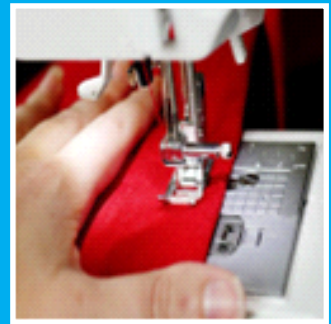
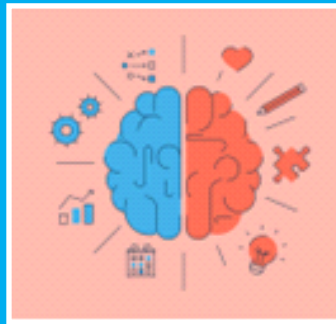
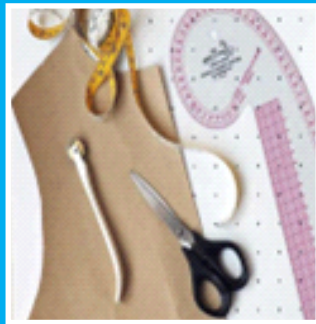


Grade

10

DRESS MAKING



Government of Pakistan

**Ministry of Education and Professional Training
National Curriculum Council**



**In Collaboration With
NAVTTTC
ISLAMABAD**

Textbook of
DRESS MAKING
Grade – X



National Vocational and Technical Training Commission
H-9, Islamabad

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PREFACE

This book has been written to meet the requirements of Matric Tech to train the students in Dress Making. Matric Tech in Dress Making has been introduced the first time in the history of Pakistan. This textbook is the first national effort to describe the topics related to Dress Making in one book. A key attempt has been made to make the book interesting and useful. All the chapters cover the basic details understandable to the students of Matric Tech. All chapters includes assessments in form of MCQs, short questions and long questions. The content is equally helpful for the students of Fashion Design, Pattern Making & Sewing and Textile Design.

This book covers all the topics to train learners in Dress Making. All the topics are explained in a convenient way to the students of Grade 10 Matric Tech. The book starts with Surface Embellishment Techniques, Textile Surface Technique, Pattern Making, and Advanced Sewing. After wards, it explains entrepreneurship

The book should be read conceptually. Perform all the activities and tasks to have hands on experience in Dress Making. The sequence of chapters can be adjusted as per convenience of the tutor. This is a really good initiative that is going to help fulfilling the increasing demand hands - on local industry. It will also pave way for the career progression of youth.

Any improvements and suggestions for the betterment of this book will be highly acknowledged.

Executive Director

National Vocational & Technical Training Commission

(NAVTTTC)

Sr. No	Chapter Name	Page No.
1	Surface Embellishment Techniques-Reviewed	1
2	Textile Surface Techniques-II-reviewed	15
3	Pattern Making-II	37
4	Advanced Sewing MA	56
5	Entrepreneurship	80
6	About the Author	107

SURFACE EMBELLISHMENT TECHNIQUES



1

What is surface
for textile
embellishment?

What kind of
surface
embellishment
you like?

Did you ever
think how
embellishment
applied on
surface?

Students Learning Outcomes:

After studying this unit students must be able to:

- ✓ identify the basics of Surface Embellishment techniques.
- ✓ recognize the tools used for embellishment (Adda, needles, scissor, thimble, etc.).
- ✓ understand the Tracing techniques.
- ✓ evaluate the process of applying different embellishment techniques (Tilla work, mirror work, etc.).
- ✓ apply embellishment materials (Gotta, tilla, etc.) for creating sample.

Basic Surface Embellishment Techniques

Embellishment is the activeness of adding anything decorative items through the function of visual arts. Fabric embellishments are the ornament ordinarily added to fabrics to make them more beautiful because of the nature of decorative patterns, which is created for ornament purpose. Different kind of surface design techniques is used for embellishing the fabric. Most common materials that can be used for this procedure include fringe, boutiques, beads, as well as buttons.



Different Embellishing Techniques

Surface embellishment

Surface embellishment is an important ingredient of complimentary grade; it is a smashing mode of bringing your personality, way together with skills to your run and putting your own stamp on your project.

Textile embellishment

Textile embellishment can accept many forms; with patterns go following the suggestion of nature, the geometrical abstract, fonts as well as lettering. It can be perceived every bit a subtlety, the changing of colour, line together with texture, or it can live much bolder, using large-scale shapes and patterns. Whatever the technique or proposition for composition, the terminate result is to make something more than it was, to add together ornament to raise its attraction to the individual.

Embellishment Inward Decorative Arts

Embellishment techniques arenon-entirely applied on thesurface of fabrics totextiles, it is aswell applying whatever kind of decorative items. Ceramics, glass, metallic, woods inwards fact all the major to nipper decorative arts, used embellishment, as a legitimate tool inward which to decoratively enhance their results.

Fabric embellishment

Keywords

Embellishment

Embroidery

Appliqué

Ruffles

Furrowing

Smocking

Piping

Upcycling

Printing

Dyeing

Quilting

Beading

The Tools Used For Embellishment

Needle

The needle is used with a razor-sharp hook at one edge, used for sewing fabrics, applied for doing surface embellishment with beads and sequins. Multifaceted type of hand-beading requires excellent

craft and ability, the needle used for aari work comes in various sizes and they can be available in the local market.



Interesting Information

A rusted needle is more difficult to pass through the fabric and to thread, because the surface loses its sleekness. In conditions of high humidity, when your hands sweat and produce natural oils – it is better to clean the needle (and the hands). Another cause of rust might be the saliva from when you lick the thread. Yeah, most of us do but it's important to know that eventually, it might result in a corroded needle.

Needles used for Bead and Sequins

- 1.5 inch and 1.2-inch-long needle, made up of a wooden handle that is easy to use.
- Iron needle, approximate size of 1.5 inches and has a thin and consistent format.

Colorful Threads

Colourful threads are used according to the design and patterns.

Zari and Resham thread: It is used for decorating and outlining the design in the best way. Firstly the fabric needle is passed, and the thread is taken in the hook of the needle. Then the thread is taken out at the top surface of the cloth with a needle and adjusted with the prior stitch.

Many used materials in aari work are zari or the golden-coloured metallic thread. Good quality yarn threads in cotton or silk are also used in multiple colours. Accompanying this fine embroidery are the



embellishments of Sitara, Moti or Salma, Dabka, Nakshi, Aara and Gota, beads, sequins etc.

Scissors

Scissors are used to cut the threads.



Beads & Stones-

Different types and colours of beads and stones are used to embellish surface embellishment design.



Fabric Gum is used to fix the stones on fabric



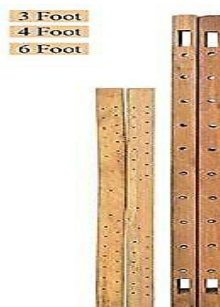
Bright Check is a two- part thread containing a central core wire, with a coiled wire around it.

Bullion or Pearl Thread is also a type of wire wound into a tight coil that looks like a strand of goldpearls.



Wooden Frame

Aari Cot Stand comes with four stands (wooden) and is supported with bolts. It comes with a 1-meter thick cloth. It is made of wood and is adjustable. The measurements are length (4 feet), width (2 feet) and height (1.5 feet).



Design Creation Using Surface Embellishment Techniques

Tracing Technique

An embroidery design can mark or transfer on fabric in a variety of ways, such as tracing method, punching method, light table method and carbon paper method and one of those will probably become your favourite. The best choice of technique can also often depend on the weight or colour of the fabric being used. We will use the hot iron transfer method.



Hot Iron Transfer Method

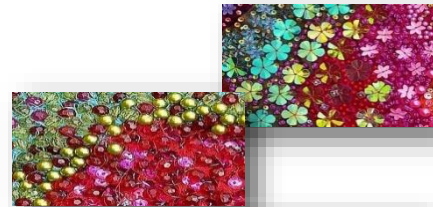
Hot iron transfers are patterns that come ready to use and feature a wide range of subjects. They are normally printed in black, blue, or grey ink. Transfer these designs to the fabric using a hot iron in the same manner as transfer pens and pencils.

Process of Applying Different Embellishment Techniques

A few material surfaces embellishing techniques are briefly discussed below:

Sequence/Beadwork (Sitara, cutdana)

Beads are other types of embellishment. Beadwork is made by needle and thread to stitch beads onto fabrics, suede, or leather.



Gotta Work

Gota Patti or Gotta work is a type of applique technique. Small pieces of zari ribbon are applied onto the fabric with the edges sewn down to create elaborate patterns.



Gotta is crafted using an appliqué technique a strip of gold or silver or various other coloured ribbons of different widths woven in a satin or twill weave. It involves placing woven gold cloth onto fabrics such as georgette or bandhani to create different surface textures.

Tilla Work

Tilla is actually an embroidery work extensively used to decorate ethnic wear. Gold or silver imitation threads are delicately tied by needlepoint over the fabric to create lovely designs. The whole process needs skill, patience and accuracy.



Trimming

Two types of trimming are most popularly applied on fabric or garments for decoration. Such as:

- ✚ **Fringe Trim:** Fringe is an ornamental textile trim, applied to an edge of an item, such as drapery, the dress ends, a flag, epaulettes, decorative tassel, etc.



✚ **Sewing Trim:** Sewing Trim or trimming in clothing and home decorating is applied to ornament or Embellishing fabrics such as gimp, ribbon, ruffles, button, bias tape, etc.

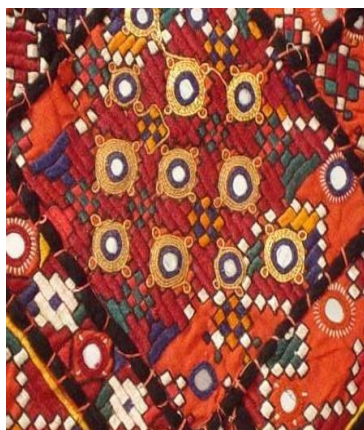
Lacework

Lace is an openwork fabric, patterned with open holes in the work, made by machine or by hand. Lace is another Embellishing item on fabric. It is a very common and ancient craft to Embellish fabrics.



Mirror Work

Mirror-work/ Shesha work is a type of embroidery which attaches small pieces of mirrors of various shapes and sizes, including circular, square, triangular and polygonal, which are meticulously and decoratively stitched into place on the base fabric. It is an early form of mirror work introduced to India during the reign of the Mughal Empire. This traditional type of mirror work incorporates the use of not only small pieces of mirrors but also other embellishments such as sequins. Intricate motifs created by needlework may also appear in shisha embroidery.



Adda Work

Aari or Adda work is a form of embroidery that has its earliest roots in the verdict period. It is also known as Aari work, which refers to the thread craft that enhances the look of a fabric or product. It is generally done on natural fabrics with tight weaves and influenced by different cultures keeping the flavour of their own style. It may also include decorating materials other than threads, like pearls, beads, stones and sequins. Fundamental stitches of embroideries used in it are running stitch, cross stitch and satin stitch. Adda/ Aari embroidery is one of the many forms of embroidery that originated in the Mughal era.



Ari Work

Aari work is a type of embroidery work that is done by stretching the fabric tightly over a wooden frame to remove uneven folds of the fabric. Using a thick cotton thread, the fabric is sewn onto the wooden frame. This does not spoil the grip of the fabric and allows forming of intricate patterns over the fabric. More often, zari, cotton, and silk threads are used to make Aari work embroideries with thin needles. Fine patterns of embroidery are one of the main features of Aari's work. Generally, craftsmen and artisans embellish the Aari embroidery work with sequins, stones and other embellishments to enhance the look of the embroidered patterns through the techniques of Tilla work. Sitara/Moti work, Dabka work, Nakashi work, Cut work, Moqaish work and Patch work.

Activity: Prepare a book of 5x5 inches samples using following basic embellishments techniques:

Tilla work ○ Mirror work ○ Gotta work ○ Sequence work (Sitara, cut dana, etc.)

Also, create a product using different basic embellishments techniques.



Embellishment Material for Creating Sample

Beads are some of the most common decorations used to add glitz and texture to your work. Hand embroidery stitches are also used to secure beads; the embellishments become a part of the stitch itself. Apart from beads, there are other decorative items like mirrors and shells that can be fixed to the fabric using hand embroidery stitches.

Seed Beads 4mm

These are the common glass beads with solid colours. The size is apt for a comfortable hold and the holes are big enough for a medium-sized embroidery needle to pass through.



Bugle Beads

These are elongated cylindrical beads. The Bugle Beads are great to be used with linear.



Glass Seed Bead 3mm

They come in a variety of colours and tones. The size is apt for an embellishment project. The holes are just right for a medium-sized needle to pass through. The holes can vary slightly in their sizes, and at times, some of them might find it difficult to accommodate at the eye of the needle.



Sugar Beads (smaller than 2mm)

These beads are so small that you can press them to your index finger and pick them up! You stitches. They come in various colours need a really thin needle to go through. These beads might be a little cumbersome to deal with.

Acrylic Beads

These are beads made of synthetic plastic-like material. Usually, they are used for jewelry making, but can also be used to add some glamor to develop embellishment surfaces. These beads can be found in different kinds of shapes and sizes.



Pony Beads

These are barrel-shaped beads with a big hole. Pony beads are great for jewelry making but can be used creatively in hand surface designing. They are big and so great to use over edgings.

Rice Shaped Beads

These beads are somewhere in between the Seed Beads and the Bugle Beads. The rice shape makes it attractive to use. They can be used along with linear stitches.

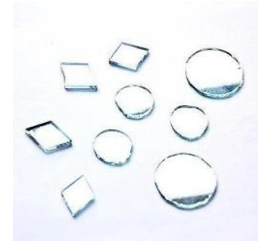


Sequins

These are small disk-shaped beads made of plastic. They are usually flat but also come in a slightly cup-shaped structure as in the image. Sequins are great to add a little sparkle without adding weight to the fabric. It can be combined with beads for a visual treat.

Mirrors

These are hand-cut mirrors. They are attached to the fabric using various hand embroidery stitches that cover the edges. Mirrors can add weight to the fabric. They add sparkle to the fabric by reflecting light. To avoid weight, mirrors can be replaced with big silver sequins



Shells

This is not a common embellishment, but is an interesting one. Small natural shells can be added to the fabric to add weight and an earthy and matted decoration on the fabric.

Activity: Prepare a product using different basic embellishment techniques

Good to Know

Fabric embellishment

Embellishment items

Some items that serve a purpose can also be used as embellishment.

Can you think of some examples?



Web Links

- ✚ Embellishment is the activeness of adding anything decorative items through the function of visual arts.
- ✚ Needle used with a razor-sharp hook at one edge, used for sewing fabrics, applied for doing surface embellishment with beads and sequins.
- ✚ Aari Cot Stand comes with four stands (wooden) and is supported with bolts. It comes with a 1-meter thick cloth. It is made of wood and is adjustable. The measurements are length (4 feet), width (2 feet) and height (1.5 feet).
- ✚ Beadwork is made by needle and thread to stitch beads to Embellishing fabrics, suede, or leather.
- ✚ Aari or Adda work is a form of embroidery that has its earliest roots in verdict period.

Web Links

<https://textilelearner.net/fabric-embellishment-techniques/>

<https://sosopoetry.blogspot.com/2018/08/fabric-surface-embellishment-techniques.html?m=1>

https://youtu.be/MlyMFQA_upE

<https://youtu.be/fzYCXVPAvI>

Exercise

Tick (✓) the Suitable Option.

