

# 4-H Family and Consumer Sciences Skill-A-Thon Sewing and Clothing Booklet



**SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION**



## Acknowledgments

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- Photo credit: Wendy Sweeter

## External Sources

<https://texas4-h.tamu.edu/events/fcs/>

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# Fabric/Etc.



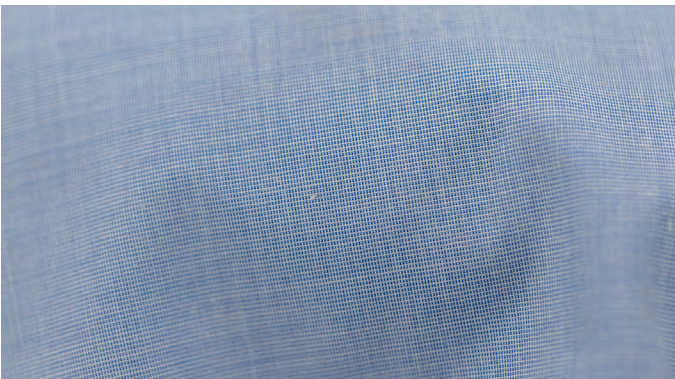
## Batik

Indonesian technique of wax resist dyeing applied to whole cloth. This technique originated from Java, Indonesia. It is made either by drawing dots and lines of the resist with a spouted tool called a tjanting, or by printing the resist with a copper stamp called a cap.



## Broadcloth

A very lightweight, smooth, flat looking fabric, with no pattern in the weave of the threads. It is similar in quality to pinpoint fabric but has less texture. This usually means it is slightly more transparent and not as shiny as the pinpoint.



## Chambray

A plain weave fabric woven with a colored yarn in the warp and a white yarn in the weft.



## Corduroy

A fabric with a distinct pattern, a “cord” or wale. It is mostly composed of tufted cords, sometimes exhibiting a channel (bare to the base fabric) between the tufts.



### **Crepe**

A fabric made of silk, wool or synthetic fibers with a distinctively crisp and crimped appearance.



### **Eyelet Fabric**

A type of fabric that has holes that are edged using a buttonhole stitch. The holes are precisely sized and situated to create a pattern or patterns, often floral designs or abstract geometric arrangements.



### **Flannel**

A soft woven fabric of varying fineness. It was originally made from carded wool or worsted yarn, but is now often made from either wool, cotton or synthetic fiber. Flannel is commonly used to make tartan clothing, blankets, bed sheets and sleepwear.



### **Hemp**

A type of fabric made from the fibers of the Cannabis sativa plant. It's a natural, durable, and eco-friendly fabric that is similar to linen, jute, and flax.



### **Iron On Interfacing**

A type of interfacing used to add stiffness to the fabric by applying it to the wrong side with steam, heat, and pressure.



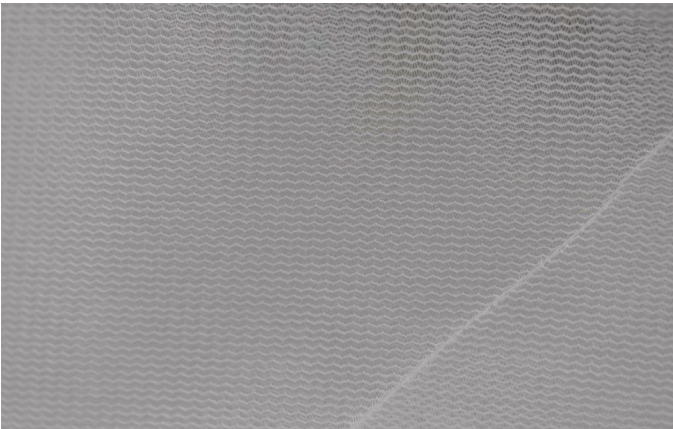
### **Jersey Knit**

A fabric made of wool, cotton, and synthetic fibers that is light weight and has some stretch with one flat side and one piled side. When made with lightweight yarn it is often used to make t-shirts.



### **Knit Fabric**

An elastic material made by yarns initially formed into loops and then interconnected to produce a textile structure. This fabric does not have a weave.



