the bobbin thread in several places to ease in fullness. Adjust fullness to keep grainline straight. (In some fabrics such as wool the ease can be shrunk.)
- Use a hem seam finish suited to your fabric: hem tape or clean finish.
 - For hem tape, the ease stitching is done before the tape is sewn to the hem.
 - For clean finishing, the ease stitching is done when the $\frac{1}{4}$ " (6.35 mm) is turned under. Ease stitching is $\frac{1}{8}$ " (3.17 mm) from the folded edge.

Enclosed seams: seam edges in a construction detail that are completely enclosed (nonvisible from the right and wrong sides of the garment). These construction details include collars, cuffs, pocket flaps, and separate facings.

Facing: shaped pieces of fabric used to finish raw edges of garments and to add body. (Examples: neckline, armhole, front and back openings of shirts.) The facing is stitched to the right side of the garment and then turned to the inside. Bias strips may be used as a substitute for facing.

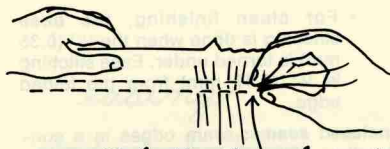
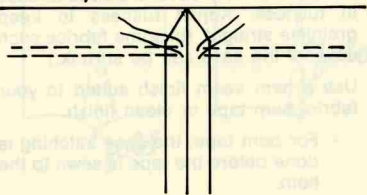
Fasteners: notions that aid in closing the openings of clothes. (Examples: snaps, hooks and eyes, grippers, buttons, and zippers.) Fasteners are sewn to a double thickness of fabric. Place the hook and the ball half of the snap on the underside of the garment overlap.

Flat construction: projects are made using straight seams. Few darts or curved seams are used.



Gathers: a means of adjusting the design fullness of the pattern to a small piece. (Example: skirt fullness to a waistband.) Two or more rows of ease stitching are made on each section of the garment. One line of stitching in matching color thread will be $\frac{1}{8}$ " (3.17 mm) above the stitching line and the second will be $\frac{1}{8}$ " (3.17 mm) below the stitching line. The two bobbin threads are pulled at the same time. To prevent threads from breaking, gathering in a skirt is done from seamline to seamline. Adjust fullness so it is evenly distributed. Tie easing threads to secure.

*gathering
stop at seams*



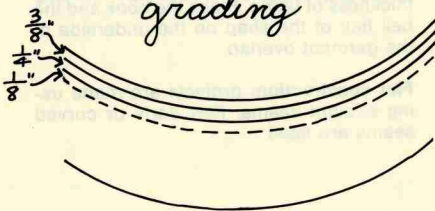
*pull both threads at
same time*

adjust fullness by pinning



Grading: used in enclosed seams to remove excess bulk. Trim the seam allowance to different widths with shears. The longer width will be the one pressed to the outside of the garment. Widths are $\frac{1}{8}$ " (3.17 mm) difference. [Example: $\frac{1}{8}$ " (3.17 mm) and $\frac{1}{4}$ " (6.35 mm) or $\frac{1}{4}$ " (6.35 mm) and $\frac{3}{8}$ " (9.52 mm).] Remember, an enclosed seam may also need to be clipped or notched. Bulk may also be reduced when one seam crosses another or in the hemline seams.

grading



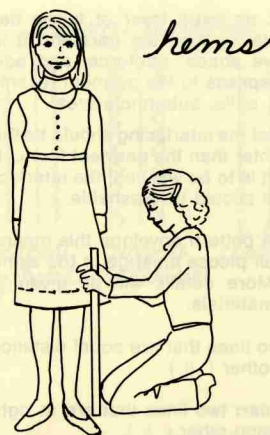
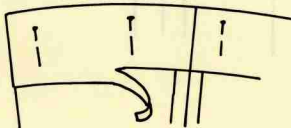
Hems: the finished edge at the bottom of a shirt, sleeve, skirt or slacks. Hems add weight to a garment and help them hang correctly.