1. **The word embellishment means.**
 - a) The process of dressing up in special clothes
 - b) Enriching the surface by adding ornaments or decorations
 - c) 3. Having a good feeling in your belly
 - d) All of the above
2. **Embellishments can be used on:**

a) Bags, shoes, clothing, hats, gloves	c) Shoes only
b) Bags only	d) Clothing items only
3. **Can a button be used to embellish a Textile item?**

- a) Yes but only some buttons can be used as embellishments.
 - b) Yes but only flat buttons can be used to embellish an item
 - c) Yes, all buttons can be used as embellishments and you are only limited by your creativity.
 - d) No, buttons should only be used as fasteners on textile items.
- 4. Which of the following items can be used to embellish a textile item?.**
- a) Sequins and tassels
 - b) Beads and pearls
 - c) Pom poms and fringing
 - d) All of the above.
- 5. Adda work is also known as.....**
- a) Aari work
 - b) Plastic work
 - c) Crochet work
 - d) Frame work
- 6. Trimming in clothing and home decorating is.....**
- a) Sewing Trim
 - b) Fringe Trim
 - c) Fabric Trim
 - d) Garment Trim
- 7. Can buttons be used to embellish a Textile item?**
- a) Yes but only some buttons can be used as embellishments
 - b) Yes but only flat buttons can be used to embellish an item
 - c) Yes, all buttons can be used as embellishments and you are only limited by your creativity.
 - d) No, buttons should only be used as fasteners on textile items.
- 8. Hand embroidery stitches can be used to embellish the surface of a textile item and can create an element of creativity and originality.**
- a) This is a true statement.
 - b) This is a false statement.
 - c) This was true many years ago but not true today.
 - d) Who would bother today hand sewing today when sewing machines can complete all stitching required?
- 9. Which of the following items can be used to embellish a textile item ?**
- a) Beads and pearls
 - b) Sequins and tassels
 - c) Pom poms and fringing
 - d) All of the above
- 10. Patchwork is a technique that involves sewing together different coloured and patterned pieces of fabric. Which statement is correct?**
- a) Patchwork has limited uses and is used mainly when recycling scrap fabric.
 - b) Patchwork has limited uses and is mainly used for large items such as bed covers.
 - c) Patchwork has many and varied applications including large decorative items, pockets

on bags and jackets, wall quilts and cushion covers.

- d) Patchwork is used mainly for small items such as baby clothes and booties.

Write short answers to the following questions.

1. Define Surface Embellishment?.
2. What is surface decoration?
3. What is the basic difference between embroidery and embellishment?
4. List different techniques used for fabric embellishment
5. Outline two reasons why you might embellish an item of clothing

Answer the following question in detail.

1. What is embroidery embellishment?
2. What are the uses of stitches and what is the difference between stitch and seam?
3. Describe one method of embellishing a household item
4. Suggest four ways of embellishing fabric
5. What is a method of tracing a design on Fabric for Embellishment?

Constructed Response Question

Some items that serve a purpose can also be used as embellishment. Can you think of some examples?

Final Project

- Make a 14"/14" cushion.



Draw a floral pattern on cotton fabric of your desired color. Apply any three techniques from the given embellishment techniques.

1. Tilla work
2. Mirror work
3. Bead work
4. Hand embroidery

TEXTILE SURFACE TECHNIQUES -II



How printing technique can beautify surface?

Students Learning Outcomes:

- ✓ define textile printing techniques.
- ✓ describe the printing tools, processes and equipment.
- ✓ explain types and uses of different paints.
- ✓ classify types and uses of printing techniques.
- ✓ apply textile printing techniques to create sample book.
- ✓ define the basics of dyeing.
- ✓ identify the types of dyes (direct, reactive, pigment, etc.).
- ✓ evaluate the compatibility of dye with fabric.
- ✓ recognize the dyeing tools and equipment.
- ✓ recognize the techniques of tying and dyeing (folding, pleating, web binding, knotting, etc.).
- ✓ understand dyeing recipes apply dyeing techniques on cotton fabric.

Chapter No 2: (Textile Surface Techniques-

Textile printing is known to be an ancient technique of enhancing the look of a fabric. It is considered a beautiful art of surface ornamentation; it is the process of applying colour to fabric in definite patterns or designs.

Do you know Textile printing is related to dyeing but in dyeing properly the whole fabric is uniformly covered with one colour, whereas in printing one or more colours are applied to it in certain parts only, and in sharply defined patterns.

Textile Printing Techniques

Printing is decorating textile fabrics by applying pigments, dyes, or other related materials in the form of patterns. Brief description of some important printing methods are given below.

- | | |
|-----------------------------|--------------------|
| ✚ Block Printing Technique | ✚ Digital Printing |
| ✚ Screen printing technique | ✚ Fabric Printing |
| ✚ Tie & Dye | ✚ Silk Painting |
| ✚ Batik | |

Printing Tools, Processes and Equipment

Block Printing

Block printing is a method of printing textiles by stamping ink-dipped blocks onto the fabric. These blocks are usually made from wood or linoleum, onto fabric. Block printing gives absolute control over your print's colours, motif, and repeat.



Tools & Equipment

- | | |
|----------------------------------|---|
| • Fabric | • A piece of Plexiglas or a shallow container |
| • Wood-mounted linoleum blocks | • A rubber brayer |
| • Wood carving tools/Lino cutter | • Water-based ink |
| • Butcher paper or newsprint | • An iron |
| • An apron | • Two press cloths |
| • A large flat surface | |



Process of Block Printing:

1. Before beginning block printing project, it is important to create a design and plan.



2. Start with sketching the design you would like to print on a piece of paper.

3. Once the design is finalised, transfer it to a wooden block. To do this, you can use transfer paper, or create your carbon paper by rubbing a graphite pencil on the wrong side of your sketch.



4. Use a cutter to carve away the negative space around your design. This part of the process can be time-consuming, but when you are done, you will have a stamp you can use time and time again.

5. Wash and dry your fabric to remove any sizing that might interfere with your ink.



6. Pour a small amount of ink onto a piece of Plexiglas or into a shallow container.

7. Use a brayer to roll the ink from the container onto the block. Make sure that the block is evenly coated with ink.
8. Practice your stamping technique on a scrap piece of paper. It's important to apply even, uniform pressure to your block.
9. Once you have preferred your technique you are ready to move on the fabric. Roll the like on your block and stamp your fabric using even pressure.



Activity: Prepare a sample of 5x5 inches using fabric paints on the wooden block to create block printing sample.

Screen Printing

Screen printing is a hand method of direct fabric printing in which screens / mesh/ films are used to transfer patterns onto the fabric. It involves the use of a porous mesh screen which is stretched over a frame. In screen printing, a stencil of the design is made out of porous nylon fabric. The areas which do not have prints are covered and then the screens are placed on the fabric and a wooden squeegee is used to work the color through the porous screen onto the fabric.



Tools & Equipment

- Screen-printing frame
- Craft knife & cutting mat
- Masking tape
- Screen-printing ink
- Squeegee
- Acrylic paint/fabric paint/fabric ink
- Fabric Medium
- Brush/Roller
- Paper towel or tray
- Stencil
- Repositionable adhesive spray (a must)
- Freezer paper (optional)
- Apron or painting clothes

Process of Screen Printing

Step 1: Design

Create a design for a finished product and transfer it to the required surface.

Step 2: Screen Preparation

Choose a mesh screen to suit the complexity of the design, and the texture of the fabric being printed. The mesh screen is then coated with a layer of light-reactive emulsion, which will harden when developed under bright light.



Step 3: Emulsion

The sheet featuring the design is then laid onto the emulsion-coated screen, and the whole thing is exposed to very bright light. The light hardens the emulsion, so the parts of the screen which are

covered by the design remain in liquid form.

Step4: Prepared screen

After the screen has been exposed for a set time, the areas of the screen not covered by the design will have turned hard. Any unhardened emulsion is then carefully rinsed away. This leaves a clear imprint of the design on the screen for the ink to pass through. The screen is then dried, and the printer will make any necessary touch-ups or corrections to make the imprint as accurate as possible to the original design. The stencil is now ready to be used.

Step 5: Pigment transferred through screen onto the fabric

The screen is lowered down onto the printing board. Ink is added to the top end of the screen, and a squeegee is used to pull the ink along the full length of the screen. This presses the ink through the open areas of the screen, imprinting the design on the fabric underneath. Once all the items have been printed, the screen is washed thoroughly to rinse off the extra ink.

Do You Know? If design is going to include more than one colour, then a separate screen must be used to apply each layer of pigment.

Step 6: The product is dried, checked and finished

The printed product then passes through a dryer, which 'cures' the ink and creates a smooth, colorfast finish. The final product will be checked and washed thoroughly to remove any residue

Interesting Information

Modern roller machine printing is a development of the engraved block method. The design is engraved onto a set of copper-surfaced rollers. The number of rollers depends upon the number of colors in the design. The rollers are situated in sequence round the circumference of a large pressure cylinder whose surface is padded and is protected from staining by dyestuff being pressed through the printed fabric



Silk Painting

Silk painting is a surprisingly simple type of textile art, especially once you figure out the essentials of preparing silk for painting and picking out the right types of paint to use. With that in mind, here are all of the basics of painting on silk so that you can try out the technique on your own.



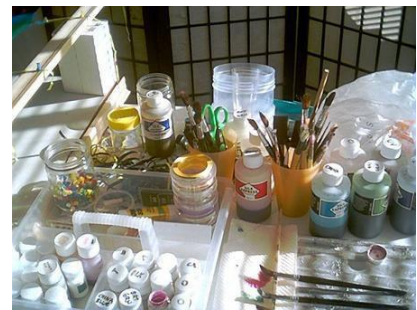
Interesting Information

The Serti (closing or fence) technique is the silk painting technique where designs are formed with gutta or water-based resists, which are applied to white silk that has been pre-washed, dried and stretched (on a stretcher).

Tools & Equipment

Silk Paints or Dyes in red, blue, yellow, green, orange, violet six small glass jars or disposable cups water to dilute paint spray bottle with water

- Paint Brushes
- Gutta or Water-Soluble Resist
- Applicator Bottle for the resist
- Some kind of Stretcher Frame
- A white silk item to paint on



Process of Silk Painting

Step 1: Rewashing Silk

Spread fabric over a smooth waterproof board and wet it with clean water using foam brush or spray bottle. Once wet, the material will 'stick' to the smooth, waterproof painting surface.



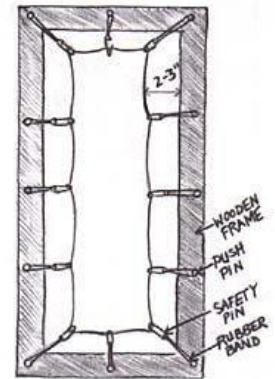
Step 2: Preparing Design

With a pencil, lightly draw your design onto the silk. This Technique lends itself well to designs with enclosed areas where the color will be contained within the resist lines



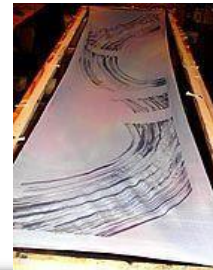
Step 3: Making a Stretching Frame

You will need a frame to stretch your silk and suspend it off the table. There are a variety of types of frames you can use, depending on the size of the piece you are painting and the materials that are available to you.. Old wooden picture frames also work well or you could build your own frame with wood. The wood that you use needs to be soft enough to allow push pins or 3-pronged tacks to be pushed into it. In a pinch, you could also cut out a frame from a cardboard box.



Step 4: Stretching Silk

Stretch your silk onto your frame with stainless steel push pins or silk thumb tacks every 4-6 inches along each side.

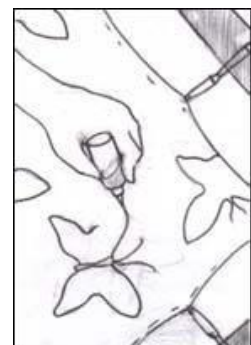


Interesting Information

If you are painting a piece that has already-finished edges (such as a scarf), you will need to make sure that the inside measurements of the frame, are at least 2-3 inches larger (on each side) than the silk piece you will be painting so that the edges of the silk will not make contact with the stretcher bars (which would leave unwanted paint marks on the silk).

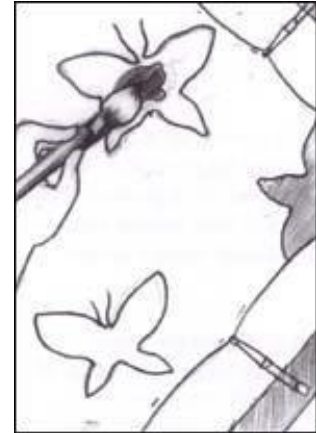
Step 5: Applying Gutta or Resist

Using even pressure and a steady hand while holding the applicator bottle vertically with the tip touching the silk, draw on your resist lines. Be sure that there are no breaks or gaps in the line (or dye or paint will escape!). Check the back side of your piece to make sure the resist has penetrated all the way through. If it hasn't, you will need to apply resist to the back side as well. (This is sometimes necessary when working on silks heavier than 12 mm.



Step 6: Applying Your Dyes or Paints

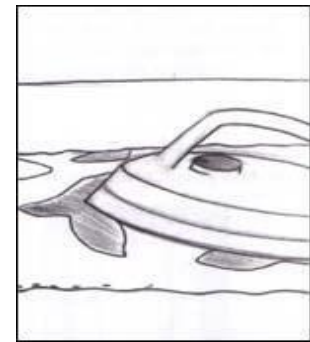
Dip your brush into the color and apply the dye or paint sparingly to the center of an outlined area by touching the brush to the silk. Let the paint move to the resist line – do not apply the paint too close to the resist (if water-based resist becomes too saturated the line may begin to dissolve!) If there is a gap in your resist line that you didn't notice and the dye or paint starts escaping, you can stop the movement by drying it quickly with a hair dryer and then patch up the line with gutta or resist and let dry before resuming. When painting large areas (e.g., background), work quickly, applying wet to wet to avoid unwanted lines.



Step 7: Setting the color

When you have finished applying the dye or paint to the silk yardage or scarf, it's not permanent until you "set" or "fix" the color so that in the future you can wash or dry clean the piece without all the color washing out.

The method of "setting" or "fixing" the color depends on the chemistry of the dye or paint you are using. Before purchasing any dye or paint, you should read the directions thoroughly to determine if the required procedure fits your project and situation.



Do You Know? You can speed up the drying time with a blow dryer, or heat gun) before painting.

Setting Paints with Heat

Allow to dry 24 hours before heat-setting the paints with an iron, 2-3 minutes on each area of your piece, face down on your ironing board with a press cloth between the silk and your iron. You may also want a protective cloth on the ironing board as well. Work in small areas at a time, moving in a small circular motion so as not to burn the silk, but also so that each section maintains the heat for long enough duration to actually set the paint.

Step 8: Removing Clear Gutta or Clear Water-Based Resist

Once the dye or paint has been properly fixed, it's time to remove the gutta or resist. Clear gutta is removed by dry cleaning. Clearwater-based resist is removed by rinsing in warm water. It comes out easily when used with iron-set paints, but some brands can be very difficult, if not impossible,

to remove after steam-setting dyes. Once the resist is removed, hang dry, and then iron lightly while still slightly damp. See our gutta vs. resist page for more details.

Interesting Information

Your frame also needs to be suspended a few inches above your table so that the silk does not have anything touching it; you can do this by placing upside down plastic cups or wood blocks underneath each corner of your frame.

Types and Uses of Different Paints

Fabric paint allows you to design clothing, upholstery, or anything made from fabric. The paints are specially formulated so they do not fade and are meant to withstand laundering.

Fabric paints are categorized based on whether they feature alcohol, acrylic, or dyes. To select the ideal paint, you will have to consider the fabric you are dealing with and how you want the fabric to look.

Acrylic Based Paint

Most fabric paints are acrylic-based. They are most affordable and available in a wide variety of colours. This paint can be applied with a brush, liquid spray bottle, or marker. These fabric paints result from adding pigment to an acrylic polymer, which you emulsify with water to form the paint. The paint dries hard and has an excellent bond to most fabrics. Additionally, it is fade-resistant.

Paints made from acrylics are water-soluble when wet. Besides providing consistent results, acrylics paints are user-friendly.

Alcohol-Based Paint

Although an alcohol-based pigment is technically an ink, not paint, it is typically used to apply color to fabrics as they soak into the fibers. Unlike acrylic-based fabric paints, they cannot saturate the color. Alcohol-based pigments achieve good results in light or tie-dye fabrics. On dark fabrics, however, they usually fail to achieve satisfactory results. Fabric decorated in this way is not washable unless you seal it with a protective finish.