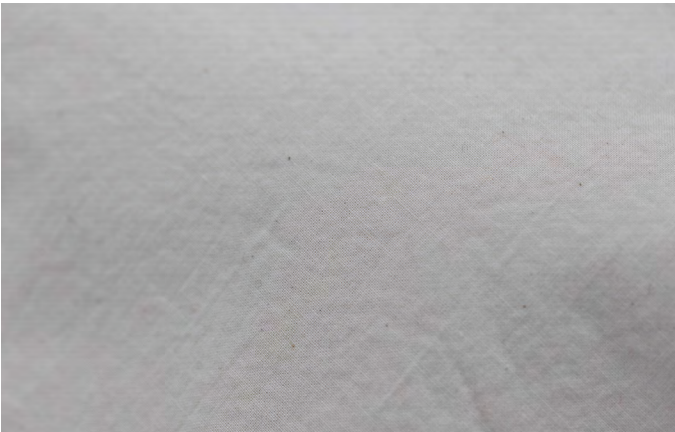
### **Knit Interfacing**

A type of interfacing used to add stiffness to the fabric by applying it to the wrong side by sewing.



### **Linen**

A fabric made from the flax plant. The flax fibers are spun into yarn and then woven into fabric used for bedding, window treatments, bandages and home accessories. Linen is lightweight, a great conductor of heat, naturally absorbent and antibacterial.



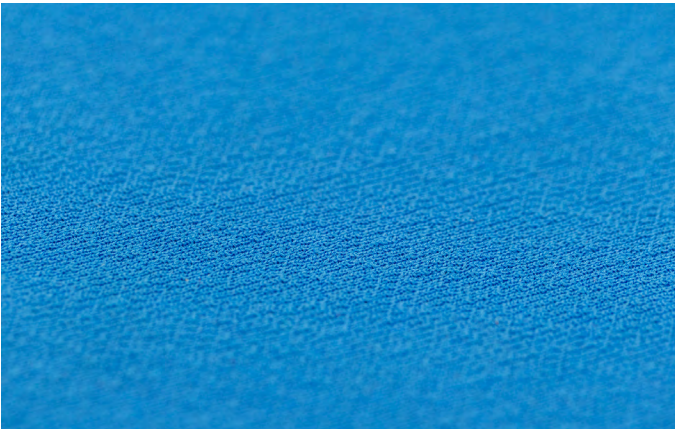
### **Muslin, Unbleached**

Sturdy cotton fabric of plain weave, used especially for sheets.



### **Organza**

A lightweight, sheer, plain weave fabric that is often used for formal wear, bridal gowns and other decorative purposes. It has a crisp texture, subtle sheen and airy lightness.



### **Polyester**

A synthetic fabric made from petroleum-based chemicals. It is also known as polyethylene terephthalate.



## Selvage

The uncut edge on both the right and left side of the fabric as it is woven. The way it is finished makes it unsuitable for fabrication.



## Spandex

A synthetic fabric with medium weight and good elasticity made of polyurethane that is used for clothing and swimsuits.



## Velvet

A soft, plush fabric with a thick, short pile of cut threads. It is often associated with luxury and is used in clothing and home decor.



## Wool

A rough fabric derived from the natural fibers that form the fleece of various animals. It is used in carpets and some clothing.



## **Woven Fabric**

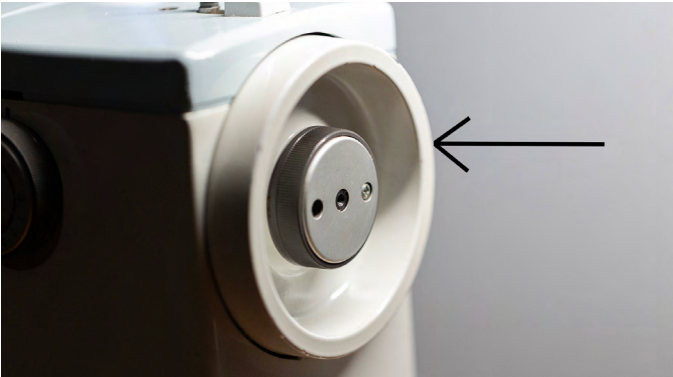
Any textile formed by weaving. It is often created on a loom and made of many threads woven on a warp and a weft.



## **Woven Fusible Interfacing**

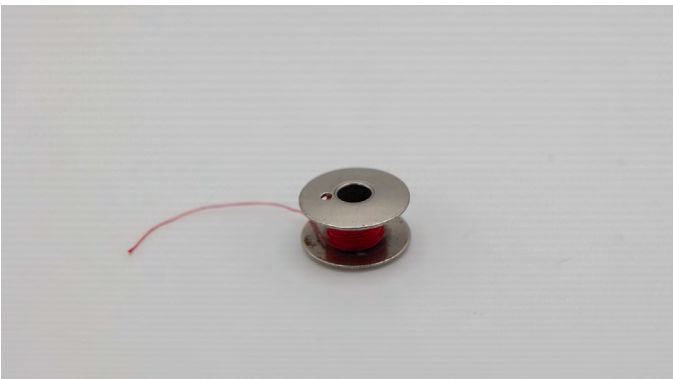
A type of interfacing with a grain line used to add stiffness to the fabric by applying it to the wrong side with steam, heat and pressure.

