

SECTION

7

**SEWING SUPPLIES,  
ARRANGEMENT  
OF FULLNESS AND  
FASTENERS AND  
OPENINGS**



# CLOTHING AND TEXTILES

## Clothing and Textiles Production

### INTRODUCTION

Sewing is a creative and interesting art and skill. To prepare a well-finished garment, its stitching is done by combining the different garment components. Garment construction is a technical accomplishment that requires the knowledge and skills of basic sewing techniques such as application of stitches, seams, darts, gathers, pleats and edge finishing, etc. Their appropriate application in garment construction is necessary for a good quality product. A garment that is made will be attractive if it fits well, and proper attention is paid to its finer details.

This section specifically, focuses on; sewing supplies used in clothing production (e.g., fabrics, notions, fasteners), arrangement of fullness, demonstration on how to arrange fullness, openings and fastenings. You will be equipped with innovative and creative skills in garment construction after studying this section.

#### At the end of this section, you will be able to

- Discuss sewing supplies
- Arrangement of fullness in garment construction
- Demonstrate how to make arrangements of fullness
- Discuss openings and fastenings
- Demonstrate how to make openings and fastenings

#### Key Ideas:

- Sewing supplies are essential tools and materials used in the art of sewing, whether for clothing, home decor or crafts.
- The sewing supplies to be discussed include fabrics, notions and fasteners.
- Arrangement of fullness helps achieve proper fit and comfort and is done to create variation in design. The reasons for arranging fullness include: to decorate the garment; to fit the body curves and to provide room for growth.
- Fullness is achieved by pleats, tucks, and gathers and gives clothing more adornment
- Darts are used to create flat patterns.
- Openings are features that allow one to put on and remove clothing. There are different types of openings like continuous strip and faced slit.
- Fastenings are devices that attach to openings to allow garments to be put on/taken off while keeping the opening in position.



## Sewing Supplies

In this lesson, you will learn about the sewing supplies used in clothing production and the arrangement of fullness in garment construction. Sewing supplies are essential tools and materials used in the art of sewing, whether for clothing, home decor or crafts. The sewing supplies to be discussed include fabrics, notions and fasteners

### Types of Sewing Supplies



**Fig. 7.1:** Some Sewing Supplies



**Fig. 7.2:** Tapes



**Fig. 7.3:** Fabrics



**Fig. 7.4:** Shoulder pads

### Fabrics

A fabric is a material made from weaving, knitting, or bonding fibres together. Fabrics can be made from natural or synthetic fibres, or a blend of both used for making clothing, upholstery and other textiles products as shown in **figure 7.3** above.

### Sewing Notions

Sewing notions refer to the various tools, supplies, and materials used in addition to fabric to create a garment or textile. Some common sewing notions include:

Threads (embroidery, yarns), scissors, tape measure, zippers, buttons, hooks and eyes, interfacing, thimble, lace, needles, pins, ribbons and trims as shown in **figure 7.5**.

### Fasteners

They are notions used to close openings. Some examples are zippers, buttons, loops, clasps, tapes, buckles, press-studs and Velcro shown in **figure 7.5**.



Fig. 7.5: Types of notions

## Importance of Sewing Supplies

1. Sewing tools, accessories, equipment, and supplies play a crucial role in the construction of a garment. They are essential for ensuring accuracy, efficiency, and quality in the sewing process. Without these tools, it would be challenging to achieve professional results.

### Activity 7.1

1. Search the internet and other sources for information on sewing supplies and their functions in clothing construction, make notes on your findings and share in class.
2. With the support of your teacher visit any clothing and textile industry or workshop and observe or find out the different types of sewing supplies and how each one is used or applied in garments. Working in small groups, make notes of your observations and report back to the class.

#### A guide to visiting a clothing and textile industry/workshop

- Define your learning objectives and outcomes
- Chose a suitable destination
- Ask permission from the clothing and textile industry to visit
- Inform parents about the visit
- Ask permission from school authorities if school is in session
- \*Undertake a risk assessment for the visit
- Set a date and time for the visit
- Arrange transportation and logistics (pen, paper, notebook, cameras, car, etc.)
- Create a detailed itinerary
- Take photos or record information in your notebook

**\*Risk assessment for Clothing and Textile Industry visit.**

A risk assessment is the process of identifying what things (hazards) may cause harm (risks) when carrying out an investigation. It also includes the precautions that will be put in place to minimise the risk of the harm occurring.

You could complete a template showing the hazards that might occur during your visit and the actions that you will take to reduce those risks

Hazards	Risks	How will you minimise the risks?
Example: Electrical equipment used at the clothing and textile venue	<ul style="list-style-type: none"> <li>• Tripping over electrical wires</li> <li>• Limited space in the room for people to move around</li> </ul>	Get a layout of the venue before you visit and arrange with the business owner the best way to observe and conduct interviews

### Prompt sheet for report writing.

- Informative and fact-based.
  - Formally structured.
  - Usually written with a specific purpose and reader in mind
  - Written in style appropriate to each section.
  - Include section headings.
  - Often use bullet points.
  - Often includes tables or graphs.
  - Offer recommendations for action.
  - Uses a clear structure.
  - Based on evidence (data, other reports, experiment results.)
  - Has a clear introduction and conclusion.
3. Make an album of sewing supplies used in clothing production for peer assessment under the following headings:
- Fabrics
  - Notions
  - Fasteners

**Guideline for peer assessment (look out for the following)**

- A variety of sewing supplies included in the album
- Aesthetic arrangement of sewing supplies
- Check if sewing supplies are labelled in the album
- Sewing supplies are grouped under the correct headings i.e. fabrics, notions, fasteners

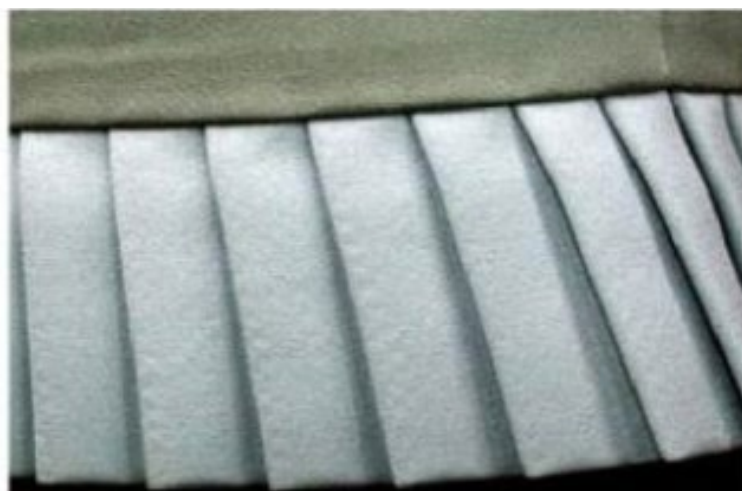
## Without these tools, it would be challenging to achieve professional results. Arrangement of Fullness in Garment Construction

In clothing construction, arrangement of fullness refers to the intentional placement and distribution of fabric volume, texture, and drape to create a desired silhouette, shape, and aesthetic. It involves manipulating fabric to achieve a balanced and harmonious look. Arrangement of fullness is one of the processes which is of greatest importance in clothing construction. Interesting designs can be achieved if the designer chooses appropriate methods of arranging fullness and is also competent in performing the task involved in the arrangement process. The methods of arranging fullness include gathers, smocking, pleating, shirring, darts, casing, frills and tucks. In this section you will learn about the different types of arrangement of fullness and how to make them.

### 1. Pleats

Pleats are a fold of fabric designed to give extra width to garments, it has three layers of fabric. There are four main types of pleats; knife, box, inverted and the accordion.

- Knife Pleat:** It is made up of equal width of pleats with folds turned in the same direction. Figure 7.6 below is an example of a knife pleat.



**Fig. 7.6:** Knife Pleat

- b. **Box Pleat:** It has two-fold lines and two placement lines. The two folds of each pleat are turned away from one another. The back folds in box pleats are facing and may or may not meet. Figure 7.7 below is an example of a box pleat.



**Fig. 7.7:** Box Pleat

- c. **Inverted Pleat:** It has twofold lines and a common placement line. The two folds of each pleat are turned towards each other and in this case they must meet. The back folds face away from each other. Figure 7.8 below is an example of an inverted pleat.



**Fig. 7.8:** Inverted pleat:

- d. **Accordion Pleat:** These pleats are very narrow and uniform in width resembling the bellows of an accordion. The front folds stand slightly away from the body giving flared effects. Figure 7.9 below is an example of an accordion pleat.



**Fig. 7.9:** Accordion Pleat



## 2. Darts

They are a stitched fold of fabric, which tapers to a narrow point. Common positions of darts on a garment are the waist of a bodice and skirt, the underarm, the shoulder, the back neckline, the elbow and the sleeve head. They are often found around the bust area for that reason, they can be as short or long, wide or narrow, or straight-lined or curved as needed. Figure 7.10 below shows the positions of darts in a bodice block.



**Fig. 7.10:** Darts

## 3. Gathers

Gathering is the process of drawing a given amount of fabric into a predetermined smaller area, along one or several stitching lines to create soft, even folds. This is often used to add fullness, volume or texture to certain parts of a garment. Gathers are commonly found in areas such as sleeves, skirts, bodies and waist bands. Figure 7.11 below is a gathered dress.



**Fig. 7.11:** Gathers

## 4. Tucks

It is a fold or pleat in a fabric that is sewn or fastened in place. Tucks are used to decorate clothing or household linens. We have different types of tucks, example pin tucks, wide tucks, space tucks, released tucks and blind tucks. Figure 7.12 below is an example of tuck.



**Fig. 17.2:** Tucks



## 5. Shirring

It is a decorative sewing technique that involves stitching together many rows of gathered fabrics. Shirring reduces the size of the original fabric while adding texture to the resulting decorative fabric. Figure 7.13 below is an example of shirring.



**Fig. 7.13:** Shirring

## 6. Smocking

It is a decorative sewing and embroidery technique in which fabric is gathered in a pattern in three dimensions so that it can stretch. Figure 7.14 below shows an example of smocking.



**Fig. 7.14:** Smocking

## 7. Casing

It is a fabric tunnel, typically around the waistline, made to enclose a drawstring or elastic. Figure 7.15 below is an example of casing.



**Fig. 7.15:** Casing

## 8. Frills

It is a strip of fabric, lace or ribbon tightly gathered or pleated on one edge and applied to a garment, bedding, or other textile as a form of trimming. Frills are also known as ruffle or furbelow. Figure 7.16 below is an example of frills.



Fig. 7.16: Frills

### Steps for making the following arrangement of fullness:

#### Pleats and Darts

Materials needed to make Pleats: Fabric, needle, thread, machine, iron, pins, scissors, textile marker (tailors chalk), ruler, tape measure.

##### a. How to Make a Knife Pleat

A knife pleat is a piece of fabric folded sideways along the fabric length. Knife pleats are a series of multiple such pleats folded into one direction: to the right or left (*see the images below*)

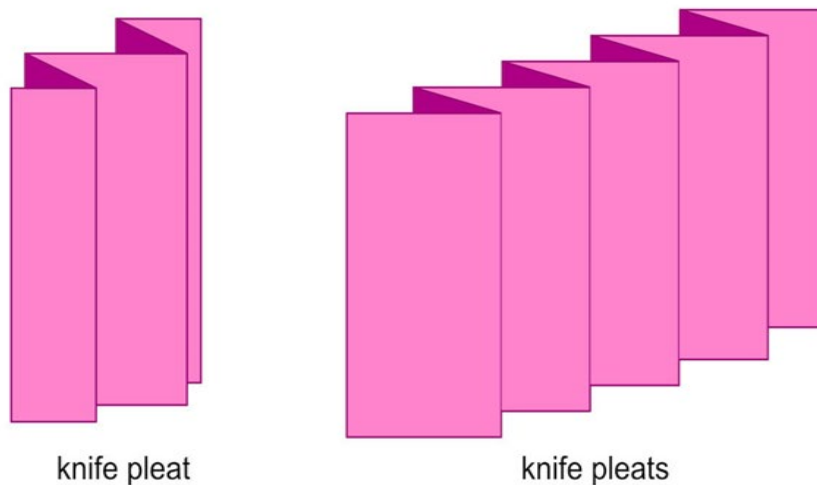
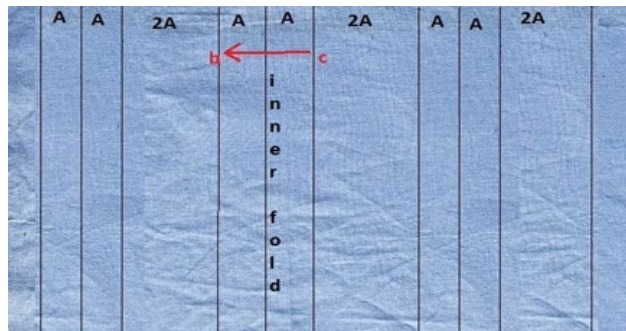


Fig. 7.17: Knife Pleat

**Step 1:** Mark the pattern for the knife pleats as shown in figure 7.18 below. Mark three lines for each pleat. Pleat from right to left. The first part is the front of the fold; the next line is the roll line, then the inner fold line, and the next line is the placement line. As indicated in figure 7.18 below.