- Hems should be even in width, not show on the right side, and hang parallel to the floor.
- Widths of hems will vary. Check your pattern.
- Hemlines of garments should be marked while being worn so that the hem is parallel to the floor. The right and left sides of an individual will vary, as well as the length from the waistline to the floor at CF and CB.
- Let the garment hang overnight before marking the hem. Have a helper mark the hem with pins or chalk. The helper should move around the hem while the individual wearing the garment stands still.

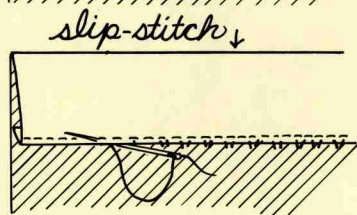
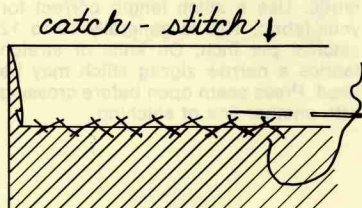
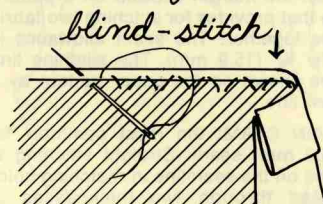
Hemming stitches: the most commonly used hand stitches are blind-stitch, catch-stitch, and slip-stitch.

- **MACHINE STITCHES:** some sewing machines have a blind-stitch used to hem a garment. It is a combination of a straight stitch and zigzag.
- **CLEAN-FINISHED hem** is done with a straight stitch. Turn up $\frac{5}{8}$ " (15.9 mm) allowance. Press the fold line. Stitch $\frac{1}{8}$ " (3.17 mm) from the folded edge in matching thread. Side seams of the garment should match.

evening the hem



hemming stitches



Interfacing: an extra layer of fabric between the facing and the garment. It is used to give shape, reinforce, and add body or crispness to the garment (examples: collar, cuffs, buttonhole area).

The weight of the interfacing should be the same or lighter than the garment fabric. If the garment is to be washed, the interfacing material should be washable.

Nap: on the pattern envelope this means the top of all pieces must go in the same direction. More details will be given in other 4-H materials.

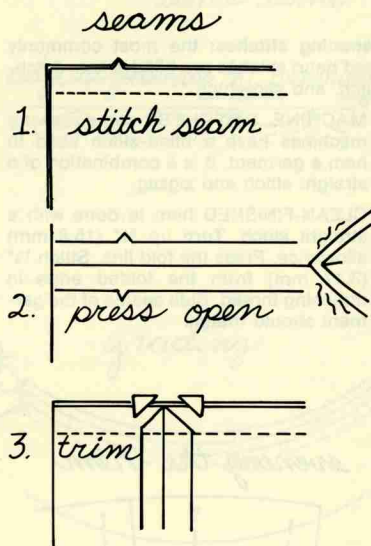
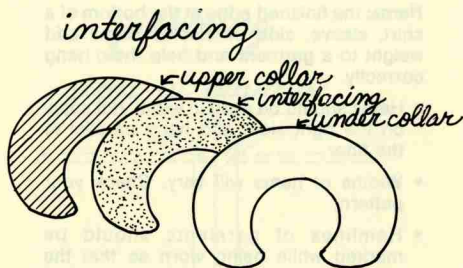
Parallel: two lines that are equal distance from each other (||).

Perpendicular: two lines that are at right angles to each other (⊥).

(Right Angle: Point where vertical and horizontal lines meet.)