# Sewing Machine Parts



## Balance/Hand Wheel

This part is used to manually move the needle up and down. It should always be rotated towards yourself to prevent tangling of the threads. On some machines, it must be pulled outwards to disengage the needle (run the spool of thread without the needle going up and down).



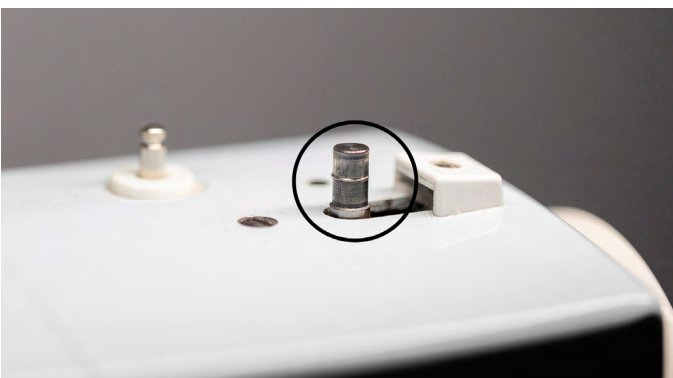
## Bobbin

This is a small, specialized spool on which thread is wound for sewing. It is found below the presser foot. It provides the lower portion of thread that is interlocked with thread from the needle and thus creates a stitch.



## Bobbin Case

This is a small circular part into which the bobbin is inserted and threaded.



## Bobbin Winder

This part transfers thread from a spool of thread to a bobbin.



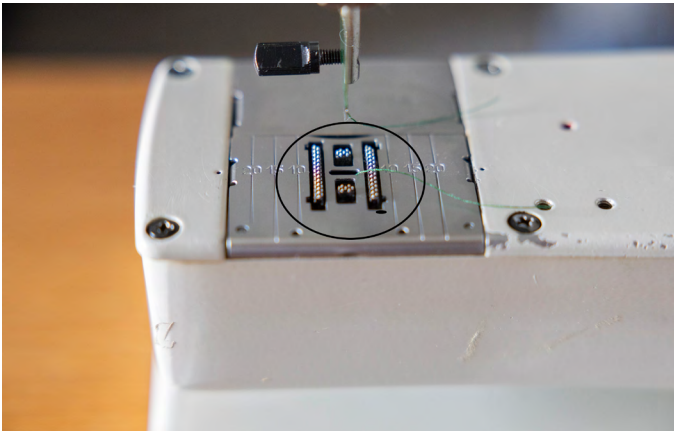
## Embroidery Hoop

A frame consisting of an inner and outer ring used to keep fabric stable while being embroidered. Fabric is placed between the rings, and the outer ring is tightened using a small screw.



## Embroidery Machine

A machine used to create patterns on textiles or decorate garments and apparel. It is used commercially in product branding, corporate advertising and uniform adornment.



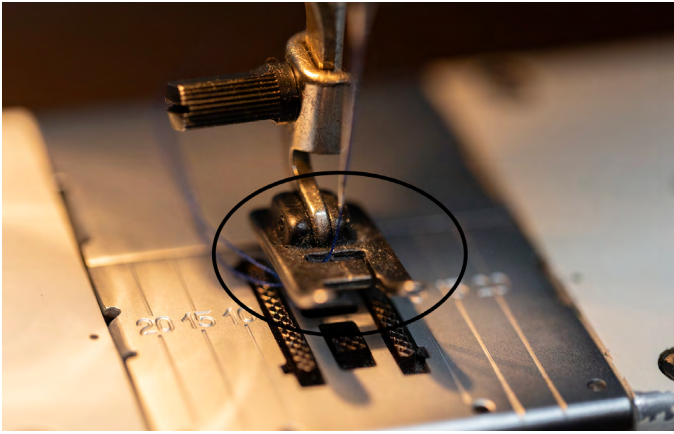
## Feed Dogs

This part is found under the needle plate and is made up of two or three short thin metal bars crosscut with diagonal teeth. It is used to move fabric forward or backward.