Fabric Dye

Contrary to acrylic-based fabric dyes, fabric dyes react with fibers to alter the colors of the fabric

by forming a chemical bond. Utilize the dye like alcohol-based ink. The application of fabric dyes is a complex process and is often seen in tie-dye or when changing oversized garments. Before the paint is applied, the fabric is typically prepared with a pre-soaking or wash. To set the dye, multiple rinses or heat are required. Note that cleaning up dyed garments is more complicated.

Uses of Printing Techniques

Textiles printing techniques are utilized for clothing, shoes, or household textiles. Printing methods are used for apparel for men and women, home furnishings and products like bed sheet covers, quilts, table covers and mats. The use of each technique depends upon the type of material used and their behavior on various fabrics.



Textile Dyeing Techniques Basics of Dyeing

Dyeing is the application of dyes or pigments on textile materials such as fibers, yarns, and fabrics with the goal of achieving colour with desired colour fastness. Dyeing is normally done in a special solution containing dyes and particular chemical material. Dyeing and printing are different applications; in printing, color is applied to a localized area with desired patterns. In dyeing, it is applied to the entire textile.

Interesting Information

Dyeing can be applied at various stages within the textile manufacturing process; for example, fibers may be dyed before being spun into yarns and yarns may be dyed before being woven into fabrics. Fabrics and sometimes finished garments themselves may also be dyed. The stage at which a product is dyed varies depending on its end use, the cost to the manufacturer, its desired appearance, and the resources available, amongst other reasons.

Types of Dyes

Natural Dyes

Dying has been a flourishing trade since long, in different parts of the world. The dyes used in times before progress in chemical science were only natural. Dyes were derived from plants and

animals.

Synthetic Dye

All the dyes that are derived from organic and inorganic chemical compounds are **synthetic dyes**. Synthetic dyes have taken over the industry because of less cost and more reliability

Compatibility of Dye with Fabric

Not all fabric can be easily dyed with natural materials. The best ones to use are those made from natural materials themselves. Cotton, silk, wool, and linen will take the dye the best. Dyes which work on cotton will not work on polyester, nylon, acrylic, wool and many other commonly used textile fibers. However, because the basic structure of cotton is cellulose, the dyes which work on cotton will also work on other cellulose based fibers such as linen, ramie, rayon and lyocell. Synthetic blends will take some dye, but will usually be lighter in color. Try to find a similar scrap of fabric and try that first. Use a piece of muslin to gauge color saturation before dyeing the clothes.

Dyeing Tools and Equipment

Essential tool for & equipment for dyeing process

- **Stainless Steel Pots with Lids**

Stainless steel pots are a must have because the stainless steel will not affect the color in any way.



- **Kitchen scale**

A good kitchen scale is needed that is reliable because measuring your fabric and dyes/mordents is the base of any natural dye recipe.



- **Strainer**

A basic metal mesh strainer will last you forever and you will use it every time you are extracting color.



- **Funnel**

A funnel is a great tool to have to transfer left over dye to smaller jugs. It can be plastic or metal.



- **Plastic Measuring Jug**

A plastic measuring cup is a great addition to your tools. Usually, it is used to transfer dye from one pot to another while mixing colours.



- **Plastic Measuring Spoons**

These measuring spoons are great to use when adding Alum and modifiers to your mordanting and dyepots.



- **Wooden Spoons**

A great set of wooden spoons will last you for years and are a must have tool to stir as well as to add and remove your fabric and yarn from the dye pots.



- **Tongs**

Tongs are very useful to remove fabric and yarn from the pots.



- **Plastic Bucket**

A couple of buckets is required to rest your fabrics and yarn in between processes.



- **Rubber Gloves and Face Masks**

Gloves are ideal to protect your creative hands from turning purple, yellow or pink. A face mask is must for handling Alum.



Techniques of Tying and Dyeing

It is a resist dyeing method in which the areas you do not want dyed are blocked using different methods of tying and then the fabric is dyed; the areas that are tied remain undyed resulting in beautiful patterns.

Instructions

- Bindings must be wrapped and tied tightly to get good color variations.
- For consistent results the fabric should be damp when it is tied and when it is dyed.
- Fabric may be rinsed under cold water after dyeing. This gives a more hazy effect than unrinsed work.
- When dyeing with two or more colors, fabric may be dyed one color, then dried, then dyed the other color or may be dipped in one color immediately after the other. The latter method gives softer edges and a more evenly mixed color when the two colors overlap.
- When dyeing several colors, dip just the part where you want each color to be - not the whole thing.
- A quick dip into the dye bath means the dye has less time to penetrate and you get bigger white and light areas. A longer time in the dye (3 or 4 minutes) allows dye to penetrate more so you get

more dark areas and less white and light areas. Lines from crisscross bindings are less noticeable in a longer dip than in a quick dunk. Dip small areas into the dye at one time or the background color will be splotchy from overcrowding.

Spot Technique

1. Mark the areas on fabric where you want to create the spots.
2. Pick up tiny piece of fabric with needle.
3. Wrap sewing thread around directly below needle.
4. Tie tight.
5. Remove needle.
6. Dip in dye.
7. Let it dry.
8. Remove thread.
9. Circle Technique
10. Pick up center of circle and smooth folds formed from it.



11. Bind it and dip it in the dye. Dry the fabric and untie it
12. Radius of the circle is determined by the distance from the point to the bottom of the bindings.

Square Technique

1. Fold fabric lengthwise through center.
2. Fold crosswise.
3. Bind it and dip it in the dye. Dry the fabric and untie it.



Pleated Oval

1. Fold fabric in half along center line of oval. Using cardboard pattern of half an oval, trace outline on fabric.
2. With fingers, pleat both thicknesses together along this line, forming a fan shape.
3. Bind it and dip it in the dye.
4. Dry the fabric and untie



Marbling

1. Squash fabric up into a ball.

2. Bind in all directions until it is fairly hard.
3. Dip in dye, remove, untie and dry.
4. For second and/or third color, repeat bunching and binding, trying to get cloth not already colored.



Lines or Stripes

1. To make irregular stripes, randomly (not carefully) pleat or fold fabric lengthwise, crosswise, or diagonally.
2. Bind, dye, untie, and dry.



Rushing

1. Fold fabric along center of stripe.
2. Place a line of machine stitching below fold, forming a casing only large enough to slip a ruler or piece of wood through.
3. Slip casing over wood and gather all the fabric up at one end of the stick.
4. Bind and dye.
5. Remove binding and machine stitching (and the ruler!).



Knotting

1. Use fine fabric for these. Burlap and other heavy fabrics won't tie well.
2. Roll or fold up fabric into a string, then tie it into knots and dye.
3. An alternate method is to tie a thick rope into knots and roll or fold cloth around it.
4. Bind to the rope and dye.



Overstitching

1. Fold fabric where design is to be.
2. Taking deep stitches into the fabric, sew over top of the folds.
3. Draw thread so tightly that it straightens out and the fold coils around it.
4. Dip in dye; remove thread, let dry.



TIE AND DYE – DUPATTA

Required Material for Dupatta and Shirt: -

1. 2½ Meter Cotton (white)
2. Dyes and Salt.
3. Vessels to tint the dyes.
4. Different types of binding threads.
5. Gas burner or heater.

Dye Vessels

- (i) Stainless steel bowls/saucepan A number of minimum 2.
- (ii) Vessel made plastic No.3

Rinsing Facilities

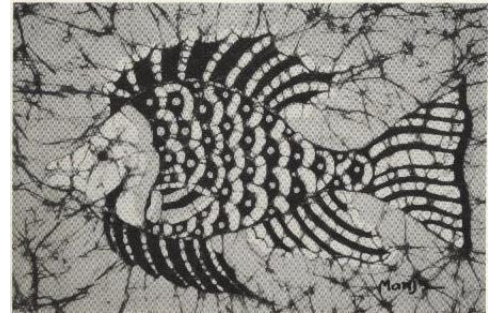
A sink with plenty of water is the ideal way to rinse but a large bucket or bowl may be used if the water can be changed frequently. Other items which may be helpful are; several plastic or old spoon, wooden sticks, a small pair of scissors, and rubber gloves.

EXERCISE

- Step 1:** Knotting, folding and binding with different techniques own your choice after binding.
- Step 2:** On the burner boil the water in a stainless steel bowl.
- Step 3:** Add the required colour to boiled water and one teaspoon of salt. (If you want a light colour scheme or dart according to your own choice.
- Step 4:** Dip the binding cloth in the boiled colour water for up to ten minutes.
- Step 5:** Then pick up the cloth and wash it in the cold water.
- Step 6:** Repeat steps 1 to 5 for second, third colour or so on.

Batik

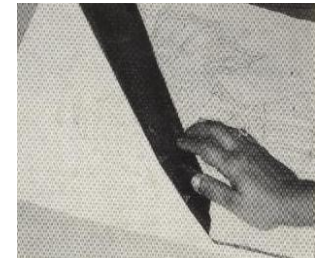
The finished batik illustrated above was executed on cotton cloth. It required two different applications of wax. The pattern is shown in the design of this book and a full color reproduction is shown on the front cover



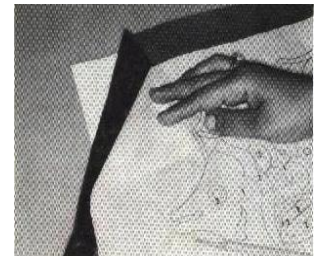
Materials Needed

- Pins
- Fabric
- Carbon Paper
- Tracing Paper
- Pencil
- Wax Resist (Batik wax)
- Brushes
- Stove
- Pattern
- Pot for Melting Wax
- Dye Fix
- Dye (Two colors)

1. Select the pattern. Place tracing paper over the design & trace the design. Include the number on the tracing



2. Place the fabric on the firm, smooth surface. Carbon paper is placed over the carbon. Pin all three pieces together & trace over the design. Include numbers in tracing.



3. After tracing is completed roll back carbon paper and tracing so you can check to see if all lines have been traced.



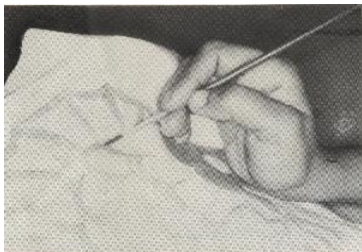
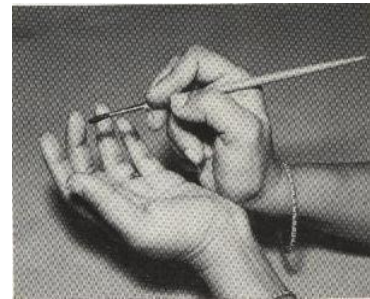
4. Wax should be heated to a temperature between 250 to 300 degrees. Use a thermometer & don't overheat as the wax may catch on fire. Foil should be placed over edge of stove and over work surface to catch wax drips.

5. Use bristle brush & swirl brush around in the hot wax to release air bubbles trapped in the bristles. Always touch brush to side of pan to remove excess wax from bristles. A drop of wax in the wrong place on the fabric can ruin a good Batik.



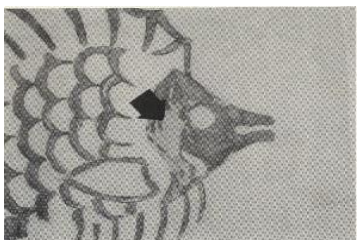
6. Apply hot wax to all areas marked # 1. Touch brush to center of area to release some of the wax from the brush, then carefully brush up to the line. If brush is too full of wax the wax will creep over the line.

7. The above photo illustrates the position of the hands when fine detail must be painted. Notice the heels of the hands are pressed together.



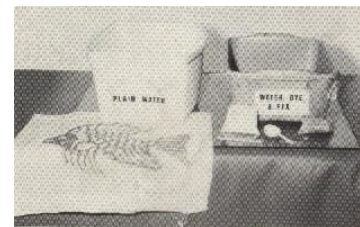
8. The back of the fabric must also be covered with wax in all #1 areas. If this is not done there will be areas where the dye will seep through & color the fabric in the #1 area.

9. If you did not get good penetration with the wax on the front side you can see light areas where the wax did not penetrate. Special care must be taken when back is covered with wax. Have wax heated to at least 250 degrees.



10. After wax has been painted on front & back of the #1 areas your fabric should look like the above illustration. This fabric is now ready to receive the first dye process.

11. To dye the fabric you need two basins. The basins should be large enough to receive the fabric without crowding. Manju is using Hi-Color cold water dyes. If other dyes are used follow directions on the package. You must use cold water dyes as heat will melt the wax.



12. Place 1/2gallon of water in both basins. Use 4 tablespoons of dye for rapid 15 minute dyeing. The first color is orange.



13. Add 2 teaspoons of the dye fix to the water and dye. Stir until dye fix is completely dissolved.

14. Place fabric in cold water. This will harden the wax so it will crack when crushed.



15. You should crush the waxed fabric hard then open it up & crush it again.

16. Be sure the fabric is saturated with water so the dye will take evenly.



17. Place fabric in dye & keep it moving for first 10 min. So it will dye evenly. Leave in the dye total of 15 minutes.

18. After fabric is dyed and dried, wax all of the #1 areas on both sides again.

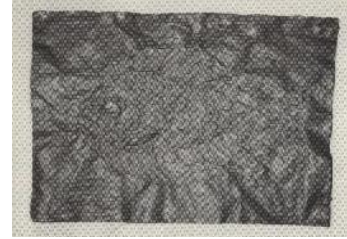


19. Apply hot wax to all areas marked #2. Wax both sides. If you have used a dark dye refer to pattern to determine the number 2 areas.

20. Use large brush and cover all the background with the wax. Wax both sides.



21. Notice, the only areas not covered with wax are within the outline of the fish. The unwaxed areas are now orange. When the blue dye is used these areas will be brown as the combination of orange & blue is brown.



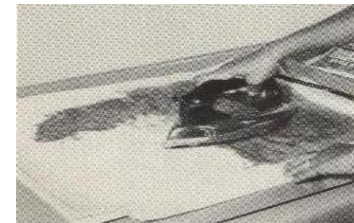
22. Prepare the second color of dye. We have used a dark blue. Dye fabric as shown on previous page.

23. After the fabric has been dyed the second time, let it dry. When dry you are ready to remove the wax. Place paper towels over newspapers & place the batik on the towels. Place another towel over the batik. The underneath towel protects the batik from the ink in the newspaper.



24. Set the thermostat on the on the iron to the appropriate setting for the material you are using and iron over the paper towels. The wax will melt & be absorbed in the towel.

25. The “Moment Of Truth” comes when you remove the towels & you can see what the batik is going to look like. Change towels & iron until as much wax as possible is absorbed.



26. If all wax is to be removed, place batik in boiling water with a little detergent for 10 – 15 minutes.

27. The remaining wax can be removed by scrubbing the fabric in cold water & soap.

Recipe of Hot Dye

- Fill the dye pot with required amount of water.
- Put it on fire till it starts simmering.
- Put a spoon full of salt in it.
- After the salt gets dissolved put the powdered dye

Key Points

- Printing and dyeing are important textile surface techniques.
- There are various techniques of textile printing including block printing and screen printing.
- Paints for textile printing are identified according to their composition.
- The dyes are selected according to the type of fabric.
- Tie and dye is a technique in which thread is used as a resist.

Web Links

- <https://thedesigncart.com/blogs/news/the-beautiful-details-of-surface-ornamentation>
<https://thedesigncart.com/blogs/news/aari-work>
- <https://gcwgandhinagar.com/econtent/document/15874500731hsctco203-%20printing%20methods%20.pdf>
- https://www.cottonworks.com/wp-content/uploads/2018/01/Dyeing_Booklet.pdf
<http://aarinaari.com/tag/how-to-trace-design-on-cloth-for-embroidery/>
<https://www.embroidery.rockse>

Exercise

Tick (✓) the Suitable Option

1. Blocks for block printing can be made on

- a) Paper b) Fabric c) Linoleum sheet d) Wax

2. A screen is exposed on a fabric called

- a) Muslin b) Mesh c) Cotton d) Silk

3. Most fabric paints are

- a) Acrylic based b) Water based c) Oil based d) Alcohol based

4. Artificial dyes are produced since

- a) Early 19th century c) Late 19th century
b) Quarter 19th century d) Mid 19th century

5. Stainless steel does not effect the

- a) Color b) Intensity c) Value d) Tone

6. The sheet of screen is coated with

- a) Emulsion b) Enamel c) Oil paint d) Water paint

7. Fiber is a

- a) Hand made material c) Synthetic material
b) Plastic material d) Textile material

8. Polymer is added to pigments in

- a) Fiber dyeing b) Dope dyeing c) Yarn dyeing d) Piece dyeing

9. The resist material used in tie and dye is

- a) Thread b) Wax c) Salt d) Sugar

10. The tie and dye technique in which the fabric is squashed into a ball is called

- a) Spot technique b) Rushing c) Marbling d) Knotting

Give short answer to the following questions.