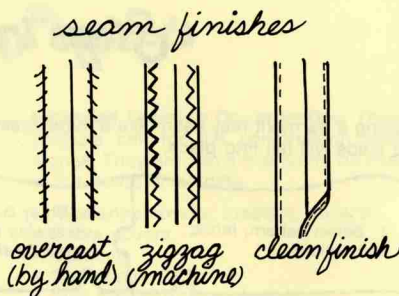
Seams: the margin allowed on a pattern piece that provides for stitching two fabric pieces together. The seam allowance is usually $\frac{5}{8}$ " (15.9 mm). The stitching line will be shown on the paper pattern by a broken line.

- **PLAIN SEAM:** the most common $\frac{5}{8}$ " (15.9 mm) seam. Straight stitching is done on the seamline in matching color thread through two thicknesses of fabric. Use a stitch length correct for your fabric. This is generally 10 to 12 stitches per inch. On knits or stretch fabrics a narrow zigzag stitch may be used. Press seam open before crossing with another line of stitching.

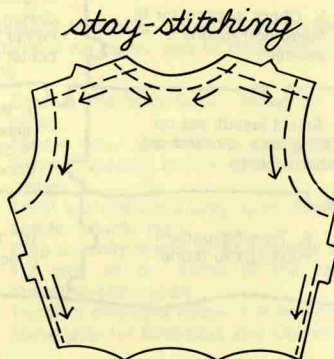


Seam Finishes: methods of finishing the raw edge of a plain seam to prevent raveling. Examples:

- **OVERCAST:** for fabrics that ravel easily. By hand, take stitches $\frac{1}{8}$ " (3.17 mm) to $\frac{1}{4}$ " (6.35 mm) deep and about $\frac{1}{4}$ " (6.35 mm) apart. Use matching thread, single strand.
- **ZIGZAG:** machine method of overcasting. Stitch $\frac{1}{4}$ " (6.35 mm) from raw edge and trim away excess. If the fabric puckers, check the machine tension. Some manufacturers suggest letting the zigzag stitch go off the raw edge of the fabric.
- **CLEAN-FINISH:** same as used for facings. Used on lightweight fabrics. Good for unlined jackets.



Stay-stitch: a line of regular stitching done $\frac{1}{2}$ " (12.7 mm) from the fabric edge before construction. It is done in the direction of the grainline. Each piece is done separately (single thickness of fabric). Check the paper pattern for directional arrows. See illustration. Use matching color thread and regular stitch length. This stitching is not removed. **DO NOT TURN CORNERS.** Stitch from edge to edge. The purpose is to prevent stretching of bias or curved edges while handling. Stay-stitching is done as soon as you finish marking the fabric.



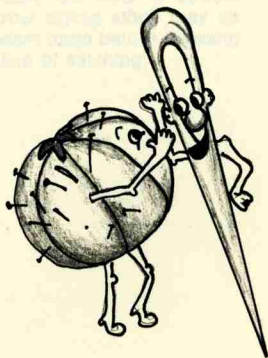
Trim: term that may refer to decoration. However, the pattern guide sheet will use the word "trim" to reduce the bulk of enclosed seams. SEE GRADING.

Unit construction: each part of a garment is called a unit. For example, a shirt is made up of a collar, sleeve, cuff, pocket, front, and back. Each part is made separately. Then join them together.

Steps in Sewing

Making a garment may seem like a huge jigsaw puzzle. Follow the outline charted below and the steps will fall into place.

1. Select pattern, fabric and notions.	6. Study Guide Sheet: set up sewing machine; check tension.	11. Make corrections needed; stitch and <u>press</u> . Finish seams.
2. Pretreat fabric and notions; <u>press</u> pattern pieces.	7. Stay-stitch where necessary; apply interfacings.	12. Do Unit Construction: stitch and press units to be attached to garment (examples: collar, pockets). Attach to garment.
3. Check pattern for fit. Make corrections if needed.	8. Stitch in darts and design seams [yoke, center front (CF) and center back (CB) seams]. <u>Press</u> .	13. Second fitting: check armhole position and waistline. Mark hemline.
4. Select layout; set up cutting area; pin and cut pattern pieces.	9. Baste in fitting seams (side, shoulder, waistline). Bodice and skirt may be done separately.	14. Finish garment. Do hand work (examples: hems, buttons).
5. Transfer pattern markings to fabric.	10. Try on garment and check fit.	15. Final <u>pressing</u> .