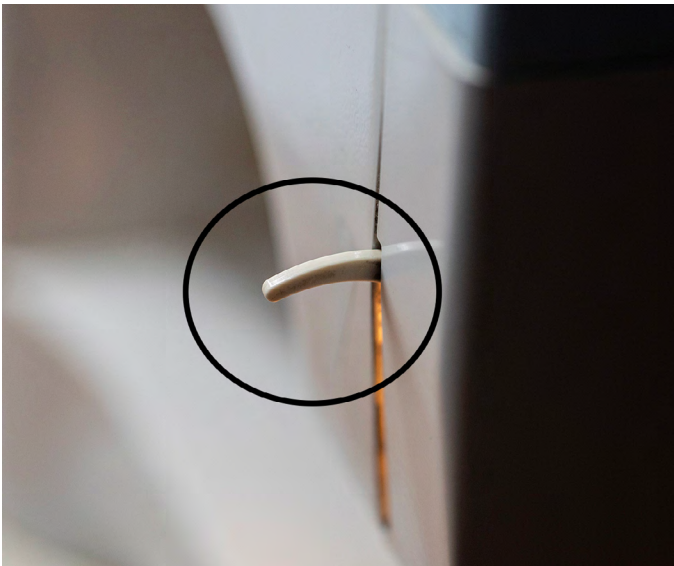
## Foot Control

This is a pedal which is placed on the floor and used to control the speed of the machine.



### **Presser Foot**

This part holds the fabric in place during sewing. It must be lowered before you begin to sew, or the fabric will not move through the machine.



### **Presser Foot Lifter**

This part is used to lower or raise the presser foot.



### **Serger/Overlock Machine**

A machine used to secure seams to prevent them from coming undone by stitching over or crossing with another seam. This machine typically uses 4 large thread cones.



## **Sewing Machine Needle**

This part consists of a shank, shoulder, shaft, groove, scarf, eye, and point and is used to form stitches. The eye is located just above the point of the needle.



## **Spool Pin**

This is a thin rod which holds the spool of thread.



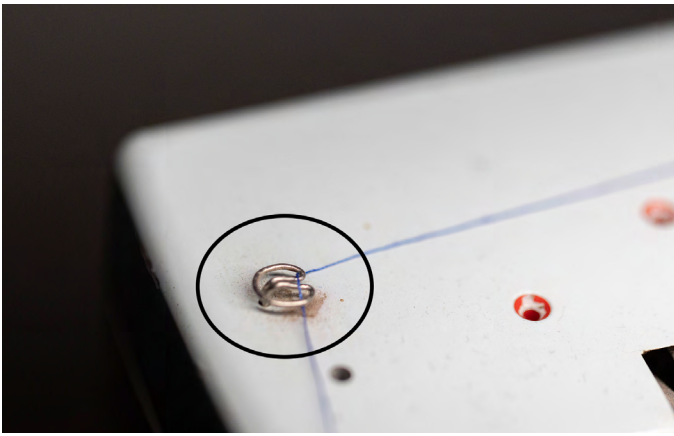
## **Stitch Length Regulator**

This part allows you to adjust how long your stitches are.



## **Stitch Width Regulator**

This part allows you to adjust how wide your stitches are, such as in a zigzag stitch.



### **Thread Guide**

This part directs the flow of thread to keep it going straight in one direction.



### **Thread Take Up**

This part pulls the thread from the spool to feed it through the machine and lifts the thread back up out of the cloth after the stitch has been made.



### **Throat Plate**

This part is a flat metal piece below the pressure foot with openings for the needle and feed dogs.



### **Upper Tension Regulator**

This part sets the balance between the bobbin and needle threads to determine how tight the stitches are.



## **Walking Foot**

A foot attachment used for sewing heavy, bulky, or layered material. It grips the fabric from the top allowing the foot to move over the fabric more easily than other pressor foot options.

# Techniques



## Basting Stitch

A temporary, loose stitch used to hold fabric layers together before sewing the final stitches. This is also known as a tacking stitch.



## Blind Hem

A type of hem where the stitches are completely hidden when the garment is viewed from the outside, and almost completely hidden on the inside as well. Only a few threads of the fabric are caught each time the needle is pulled through the fabric, which means that the majority of the stitching is hidden inside the hem.



## Bound Buttonhole

A type of buttonhole where the raw edges are encased by two strips of material sewn to the long sides to cover the stitches. This technique is found on tailored jackets and coats.



## Buttonhole

A small opening in fabric that allows a button to pass through. The raw edges are encased by stitches. They are usually found on shirts, coats and other garments.