1. What is textile printing?
2. Name basic tools used for block printing.
3. What is the basic recipe for making a hot dye?
4. Name different types of textiles where textile printing is used.
5. What is the process of dying through rushing?
6. How the screen is prepared for printing?
7. What do you know about alcohol based paints?
8. What is the use of scale?

Answer to the following questions in detail.

1. Enlist basic techniques of tie and dye. Explain any 3 in detail.
2. Write a detailed note on different types of paints.
3. What is the process of screen printing?
4. What are the main tools and equipment used in dying? Explain.
5. What do you know about stencil printing? Write down in detail.

Constructed Response Questions

Can you think of a tie and dye technique by which you can create above mentioned sample?

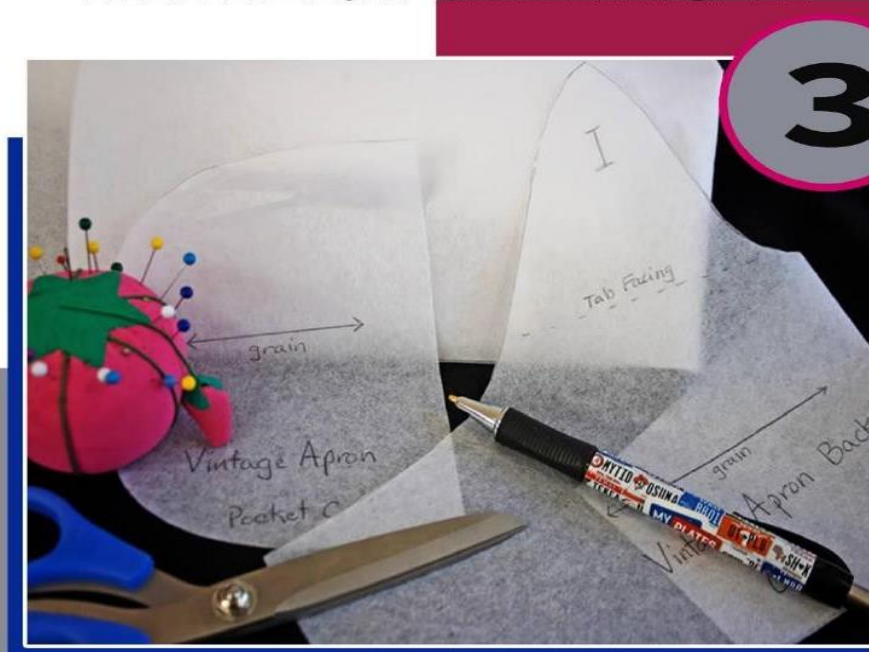
Project work

Project Title: Sample Book

- Prepare a book of 10x10 inches 6 samples of different techniques on fabric, including:
 - 6 samples of Tie & Dye (6 Samples)
 - Silk Painting (2 Samples – 1 with Gutta and 2nd without Gutta)
 - Screen Printing (2 Samples – 1 one colour and 2nd two colour)
 - Batik (2 Samples – 1 with cracks and 2nd without cracks)



PATTERN MAKING-II



3

Students Learning Outcomes:

After studying this unit students must be able to:-

- ✓ describe the basics of pattern making.
- ✓ describe the fabric behaviour (grain line).
- ✓ explain technical sketch drawing.
- ✓ identify the uses of pattern making tools (french curve, japanese rulers, etc.).
- ✓ evaluate tech pack specifications.
- ✓ understand bodice block.
- ✓ label the bodice block pattern and make information chart.
- ✓ describe the basic trouser block.
- ✓ identify the procedure to construct basic trouser block.
- ✓ apply the procedure to construct basic trouser block.

Pattern Making - II

Pattern making is the art of translating a designer's basic idea for a garment into a real piece of apparel that fits the human body in a flattering way. A few simple techniques have been used in pattern making for centuries. The detail and technique behind each pattern ensure that garments are made to specification with a minimal margin of error.

As you take a look throughout the apparel industry, it's clear to see that pattern design takes many different forms just as design elements vary from firm to firm. However, the basics of pattern making remain the same: This process is all about bringing a designer's dreams to life in the real world

Drafting and Making Women Basic Bodice Block

Basics of Pattern Making

Pattern making is a bridge function between design and production. A sketch can be turned into a garment via a pattern that interprets the design in the form of the garment components (Cooklin). A pattern is flat while the body is not. The body has height, width and depth.

Fabric Behaviour (Grainline)

Grain refers to the placement of threads in a woven fabric. Knowledge and understanding of fabric grain is really important when designing, drafting patterns and making any garment.

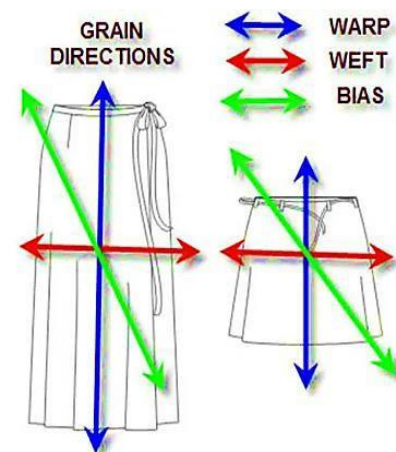
Warp-Weft-Bias

The WARP threads run parallel to the selvedge (the finished edge of your fabric), and the WEFT threads run at right angles to the warp, i.e. from selvedge to selvedge (the cut edge).

The WARP thread is the stronger of the two.

The WEFT threads should run around the garment, i.e. horizontally, this provides greater elasticity in wear.

The BIAS grain runs at 45 degree to the warp and weft and provides the greatest amount of natural stretch. The BIAS grain is ideal for draped or softly moulded garments, as garments cut on the bias are more fluid and mould to the body closely.



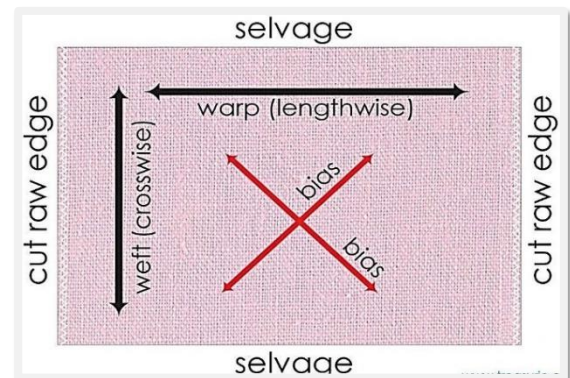
Grain is important as it affects the whole balance of the garment, garment sections cut off grain will twist on the body, you may well have noticed a pair of trousers you have that twist around the leg, this will be because the trouser pattern section has been cut off grain, this is often seen in cheaper garments as cutting off grain allows the manufacturer to fit more pattern sections on the fabric and save money!.

Interesting Information

Grain strongly influences how pattern sections are placed on the fabric, therefore garment pattern sections should be placed with the WARP threads running parallel to the center front (CF) and center back (CB) etc. This means that the WARP threads run vertically through the garment.

Types of Fabric Grain line

STRAIGHT: From top to bottom, along the warp is the straight grain. This is parallel to the selvage. The straight grain is the most important grain to know and recognize as it runs down the length of the fabric, and this is what sewing pattern pieces need to be aligned with.

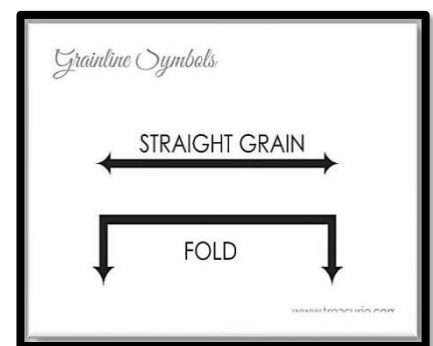


CROSS: The cross-grain from side to side along the weft. This is perpendicular to the selvage.

BIAS: And the bias grain diagonally across the fabric. The bias grain creates the elasticity attributed to bias tape or cutting on the bias for stretch.

Fabric Grain line across the Straight Grain

The directional arrow on a sewing pattern determines the way the pattern piece is going to lie on the fabric. When the patternmaker designs the pattern, the fabric Grain line is there to direct the sewer and show how to lay the pattern on the fabric.



Interesting Information

Have you ever observed that placing the pattern pieces and recognizing the fabric Grain line is part of the pattern instructions? These are some typical symbols used to indicate the direction of the fabric Grain line on your paper pattern.

Fabric Grainline on Sewing Patterns

Finding the fabric Grainline on the sewing pattern and matching it to the woven fabric Grainline is the essence of a properly fitted garment. It is the starting point of dressmaking and is very important.

Fabric Grainline Markings

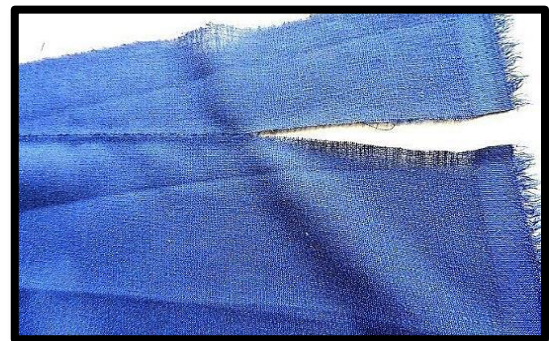
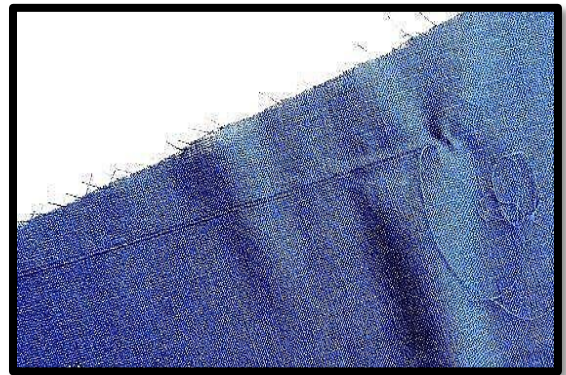
When you open up your pattern pieces you will recognize the markings of the straight Grainline arrow. Most patterns are printed on tissue paper and this makes them easier to see through to discern the direction of the fabric. When you lay out your pattern before pinning and cutting, you need to check for the different Grainline. The fabric Grainline is usually a straight line on the pattern piece looking like an arrow. Along the arrow, it may say to place on the straight grain of the fabric or this may just be understood.



Grainline in a Fabric

On a newly bought fabric, you will know the Grainline in a glance. You will have to ensure that the fabric is cut straight crosswise. First and foremost, just eyeball the corners of the fabric – if the corners form a right angle the fabric is cut properly. You can look carefully at the lengthwise and crosswise threads and ensure that they are at right angles to each other.

If the fabric is off-grain it will be intersecting in a slanting or curved manner. One better way is to pull a crosswise thread (horizontal thread) fully across the fabric. When you do that, you get a small gap– cut through this gap. Or fold the fabric by the center selvedges together; align and match



the selvages/selvages perfectly. If you find that the edges you cut do not align perfectly i.e. they do not match you know you have an off-grain fabric at hand. If everything matches, all is perfect. Go ahead and mark the fabric for sewing.

A similar method done in a slightly different way is to pull the crosswise thread as described earlier; cut the fabric by this pulled thread and fold by the center to match the edges – crosswise and lengthwise. If the fabric is off the grain there will be wrinkles in the fabric near the center fold. This is going to be trouble as you sew

Interesting Information

Technically, the term grain only refers to woven fabric; the term direction is frequently used with knit fabrics.

Point to Ponder!

The lengthwise grain yarn will be stronger and crosswise yarn thread is weaker and will snap easily.

Interesting Information

One of the essential requirements for creating garments or accessories when going into manufacturing is to provide factories with a “Technical Drawing”. Or often referred to as “flat drawing.

Technical Sketch Drawing

A technical sketch is a detailed and accurate representation of your garment. It is most often used as a part of the Tech Pack to communicate the design, construction, and stitch details of your garment to the factory.

Technical drawings are a fundamental necessity for a designer trying to relay their design blueprint. Technical drawings are an important component to aid the conversion of your design sketch into a usable product. Your pattern cutters will need these drawings in order to create a pattern that fits well on the body, is in proportion and is balanced, and is aesthetically pleasing.

Do You Know?

The technical drawing allows you to keep design lines and details in real size as the drawings are presented with correct body proportions

How to Draw a Technical Drawing (even if you cannot draw)

Technical drawings are usually produced by hand using either a retractable pencil with fine leads or black fine liner pens. Illustrate different components of the same drawing by using different widths of a fine liner. For example, a 0.8mm thick pen can be used for all of the seam lines, darts and details and a 0.3mm thick pen can then be used to indicate all of the topstitching, buttons and fastenings. A great way to create a technical drawing by hand is to use thin or tracing paper.

Draw a line down the center and draw one side of the product. Fold the paper in half and draw the reflection by tracing the original drawing. This should then be placed on a flat, light surface or a light box, if you have one, and drawn onto paper. Scan onto your computer and use to create your specs, tech packs and other materials.

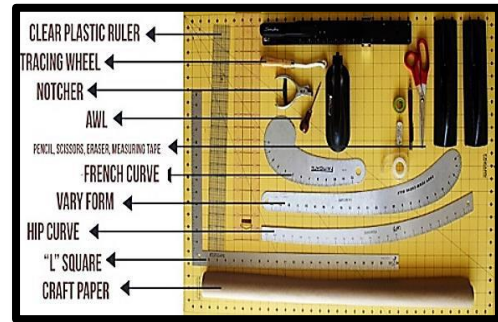


Key Points to Remember

1. Add as much detail to your drawings as possible as omitting parts of the sketch will only make your job harder in the long term when explaining the design to your team.
2. Include every seam, stitch, dart and fastening.
3. A solid line on a garment represents a seam line.
4. A dashed line represents stitching.
5. Draw every detail if you're creating custom embroidery, print or beading.
6. Garment sketches should have a front and back view. Also, include additional sketches of the functionality of the garment.
7. Accessories require a front, back, side, top, bottom and $\frac{3}{4}$ view.
8. Keep your sketches simple and devoid of movement or shading as it can be distracting.

Uses of Pattern Making Tools (French curve, Japanese Rulers)

Measuring tools are the most essential things in making a garment pattern. It is used to measure the size of the pattern. There are various pattern making tools which are vastly used in the apparel industry have pointed out in the below with their uses:



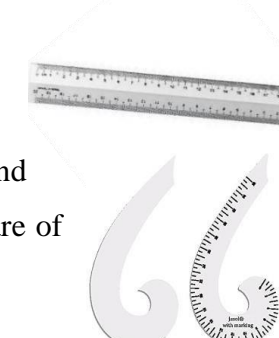
1. Pattern paper/craft paper

This is very essential for without the paper, there is no pattern drafting. Drafting on a paper will enable you to make any necessary adjustments to the paper if need before you cut on the fabric. The pattern paper is of different types and varies in weight. The plain and the dotted paper which can either be soft or thick.



2. Ruler

This is also essential as it is needed for drawing lines. There are different types of rulers. We have a straight ruler, triangle and tailor’s square ruler. This basic pattern making ruler sets on Amazon are of a great choice as it comes with different types of rulers.



The basic pattern making ruler set kit

1. Curved Rulers: There are different types of curved rulers with different functions.

French Curve: This is used for shaping armhole and neckline.



2. Hip Curve: Its function is to shape the hipline, hem and lapels.

3. Sleigh Curve: It has nearly the same function with the French curve, used to shapes necklines, armholes, and other curves like pockets, cuffs and collar.