Sewing Hints:

- Pressing seams and darts as you sew keeps your work neater:
 - makes later stitching more accurate,
 - reduces bulk in seams, and
 - gives a professional look to the finished garment.
- To keep your work neat, tie off threads or back stitch. Clip threads as you sew.
- To save trips between the sewing machine and ironing board, sew as many darts and seams as possible at one time.
- Refer to your guide sheet for special seam finishes needed for your project.

Suggested Projects

Complete as many projects as you can. You may need to use this manual for more than one year. The length of time it takes you will depend on: 1) how many vocabulary sewing terms you use in your projects; 2) how skilled you become in using the sewing techniques; 3) your time and money; and 4) how many new clothing articles you need.

Some suggested projects you may like to try using "flat construction" are listed below. Get your parent or 4-H leader to help you select your first projects.

Flat Construction Projects

- Drawstring bags: laundry, marble
- Totes: book, bike, back (could be a kit)
- Aprons: chef, carpenter
- Shower wrap-around (make from towel-ing)
- Scarf, tie
- Poncho
- Sporty hat
- Vests (could be a kit)
- Simple shirt or blouse—pullover top, no collar or set-in sleeves
- Shorts: sports type—elastic or draw-string waist
- Skirts: wrap-around or casing
- Sleepwear
- Stuffed animals: cut-and-stitch bought by the yard

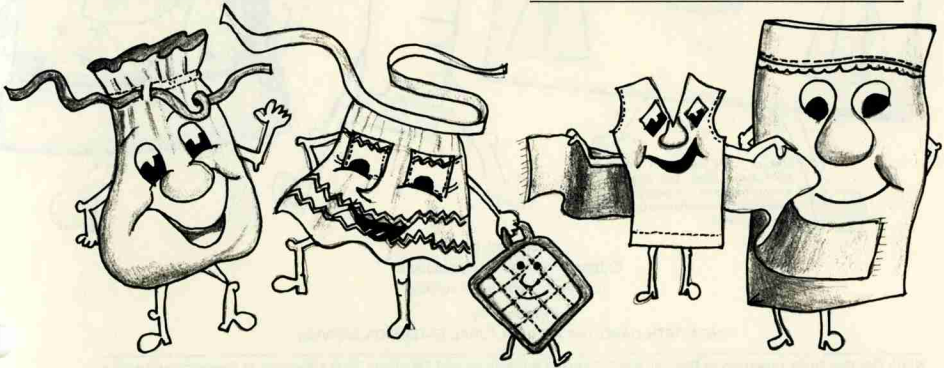
Extended Learning Opportunities: These projects call for flat construction techniques. They are items that could be used in the home or as gifts.