### **Center Zipper Application**

A zipper that is sewn in with an even amount of fabric on each side with an evenly spaced stitching line on either side of the opening seam line.



### **Dart**

A tapered tuck sewn to adjust the fit of a garment.



### **Flat Felled Seam**

This strong seam with two lines of stitching showing on the right side of fabric is made by folding one raw edge under the other and stitching it flat or slip-stitching it on the wrong side.



### **French Seam**

This seam encloses the seam allowance on the inside of a sewn item so no raw edge is visible.



### **Gather**

To draw into small folds or puckers by pulling a thread through the cloth.



## **Hem**

An edge or border on a piece of cloth, especially a finished edge, as for a garment or curtain, made by folding the edge under and stitching it down.



## **Hidden Zipper**

A zipper that is installed in the seam of two pieces of fabric in such a way that the zipper is recessed in the seam and “invisible”. It is predominantly used for garments, especially skirts and dresses.



### **Lapped Zipper Application**

A zipper that has one line of fabric showing on the outside with the appearance of a side placket overlapping the zipper. It is most commonly seen in slacks and skirts.



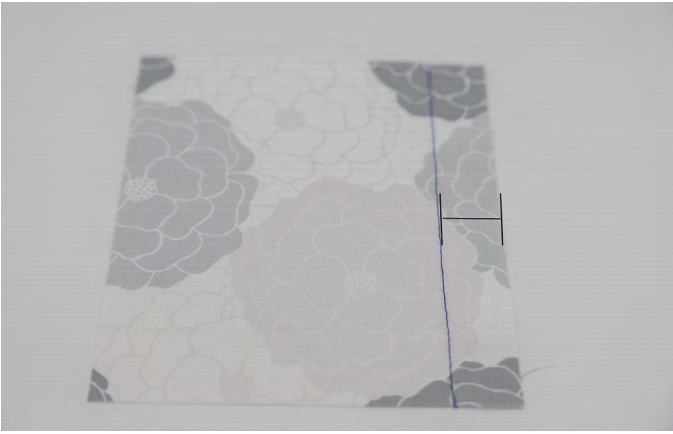
### **Overlock Stitch**

A stitch used to wrap around the raw edge of fabric to prevent fraying.



### **Pleat**

A fold in cloth made by doubling the material upon itself and then pressing or stitching it into place.



## **Seam Allowance**

The area between the stitching and raw edge of the fabric.



## **Top Stitching**

A row of continuous stitches on the top or right side of a garment or other article as a decorative feature designed to be seen from the outside.



## **Under-Stitching**

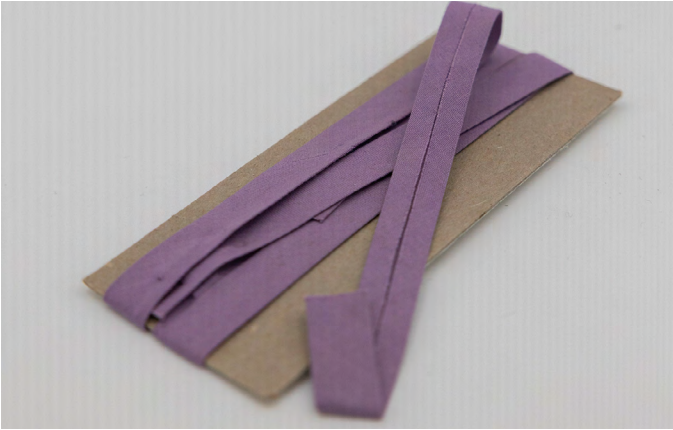
Stitching that assists a facing or lining to stay to the inside and remain unseen. It is a stitch sewn as closely to the seam line as possible holding the graded seam allowance to the facing or lining.



## **Zigzag Stitch**

A stitch in a back and forth “z” shape which allows the stitch to stretch with the fabric, thus eliminating thread breakage in specific areas due to wear, wash and stress. This stitch is used primarily when working with knit fabrics.