4. A Pair of Scissors for Pattern Paper: Any craft scissors will be great to cut the pattern paper. But you need to have separate scissors for the fabric.

5. **A Sellotape/Masking Tape:** This can be used to secure the pattern paper down to the table/working surface



6. **Tracing Wheel:** There are two types of tracing wheel, blunted and pointed. The pointed wheel is needed to transfer pattern shapes to the paper while the blunted wheel is used with carbon paper to transfer pattern shape to muslin or the fabric.

7. **Pattern Notcher:** This is needed to cut an opening at the edge of the pattern to indicate seam allowance, ease notches, center lines and to identify front and back of the patterns



8. **Measuring Tape:** A must-have tool in fashion designing. A 60 inches long is required. You'll need this to take the model measurement accurately.

9. **Pencils:** Having at least two colour is recommended so you can differentiate between pattern lines.



10. **Marker pen:** Used for drawing on the pattern paper



Point to Ponder!

A French curve is used to draw curves at the armhole, neckline, curved darts, sleeve cap curves, and hipline curve, etc. They are transparent and some come with a straight edge including a Seam Allowance Guide and Grading Rules. French curves come in a variety of sizes and shapes.

Tech Pack

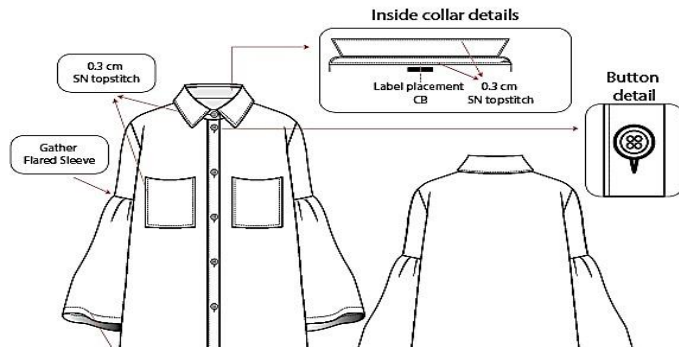
A tech pack usually consists of your sketch, size specification, materials, trims, artwork, colors, construction information and labelling. As a rule, the more information you include in your tech pack, the less room there will be for error and the better the outcome will be.

Purpose of a Tech Pack

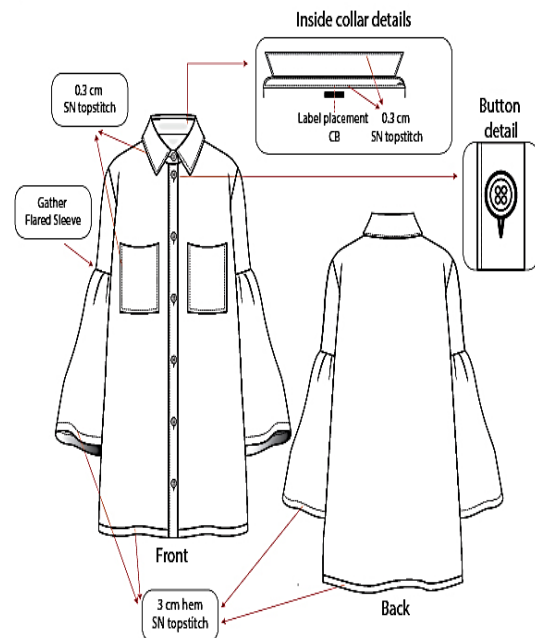
A Tech Pack (short for Technical Pack) is a set of informative documents used to communicate your product requirements to a manufacturer. Tech Packs can also be known as Specification Forms or BOM's (Bill of Materials). The purpose of a Tech Pack is to give detailed directions to produce a

back technical drawing with any close-up design details required, along with construction information and stitch details. They also include detailed information such as fabrics, trims, linings, colours and any reference photographs that will help your manufacturer understand the design and help communicate your requirements.

Size Spec and Graded Spec: The manufacturer will use this document to create your patterns and produce a sample of your product. On your technical drawing, points of measure are added to each part of the product, with letters referring back to your size spec where the actual measurements are included for that specific point. For sampling, measurements are initially given for the Sample Size only and then as the sample fit is confirmed and approved, you'll provide the manufacturer the full graded spec which includes measurements for all sizes.



PATTERN CUTTING STUDIO	Style name: Flared Sleeves Shirt Dress	Season: SS18	1st Proto
	Brand:	Date last modified:	Size range: XS- L Proto size: S
	Buyer:	Product technician:	



Tech Pack

FORTUNA APPARELS Technical File Ref : MM0001 Season : S/S:20/21 Date : 16/07/2019	Product Manager : Md. Rahatul Islam Sources : Gazipur Designer : Kamrul Hasan Sajib Technician : Sajib
	Shape / Style Crew Neck Style
	Color Combo Indigo 40% Olive 40% Black 20%

Front View

Back View

Accessories

Main Stitch
DTM
Woven Tab
Woven Label, Tab Sewed on the side seam at 3.5 cm

Washing
Knit Fabric

Branding
Inside Collar

Ironing
Yes No

Main Fabric
Knit Woven
Composition/ Weight
Knit Fabric

Other Fabric
Yes No

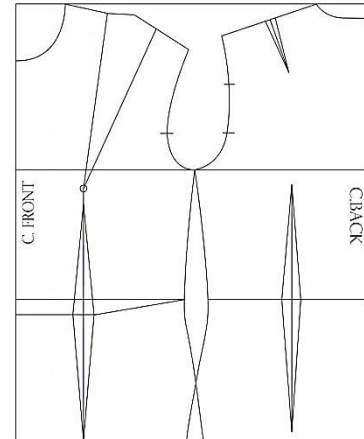
Color: TBC	Zipper: -	Notes: - Make style with patch pockets at chest - Make 3 cm wide hem at bottom and sleeve. - Make 2 mm topstitch at collar edge and around patch pockets at chest. - Note different fabric quality and thickness used on sleeve flare.
Fabric: 100% Viscose	Buttons: 7 buttons on CF, quality TBC	
Lining: -	Thread: matching color	

Key points to remember

A tech pack is a document containing all the technical information about your product. It's an essential document for both designers and production teams when producing new collections, as it helps clearly communicate every little detail about what you are making, to your manufacturer.

Bodice Block

It is the body of a dress or blouse – the garment which you wear on the upper part of the body. The method I have described here is a very simple BODICE pattern which you can draft and sew with the bare minimum sewing knowledge. You can experiment with this, give darts or any adjustments you want to it. Add sleeves (draft different types of sleeves) Change necklines (Draft different neckline) or any embellishment to make it your own. This is where it starts.

**Interesting Information**

The bust measurement is the most important as we will use it to cross check against the standard. The remaining measurements are taken from the Measurement Chart. When drafting the female bodice block, we only draft half the body, and we work from the center back towards the center front.

Activity: Draft the basic bodice block on pattern sheet according to measurement?

Labelling the Bodice Block Pattern and make information**Basic Bodies Block Measurements**

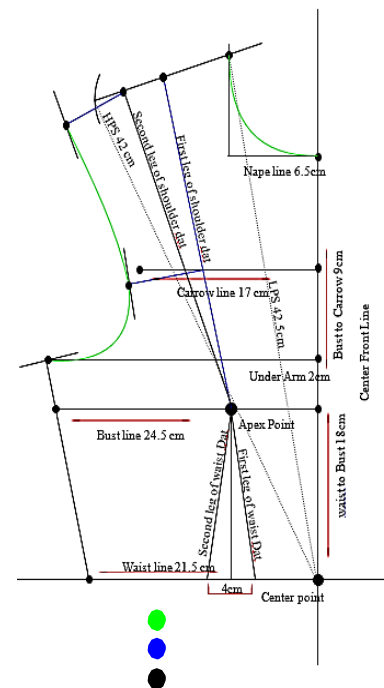
Vertical Bodies Measurements				
Vertical Measurements	Original Measurements	Divided By 4	1+For Front Side	1-For Front Side
Bust	66 cm	23.5 cm	24.5 cm	22.5 cm
Waist	92 cm	16.5 cm	17.5 cm	15.5 cm
Carrow			17 cm	18 cm
Bust Dat			10 cm	9 cm
Nape			6.5 cm	6.5 cm

Horizontal Bodies Measurements		
Horizontal Measurements	Front Measurements	Back Measurements
Waist to Nape	36.5 cm	41.5 cm
Waist to Bust	18 cm	18 cm
Bust to Carrow	9 cm	9 cm
Bust to Under Arm	2 cm	2 cm
Shoulders	13 cm	13 cm
Waist to High Point Shoulder (HPS)	42.5 cm	43.5 cm
Waist to Low Point Shoulder (LPS)	42 cm	43 cm
Waist Dat	4 cm	3 cm
Shoulder Dat	4 cm	1 cm

Procedure to construct Bodice Block

Construction of Front Bodies Block

1. Make lines horizontal and vertical away from sheet 5cm.
2. Horizontal center front line, take waist center point to nape 36.5cm.
3. Take a point Waist to Bust line 18cm on center front line.
4. Take a point bust to underarm line 2cm on center front line.
5. Take bust point to Carrow point 9cm on center front line.
6. Center point to nape 36.5cm on center front line, take 6.5 cm vertical line. Center point to waist line is 20.5cm + 1cm for front, so now its 21.5 cm Waist to bust 18cm and bust line is 24.5cm.
7. Center front bust point to bust line take 10cm Apex point Join first leg of waist Dat into bust Apex point..
8. Join second leg of waist Dat into bust Apex point.
9. Bust to Underarm line is 2cm

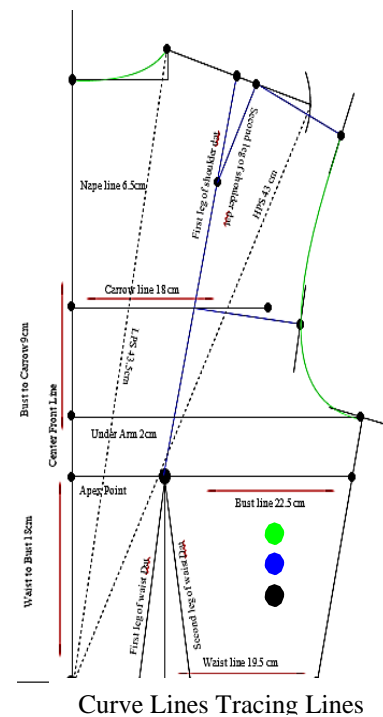


Curve Lines Tracing Lines Lines

10. Bust to Carrow 9cm and carrow line is 17cm vertical.
11. Take nape point to nape line 6.5cm and mark a 90 degree angle on nape line.
12. Center Front point to high point Shoulder is 42.5cm.
13. Center Front point to Low point Shoulder is 42cm.
14. Make HPS or LPS lines and make an Arch of 13cm on HPS to LPS.
15. Take half of the shoulder line and join to the Apex point, its called first leg of Shoulder dat. Trace the First leg of shoulder dat along with cross point of the carrow line and half of the shoulder line and move into 4 cm up-words.
16. Join second leg of shoulder point into Apex point.
17. Mark right angles of new Shoulder line, carrow line and Side Seam of bodies block.
18. Smooth these 3 points along with french Curve and make arm hole. Smooth Nape line with french curve to make an curve.

Back Bodies Block Construction

1. Make lines horizontal and vertical away from sheet 5cm.
2. Horizontal center front line, take waist center point to nape 36.5cm.
3. Take a point Waist to Bust line 18cm on center front line.
4. Take a point bust to underarm line 2cm on center front line.
5. Take bust point to Carrow point 9cm on center front line.
6. Center point to nape 36.5cm on center front line, take 6.5 cm vertical line. Center point to waist line is 23.5cm + 1cm for front, so now its 24.5 cm Waist to bust 18cm and bust line is 23.5cm.
7. Center front bust point to bust line take 10cm Apex point Join first leg of waist Dat into bust Apex point..
8. Join second leg of waist Dat into bust Apex point.
9. Bust to Underarm line is 2cm
10. Bust to Carrow 9cm and carrow line is 17cm vertical.



11. Take nape point to nape line 6.5cm and mark a 90 degree angle on nape line.
12. Center Front point to high point Shoulder is 42.5cm.
13. Center Front point to Low point Shoulder is 42cm.
14. Make HPS or LPS lines and make an Arch of 13cm on HPS to LPS.
15. Take half of the shoulder line and join to the Apex point, its called first leg of Shoulder dat. Trace the First leg of shoulder dat along with cross point of the carrow line and half of the shoulder line and move into 4 cm up-words.
16. Join second leg of shoulder point into Apex point.
17. Mark right angles of new Shoulder line, carrow line and Side Seam of bodies block.
18. Smooth these 3 points along with French curve and make arm hole. Smooth Nape line with french curve to make an curve.

Activity: Draft the basic Bodice Block on pattern sheet according to measurement and Label all the basic information on the block:

- Length & Width
- Grain line
- Centre front
- Centre back
- Neckline
- Shoulder line
- Carrue
- line/Under-arm
- line
- Bust line
- Dart line
- Waistline
- Side seam
- Cut the basic
- bodice block on cardboard sheet

Basic Trouser Block

Measurements

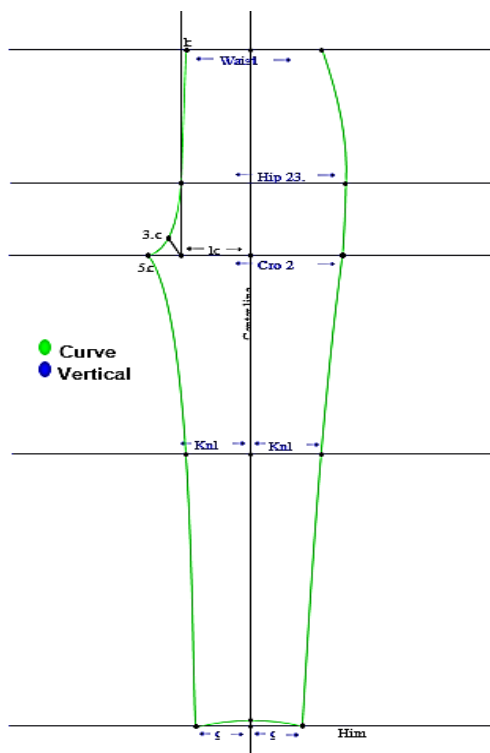
Horizontal Measurements	Front Measurements	Back Measurements
Waist to Hip	17.5 cm	17.5 cm
Waist to Crotch Depth	25 cm	25 cm
Crotch Depth to Knee line	34.5 cm	34.5 cm
Waist to Him line	104 cm	104 cm

Horizontal Measurements	Front Measurements	Back Measurements
Waist to Hip	17.5 cm	17.5 cm
Waist to Crotch Depth	25 cm	25 cm
Crotch Depth to Knee line	34.5 cm	34.5 cm
Waist to Him line	104 cm	104 cm

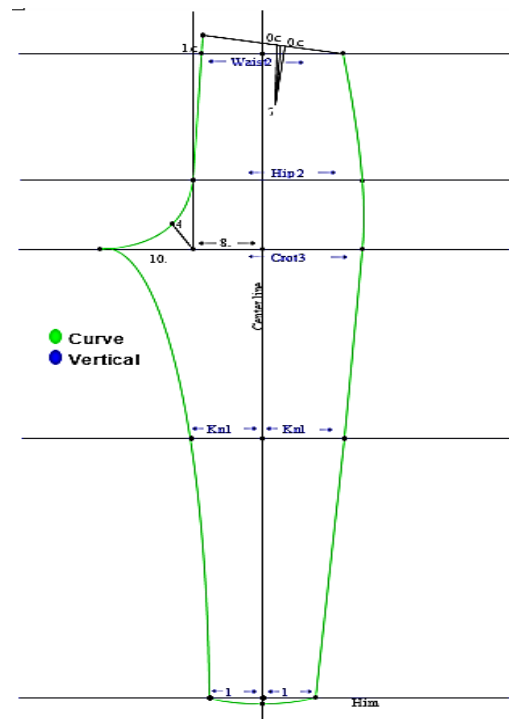
Procedure to Construct Basic Trouser Block

1. Take center half of the sheet.
2. At top of the sheet take 5cm down a waist line.
3. Waist to hip take 17.5cm for hip line.
4. Take waist to crotch 25cm down.
5. Crotch line to knee line take 34.5cm.
6. Waist line to him line take 104cm.
7. From crotch line take 11cm center front line on left side of the crotch depth.
8. On center front line take 5.8cm on
9. Take 45 degree angle on center front and crotch line point.