If  $A = 1$  inch:  $2A = 2$  inch.  $2A$  is the front of the pleat



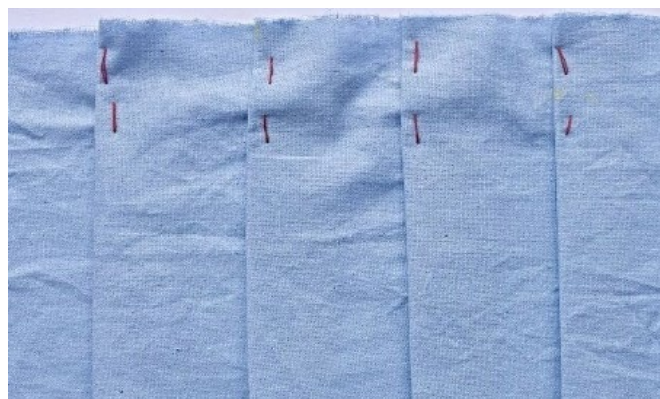
**Fig. 7.18:** Marking knife pleat

**Step 2:** Fold the fabric by the roll line and this should meet the placement line. Press the knife pleats that you have folded as indicated in figure 7.19 below.



**Fig. 7.19:** Folding of knife pleat

**Step 3:** Use basting stitches to keep the knife pleats in place as indicated in figure 7.20. You can leave the pleats unstitched (that is, stitched only at the top edge) or partially sew along the edge, and leave the rest open to release the pleat as indicated in figure 7.20.



**Fig. 7.20:** Basting the pleats

**Step 4:** If you are edge stitching, you will be stitching along the edge of the folds a little distance to contain the fullness. Mark where you want the knife pleats stitched. On skirts it is usually marked to hip level. Edge stitch along the fold up to where you have marked as indicated in figure 7.21.



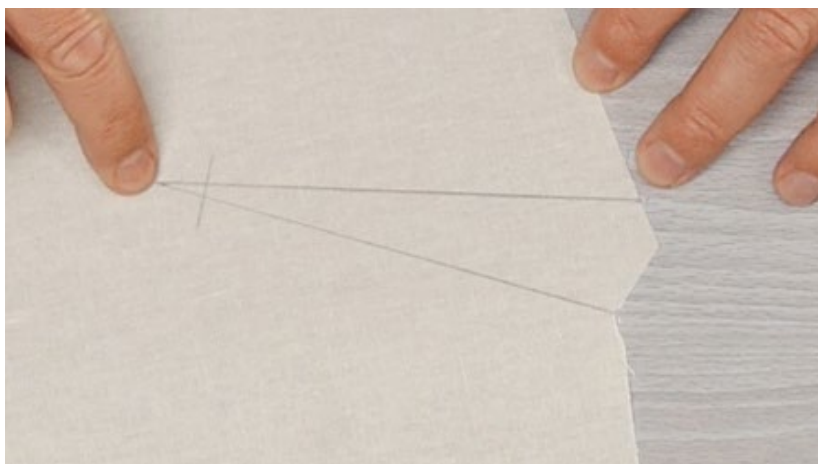
**Fig. 7.21:** Knife pleats edge stitched

## How to Sew a Bust Dart

**Materials needed:** Fabric, needle, machine and scissors, thread, iron, pins, textile marker, ruler and tape measure.

**Step 1:** Mark the Dart

- The pattern will have the lines printed to mark the placement and dimensions of the dart. Mark the fabric accordingly.
- Cross-mark a perpendicular line about 2cm before reaching the point of the dart as shown in figure 7.22



**Fig. 7.22:** Marking the dart line



**Step 2:** Fold the dart (right sides together) pinning the lines together

This is the crucial part. The lines must match exactly for the dart to produce the right shaping and maintain the overall dimensions of the pattern piece.

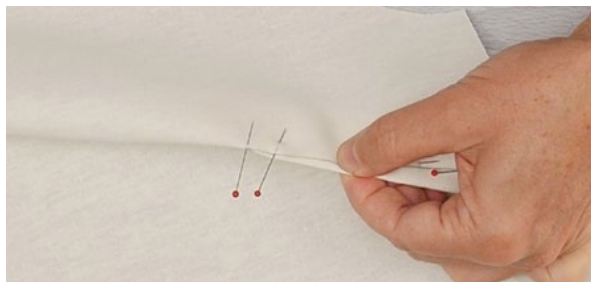
Insert the pins along the line, with the point toward the edge of the piece away from the dart point as shown in figure 7. 23. This way, the pins can be removed while sewing the dart.



**Fig. 7.23:** Pining the dart

**Step 3:** Pin the point (end) of the dart

Insert a pin through the fold at the very tip of the dart. Insert a second pin through the fold along the cross-mark. This will be your mark for tapering the dart/stitching before you reach the point. Finger-press or press the dart flat as in figure 7.24



**Fig. 7.24:** Pining through the fold of the dart

**Step 4:** Dry iron and position it on the fold

Use a dry iron and position it on the fold. You can issue a small puff of steam without moving the iron to flatten the fold and set it as in figure 7.25.



**Fig. 7.25:** Ready for dry ironing

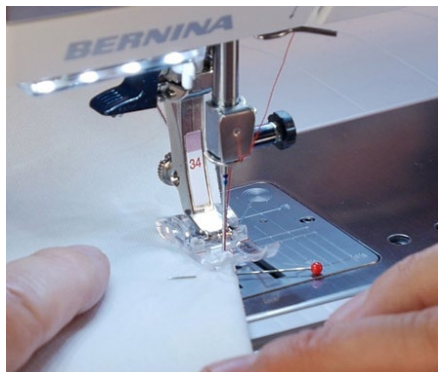
**Step 5:** Stitch the dart, beginning at the edge of the fabric piece. Stitch straight with the stitch length. Secure stitching at the beginning of the dart. Start about 1.3cm into the seam line and reverse to the starting edge as in figure 7.26.



**Fig. 7.26:** Stitching dart

### **Step 6:** Sew

Sew forward until you reach the first perpendicular pin the tapering cross-mark. Taper the dart seam before reaching the point as in figure 7.27. Upon reaching the ‘tapering’ marking pin shorten the straight stitch to 1.0 mm. This will ensure proper shaping at the tip of the dart. Angle your seam so that you will reach the fold halfway before reaching the dart point. Note: Do not sew off the fabric, past the fold.



**Fig. 7.27:** Stitching towards the end of dart

### **Step 7:** Continue to sew

Finish the stitch along the fold and as close to the fold as possible until you reach the point of the dart. As shown in Figure 7.28.



**Fig. 7.28:** Continue stitching towards the end of dart

**Step 8:** Remove piece from the machine

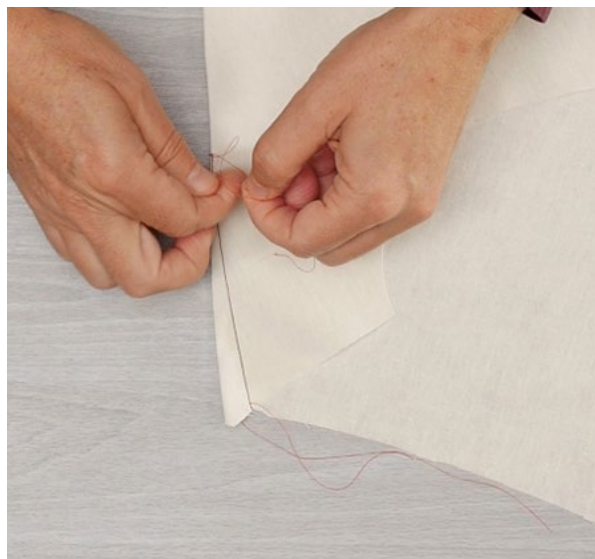
Remove the fabric from the machine while keeping long thread tails (10cm+). Pinch the fabric firmly between your fingers to avoid puckering when you pull off the piece from the machine. Use your free hand to raise the foot. It will release the thread tension, and your hands will not leave the piece as you pinch the dart point right after stitching it as in figure 7.29 below.



**Fig. 7.29:** Fabric removed from sewing machine

**Step 9:** Tie the threads together at the tip of the dart

Double knot the threads together at the point of the dart. Do not pull the threads hard as this would pucker up your dart tip. For the first knot, gently pull on the threads until the knot just touches the fold of the fabric. Then tie a second knot in the opposite direction and clip the thread tails short (0.3cm) as in figure 7.30 below.



**Fig. 7.30:** Tie knots at the tip of dart

**Step 10:** Press the dart

Press the dart with a dry iron from the right side to shape the dart. With the dart seam allowances felled toward the bottom of the piece, press from top-to-bottom with light pressure. Using a pressing ham or similar rounded surface allows you to shape the dart in its intended form as shown figure 7.31.



**Fig. 7.31:** Pressing the dart

**Step 11:** Trim the seam allowances along the dart seam

You can trim off the seam allowances to avoid the differing sides of the dart. Leave only about 0.3cm of fabric on each side of the seam. Start the trimming at the starting edge of the dart. End the trimming where the tapering of the seam began at the cross-mark as in figure 7.32 below.



**Fig. 7.32:** Trimming of seam allowance along the dart seam

**The Result:** In the end, your dart should cause the fabric to dome up naturally, without any support and without any dimple as shown in figure 7.33 below.

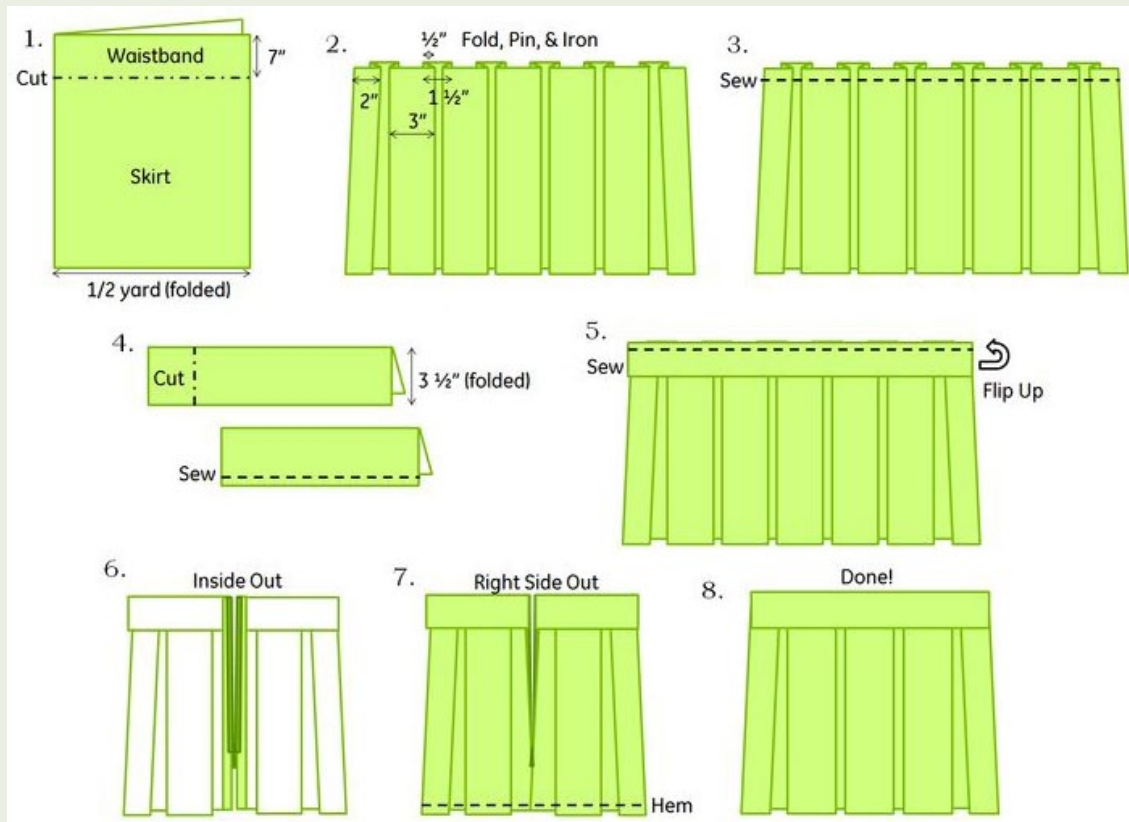


**Fig. 7.33:** Finished dart



## Activity 7.2

1. Use your own measurements to make specimens of pleats and darts
2. Design a specimen album of your sample work of pleats and darts. Display your album for gallery walk and portfolio development.
3. Search the internet and other sources and make notes on the steps involved in making gathers and tucks in garment construction to prepare you for the next lesson.



## Practical Activities on arrangement of fullness

### Demonstrate How to Make Tucks and Gathers

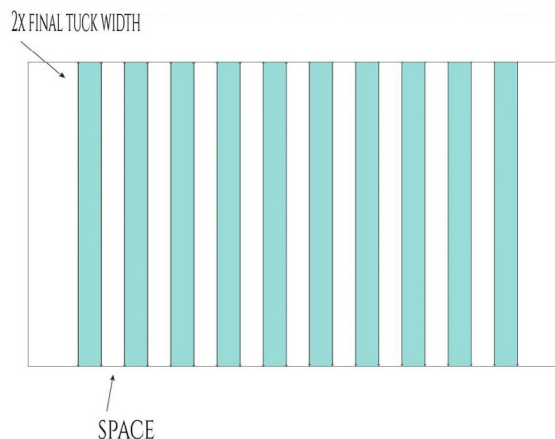
You have learnt how to make pleats and darts which are part of arrangements of fullness. In this section, you are continuing with gathers and tucks.