# Trims & Fasteners



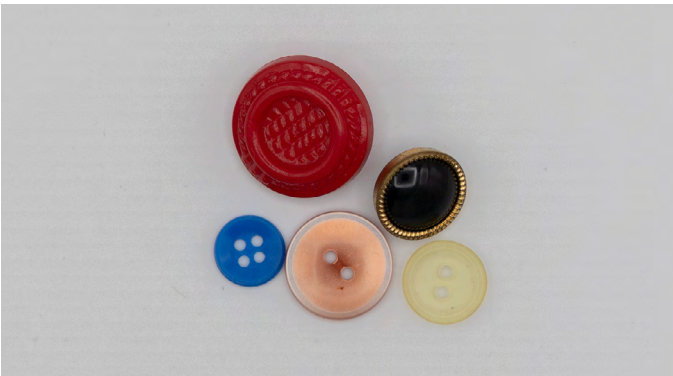
## Bias Tape

Narrow strip of cloth that is cut on the bias (diagonal to the grain of the fabric) that can be used to finish or decorate clothing.



## Buckle

A device used for fastening two loose ends. One end is attached to the device, and the other end is held by a catch in a secure but adjustable manner.



## Button

A generally disk-shaped fastener used to join two parts of a garment by fitting through a hole or loop.



## Elastic

A flexible, stretchable fabric made with interwoven strands of rubber or an imitative synthetic fiber.



### **Fold Over Elastic**

A flexible, stretchable fabric used to encase the edge of a seam by folding along the center indentation.



### **Frog Closure**

A closure made of two parts: a decorative knot on one side and a loop on the opposite side through which the knot is passed and held in place. This closure is also known as a pankou.



### **Grommets**

Two-part rings used to protect holes in thin materials like fabrics, sheet metal, and carbon fiber. These are used so that wires, rope, or cords can be put through your material without tearing or misshaping the hole. They are necessary when hole reinforcement is needed to prevent fraying.



### **Hook and Eyes**

Clothing fasteners consisting of a small hook and metal loop. Used as closures at the top of shirts, dresses, skirts, or pants.



### **Hook & Latch Tape**

A fastener consisting of two components (one with hooks and the other with loops) that are attached to opposing surfaces to be fastened.



### **Ribbed Elastic**

A flexible, stretchable fabric that provides maximum cross strength with lengthwise parallel ridges used in casings.



### **Sew On Snaps**

A ball and socket fastener used as a closure at the top of garments.



## **Toggle**

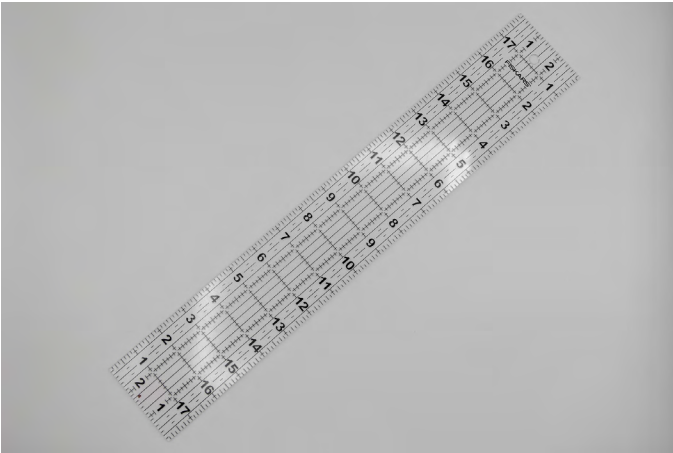
A closure made of two parts: one with a loop and one with a button or t-shaped piece that slips into the loop. It is believed that this closure is the oldest form of the modern button.



## **Zipper**

A fastener consisting of two rows of metal or plastic teeth on strips of tape and a sliding piece that closes and opens by drawing the teeth together.

# Tools



## Acrylic Ruler

A measuring tool made of plastic used in crafts and sewing. It may come in different shapes and sizes.



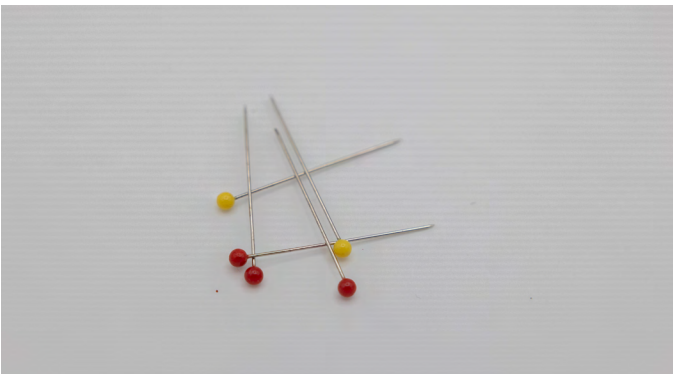
## Applique Scissors

A type of scissor that has a blade with a rounded part on one side that serves as a safety precaution to keep from cutting the base fabric. It gives the ability to precisely trim along seam lines and around edges.