10. On 45 degree angle take 3.35 cm up-wards.
11. On point of the center front and waist line take 1cm right of the center front line.
12. Smooth the crotch line that passes through the angle point center front line to waist line.
13. From center front line to waist line take 19cm on right side.
14. Center front point on hip line take 23.25 cm on right of the center line.
15. Crotch point to crotch line take 29cm on right.
16. Take knee line on point of center line 11cm on right and left both sides.
17. Take him line on point of center line 9cm on right and left both sides.
18. Join the curve line from waist to hip line.
19. Join hip point to knee line a minor
20. Join knee point to him point minor slant line.
21. Join crotch point to knee point, it's make a depth curve.
22. Join knee point to him point a little bit slant line.
23. Make shaping of the hem line take 0.5cm on inner side and join both side and make a curve in front side of the trouser.



Trousers Block Pattern (Front)



Trousers Block Pattern (Back)

Information box Construction

In information box students put their Name, Cohort, Class, Pattern and Accessor name etc.

Name:	
Cohort:	
Class:	
Pattern:	
Accessor Name:	

Key Point to Remember

Basically there are four different type of block, the standard block, the simplified block, the trade block and the tailoring block. The standard block is most widely used basic foundation which follows the natural lines of the figure and is little influenced by other considerations.

Interesting Information

Difference between Commercial Pattern and Block Pattern

Commercial sewing pattern or basic block pattern, what's the difference? The basic difference between a dress made from a commercial sewing pattern and one made from a basic block pattern is that the garment made from the commercial pattern is publicly pleasing whereas the basic block

Key Points

- + Fabric Grainline on Sewing Patterns.
- + How to Draw A Technical Drawing.
- + Uses of pattern making tools. Specifications of Tech Pack.
- + Basic Bodies Block Measurements. Basic Bodice Block Construction. Basic Trouser Block Construction.

Web links

<https://www.thecreativecurator.com/how-to-draft-the-female-bodice-block/>
<https://www.theshapesoffabric.com/2019/10/07/how-to-draft-the-basic-bodice-pattern/>
<https://sewing.wonderhowto.com/how-to/draft-basic-bodice-pattern-0120717/>
https://www.youtube.com/watch?v=-bJ1Xp3xnhQ&ab_channel=RMGpatternMaking16
<https://www.thaisonggarment.com/FAQ/what-is-a-garment-tech-pack.html>
<https://fashionequipped.com.au/what-is-a-tech-pack-and-why-is-it-so-important/>
<https://www.techpacks.co/>

EXERCISE

Tick (✓) the Suitable Option

1. **Garment which you wear on the upper part of the body is:**

a) Center of the dress	c) Body of the dress
b) Sleeves of the dress	d) Trouser
2. **Set of informative documents used to communicate is:**

a) Information Pack	c) Data Pack
b) Technical Pack	d) Work Pack
3. **Tool which is used to draw curves is:**

a) French Curve	c) Notcher
b) Ruler	d) Tracing Wheel
4. **To cut an opening at the edge of the pattern is:**

a) French Curve	c) Tracing Wheel
b) Ruler	d) Pattern Notcher
5. **Garment sketches should have:**

a) Dart lines	c) Points
b) Front and back view	d) Top and bottom view

Give short answer to the following questions.

1. What is the pattern?
2. What Is Garment Pattern Making?

3. Mention some basic tools for apparel pattern making.
4. Mention a list of pattern making equipment.
5. Enlist tools and equipment for pattern making.
6. Point out the pattern making tool list used in the readymade garments industry.

Answer to the following questions in detail.

1. What Is Garment Pattern Making?
2. What do you know about pleats? Explain any two in detail.
3. What are different types of closures? Explain.
4. Enlist different types of pockets. Write down the procedure of making any two of them.

Constructed Response Question

You are provided with the pieces of three different types of fabrics which include:

Denim Linen Cotton

Find out which one of the above mentioned material is best suited for making flat felled seam

Project work

Compile a Folder of Sewing Including:

- Line diagrams of different seam types
- Edge finishing/hemming
- Closure Attachments of:
 - Hook and eye/bar
 - Button
 - Velcro tape
 - Different types of pleats
 - Different types of patch pockets
 - Edge finishing/hemming
- Perform Closure Attachments You will require:

-- Japanese ruler	-- Tailoring Chalk
-- Sewing machine	-- Buttons
-- Fabric	-- Hook n Eye/Bar
-- Velcro Tape	-- Thread
-- Scissors	-- Iron
-- Needle	-- Pins
-- A/4 Size File	-- A/4 size Papers
-- UHU	-- Common Pins

ADVANCED SEWING



Students Learning Outcomes

After studying this unit students must be able to:-

- ✓ define the basic types of seam.
- ✓ explain the line diagrams of different seam types.
- ✓ explain the procedure to sew different seam types.
- ✓ identify ASTM standards for stitches and seams.
- ✓ describe different pocket types.
- ✓ describe different pleat types.
- ✓ explain the procedure to stitch variations of pleats (knife pleats, box pleats, etc.).
- ✓ explain procedure to stitch variations of patch pocket (simple patch, round patch, etc.).
- ✓ identify importance of edge finishing.
- ✓ identify closures and different closure types (buttons, zippers, etc.).
- ✓ explain the procedure to perform edge finishing and closure attachment.
- ✓ apply edge finishing and attach closures to garment.

Advance Sewing

Sewing is one of the most critical elements of dress making. The quality of your work depends so much on the way you have sewn it. This element of garment construction has to be addressed technically. Therefore to achieve perfection in this field you need to get proper training.

Seam Types with Sewing Machines

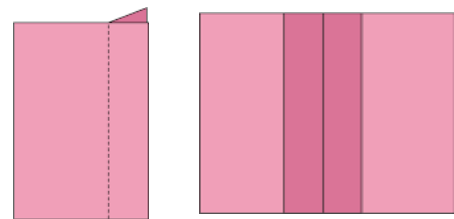
Basic Types of Seam

There really is a seam for every season of clothing and every variety of fabric. Knowing about the different types of seams, and their suitability for different projects, helps with deciding what seam type to use for your sewing requirements.



Super Imposed Seam

The superimposed seam is the most common method of seaming in garments manufacturing. This seam is formed by superimposing the edge of one piece of material on another.



Outside View

inside View

Plain Seam

A plain seam is the stitching made to join two fabric pieces together, leaving some seam allowance, usually 1/2 inch or 5/8 inch. This type of seam is used for firmly woven fabric that does not ravel easily.



1. English Seam



An English seam has no visible seam allowance inside allowance is enclosed within the seam. These seams are very strong, they are often used sturdy fabric, such as denim.

2. Welt Seam

A welt seam is a type of seam that has been sewn flat by first stitching on the wrong side and then securing it on the right side. The welt seam is ideal for use on heavier fabrics needing stronger seams and less bulk.



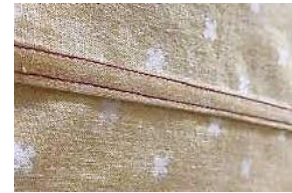
5. French seam

French seams make the inside of garments as neat as the right side. They are sometimes used on clothing for babies and on thin fabric. You can also use them on bags that don't have lining,



6. Flat Felled Seam

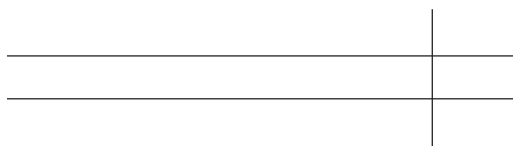
Flat felled seams are the strongest seams and won't fray as raw edges are hidden. Although often sewn on thick fabrics, they can be sewn on thinner fabrics as they produce a very neat finish.



Line Diagram of Different Seam Types

Line diagrams of different types of seams are their graphical representation on paper. They can also be termed as the technical drawings of these seams.

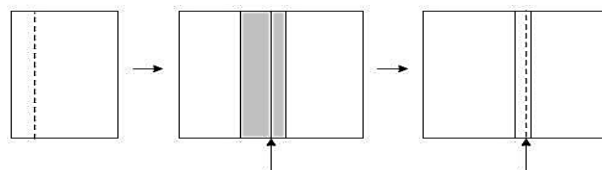
1. Line Diagram of Superimposed Seam



2. Line Diagram of Plain Seam

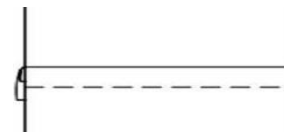


3. English Seam

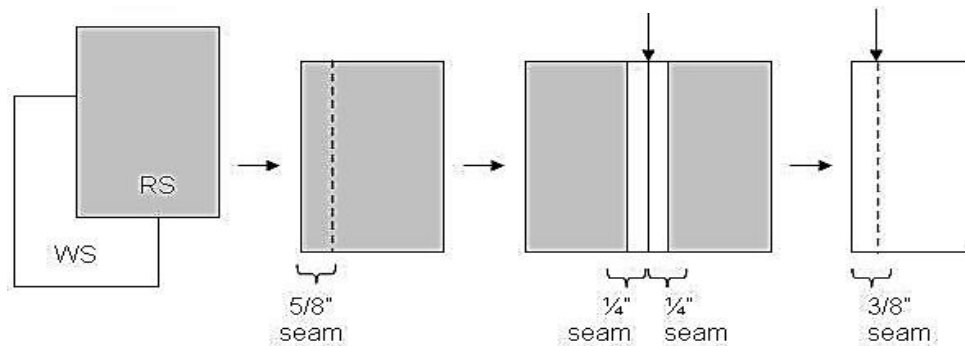


Seam Opened Up Stitch Folded Over

4. Welt Seam

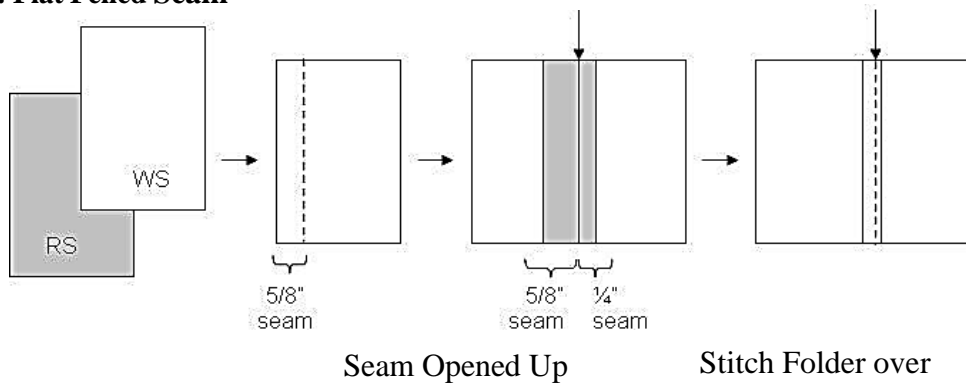


5. French Seam



Seam Opened Up Stitch Folded Over

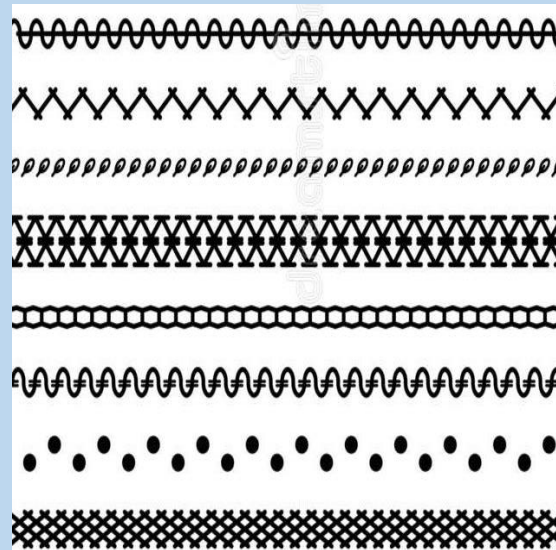
6. Flat Felled Seam



Activity

Draw line diagrams of different seam types. You will require

1. Japanese ruler
2. Notebook
3. Sketch File
4. Drawing Pencil
5. Erasers
6. Sharpers
7. Internet
8. Computer System



Activity:

Sew Plain and English Seams.

You will require:

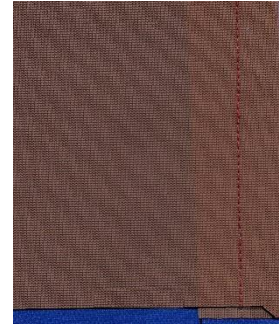
1. Sewing machine
2. Fabric



The Procedure to Sew Different Seam Types

Super imposed seam

- Take two pieces of fabric of equal size.
- Join two fabrics by stitching at a distance of 1cm from the edge.
- Seam should be back-tacked.



1. Plain Seam

- Take two pieces of fabric of equal size. Place right sides of those pieces together.
- Stitch a straight line with your sewing machine leaving the desired seam allowance. Standard seam allowance is 5/8 of an inch.



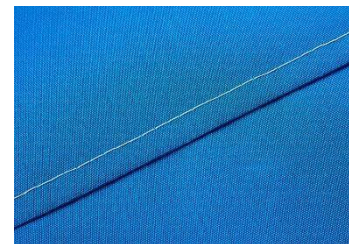
2. English Seam

- Sew fabric with wrong sides together using a 1/8" allowance.
- Press opens the seam.
- Trim one side of the seam allowance to 1/4".
- Fold the long side over the short side and overlap the raw edges. Press it.
- With the longer seam allowance folded in, fold the flap over so the raw edges are tucked away. Press it.
- Edge stitch 1/8" from the folded edge.
- Press the fabric. Seam is done.



3. Flat Felled Seam

- Sew the two pieces of fabric, wrong sides together, with a 5/8" seam.
- Trim both sides of the seam allowance to 1/4".
- Press opens the seam.
- Fold the fabric, right sides together, along the seam and press.
- Stitch 3/8" from the fold.
- This encases all the raw edges inside the seam.



4. French Seam

- Sew the two pieces of fabric, right sides together, with a 5/8" seam.
- Trim one side of the seam allowance down to 1/4".
- Fold the 5/8" seam allowance over and around the 1/4" seam allowance, completely enclosing the 1/4" seam allowance with the 5/8" seam allowance.
- Stitch down as close to edge as possible.
- This encases all raw edges inside the seam.



5. Welt Seam

- Place the right sides of the fabric together and sew a seam with your chosen finished seam allowance. I'm using 1 cm.
- Press the stitches to set them. Then, press the seam open to start with, and then both sides of your seam allowance to the same side.
- Place the fabric open under the machine foot, with both right sides of that section facing up.
- Sew a line down the length of the original seam, through the three layers:
 - Actual garment layer
 - Seam allowance 1
 - Seam allowance 2
- All the seam allowances should now be stitched in place with one line of topstitching.