#### How to Make Tucks

##### Step 1:

Making tucks is exactly like pleats. You draw lines where you want the tucks to go and then add a desired amount of volume. The volume needed is twice the size of the final tuck, so if you want the tuck to be 0.5cm, you add 1cm, etc.

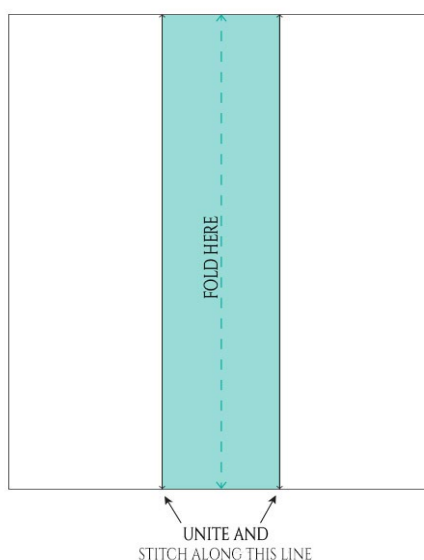
The space in between the tucks depends on the look you want. If you want the tucks to cover the area completely, the maximum distance should be the same as the width of the single tuck which in this example is 0.5cm. But if you want them to be further apart, you can leave more space. You could try 1.8cm width of the tuck. Here is an example of a pattern as in figure 7.34:



**Fig. 7.34:** Measurement for tucks

### Step 2:

To sew the tucks, first press all the folds in half. This gives you a straight line to follow when stitching. Stitch the chosen tuck width with the tuck folded. For 0.5cm tucks you stitch at 0.5cm from the fold. To manipulate fabric with tucks, you must be precise, because if you do not keep to the measurements, you might alter the fit of your garment. It is easier to place the tucks in the direction of the grain line as shown in figure 7.35.



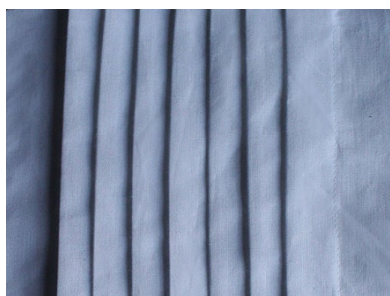
**Fig. 7.35:** Fold and stitch the tuck

## Types of Tucks

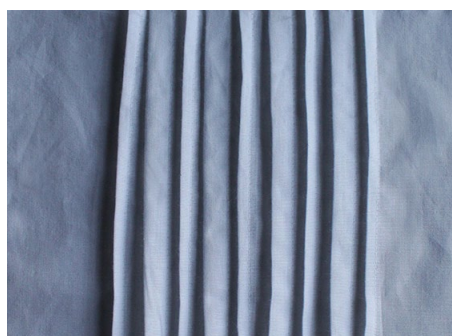
Now that you have the basics, you can now go on to make pin and centred tucks on your own.

### a) Narrow (pin-tuck)

Wide tucks look like pleats. These are 2cm wide. The narrow ones are called pin tucks. These ones are 0.5cm wide. Either press them flat on one side or leave them “standing” as in figures 7.36 and 7.37 below.

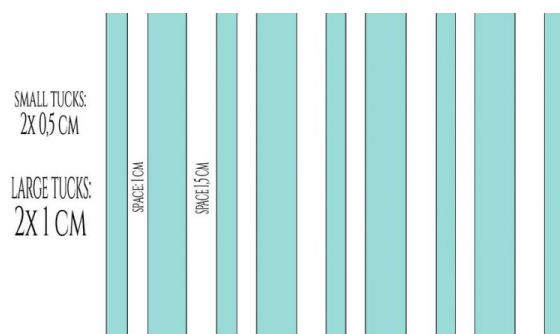


**Fig. 7.36:** Flat Tucks



**Fig. 7.37:** Standing Tucks

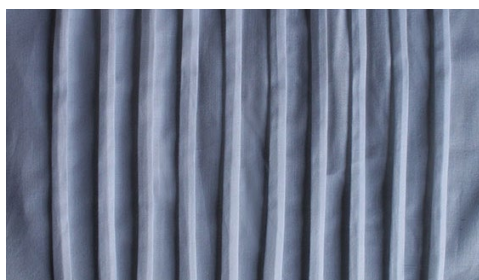
You can also create surface patterns to a garment by alternating between different widths or sewing tucks in groups at random distances apart which looks like stripes. Figure 7.38 below is an example of alternating widths tuck.



**Fig. 7.38:** Alternate width tuck

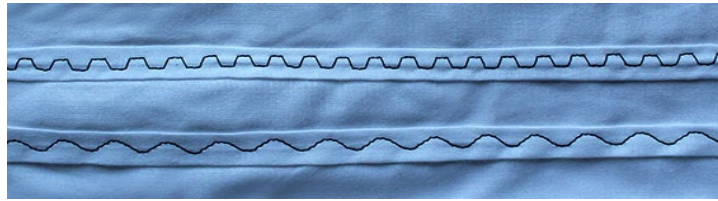
### b) Centred Tucks

You have learnt that box pleats and tucks can be done in the same way. The difference is that tucks are stitched at the base first as in figure 7.39.



**Fig. 7.39:** Centred Tuck

You can finish your tucks by top-stitching them as in figure 7.40. This is optional.



**Fig. 7.40:** Top stitched tuck

## How to Make Gathers

Gathering is a useful sewing technique that can add both design interest and functionality to a garment. It allows for a longer or wider piece of fabric to be fit to a shorter or narrower piece in a way that creates evenly distributed fullness. Gathering is secured with a stable final seam to keep the fullness in place.

### Materials Needed

- Cut and marked pattern pieces
- Strong high-quality thread
- Pins
- Scrap yarn, cording, pearl thread, 6-strand embroidery floss etc. (optional)
- Hand sewing Needle (optional)

### Preparation to make gathers

Below are some tips to guide you to make successful gathers.

1. **Stitch Length:** Shorter basting stitch length provides more control over gathering, but a stitch length that is too short will be hard to pull/gather. Longer basting stitch length provides less control over gathers but it is easier to manipulate.
2. **Fabric Weight:** Lighter-weight fabrics can generally use a shorter length stitch. Heavier weight fabrics may need a longer stitch to accommodate fabric thickness.
3. **Seam Allowance:** Gathering can involve sewing multiple lines of stitching within the seam allowance. If the existing seam allowance is small, it may be helpful to increase the seam allowance in gathered areas to allow more room to work.
4. **Thread weight/quality:** Pulling on thread, especially over longer sections of gathering (such as an entire skirt) can stress thread and cause it to break. Use high-quality thread and consider using a heavier thread if gathering heavier weight fabrics.
5. **Thread Tension:** Thread tension can be adjusted to make pulling thread easier.
6. **Fabric Qualities:** Creating gathers requires more fabric handling than regular seams. If working with fabric that frays easily, stabilizing or finishing edges before creating gathers may help mitigate fraying edges.

Even distribution of gathers and accurate sewing gives a beautiful gathering. There are multiple methods for the actual act of gathering fabric and we will be demonstrating gathers (Two thread and three thread gathering methods) and tucks in this lesson.



## Gathering Technique

### Two Thread Gathering

This method uses two lines of machine basted stitches to gather the fabric. It is easier to gather with longer stitch lengths, so we recommend a length of 4-5mm for gathering stitches.

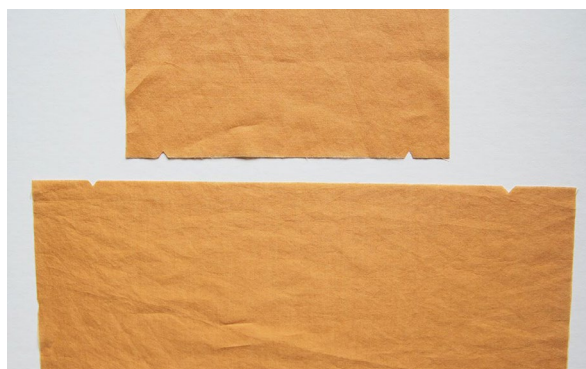
There are two options for positioning the two lines of basting stitches:

**Option One:** Sew both lines of basting stitches 0.6cm apart within the seam allowance. This provides less control over the final gathers but is easier on the final fabric. If your seam allowance is 1.6cm, sew your two lines of basting stitches at 1.3cm and 0.6cm.

**Option Two:** Sew one line of basting stitches 0.6cm apart, this time on either side of the stitch line seam allowance. A line of basting stitches will be holding the gathers in place on both sides of the final stitch line which gives more control over the final look of the gathering. If your seam allowance is 1.6cm, sew one line of basting at 1.9cm and one at 1.3cm.

#### Step 1:

Mark gathering area on both gathered and flat pieces as indicated by the pattern with notches, tailor tack, or other marking as in figure 7.41 below.



**Fig. 7.41:** Marking gathering area

#### Step 2:

If gathering a larger section of fabric, such as an entire skirt, divide both the gathered section and flat section into quarters and mark if the pattern does not already include them. Use clips, notches or tailor tacks/small stitches as shown in figure 7.42 below.



**Fig. 7.42:** Divide marking area on fabric into sections

Triangle notches (as opposed to single snip notches) may be easier to locate once the fabric has been gathered. As shown in figure 47.2 above.

### Step 3

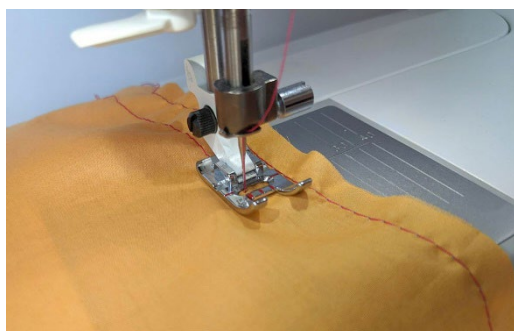
To start, place fabric right side up. Sew the first line of basting stitches starting and stopping at your notches (or wherever your gathering begins and ends). Make sure to leave long thread tails at both ends. Do not backstitch - you need to be able to pull on these threads later as shown in figure 7.43.



**Fig. 7.43:** Sewn first line

### Step 4

With fabric right side up sew the second line of basting stitches at the determined seam allowance as shown in figure 7.44 below. After you have finished sewing the second line the result is shown in figure 7.45 below.



**Fig. 7.44:** Sewing second line



**Fig. 7.45:** Finished sewing second line

### Step 5

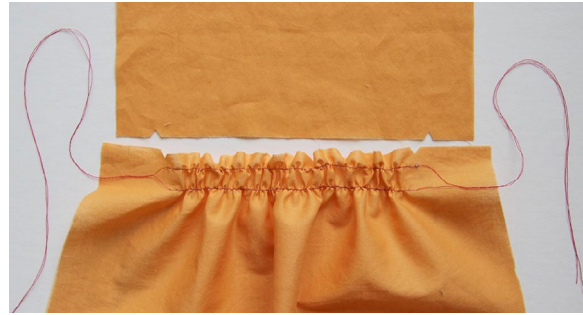
Always pull the bobbin thread – it is easier to gather and less likely to break. Hold both bobbin threads together, and pull gently to create gathers, using your fingers to move down the fabric and evenly distribute along the stitch line.

If gathering a long section of fabric, it may be helpful to pull on threads from both sides of the gathered area.

If gathering a short section, pulling from just one side may be enough. Continue pulling on thread and distributing gathers evenly until the gathered section is to the desired/needed width. Check this by either measuring the gathered area or comparing it to the flat fabric it will be sewn to as shown in figure 7.46A and 7.46B



**Fig. 7.46A:** Pulling on threads



**Fig. 7.46B:** Pulled and matching to notches

### Step 6

To secure with a basting stitch, thread a hand sewing needle with the thread tails and tack in place with a few repeated stitches as shown in figure 7.47 below.



**Fig. 7.47:** Stitches Secured with basting stitches

### Step 7

Gently press seam away from gathers. To avoid pressing / flattening the gathers, press up to but not over gathers, as shown in figure 7.48 below.



**Fig. 7.48:** Ironing finished article



### Three Thread Gathering Technique

This is the same method as the two threads above but uses a third line of basting stitches for even more control. Again, you are using a longer basting stitch of 4-5mm long. Since sewing three lines of basting stitches takes more room than two, it may be helpful to add width to the seam allowance.

#### Step 1

**Option 1:** One basting line at the final seam line and two basting lines within seam allowance.

**Option 2:** One basting line outside final seam line and two basting lines within seam allowance.

This example uses a 1.6cm seam allowance with the first line of basting stitches at 0.6cm the second at 1.3cm and the third line of basting stitches at 1.9cm as in figures 7.49 and 7.50 below.



**Fig. 7.49:** Sewing first two lines



**Fig. 7.50:** Sewn three lines

#### Step 2

Always pull the bobbin thread – it is easier to gather and less likely to break. Hold both bobbin threads together, and pull gently to create gathers, using your fingers to move down the fabric and evenly distribute along the stitch line as in figure 7.51 below. Continue pulling on thread and distributing gathers evenly until the gathered section is to the desired/needed width as in figure 7.52 below.