## Ball Point Bodkin

A sharp slender tool used to insert elastic into casings, to turn bias tubing and to weave ribbon cording.



## Ball Point Pins

These pins have a rounded end. They are ideal for knits.



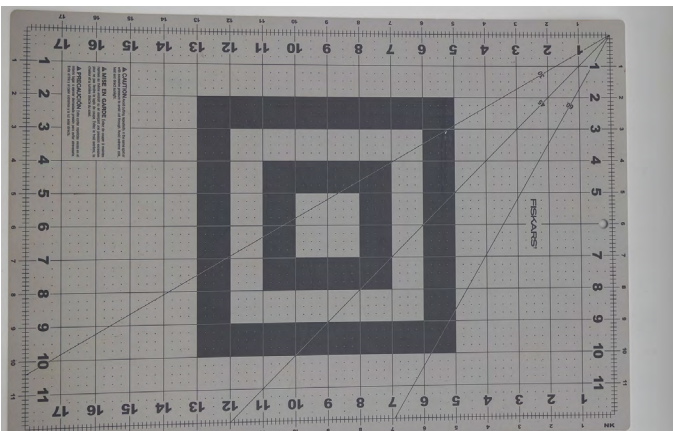
## Bias Tape Maker

A tool used to convert material into single- or double-fold tape used to finish or decorate clothing. The tool comes in various sizes.



## Crewels

A needle that has a sharp point and long eye for easy threading.



## Cutting Mat

A thick plastic sheet that is placed down to protect the table surface while cutting.



### **Drawstring Threader**

This device helps pull a string through a casing which can often be seen at the top of drawstring bags, on waistbands of sweatpants, or along the outer edge of a sweatshirt hood.



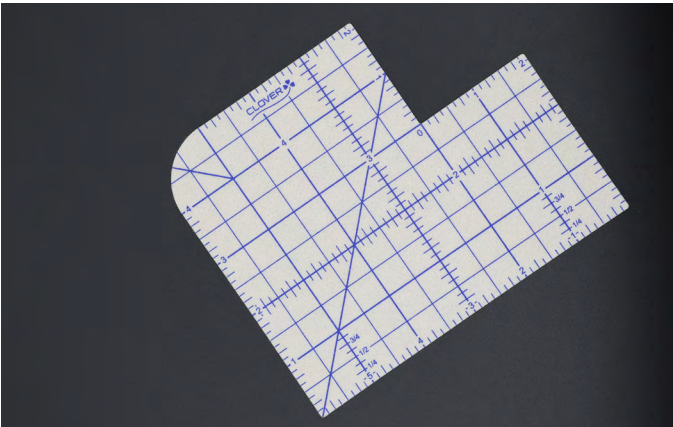
### **Dressmaker's Ham**

A small, hard pillow used as a pressing aid on hard-to-reach areas such as shoulder seams, collars, and darts.



### **Embroidery Scissors**

A small pair of scissors used to cut sewing thread or multiple threads. They are designed with long, thin tips to allow someone to cut threads in tight areas accurately and with a clean sharp cut.



### **Hem Guide**

A heat resistant tool used to help you make an accurate fold into a crisp fabric crease along the material edge.



### **Leather Needles**

Blunt needles with an extra-large eye that makes hand stitching much easier for thick or heavy material. They are about 2" long.



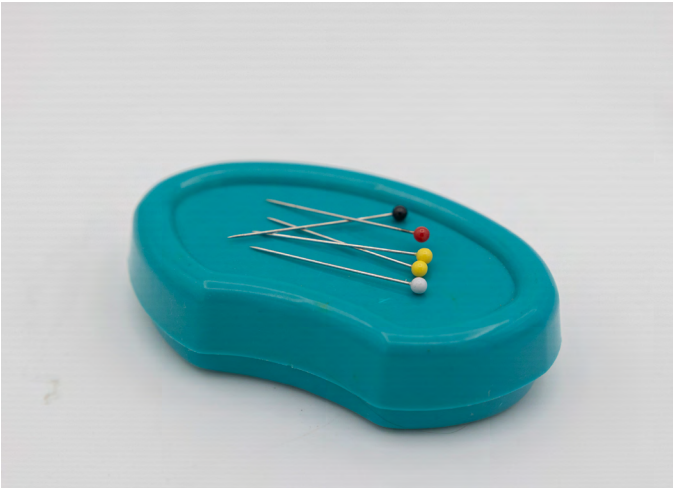
### **Lint Roller**

This is a roll of adhesive paper on a barrel, mounted on a spindle with an attached handle to remove lint or small fibers from material.