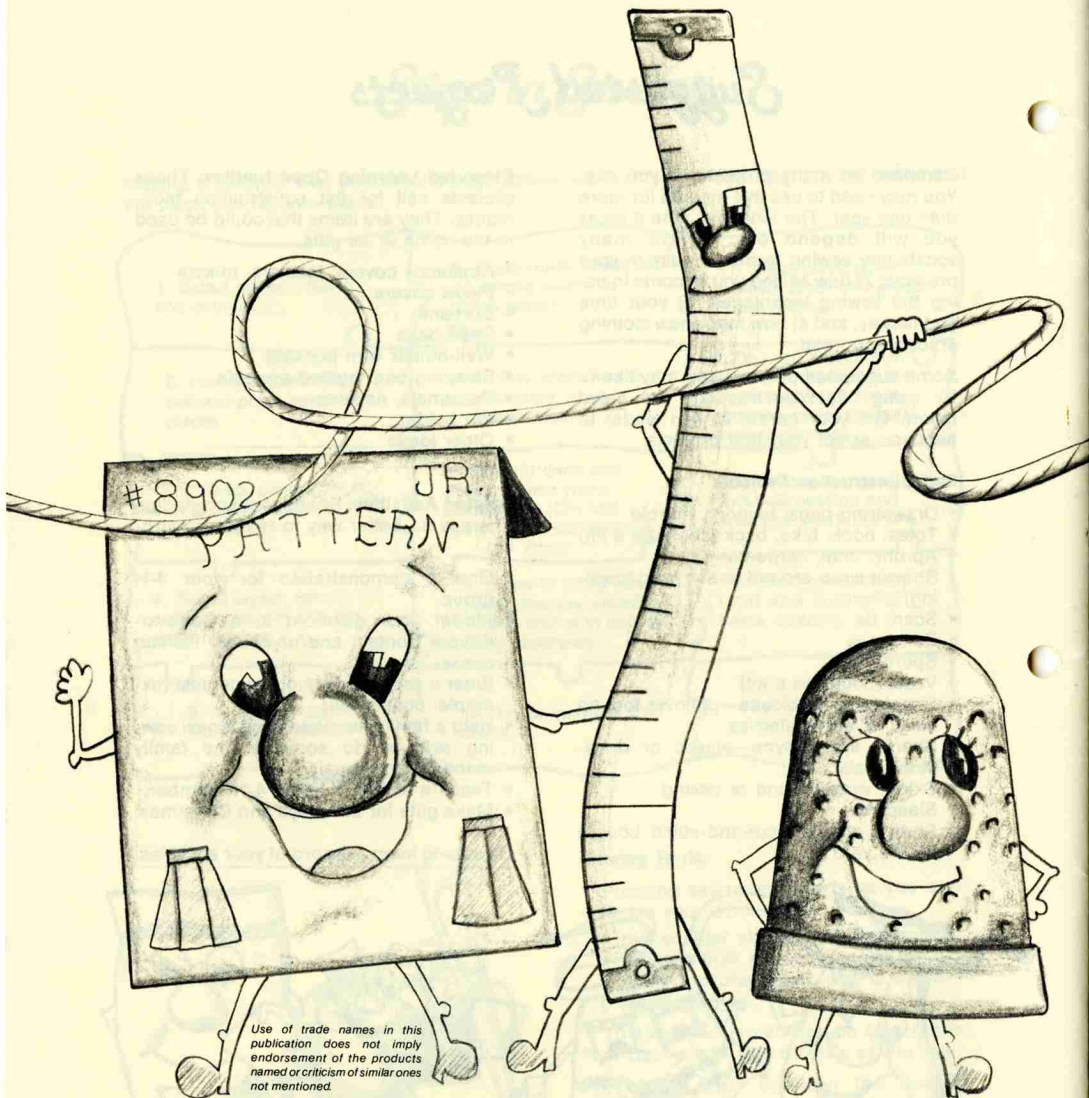
- Appliance covers: toasters, mixers
- Pillow covers
- Curtains
- Shoe bags
- Wall-holder with pockets
- Sleeping bag: quilted projects
- Placemats, napkins
- Pot holder
- Other ideas: _____

Related Activities: Share your knowledge. There is no better way to reinforce learning.

- Give a demonstration for your 4-H group.
- Model your garment in a Back-to-School Contest and/or county fashion revue.
- Enter a project in a judging contest (example: county fair).
- Help a family member learn a new sewing skill or do some of the family mending and repair.
- Teach a skill to a fellow 4-H member.
- Make gifts for birthdays and Christmas.

Be sure to keep a record of your activities.





Use of trade names in this publication does not imply endorsement of the products named or criticism of similar ones not mentioned.

Prepared by
Extension Clothing Specialists
Graphic Design: Donna Johnson

Published by
THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

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