**Fig. 7.51:** Pulling gathers



**Fig. 7.52:** Pulling and distributing gathers



### Step 3

Check this by either measuring the gathered area or comparing it to the flat fabric it will be sewn to as shown in figure 7.53 below.



**Fig. 7.53:** Matching gathered portion with flat piece

### Step 4

To secure with a knot, pull the bobbin threads through to the right side of the fabric, and knot together with the needle threads as shown in figure 7.54 below.

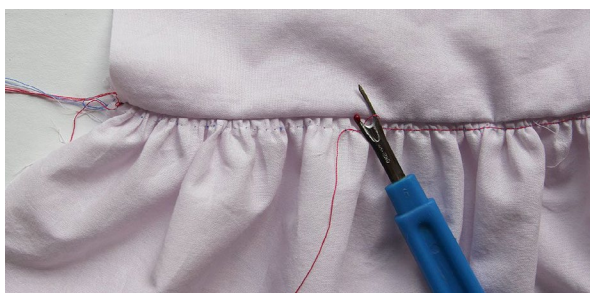


**Fig. 7.54:** Securing gathers with knot

### Finish Gathered Seam

Remove all gathering stitches; since they are long, they are generally easy to remove as in figure 7.55 below.

Once the gathered seam is sewn, finish it as desired with bias binding, a zig zag stitch, or serging, then continue with constructing the rest of the garment. Gathering can take more time and attention than just sewing a regular straight seam, but it is worth it, for the detail it can add to a garment.



**Fig. 7.55:** Finished Gather

### Activity 7.3

1. Make samples of tucks and gathers and exhibit samples of work for appraisal by both teachers and peers.

#### Guidelines for appraisal

##### Tucks

- Look out for correct/straight arrangement of tucks
- Stitching straight lines
- Look out for the right sequence for the processes.
- Accuracy of the intervals
- Check even distribution of tucks
- Neatness of the product

##### Gathers

- Look out for correct/straight arrangement of gathers
- Check straightness of stitch lines
- Look out for the right sequence for the processes
- Neatness of the product

## Discuss Openings and Fastenings

This section discusses openings and fastenings. Openings and fastenings are features that allow someone to put on and remove clothing easily. You will learn what opening and fastenings are and how to make them.

Openings and fastenings are neatened slits on garments. Some of their functions are also for decoration as well as for fit. These openings close in different ways as you choose or as suits your design.

There are different types of openings like continuous wrap, faced slit, fly front and bound openings. Fastenings are devices that are attached to openings to allow garments to be put on/taken off while keeping the opening in position. They help to fit the garment on the body. Examples are zippers, Velcro, buttons, press studs and tapes.

### Uses Of Openings and Fastenings

1. They allow the garment to be put on and off easily and quickly.
2. They allow garment to be made to fit the wearer closely.
3. They are used to decorate the garment.

## Types of Openings and Fastenings

### 1. Openings

They are sections that allow sewn articles to slip on and off easily and fit at the same time. Examples are as follows: Continuous wrap opening, faced slit opening, box pleat, fly front, hem and bound opening.

#### a. Continuous Wrap Opening

Continuous wrap opening is a strong opening when properly made. The cut edges of the openings are neatened with a continuous band which is folded back on the overlap, and it is seen projecting on the underlap as shown in figure 56 below. It can be made in a seam or in a slit cut in the garment. The final width of the wrap is between 1cm and 2cm wide.

Continuous wrap opening is used on side openings of shorts and skirts made of thin materials. Also, used on sleeves openings, school and shirt blouses, neck openings for girl's blouses and dresses.



**Fig. 7.56:** Continuous wrap opening

#### b. Faced Slit Openings

Faced slit opening is used to neaten the edges of the slit and to strengthen it. The facing is usually made on the wrong side of the garment. The facing should extend at least 2cm to 5cm below the base and side of the opening. Faced opening is not suitable for transparent fabrics because the facing shows through. Face openings are fastened with a loop at the top.

Faced openings are very popular openings at the front or back of the neck on blouses and dresses. It is also used on blouse sleeves which gather into cuffs, skirt openings, and children's clothing, as a decorative front opening on children's clothes and lingerie (night gowns and underwear). Sample face slit opening as in figure 7.57 below.



**Fig. 7.57:** Faced slit opening

### c. Box Pleat

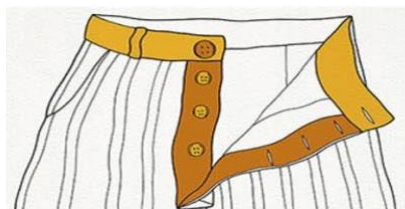
A box pleat is a flat double pleat made by folding under the fabric on either side of it. A plait, pleat or fold formed by doubling fabric back upon itself and then pressing or stitching into shape. Box pleats, known for creating soft folds and adding volume to skirts, are formed by folding equal folds of fabric in opposite directions, resulting in a box-like shape. These versatile pleats can be used for dresses and home decor items, such as curtains. An example of a box pleat is shown in figure 7.58 below.



**Fig. 7.58:** Box pleat

### d. A Fly Front Opening

A fly front opening is a flap of material down one side of the front opening of a garment to conceal buttons, fasteners, or the like, as on a coat or dress. It is an opening in a garment that is closed by a zipper or by buttons concealed under a fold of cloth. Used mostly on trousers but can be used in skirts, blouses and dresses as shown in figure 7.59 below.



**Fig. 7.59:** Fly Front Opening

### e. Hemmed Openings

Hemmed openings are the simplest, but one needs to be extra careful to avoid stretching the curves thereby giving excess. The fabric is folded in twice and sewn. As much as it appears simple, it can go wrong if care is not taken. This type is best used when working with sheer fabrics and delicate fabrics. Hem opening is seen in figure 7.60 below.



**Fig. 7.60:** Hem opening



## f. Bound Opening

This is like faced opening, but it is only suitable for thin fabrics. The opening is made by cutting a slit in the garment and neatened with a cross-way binding. When the opening is used at the neck, the binding is often continued round the neck edge. To make the opening decorative, use a crossway strip of contrasting colour. Bound opening is used for front and back openings of blouses and dresses of both adults and children. As shown in figure 7.61 below.

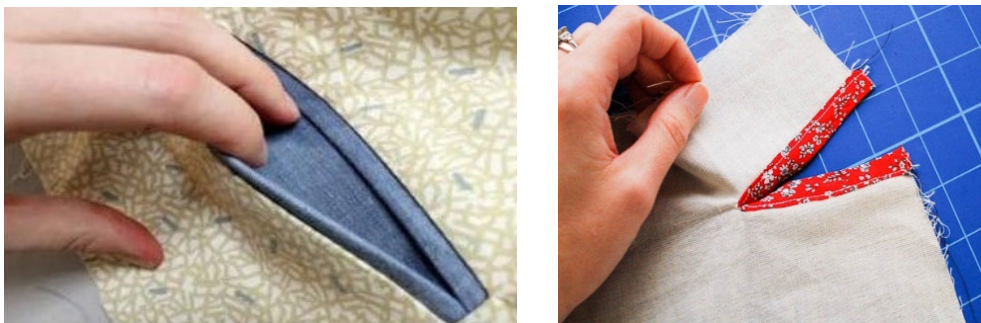


Fig. 7.61: Bound opening

## 2. Fastenings

These are devices used to close openings. When an opening has been completed and pressed, it is ready to have the fastenings attached. Some examples are in figure 7.62 below.



Fig. 7.62: Fastenings

## 3. Matching openings and their fasteners/closures:

- i. Fly front opening: Button and buttonhole.
- ii. Bound opening: Press stud, hook and eye/bar.

## Factors that Influence the Choice of Openings and Fastenings

There are some factors to consider when choosing openings and fastenings to ensure that the fasteners and openings selected meet the necessary industry standards, fit the wearer and provide the best value for money. The fastener used will depend on the fabric, the type of garment, the style and position and the wearer, the amount of stress the fastener will experience, and the effect you want to create.

**Type of fabric:** There are different weights of fabrics used for garments. Openings and fastenings should be suitable for the texture of the fabrics. For example, some openings are only suitable on heavier or thicker fabrics e.g. large hooks, heavy duty hooks and bars for heavy fabrics. While the light weight and transparent fabrics will be suitable for some type of openings and fastenings. Bound buttonholes are suitable for light weight fabrics. Faced openings are not suitable for transparent fabrics, because the facing will show.

**Age of the wearer:** You may consider the wearer when choosing openings and fastenings. For example, is the garment for a baby or an adult? If it is for a baby, you would choose plastic press studs and tapes because of their soft and delicate skin.

**Style of the garment:** The style of the garment will also determine the type of opening and fastening. For example, continuous wrap openings are suitable for the wrist opening of long sleeve of a shirt or blouse. Also, some styles which require decorative fastenings will use the visible method of zip fastening.

**Type of garment:** In choosing openings and fastenings, consider the type of garment being made. For example, making lingerie (night gowns and underwear), you may use plastic press studs, Velcro, tapes and ribbons. Blouses and dresses will require different openings from skirt, shorts and trousers. Plackets are suitable for skirts and trousers of thick and medium weight fabrics. Whether it is lingerie or outer garment, skirt, bodice, 'kaba', shorts or trousers.

**Position on the garment:** The positions are where the openings will be made. Is it the neck, waist, or centre front or centre back of the garment? Position also determines the length of both opening and type of fastening. The openings and fastenings should be suitable for the position on the garment. For example, if the opening is at the neck and it is bound, then button and loop would be suitable.

**Durability:** The openings and fastenings should be strong and long-lasting enough to serve its purpose.

### Activity 7.4

1. Using the internet and other sources for information on openings and fastenings. Make notes and share your information in class. The information should contain types of fastenings and openings, suitable fabrics they are used on, type of garment they are used on and the position of the openings.

2. Watch a video on the types of opening and fastening in clothing construction by using this link <https://youtu.be/ZuH9dRSw4m4>. Make notes on the types of fastening and how they are attached on garments and share your observations with your friends.

Plastic press studs, tapes/ ribbons. The reason is that they have soft and delicate skins.

## Demonstrate How to make Openings and Fastenings

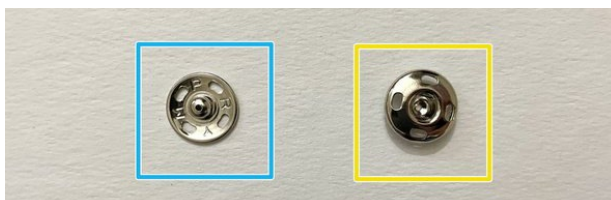
Now that you have learnt about openings and fastenings, you are going to learn how to make and use them.

### a. Press Studs

Press studs are useful in fastening clothing and allowing lapped edges to connect, but the stitching can wear over time which can lead to loose or missing press studs. Press studs are known by many names, including snap fasteners, snap buttons, press buttons, and press fasteners.

#### How to fix press studs on garments/articles

**Step 1.** Separate the press studs into two halves, the ball and the socket as in figure 7.63 below.



**Fig. 7.63:** Separated press studs-ball and socket

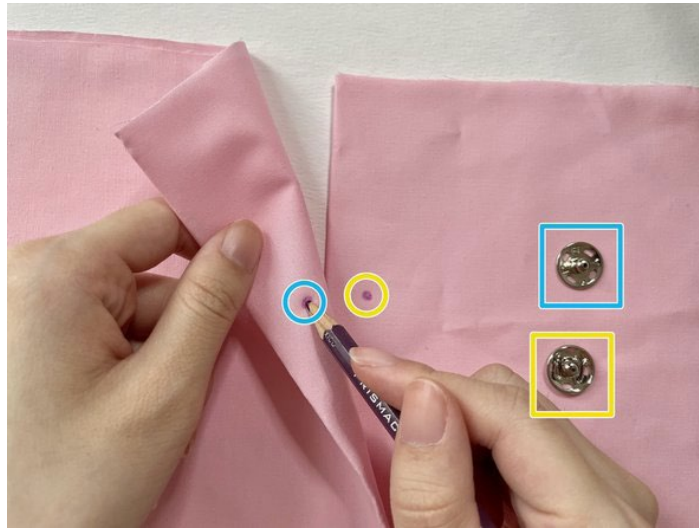
**Step 2.** Thread the needle which is two and a half feet long. Move the needle to the middle so both sides of the thread are equal lengths. Tie a knot at the end of the thread. Tie a second knot over the first one as shown in figure 7.64



**Fig. 7.64:** Tie a knot

**Step 3.**

- Mark the areas you want to sew the press studs into using a fabric pencil. Make sure the markings are aligned as shown in figures 7.65 below.
- The ball should be sewn on the inner flap of the top piece.
- The socket should be sewn on top of the bottom piece



**Fig. 7.65:** Marking areas, you want to sew

**Step 4.**

- Hold down the press stud with your thumb.
- Push the needle through only the first layer of the fabric, grabbing only a small bit of the fabric as shown in figure 7.66 below.
- Push the needle through the hole of the press stud and pull the thread all the way through.
- If your garment is not double layered like the one in the guide, the thread will show on the other side.