### **Loop Turner**

A tool used for turning binding and inserting cord into tubing.



### **Magnetic Pin Holder**

A small dish with a magnet inside used to hold pins. The magnet ensures the pins will not fall out.



### **Measuring Tape**

A ruler printed on flexible material used to find the size of fabric and body measurements.



### **Needle Threader**

A tool that combines a short length of fine wire bent into a diamond shape with one corner held by a piece of tinplate or plastic. It is used to thread sewing machine or hand needles.



### **Pattern Weights**

Small objects that keep pattern pieces in place without pinning. They come in various sizes and shapes.



### **Pin Cushion**

A small pillow used to hold pins.



### **Pins**

Tools that are sharp and are used for holding material together while sewing. They come in two forms: dressmaker or silk.



### **Point Turner**

This plastic tool turns over fabric without causing damage. It helps create sharp creases.



### **Press Cloth**

A piece of fabric used between an iron and garment that is used to help keep shine in fabric or otherwise protect delicate material. It can be dampened to provide moisture for more steam. It is usually made of unbleached muslin about 14" X 30" in size.



### **Rotary Cutter**

A wheeled tool with a sharp edge that is used to cut fabric. It is used on a cutting mat.



### **Scissors**

A tool used for cutting paper and clipping fabric that may have straight handles.



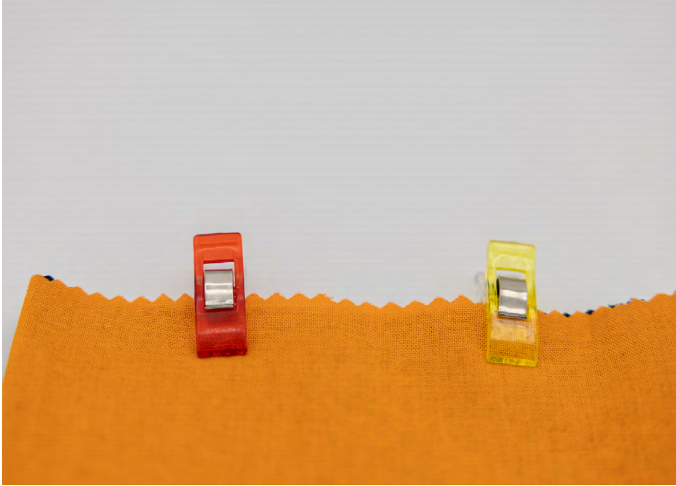
### **Seam Ripper**

A pointed tool used to cut and take out stitches as well as open buttonholes.



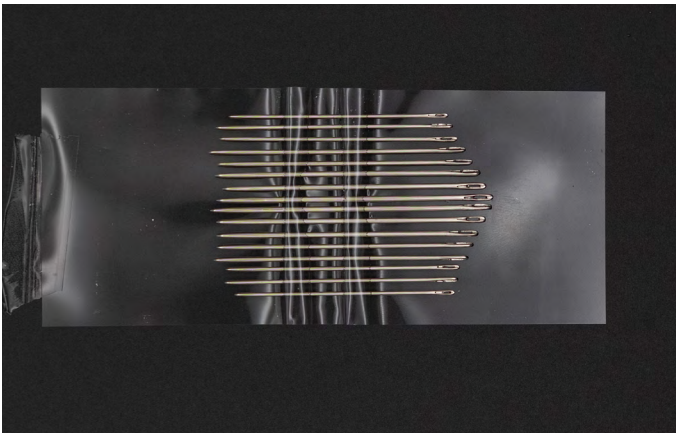
### **Seam Roll**

A hard, narrow pillow used for pressing seams open on long and narrow areas.



### **Sewing Clips**

Small plastic clips with a spring that hold fabric together temporarily before sewing instead of using pins. They are also known as quilting clips, binding clips or wonder clips.



### **Sharps**

Needles with small round eyes.



### **Shears**

Scissors used for cutting fabric, not paper. They are 7-8 inches long, extremely sharp and have bent handles making them easier to cut with.



### **Spring Action Shears**

Scissors used for cutting tight patterns and intricate details on a wide range of fabrics, cutting at awkward angles, in tight spaces or making quick thread snips. The handles feature a spring-action design that gently opens blades after each cut to reduce hand strain.



### **Thimble**

A tool used to protect your fingers when hand sewing that looks like a small, hard, pitted cup.