ASTM Standard for Stitches and Seam

American Society for Testing and Materials (ASTM)

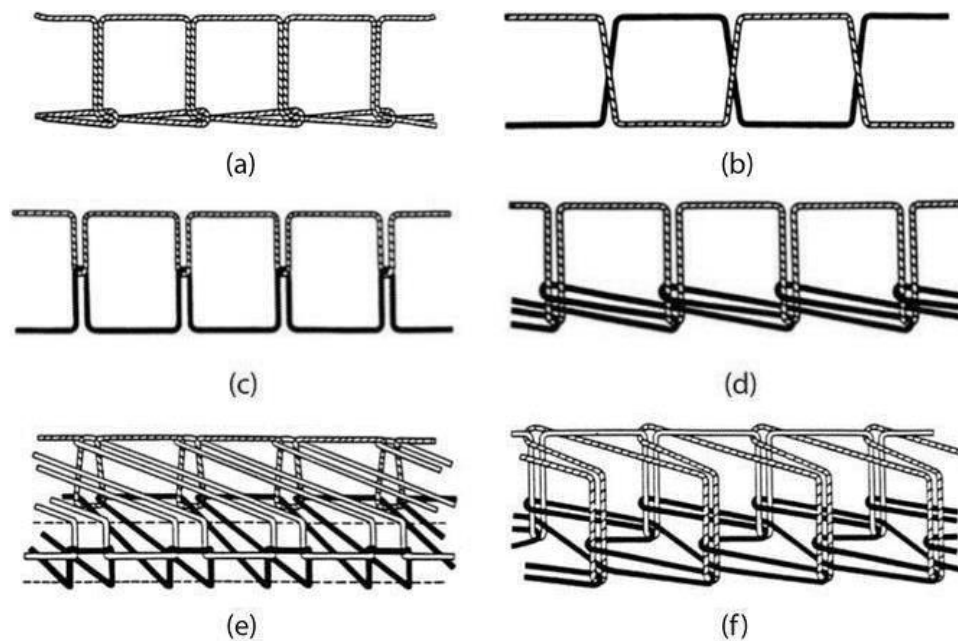
The American Society for Testing and Materials (ASTM) is an internationally recognised body that develops and delivers voluntary consensus standards designed to improve product quality, make products safer, improve international standardization and therefore facilitate trade.

Stitch and seam Standard: Seam and stitch types are one of the most important elements in joining the patterns and giving a form to the garment. Seam and stitch types directly affect the

quality. Comfort and fitness of the garment. Choosing a stitch or seam type that is not suitable for garment reduces the quality, comfort and fitness of the garment.

Stitch Standard: Stitch is defined as a loop of thread or yarn resulting from the single pass or movement of the needle in sewing. Stitch types are shown as a numerical designation relating to the essential characteristic of the interlacing of sewing thread in a stitch.

Standards are very important in determining stitch types. Six stitch types are specified in the ASTM D 6193-16 'Standard Practices for Stitches and Seams' standard.

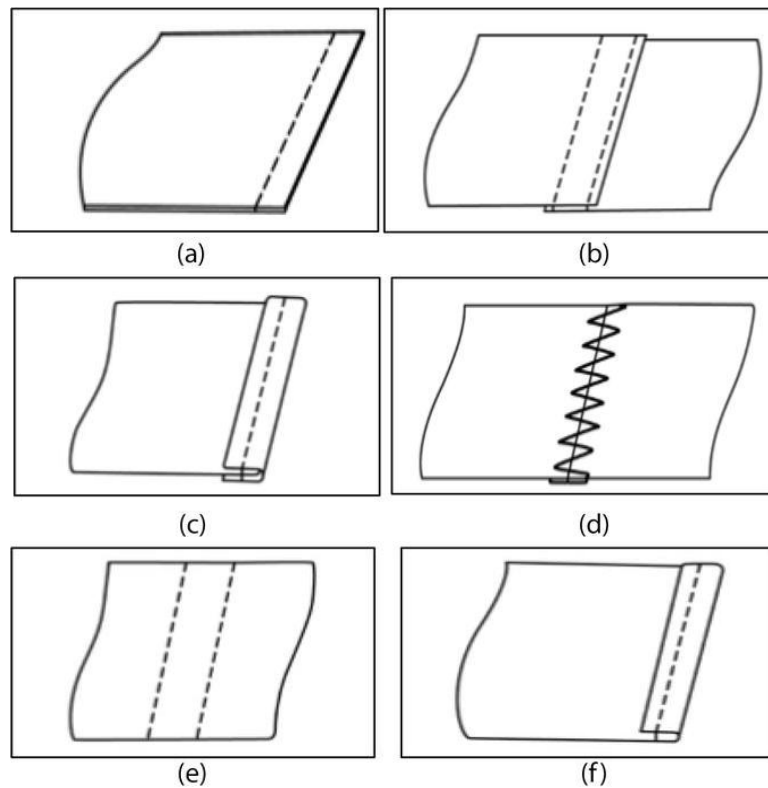


Stitch Types: (a) stitch type 101; (b) stitch type 201; (c) stitch type 301; (d) stitch type 401; (e) stitch type 504; and (f) stitch type 601.

Stitch class	Stitch type	Subgroup numbers of seam types	Subgroups of stitch types
100	Chain stitch with one Needle Thread	5	101–105
200	Hand Stitch	5	201–205
300	Lockstitch	16	301–316
400	Multi Thread Chain stitch	11	401–411
500	Overlock Stitch	22	501–522
600	Covering Chain Stitch	10	601–610

Seam Standard: The seam is defined as a juncture at which two or more planar structures, such as textile fabrics, are joined by sewing, usually near the edge. Seam types are shown as an alphanumeric designation relating to the essential characteristics of fabric positioning and rows of stitching in a seam.

Standards are very important in determining stitch types. Six stitch types are specified in the ASTM D 6193-97 'Standard Practices for Stitches' standard. Six seam types are specified in the ASTM D 6193-97 'Standard Practices for Stitches' standard and eight seam types are specified in ISO 4916:1991 'Textiles-Seam Types- Classification and Terminology' standard.



Seam types: (a) SSa-1; (b) LSa-1; (c) BSa-1; (d) FSc-1; (e) OSa-2; and (f)-EFa-1.

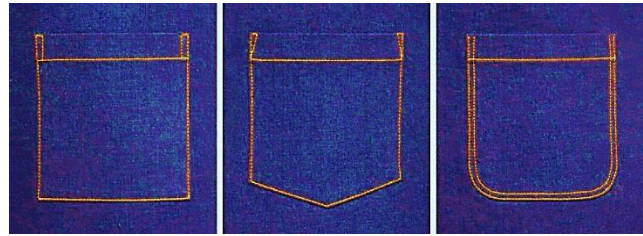
Seam class	Seam type	Subgroup numbers of seam types
SS	Superimposed seam	55
LS	Lapped seam	101
BS	Bound seam	18
FS	Flat seam	6
OS	Ornamental seam	8
EF	Edge finishing seam	32

Variations of Pockets and Seams

Different Types of Pockets

Patch Pockets

These pockets are finished on all sides and then attached to the garments. They may be lined or unlined, single or in pairs. They can be sewn in many different shapes.



Ins-seam Pockets

These pockets are generally concealed in the side seams or hidden behind welt or flap. It includes In-seam pockets, front-Hip pockets and welt pockets. It is advisable to reinforce the pocket openings with tape or a strip inter-facing to prevent it from stretching out.



Flap Pockets: If you close the patch pocket with a flap with or without a button, you get a flap pocket. The pocket opening is provided with a flap that is often seen on jackets, shirts, and pants. They come in different styles. Double flap pockets are also seen commonly.



Different Types of Pleats

Box Pleats

Box pleats have the fabric pressed outwards and are more commonly used in curtains and other sewing projects rather than clothing. The box pleats can be singular or double-layered.

Box pleats are created by pressing equal distances of fabric outwards. The inside corners may be touching or separated.



Inverted Pleats: Most skirts and dresses use inverted pleats. The underneath fabric can be the same or sometimes an insert is used for a pop of colour. Usually, when inverted pleats are sewn, they are only secured at the top and are not pressed all the way down.



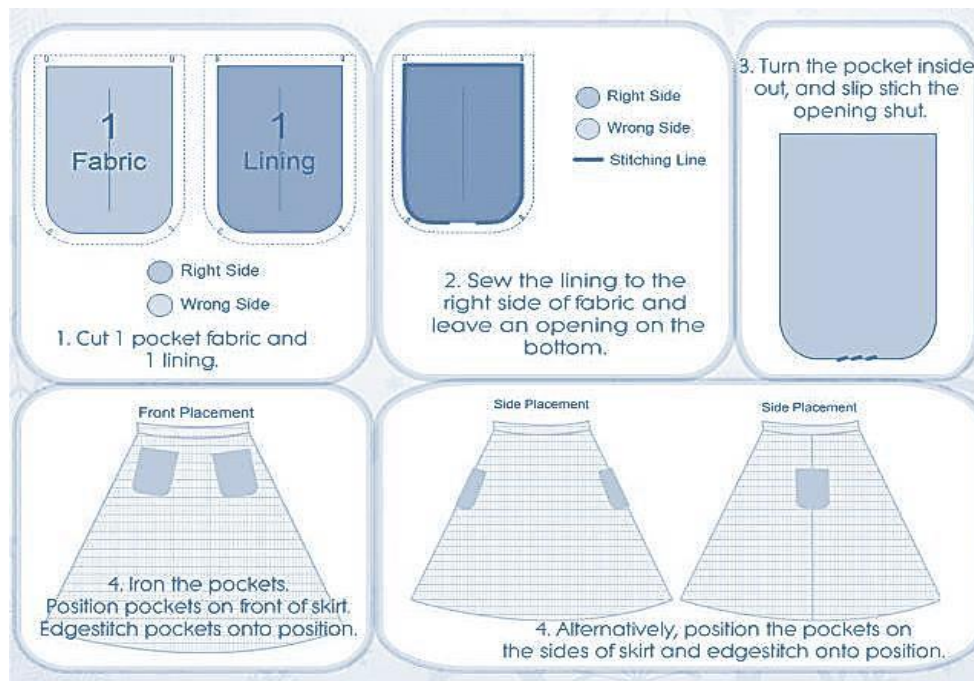
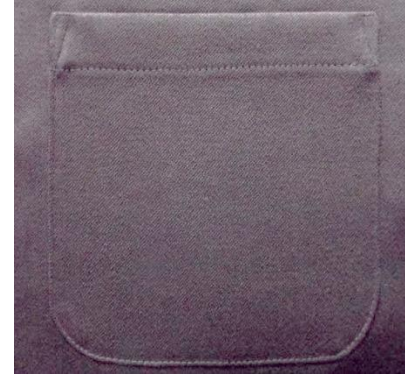
Knife Pleats: Knife pleats can be large or small and all face the same direction. They are commonly used in skirts. The pleats can be attached to the waistband or start below the hips and are pressed all the way down.



Procedure to Stitch Variations of Patch Pockets

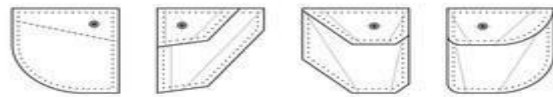
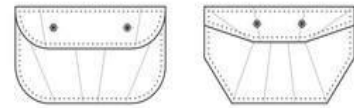
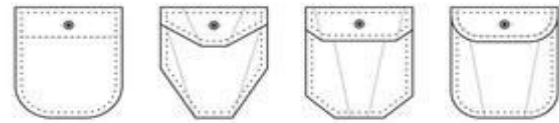
1. Simple Patch Pocket

- Only the folding is done by the following method:
- Simple Patch Pocket
- Draft the pocket pattern.
- Cut out your pocket using tailors chalk, mark top patch pocket seam $3/8''$.
- Then Mark top patch pocket fold line $1''$.
- Fold the top of the pocket down on your mark line (first fold till $3/8''$ and then till $1''$).
- Edge stitch using matching thread.
- Press the sides and bottom of the pocket by folding these as required distance.



2. Pocket with Flap

- Stitch a patch pocket as explained above.
- For flap, first make a template in desired shape.
- Cut two pieces of fabric with the help of template.
- Pin the two flap pieces right sides together.
- Stitch the two pocket flaps right sides together at the 1/2" seam allowance.
- Leave the top edge open.
- Turn the piece right side out.
- Then press the flap flat making sure to roll the seam line to the inside of the flap.
- Place the flap over your pocket to double check the size is right and make adjustments if needed.
- Stitch at 1/2" seam allowance from the edge of the flap.
- Align raw edge of the flap to the top of the attached pocket.
- Pin and stitch along the raw edge at 1/4".
- Trim seam allowance to 1/8".
- Press the flap downward and run a line of top stitching along the top edge to secure the flap and prevent it from flapping upwards.
- Press it and the pocket with flap is ready.



In-Seam Pocket

- Cut out Two Pocket Pieces
- Mark Pocket Placement
- Pin Pockets with pins
- Start Stitching
- Turn out Pockets
- Pin and Sew the Side Seams
- Press and Flip: Press the side seams of garment toward the front and turn the garment right side out. Pocket should lay neatly inside. Finish the seams of the garment and pocket.



Activity

Sew Simple/Plain patch pocket and pocket with flap. You will require:

1. Japanese ruler
2. Drawing Pencil
3. Tailoring Chalk
4. Sewing machine
5. Fabric
6. Thread
7. Scissors
8. Iron
9. Needle

**Activity**

Stitch Knife pleats and Inverted Box Pleats. You will require:

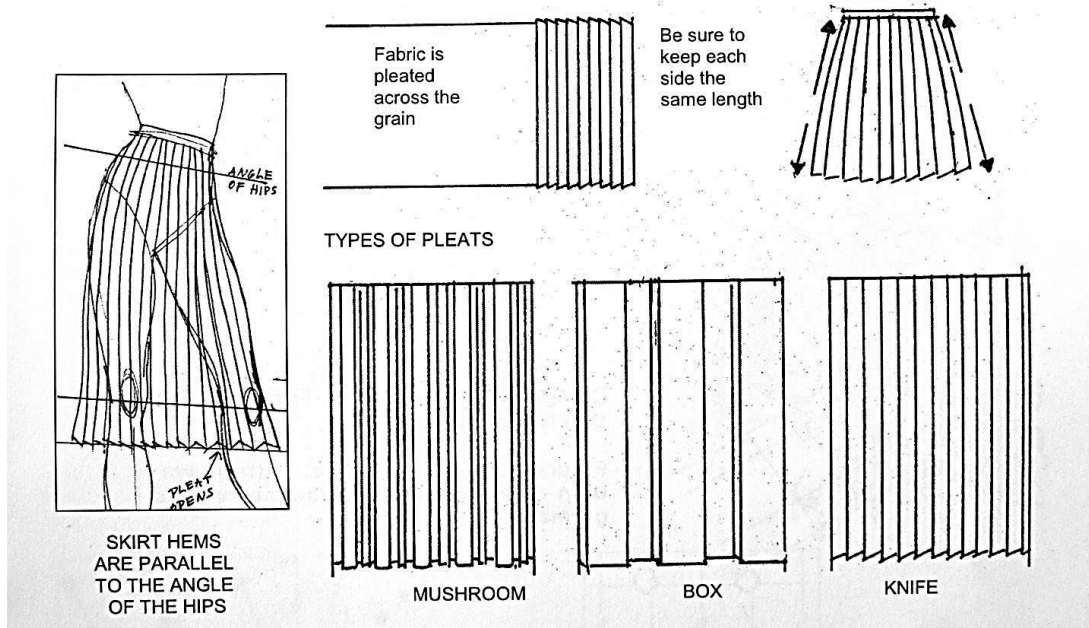
1. Japanese ruler
2. Drawing Pencil
3. Tailoring Chalk
4. Sewing machine
5. Fabric
6. Thread
7. Scissors
8. Iron
9. Needle
10. Pins
11. Pattern sheets



Do You Know?

What is the ratio for working knife pleats?

Knife pleats are used for basic gathering purposes, and form a smooth line rather than springing away from the seam they have been gathered to. The pleats have a 3:1 ratio—three inches of fabric will create one inch of finished pleat. Knife pleats

Method to Stitch the Simple Skirt**Closure Attachment and Edge Finishing****Importance of Edge finishing:**

An edge finish refers to the final hem you apply on the edges of a garment. It not only adds to its aesthetic appearance but prevents your garment from fraying on the edges over time. Finishing of the edges of the seams are sometimes what distinguishes a homemade dress from a couture one.

But for a professional and good-looking garment it is needed to finish the seams. Seam finishes strengthens the seam line as well as makes the seam allowances neat.



Closures and Different Closure Types

Closures

Closures are functional trims used to open or close a garment. Sometime closures are visible and the other times they are not visible when the garment is worn. Sewing closures are a part of the finishing touches to a sewing project and are one of the last actions that one takes to complete a garment. There are many different types of closures like buttons, zippers, Hook n eye/bar, stoppers and Velcro tapes Etc.

Different Closure Types

Buttons

Buttons are traditionally round discs that are sewn through (buttons with holes) or sewn-on (buttons with shanks) to the garment. Buttons are chosen based on their characteristics like size, color and type of material they are made of etc.