**Fig. 7.66:** Start sewing press stud



**Step 5.**

- Thread the needle through the fabric next to the first hole you made.
- Stop before pulling the needle all the way through. There will be a small loop. Thread the needle through the loop and pull as shown in figure 7.67 below.
- This will create a strong knot along the outer rim of the press stud.



**Fig. 7.67:** Continue sewing press stud

**Step 6.**

- Repeat the previous step and continue to sew along the first press stud hole (at least four times total).
- Make sure the knots made by the loops fall next to each other, not on top as shown in figure 7.68 below
- Once you have completed sewing along the first hole, insert your needle through the fabric of the next hole. Pull the thread all the way through.



**Fig. 7.68:** Continue sewing press stud

**Step 7.**

- Repeat Steps 4-5 until you finish sewing through all four holes of the press stud.
- Once all the holes are sewn through, insert the needle through the thread of the hole you ended on.
- Pull the thread until you make a small loop. Insert the needle through the loop and pull all the way as shown in figure 7.69 below.

**Fig. 7.69:** Final sewing of press stud**Step 8.**

- Cut the excess thread. Your press stud is now completely sewn on as in figure 7.70 below
- Follow the exact same steps for the socket.

**Fig. 7.70:** Finished and cutting thread**b. Fixing of Velcro**

You have probably used Velcro on clothes or shoes before, but there are so many other uses for it around your home. You can use it to hang decorations, to keep your rug from moving around, or to organize a drawer. Adhesive-backed Velcro works great on most indoor and outdoor smooth surfaces. Sew-on strips are perfect for clothing and fabric accessories, but iron-on Velcro is better for thick fabrics or fabrics that are difficult to sew. There are different methods of fixing Velcro as shown below:

## Method 1: Adhesive-Backed Strips

**Step 1.** Clean and dry the surfaces where you want to place your Velcro. The adhesive on your strips will not stick very well if the surfaces are dirty. After cleaning off any dust or residue, dry the surfaces completely with a clean cloth. Rough up a smooth surface with fine-grit sandpaper for an extra secure hold.

**Step 2.** Peel the backing off one strip. The Velcro's hook side and loop side will each have their own adhesive backing. Peel the protective sheet off the strip to expose the adhesive underneath. Once you take the backing off, be careful not to touch the sticky sides, or else they might not adhere very well.

**Step 3.** Press the first strip onto your item. You can use the hook or loop strip on either surface, so it does not matter which one you use. Line the strip up with where you want to place it and push it firmly against the surface. Press down on the strip with your palm to make sure it is flat.

**Step 4.** Place the second strip on the second object. Peel off the adhesive from the other strip and position it on the second item. Press the strip down firmly so it makes good contact with the material.

**Step 5.** Wait 24 hours for the strongest adhesion before you attach the Velcro strips together or else it will not stick well.

## Method 2: Sew-On Strips

**Step 1.** Use a measuring tape to measure how much Velcro you will need as in figure 7.71A.



Fig. 7.71A: Measuring garment

**Step 2.** Measure and cut the precise amount of Velcro to be sewn onto the garment as in figures 7.71B and 7.71C.

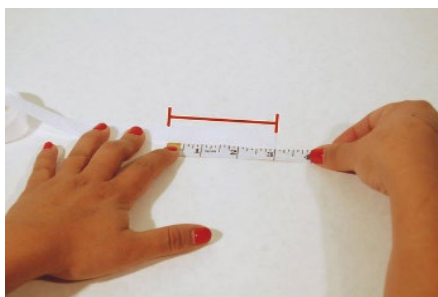
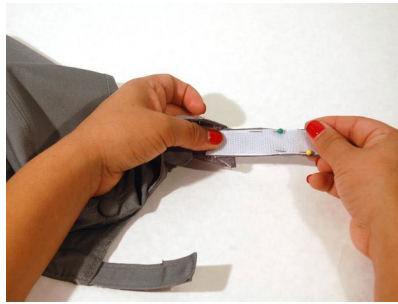


Fig. 7.71B: Measuring Velcro to cut



Fig. 7.71C: Cutting Velcro for Sewing

**Step 3.** Pin the new Velcro onto the garment as in figure 7.72 below. This will make sure both pieces stay in place when you start to sew the Velcro in place.

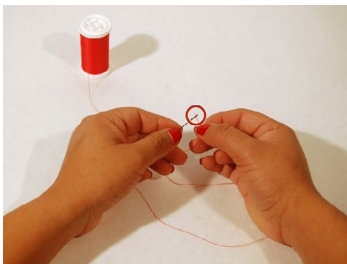


**Fig. 7.72:** Pining Velcro on garment

**Step 4.** To prepare for sewing, measure about 60cm thread colour of your choice and thread the needle. Pull the thread through the loop as in figure 7.73A.

Make sure to leave an even amount of thread on either side of the needle; 30cm on each side as in figure 7.73B.

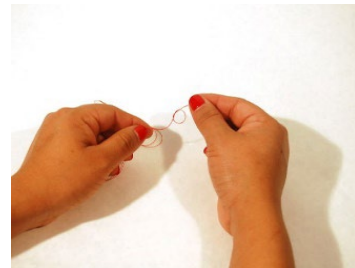
Cut the thread and knot the ends of the thread together to secure as in figure as in figure 7.73C.



**Fig. 7.73A:** Measuring thread



**Fig. 7.73B:** Equal amount of thread at both side



**Fig. 7.73C:** Knot the thread

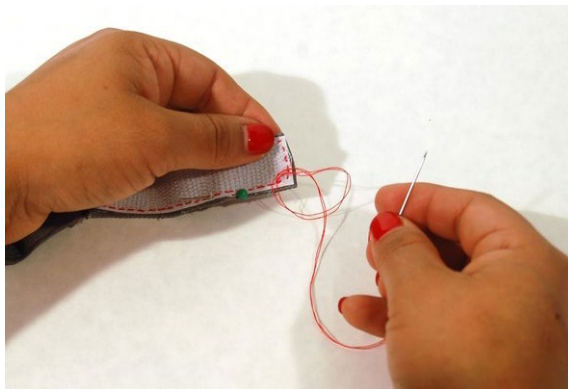
**Step 5.** Use a running stitch to secure the Velcro to the strap of the garment as in figure 7.74 below.



**Fig. 7.74:** Securing the Velcro with running stitches



**Step 6.** When you come to the end, knot the thread next to the last running stitch to finish it as in figure 7.75 below.



**Fig. 7.75:** knot and finished sewing

**Step 7.** Repeat steps 4 - 7 on the remaining strap using the other side of the Velcro. Once finished, the Velcro should be securely sewn on the garment and is ready to use as shown in figure 7.76 below.



**Fig. 7.76:** Fixed Velcro

## c. Button and Buttonhole

While a machine-sewn buttonhole is fine, there are occasions when a hand-worked one will look nicer and do a better job. Maybe you want to add a personal touch to your shirt, suit or dress, or perhaps your fabric is too thick for your machine to sew the buttonhole.

### How to Sew a Buttonhole by Hand

Now that you know some basics, below are the general steps on how to sew a buttonhole by hand.

#### Horizontal and Vertical Buttonholes

Your article/garment will indicate which way to position your buttonhole. There are just a few things to think about if you decide to hand-work your buttonhole. Typically, a horizontal buttonhole has a flat short end on both sides of the buttonhole, but you can opt for either a

fan or a keyhole end on the side that is closest to the inside. For example, if you are working on a suit coat, the side pointing toward the middle of the coat would have the fan or keyhole. That is where your button would rest when the coat is closed.

For a vertical buttonhole, most often the short end on the top and bottom are both flat. But should you decide you want a curved fan or keyhole end on your vertical buttonhole the curve on a vertical buttonhole is usually done on both ends (unlike a horizontal buttonhole where it is only sewn on the most inside end).

### Step 1. Mark and cut the buttonhole as shown in figure 7.77 below

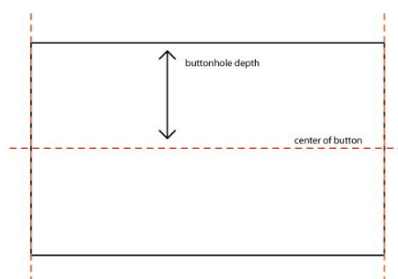


Fig. 7.77: Mark and cut buttonhole

Using the pattern markings as your guide, mark the placement for the buttonhole. For a hand-worked buttonhole, you want to mark the short ends, the center, as well as the long sides so you can sew a consistent stitch for the buttonhole depth. The depth should be approximately 0.16cm–0.32cm. These marks need to be clean and very visible as in figure 7.77 above.

**Note:** Either use a water-soluble marking tool or sew these by hand with a baste stitch. If you use a baste stitch, be sure to use a contrasting thread colour so it is easily removed after you sew the buttonhole.

Once you are certain on the placement, cut along the center of the buttonhole, from one short end to the other as in figure 7.78 below.

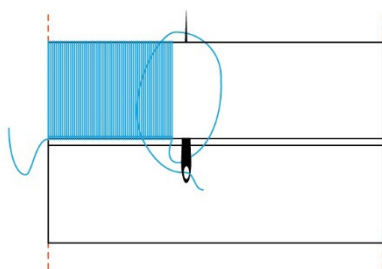


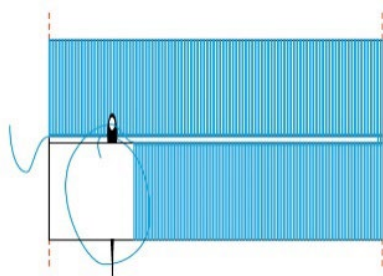
Fig. 7.78: Cut along the center of the buttonhole

### Step 2. Sew the first side

Thread your needle and knot the end. On the right side of the buttonhole, feed the needle through the top corner to secure the thread in place. The buttonhole stitching will cover the small knot. Take the needle from the top corner and place it through the hole from the right side to the underside. Insert the needle through at the top, coming out at the mark along the top edge.

### Step 3. Sew the second side

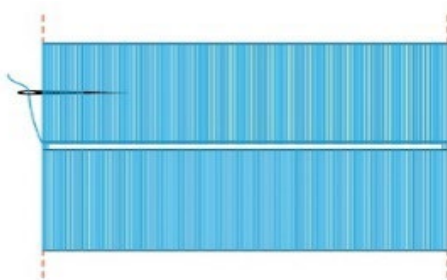
For the next stitch, push the needle into the hole and insert it out along the top as you did before. However, with this pass, loop the thread under the point of the needle. This way, when you pull through, a purl stitch is created along the open edge as in figure 7.79 below. Repeat this all along the sides of the buttonhole.



**Fig. 7.79:** Continue with loop stitches

### Step 4. Finish

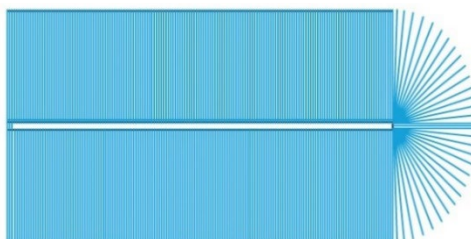
When you get to the end, sew several long stitches to form a bar tack, then continue working your way around, creating a purl stitch until you reach the other side. Form another bar tack on the opposite short end as in figure 7.80 below.



**Fig. 7.80:** Making a bar tack to finish loop stitch

Once you have gone all the way around, tightly tuck your needle and thread under your stitching and return your thread to the wrong side to secure as shown in figure 7.80 above.

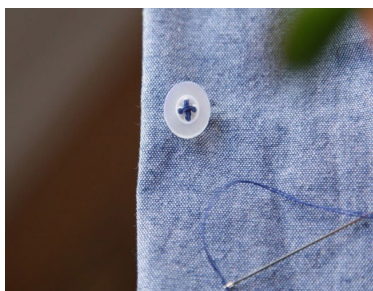
Optional fan end: If you want to create a fan end on either or both short ends of your buttonhole, simply draw or baste an additional line as your guide, then instead of forming a bar tack at the ends, stitch in a curve until you reach the other side, then continue as usual as figure 7.81 below.



**Fig. 7.81:** Fan end buttonhole

## How to Fix a Button

These instructions are for a four-button hole using a cross-shaped stitch as in figure 7.82 below.



**Fig. 7.82:** Crossed-shaped stitched button

**Step 1.** Thread a needle with about two feet of thread both ends together away from the needle. Tie a knot where they meet. Look for the tiny holes or thread in the fabric of your garment to find the exact spot where the button should be. Use a fabric pencil or a pen to make a small dot where the button will sit. Make a few stitches over the dot in an X shape. This will form a strong foundation for your button and make it easier to sew the button on in the exact right spot, as in figure 7.83 below.



**Fig. 7.83:** Tie a knot

**Step 2.** Now, push your needle up through the back of your garment, through the X, and up through the hole of one side of the button. Then, cross your needle and thread across the top of your button and come back down through the hole diagonal to the one you came up through. Continue pushing the needle back down through the fabric and the X, leaving a little bit of thread length between the button and your fabric. This is where you will make a shank to leave space for your garment to close as shown in figure 7.84 below.



**Fig. 7.84:** Push needle through button



**Step 3.** Repeat step 2, four more times, looping your thread in a diagonal direction across the top of your button and back down through the X. It is time to switch sides on your button and repeat the steps again. Come up through one of the empty holes on the other side of the button and pass your needle diagonally across the button to the one hole that you have not passed through yet. You will now have a crisscross shape of thread across the top of your button. Repeat this step four more times as in figure 7.85 below.



**Fig. 7.85:** Continue sewing through button

**Step 4.** With your needle at the back of the fabric, come back up through the X on the base of your garment, but do not go up through the button. Wind your thread three or four times around the threads that are just underneath the button. This forms your “shank,” a bundle of threads that help secure your button. Push the needle back down through the fabric and the X and tie off a knot as shown in figure 7.86 below.



**Fig. 7.86:** Finishing work and tie off

## d. How to make a Button Loop

### Things needed to make a button loop

- Garment
- Button (1.5-1cm in width works well for a back neck opening)
- Scissors
- Needle
- Beeswax (optional)
- Thread

**Step 1.** Thread your needle doubled to make 2 loops with one stitch work on the wrong side of the garment. Make a loop back a few millimetres back from the edge. Bring the needle out at the point you want the loop to start.

Put the needle back into the garment where you want your loop to end and bring it back out at the start point to form the loop as in figure 7.87 below.



**Fig. 7.87:** Starting button loop



**Button loop** (Source *madamsew.com*)

**Step 2.** Make the loop big enough to go over the button. Use your finger or a pen as a guide for consistency as in figure 7.88 below.

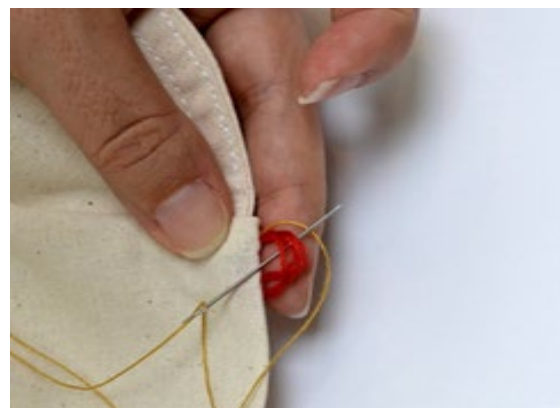


**Fig. 7.88:** Using pen as a guide

**Step 3.** Decide how many strands you need in your loop and repeat. For example, about 8 strands. Fasten the thread off securely and pull the thread firmly. Slide the stitch along the loop so it sits to the left, right at the beginning next to the fabric as in figures 7.89A and figure 7.89B.

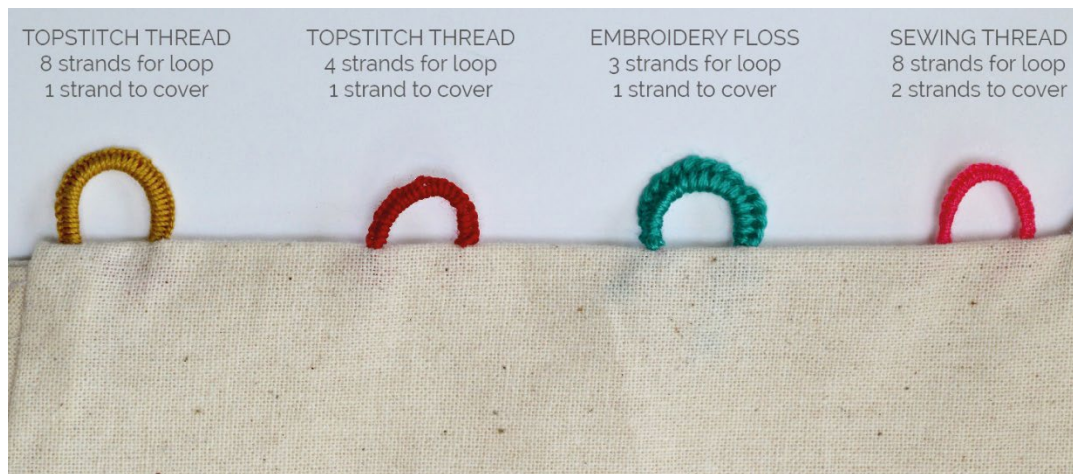


**Fig. 7.89A:** Making of loops



**Fig. 7.89B:** Making of loops

Repeat, sliding each stitch snugly to the next, until the whole loop is covered with a closely worked blanket stitch. Secure the thread and stitch on the button.



**Fig. 7.90:** Types of stitches to create loops

Figure 7.90 Shows a few options regarding which thread and how many strands per button loop. There is not a right and wrong answer for which one to use – this depends on what you are making and what you have available.

- The first one is using topstitching thread and 8 strands.
- The second loop is again using topstitching thread but with only 4 strands for the loop.
- Number 3 is Embroidery Floss with 3 strands.
- Number 4 is the most delicate of the button loops. Made from sewing thread pulled through beeswax to strengthen it, with 8 strands for the loop and the blanket stitch worked with a double thread for 2 strand coverage. This one would be good to use on a delicate fabric such as a cotton lawn.

## e. How to fix a Hook and Eye

Hook and eye closures are inconspicuous and secure, and they are the perfect fastener for a number of garments. They are commonly used at the top of a zipper, especially at the neck of a blouse or dress. However, they can also be used in any number of other places, including sleeves, collars, belts, and lingerie closures.

### Sewing the Hook

**Step 1.** Use a double thread on your needle with a knotted end and trimmed tail. Start your sewing stitch on the outside of one of the eye holes and go under the wire and come up through the middle of the hole. Then, do the same end knot stitch we did on the holes of the hook for both this eye hole and the other eye hole.

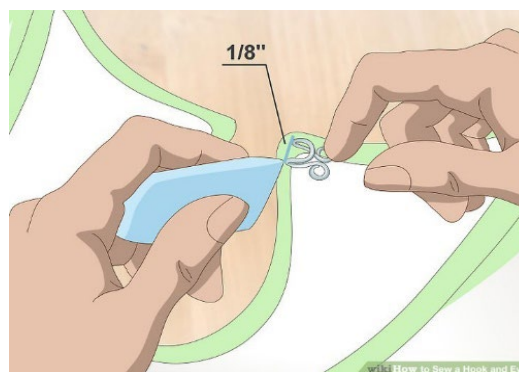


**Fig. 7.91:** Placing of hook

- Place the hook on the underside, right side of the fabric about 0.32cm in away from the fabric edge as in figure 7.91 below.
- Thread a needle with 16–18 in 41cm–46cm in length thread through the fabric and hoop in a repeated circular motion to secure the hook before tying off and cutting your thread.

### Step 2.

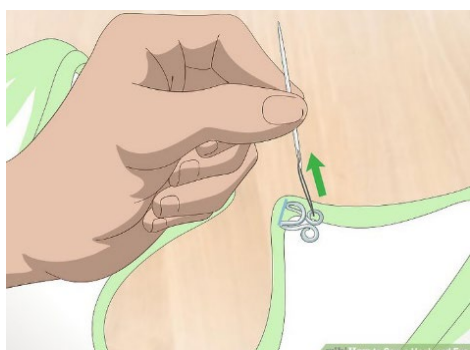
- Line up the eye in the same way you did the hook, ensure that the eye is placed so that it will connect to hook, and fasten the eye with thread just like you fastened the hook.
- Adjust the hook to 0.32cm (1/8 inch) from the edge and mark it with chalk as in figure 7.92 below. If you place the hook and it falls just inside of the edge of the garment, you will get a secure closure, but the fastener will not be obvious.



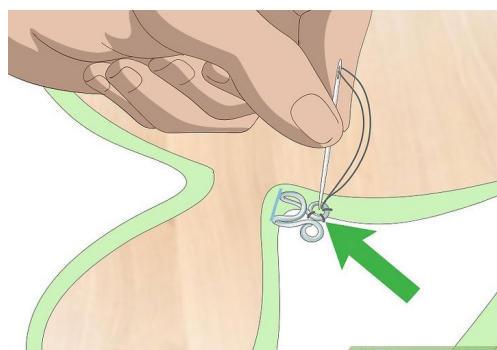
**Fig. 7.92:** Matching hook and eye

**Step 3.** Stitch 2-3 times around the hook to hold it in place. Your first stitches should go around the hook itself. You only need 2 or 3 stitches to secure the hook so it will not shift as you are stitching around the loops, and it will help the hook lay flat when you have finished as shown in figures 7.93 and 7.94 below.

- Remember not to sew all the way through the fabric. The needle should never come out through the top layer of the garment.
- This helps the hook lay flat against the garment



**Fig. 7.93:** Stitching hook place



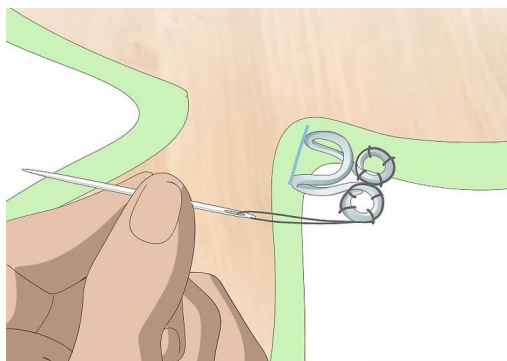
**Fig. 7.94:** Stitching hook in place

Sew around the loops with blanket stitches. After you have secured the mouth of the hook, bring the needle around one of the loops from the back to the front. Do not pull the fabric tense yet; instead, you should see a big loop of thread. Pass your needle through that loop, then pull the thread tight, creating a small knot. Move the needle over just a little and do the same thing, and continue all around the loop, then repeat on the next loop as in figure 7.95 below.

- Place the stitches close together, since you want the loop to be completely (or at least mostly) covered by the thread.

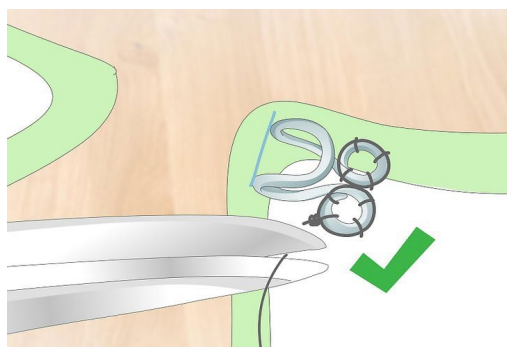


- A blanket stitch is more secure and looks nicer than a regular stitch. You can also use a buttonhole stitch, if you are more comfortable with that.



**Fig. 7.95:** Finishing the loop stitches

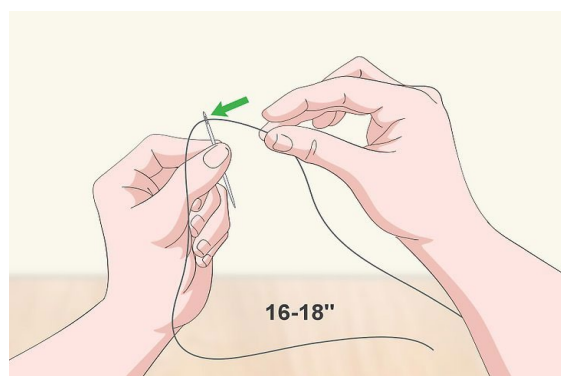
**Step 4.** Tie the thread securely and trim off the ends. Once you have sewed around both loops, tie a knot in the thread so it cannot unravel. Then, use scissors to cut off any excess thread as close to the knot as possible as in figure 7.96 below. You do not want any dangling threads to show on your finished garment



**Fig. 7.96:** Complete and cut thread

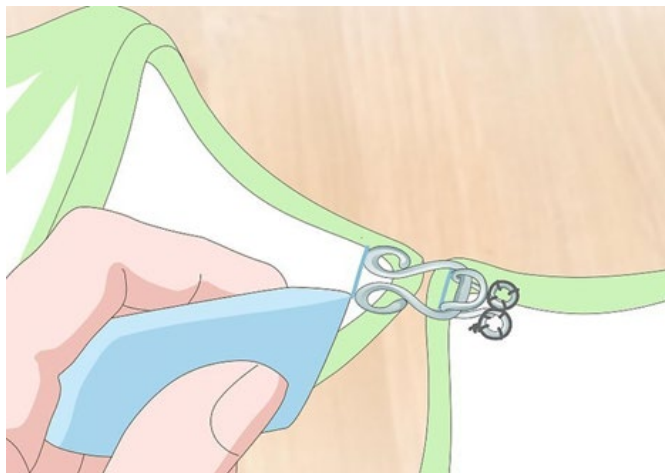
### Sewing the Eye

**Step 1.** Re-thread the needle with 16–18 in (41–46 cm) of thread. Once you have sewnd the hook into place, it is time to attach the eye. You will need another length of thread that is the same length as the one you cut previously as in figure 7.97. It will look best if you use the same color thread for the hook and the eye.



**Fig. 7.97:** Threading needle

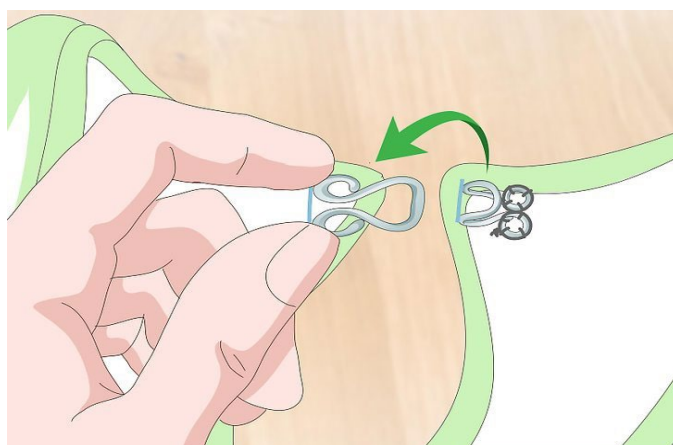
Attach the eye to the hook and mark where the eye falls on the garment. Holding the eye onto the hook, line up the sides of your fabric together. When you see where the eye naturally falls on the garment, use your tailor's chalk or pen with disappearing ink, and mark its location. The eye should also be placed about  $\frac{1}{8}$  in (0.32 cm) from the edge of the garment as in figure 7.98 below.



**Fig. 7.98:** Matching eye to the hook

**Step 2.** Unhook the eye and place it on garment. Use your fingers to hold the eye in place before you secure it with the thread. If it shifts, just line it back up with the mark you drew as shown in figure 7.99 below.

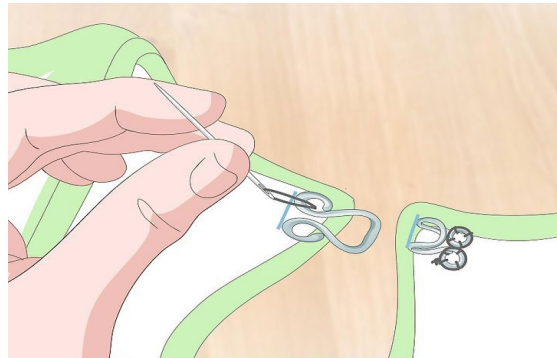
Attaching the hook and eye in the first place helps ensure that you put the eye exactly where it needs to go. However, it will be easier to sew the eye into place if it's not attached to the hook.



**Fig. 7.99:** Positioning to sew eye

**Step 3.** Make the knot again by bringing the needle through the underside of the fabric. You do not want the knot or stitches to show on the eye side, either. When you are ready to start sewing, push the needle sideways through the underside of the garment, bringing it up through one of the loops in the eye. Pull the thread taut when you have finished. See figure 7.100 below

At no point should your needle come out through the top of your garment. This will leave visible stitches on the outside of the fabric.



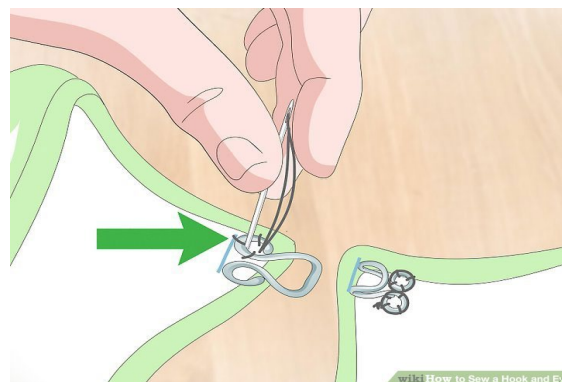
**Fig. 7.100:** Start sewing the eye

**Step 4.** Stitch 2-3 times across the loop to hold it in place. To keep the eye from sliding around while you are sewing, make 2-3 passes around the loop when you are just getting started. Blanket stitches can be used at this point as well as regular stitches are fine as in figure 7.101 below.

Since you will go back around the loop with the blanket stitches, these first stitches do not have to be as secure.

Make the knot again by bringing the needle through the underside of the fabric. You do not want the knot or stitches to show on the eye side, either. When you are ready to start sewing, push the needle sideways through the underside of the garment, bringing it up through one of the loops in the eye. Pull the thread taut (tight) when you are finished.

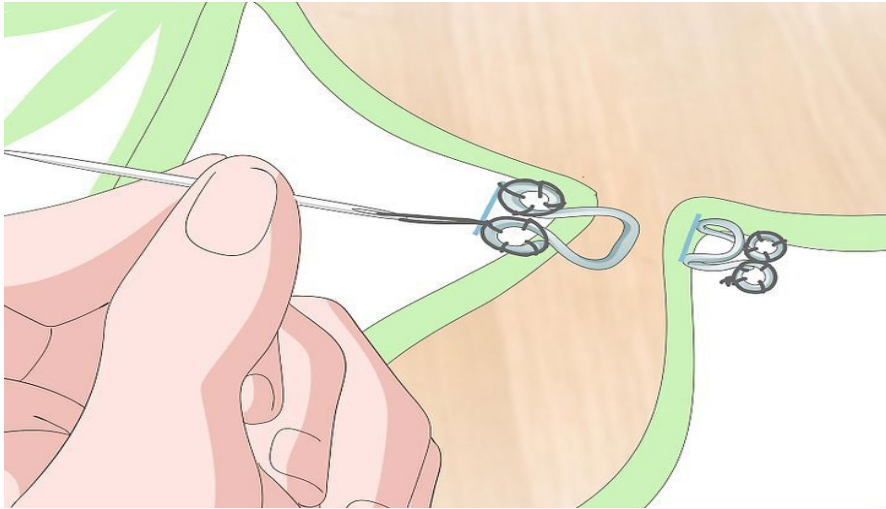
Reminder: At no point should your needle come out through the top of your garment. This will leave visible stitches on the outside of the fabric.



**Fig. 7.101:** Continue sewing eye

**Step 5.** Sew around both loops of the eye with blanket stitches. Pass the needle through the loop from the back to the front, leaving a big loop of thread. Then, push the needle through the loop and pull it tight. This will create a small knot. Move over just a little and make another loop, then pass the needle through again. Continue doing this all the way around both loops as shown in figure 7.102 below.

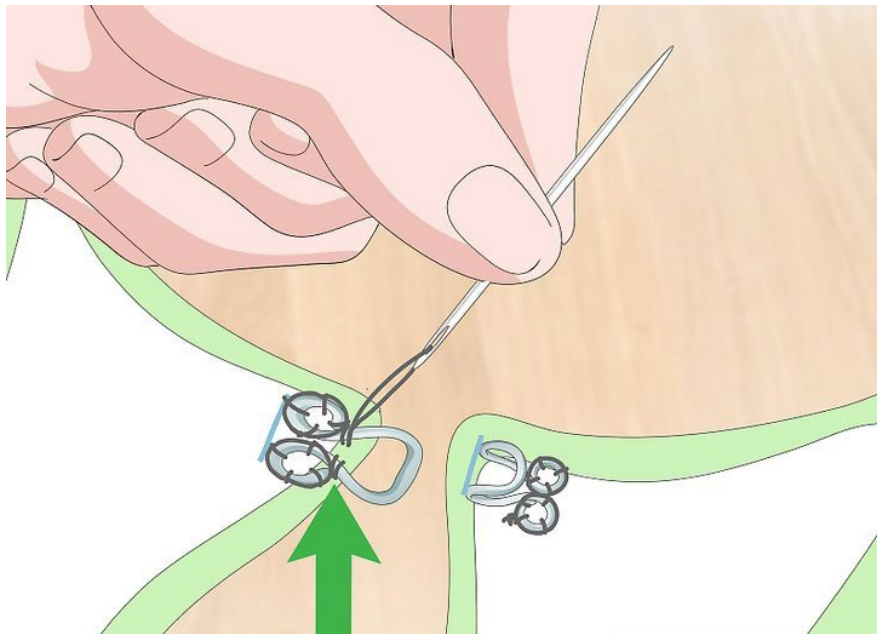
- Make sure the stitches are very close together
- You can also use buttonhole stitches.



**Fig. 7.102:** Continue stitching

Sew a few loops down each side of the eye, below the curve. To stabilize the eye, add a couple of stitches on either side of the eye itself. Regular stitches are fine here, too

**Step 6.** Do not sew too much here, since you still want to be able to lift the eye enough for the hook to slide through. Just 2-3 stitches on either side should be enough as shown in figure 7.103.

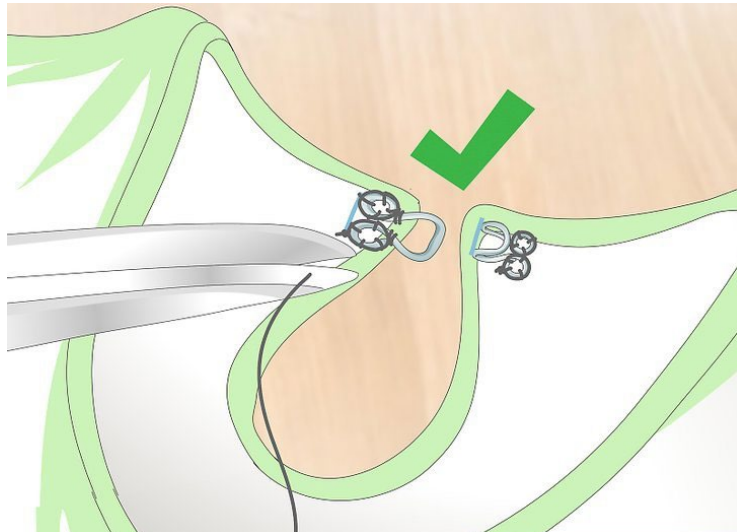


**Fig. 7.103:** Stabilize the eye with stitches

**Step 7.** Cut off any excess thread. When you are finished, tie a secure knot in the thread, then use scissors to cut away any excess. Try to cut as close to your knot as possible to do away with dangling threads as in figure 7.104 below.



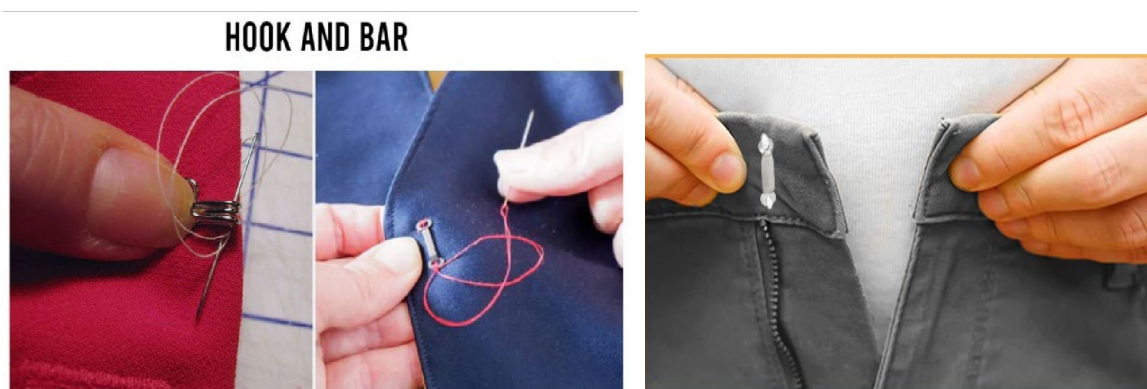
You may want to attach the hook and eye at this point to make sure the closure is lined up correctly, and to ensure the fabric doesn't pull or pucker at the fastener.



**Fig. 7.104:** Cutting off excess thread

## f. Hook and Bar

A hook and bar fastening is a popular choice for the closure on tailored trousers, skirts and other garments. It is an alternative to a button closure, particularly where a clean, minimal look is required. It is also a secure fastening that can generally hold more strain than a hook and eye fastening (which is normally just used as a lightweight closure where two edges meet, rather than overlap)



**Fig. 7.105:** Showing a fixed bar on trousers (Source: [www.craftsy.com](http://www.craftsy.com))

### How to fix a bar

1. Fix the hook as demonstrated above in the fixing of hook and eye.
2. To fix the bar, thread your needle with double thickness and make a knot.
3. Place the bar on the right side of garment and sew on the bar by sewing in each hole with loop stitches.
4. To end, pass thread into fabric about ½ an inch and cut.

## g. How to Sew Zipper Opening

**Step 1.** To begin attaching your zippers, you may need a zipper foot to sew in a zipper. They are narrow in size and have a notch on the left for the needle and a notch on the right. This is so that the presser foot can butt up right next to the zipper, making a seam really close to the zipper. Here are the two pieces of fabric that you need to zip together as in figure 7.106 below.



**Fig. 7.106:** Two pieces of fabric and zipper

**Step 2.** Prepare the two edges with a serged seam (zig-zag works too) and then sew those two sides together, with right sides together using a 1.6cm seam allowance and a long stitch length (basting stitch) as in figure 7.107. Then, turn to the ‘wrong’ side and iron the two edges open flat as in figure 7.108.



**Fig. 7.107:** Wrong side of fabric sewn together



**Fig. 7.108:** Turn and iron

**Step 3.** Start from the top edge of the fabric 1.3cm down. Place your zipper face down. Then line up the center of the zipper teeth along the center of the open seam. Place some scotch tape along the back of the zipper and as you center your zipper, lay it down and secure with the tape, pin or a tack as shown in figure 7.109 below. Gradually make your way all the way down the zipper, checking to be sure the zipper it is centered right along the seam and continue placing pieces of tape, pins or tack as in figure 7.110 below.

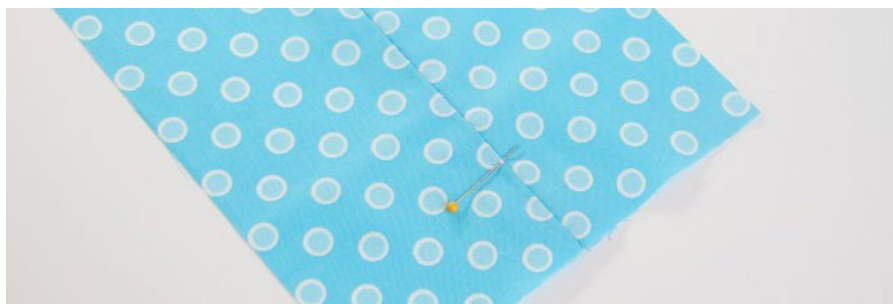


**Fig. 7.109:** Place zipper



**Fig. 7.110:** Secure zipper with scotch tape

**Step 4.** Then flip the fabric over and place a pin right above where the bottom of the zipper is. This will just show you where the end is because you do not want to sew over the metal (or thick plastic) piece at the end of the zipper as in figure 7.111 below.



**Fig. 7.111:** Place a pin above where the bottom of the zipper is

**Step 5.** Start at the bottom of the zipper and work your way towards the top. First, position your needle all the way over to the left (so that you do not break your needle) and begin sewing along the right side of the seam.

Slide your fabric (right side up) underneath the presser foot and find the pin you used to mark the bottom of the zipper. Make your sewing consistent as you sew along the zipper. Make one back stitch or two and then start sewing as in figure 7.112 below.



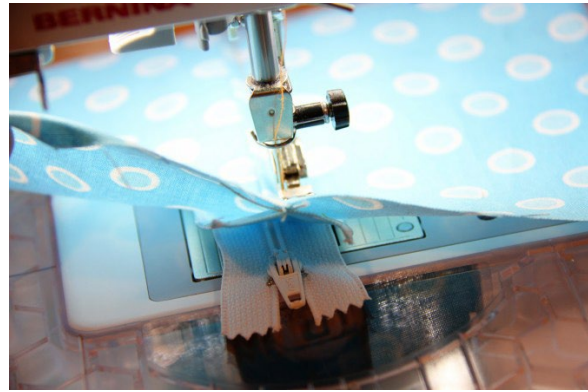
**Fig. 7.112:** Start sewing from the bottom of the zipper



**Step 6.** Keep sewing all the way down the zipper until you are about 5cm from the end as in figure 7.113 below. Now, keep your needle down in the fabric and then lift the presser foot and lift up the fabric as in figure 7.114 below.

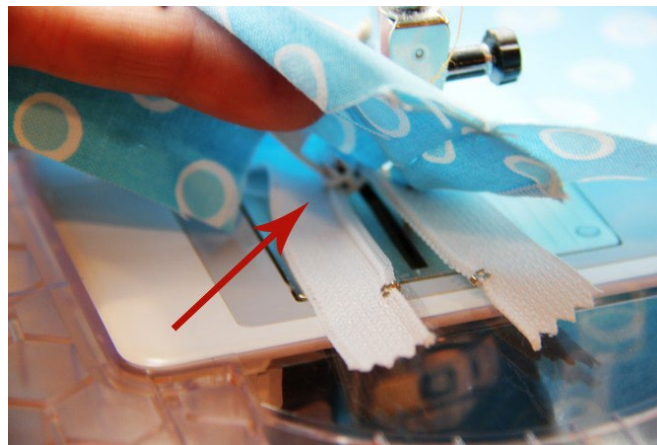


**Fig. 7.113:** Sew until 5cm to the end



**Fig. 7.114:** Lift presser foot and the fabric

**Step 7.** Un-zip the zipper until it is just behind the needle and out of the way as in figure 7.115 below. Unzipping will get the chunky zipper pull out of the way while sewing.

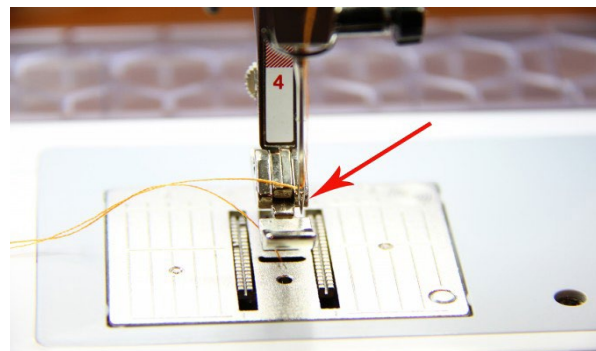


**Fig. 7.115:** Un-zip the zipper close to the needle

**Step 8.** Now, re-align the center seam of the fabric so that it is slightly more to the left as in figure 7.116. Then continue sewing and backstitch at the end. Now, switch your needle alignment all the way to the right as in figure 7.117.



**Fig. 7.116:** Align center seam to the left



**Fig. 7.117:** Switch alignment to the right

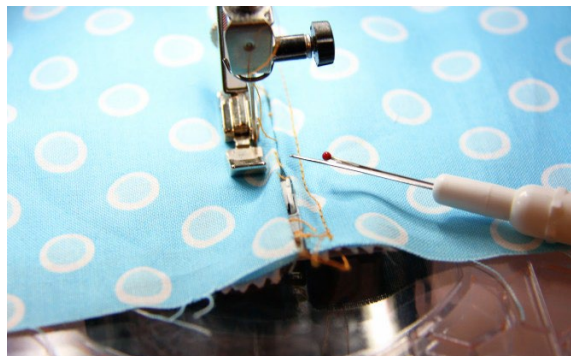


**Step 9.** Turn your fabric a quarter turn so that you can sew along the bottom of the zipper. Sew back and forth a few times, to secure the end of the zipper section on the fabric as in figure 7.118 below.



**Fig. 7.118:** Sew along the bottom of the zipper

**Step 10.** Then turn the fabric again so that you can start sewing along the other side of the zipper. Sew right along the left side of the zipper, just like you did along the right. Make sure you sew the same distance from the center seam. Stop again, 5cm from the end, leaving your needle down in the fabric. Then unpick that center seam until just beyond the back of the zipper foot as in figure 7.119 below.



**Fig. 7.119:** Sew along the other side of the zipper

**Step 11.** Un-zip the zipper so that it is out of the way and just behind the zipper foot, then move the edge of the fabric just over to the right a bit, to give extra room for the zipper head on this side too. Continue sewing to the very end and backstitch as in figure 7.120 below.



**Fig. 7.120:** Un-zip the zipper and continue sewing

**Step 12.** Now, flip the fabric over and pull up the tape as in figure 7.121 below.



**Fig. 7.121:** Remove tape used

**Step 13.** Now unpick the remaining center seam stitches as in figure 7.122 below.



**Fig. 7.122:** Unpick centre seam

**Step 14.** And then pull on the zipper to be sure it works as in figure 7.123 below.



**Fig. 7.123:** Pull on the zipper to be sure it works

**Step 15.** Now, fold under the top edge and sew in place, add a band to cover the top raw edge as shown in figure 7.124 below.



**Fig. 7.124:** Sew top edge - Final work

## Activity 7.5

1. Make a sample/specimen of the following openings and fastenings for the following garments. Present for appraisal and for portfolio.

- A child's dress.
- A blouse for a young girl
- Shorts for a young boy
- Kaba for a woman

2. Project: Create a photo album of at least three openings and fastenings.

**Tips:** use pictures from magazines and other sources. You can also draw/sketch. Keep for portfolio assessment.

3. Your teacher will help you to arrange a visit to a clothing and textile industry or sewing workshop within your community. Observe how openings and fastenings are made on garments. Record your observations and what you learnt and report in class.

4. Fix the following fasteners on a 10cm x 10cm square piece of fabric. Mount them in your album and present for appraisal in class.

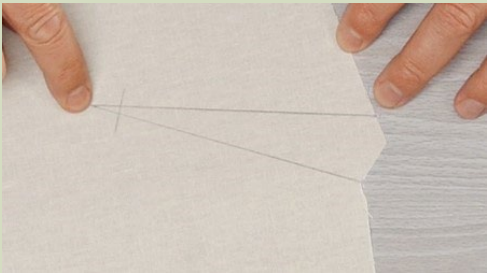


- Hook and Eye
- Hook and Bar
- Button Loop
- Velcro

## Extended Reading

For further information on Sewing Supplies, click on this link: <https://mavenpatterns.co.uk/make-button-loop/>

# Review Questions

- Q1.** Your friend's sister who is a fashion designer in your community, has offered to train your sister as a fashion designer. She asked her to buy some sewing essentials. What essentials will you advise your sister to buy for her sewing course? Give reasons for your choice.
- Q2.** Explain why you think darts are necessary in a garment.
- Q3.** Below are diagrams illustrating the first three steps or stages of making darts. Describe how each step is made.

Steps/stages	Description
<p><b>Steps 1</b></p> 	
<p><b>Step 2</b></p> 	
<p><b>Step 3</b></p> 	

- Q4.** Sketch or describe the various steps in producing a box pleat



**Q5.** What is the purpose of gathering in garment construction?

**Q6.** What factors influence gathering effectiveness?

**Q7.** How do you maintain even gathering?

**Q8.** Suggest the type of openings and fastenings that are suitable for the following and give reasons for the choices:

- i. Girl's school uniforms
- ii. Baby's clothing
- iii. Boy's shorts
- iv. Women's lingerie

**Q9.** Complete the table below by providing the suitable openings for the fastenings.

S/N	Fastenings	Openings
1	Zipper	
2	Button	
3	Velcro	
4	Pres studs	
5	Hook and eye	
6	Hook and bar	
7	Tapes/Ribbons	

**Q10.** What is the correct zipper alignment when fixing a zip?

**Q11.** How do you finish a zipper seam?

## Glossary

1. **Adhesive:** It is a substance or technologies that bond materials together.
2. **Clumps:** Unwanted lumps, bumps or thickening in fabric, often caused by uneven thread tension.
3. **Concealed:** Hidden features in garment. For example, hidden pockets, invisible zippers.
4. **Contour dart:** It is a folding and sewing technique used to shape and fit a garment to the body's contours.
5. **Contour:** It refers to the shape and outline of a garment as it follows the curves and of the human body.
6. **Dangling:** An element or clothing that hangs loose and sways or move freely.
7. **Dimple:** It refers to a small, rounded depression in the fabric, typically created by a gathering or tucking technique.
8. **Drape:** It refers to the way fabrics folds, hangs, or flows on the body cheating a special style.
9. **Embroidery:** The art of decorating fabric using need les and threads to create intricate design, pattern.
10. **Flattening:** The process of smoothing and evening out fabric to remove wrinkles and creases.
11. **Fly front:** It refers to a zipper or other closure that runs along the front of a garment.
12. **Fullness:** The amount of fabric used to create a garment, particularly in areas where volume, shape and drapes are desired.
13. **Garment:** Is an item of clothing or attire worn on the body to cover or adorn oneself.
14. **Inconspicuous:** Design element that are discreet or subtle
15. **Lapped:** A construction method or design feature where two or more layers of fabric overlap.
16. **Lingerie:** Intimate clothing designed for comfort, hygiene and appeal for example pants, nightgowns.
17. **Overlap:** It is an area where two or more fabric layers intersect to prevent fraying or unraveling.
18. **Puckering:** It refers to the gathering or contraction of fabric, resulting in small folds or wrinkles, typically around seams, stitches or edges.
19. **Puff:** Gathering or padding technique used to create a soft, rounded, or inflated shape, typically in specific areas of a garment.
20. **Scrap yarn:** Left over yarn from completed knitting projects that is no longer needed for its original purpose.
21. **Serging:** A type of sewing machine that finishes seams by encasing them in a thread casing preventing fraying and giving a professional finish.
22. **Shank:** A stiffening or reinforcing element used to provide structure and support.
23. **Sheer fabric:** Lightly woven or transparent fabrics that provide ventilation and breathability, layering versatility.

24. **Silhouette:** It is the shape of a garment.
25. **Slit:** A vertical or horizontal opening in a garment purposely to ease movement
26. **Smooching:** A technique used to smooth and flatten, especially when working with delicate or slippery materials.
27. **Strap:** A flexible band or strip of material used to secure, fasten or adjust fit.
28. **Tapers:** Refers to a gradual decrease in width of a garment, typically from the top to the bottom or from the shoulder to the hem.
29. **Tug-** To pull or draw something forcefully or a strong or intense effort
30. **Unravel:** The process of yarns or threads coming loose and causing damage or distortion to the fabric.
31. **Upholstery:** The process of adding padding, interfacing or stabilizers to specific areas of a garment. Soft, padded textile covering that is fixed to furniture such as armchair and sofas.
32. **Versatile:** It is a garment or pieces that can be worn in multiple ways. Able to adapt or adapted to many functions or activities.

## References

1. NaCCA, (2023). *Draft Senior High School/ Senior High Technical School/Science Technology Engineering and Mathematics Curriculum for Home Economics*. Unpublished.
2. Ministry of Education, (2010). *Teaching Syllabus for Clothing and Textiles*. CRDD
3. Foster, P. (2014). *Clothing and textile*. Winmat Publishers Limited: Accra. Pages 238-262



## Acknowledgements



Ghana Education Service (GES)



## List of Contributors

Name	Institution
Nyarko Lily-Versta	Mancell Girls' SHTS, Kumasi
Karim Ankrah Mohammed	Gbewaa College of Education, Pusiga
Akompi Dorcas Abena	Asesewa SHS
Judith Sakara	