Zippers

A Zipper makes a complete closure by means of interlocking teeth or coils. The teeth/coils are fixed to a cloth tape on one end and interlock on the other end.

The slider is used to interlock or unlock the zippers.

Different types of zippers are available.



Hook and Eye/Bar

A hook-and-eye/bar closure is a very simple and secure method of fastening garments together. It consists of a metal hook, commonly made of flattened wire bent to the required shape, and an eye/bar of the same material into which the hook fits.



Velcro Tapes

These consists of two lineal fabric strips (or, alternatively, round "dots" or squares) which are attached (sewn or otherwise adhered) to the opposing surfaces to be fastened. The first component features tiny hooks; the second.

When the two are pressed together the hooks catch in the loops and the two pieces fasten or bind temporarily. When separated, by pulling or peeling the two surfaces apart, the



strips make a distinctive ripping sound.

Edge Finishing and Closure Attachment Procedures

Edge Finishing Procedures

There are several types of edge finishes you can use for example, serged finishes, pinked seam finish, edge stitch, zigzag seam, hemmed fell seam finish, bound seam, overcast foot, double- stitched finish, fringed edge, piped edge, among others.

1. The Pinked Finish

- Stitch a quarter-inch or as large a seam as you need on your fabric or garment. Pinking works best on woven fabrics. Get your pinking shears ready.
- Press your seams open with a hot iron.
- Bring your pressed seams together and align them to make sure that they are straight.
- Cut with your pinking shears so that your seams now have serrated edges.
- You can also finish your edges with the pinked and stitched seam finish. Before you cut your seam edges, make a quarter inch on the seams. Now, with your pinking scissors, pink just below the stitch you made on the seams.
- The pinked and stitched technique ensures that your finishes are much stronger and durable.

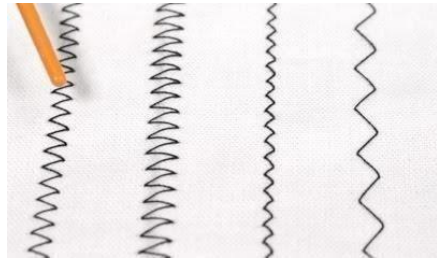


2. The Zigzag Seam Finish:

- A zigzag seam can be applied with a normal sewing machine. To apply a zigzag finish, just set your sewing machine to a zigzag stitch and run it along the edge of the seam on both sides. The zigzag finish is good
- for any type of fabric because it does not create a bulky seam.
- Stitch your seams as you are used to then trim them down slightly. However, leave an allowance to ensure that you can make your zigzag finishing stitches on the fabric or garment.

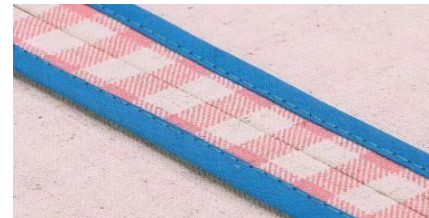


- Set your sewing machine to the zigzag stitch setting.
- Position your fabric or garment on your sewing machine ready to sew. Align the edge of your
- fabric to your sewing machine needle and presser foot. Position your presser foot ready to start sewing.
- Start sewing. After it Press your seams open or to one side to make your finished product attractive and neat.



3. The Bound Seam Finish

- In this you will use a series of carefully applied and pressed binding tapes on the inside of your seam to achieve a professional finish to your garment.
- Sew a plain seam on your fabric.
- With a hot iron, press the seams open.
- Get a different lightweight fabric preferably silk or polyester from which you will cut a bias strip of fabric that is a couple of inches longer than the seams you just stitched. You can choose to use the same fabric or a different color fabric to cut the bias strip for the bound finish.
- Place the bias strip on one side of the seams on the fabric. Make sure that you have the right sides together. The right side of the bias strip facing down and placed on the seam whose right side is facing up to match the cut edges.
- Sew a quarter inch from the cut edge of these two fabrics.
- Iron the stitches to keep them firm and press upwards until the edges almost meet.
- Fold the remaining part of your bias strip but don't let the cut edges meet.
- Press and fold the entire length of the seam allowance.
- Press the fold up and make sure that it covers the initial stitching leaving the actual seam line stitching untouched.

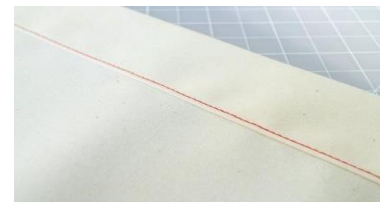


- Turn your fabric so that your seam allowance faces up. Stitch in the ditch through all the layers of the seam.
- Repeat for the other side of the seam to make a bound seam finish.
- Now, press the seam edges that are now bound to remove any puckering on the fabric or tears.



4. Folded Hems

- One very basic way to finish the edges of fabric, is to press them over twice onto themselves so the raw edge is hidden, then stitch the folds down. One can vary the width of the folds for different applications.
- Another slightly less bulky variation on this technique is to make the inner fold smaller than the outer fold. To try this,
- Take a piece of fabric with a straight edge, and press the edge up onto itself 2".
- Then take the raw edge you folded up and fold it under about 1/2", making the resulting hem 1.1/2" wide.
- Press this fold, and pin and sew your hem 1/8" - 1/4" away from the fold.
- Press the finished hem



Activity

Perform Any Two Types of Edge Finishing. You will require:

1. Japanese ruler
2. Tailoring Chalk
3. Sewing machine
4. Fabric
5. Thread
6. Scissors
7. Iron
8. Needle
9. Pins



Closure Attachment Procedures

1. Button loop closure

- Take Button Loop piece, which should have been cut on the bias.
- Take the button loop piece and fold in half lengthways, with right sides together. Press and pin.
- Stitch along the long (raw) edge with a 5/8" seam allowance.
- Once it is turned out to the right side, press the loop flat to neaten it up, rolling the seam to one side.
- Trim back the seam allowance, close to the stitch line. Use safety pin or bodkin to turn the loop right side out.
- Once it is turned out to the right side, press the loop flat to neaten it up, rolling the seam to one side.
- Put a pin through both ends of the loop to mark the correct size.
- Trim off any excess length.
- Grab top, with the back of the top facing up, turn back the right side of the center back opening, so that you can access the left side of the opening. Place a pin horizontally 3/8" down from the neckline to mark the position of the button loop.
- Take the button loop and pin in place at the position marked in the previous step.
- The loop should be pointing away from the center back opening.
- Carefully machine stitch in place - a couple of millimeters from the crease (inside the center back seam allowance).
- Fold both center back seam allowances back to the inside of the top, and give the opening (along with button loop) a good press.
- For button, thread your needle, place the button on the garment, and Push the threaded needle up through the fabric and through one hole in the button. Pull the thread all the way through on each stitch.
- Push the needle down through the next hole and through the fabric. Pull the thread all the way through. It's best to hold the button in place so it does not move.



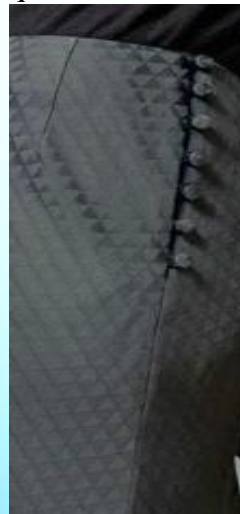
- Restart the process by bringing the needle up through the first hole again and pull the thread all the way through the fabric.
- Strengthen the button by repeating the sewing process enough times to make sure the button is securely in place.
- On the last stitch, push the needle through the material, but not through a hole in the button.
- Wrap the thread six times around the thread between the button and the material to reinforce the shank you have created.
- Push the needle back down through the material.
- Make a few stitches below the button, going back and forth to make them strong.
- Tie this thread off.
- Cut off the excess. _____



Activity

Perform button and loop closure. You will require:

1. Japanese ruler
2. Tailoring Chalk
3. Sewing machine
4. Fabric
5. Buttons
6. Thread
7. Scissors
8. Iron
9. Needle

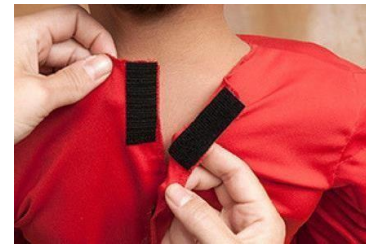


2. Hook n Eye/Bar Attachment

- When creating a hook and eye closure, typically the hook will be on the right side, and the eye will be on the left side. Find the location where you want your fastener to go, and hold the hook up to the fabric on the underside or inside of the garment.
- Adjust the hook so it's 1/8 in from the edge and mark it with chalk. If you place the hook so the end falls just inside of the edge of the garment, you'll get a secure closure, but

the Fastener won't be obvious.

- Slide the needle through the fabric's underside and into one of the loops. Don't push the needle all the way through the fabric, because you don't want the stitch to show on the outside of the garment.
- Stitch the head to the garment at least 3 times continuously. You have to ensure that the needle is go to the right side of the fabric. You do not want the stitches to be seen on the right side. Also do not stitch too many times that you will have trouble using the hook. Now sew the round loops securely with small blanket stitches. Go round the ring completely encircling it. Repeat with the other loop.
- Keep the eye on the inside of the garment on the other side of the opening. 1/8 inch from the edge is good measure – you can attach the eye to the hook to be accurate.
- Ensure that the opening edges are exactly in the middle. Mark the place with a pen or a pin. Now sew the loops of the eye with whip stitches or blanket stitches.
- Ensure that the hook is straight and not tilted to any side.



3. Velcro tape closure attachment

- Cut the Velcro the appropriate size. Slide the scissors through the Velcro to avoid tearing the hooks or loops.
- Lay the Velcro pieces onto the fabric. Place the soft Velcro on the underside of the top piece of fabric, and these catchy Velcro on the lower piece of fabric. Ensure they are properly aligned.
- Use a new, sharp, heavy-duty needle that has been lubricated with beeswax or needle lubricant. The lubricant will help the needle glide much more easily through the Velcro.
- Some machines come with a special presser foot for hook and loop closures. If yours has one, make sure to use it. If not, use zipper foot.
- Sew by moving the needle either left or right and making small stitches along the seams



Activity:

Perform Closure Attachments of:

1. Hook and eye/bar
2. Button
3. V

electro tape You will require:

- | | |
|------------------|-------------------|
| - Japanese ruler | - Tailoring Chalk |
| - Sewing machine | - Buttons |
| - Fabric | - Hook n Eye/Bar |
| - Velcro Tape | - Thread |
| - Scissors | - Iron |
| - Needle | - Pins |

Key Points

- While stitching a garment different types of seams are employed depending upon the requirement and the type of fabric.
- Commonly used machine seams are plain seam, flat felled seam, welt seam, English seam, French seam.
- Different types of pleats are employed for during stitching. They may include knife pleats, inverted pleats, and box pleats.
- Pockets are of different types and designs that are sewn over a garment according to the requirement.
- Closures are attachments that are used for closing different openings of a garment.
- ASTM is the system of standards for seams and stitches.

Web Links

- <https://www.craftsy.com/post/how-to-sew-pockets/>
- <https://readytosew.fr/en/journal/how-to-sew-a-welt-pocket-with-flap-b9.html>
- <https://www.thesewingdirectory.co.uk/beginners-guide-to-making-clothes>
- https://www.brainkart.com/article/Top-Stitched-Seam_1822/
- <https://readytosew.fr/en/journal/how-to-sew-a-welt-pocket-with-flap-b9.html>

EXERCISE

Tick (✓) the Suitable Option

1. Superimposing one piece of fabric on another makes:

- | | |
|-----------------|----------------------|
| a) French seam | c) Superimposed seam |
| b) English seam | d) Flat felled sea |

2. Line diagrams of seams are their:

- | | |
|----------------------------|-----------------------------|
| a) Visual representation | c) Tactile representation |
| b) Physical representation | d) Graphical representation |

3. French seams are sometimes used on:

- | | |
|------------------|------------|
| a) Baby clothing | c) Viscose |
| b) Denim | d) Linen |

4. The seam that should be back tacked is called

- | | |
|----------------------|-----------------|
| a) Plain seam | c) French seam |
| b) Superimposed seam | d) English seam |

5. ASTM stands for:

- a) American System Testing Machine
- b) American Society for Testing and Materials
- c) American Social Testing Material
- d) American Scripting tutorial Management

6. The pocket that is finished before attaching to the garment is called

- | | |
|-----------------|------------------|
| a) Patch pocket | c) Welt pocket |
| b) Inner pocket | d) Inseam pocket |

7. Before attaching it to the garment, a patch pocket needs to be:
- a) Raveled
 - b) Finished
 - c) Unfinished
 - d) Washed
8. The type of pleats that need the fabric to be pressed outward are:
- a) Pin tucks
 - b) Knife pleats
 - c) Inverted pleats
 - d) Box pleats

Give short answer to the following questions.

1. What are closures?
2. What do you know about knife pleats?
3. Write down the procedure to make an inseam pocket.
4. What is meant by edge finishing?
5. What is the difference between patch pocket and welt pockets?

Answer to the following questions in detail.

1. What do you know about pleats? Explain any two in detail.
2. What are different types of closures? Explain.
3. Enlist different types of pockets. Write down the procedure of making any two of them.

Constructed Response Questions

You are provided with the pieces of three different types of fabrics which include:

- Denim
- Linen
- Cotton

Find out which one of the above mentioned material is best suited for making flat felled seam.

Practical Activity

Project work

Compile a folder of Sewing including

- line diagrams of different seam types
- edge finishing/hemming
- Closure Attachments of:
 - Hook and eye/bar
 - Button
- Velcro tape
- different types of pleats
- types of patch pockets
- edge finishing/hemming
- Perform closure attachments

You will require:

- | | |
|------------------|-------------------|
| - Japanese ruler | - Tailoring Chalk |
| - Sewing machine | - Buttons |
| - Fabric | - Hook n Eye/Bar |
| - Velcro Tape | - Thread |
| - Scissors | - Iron |
| - Needle | - Pins |
| - A/4 Size File | A/4 size Papers |
| - UHU | Common Pins |

ENTREPRENEURSHIP

5

Do you want to start your own business?

What is the importance of making business?

Students Learning Outcomes

After studying this unit students must be able to:-

- define entrepreneurship.
- define types of entrepreneurship.
- identify the key concepts of entrepreneurship.
- explain main component of entrepreneurship.
- identify business opportunity.
- evaluate how to develop feasibility and business plan.
- recognize about concept of marketing and marketing mix.
- explain 6 p's of marketing.
- apply costing and pricing.

Examples of scalable startups are Facebook, Instagram and Uber.

4. Social Entrepreneurship

An entrepreneur who wants to solve social problems with their products and services is in this category of entrepreneurship. Their main goal is to make the world a better place.

5. Innovative Entrepreneurship

Innovative entrepreneurs are people who are constantly coming up with new ideas and inventions. They take these ideas and turn them into business ventures. They often aim to change the way people live for the better.

6. Hustler Entrepreneurship

People who are willing to work hard and put in constant effort are considered hustler entrepreneurs. They often start small and work toward growing a bigger business with hard work rather than capital. For example, someone who is a hustler is willing to cold call many people in order to make one sale.

7. Imitator Entrepreneurship

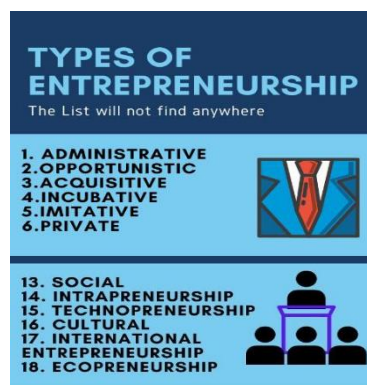
Imitators are entrepreneurs who use others' business ideas as inspiration but work to improve them. They look to make certain products and services better and more profitable. They can learn from others' mistakes when making their own business.

8. Researcher Entrepreneurship

Researchers take their time when starting their own business. They want to do as much research as possible before offering a product or service. They believe that with the right preparation and information, they have a higher chance of being successful.

9. Buyer Entrepreneurship

A buyer is a type of entrepreneur who uses their wealth to fuel their business ventures. Their specialty is to use their fortunes to buy businesses that they think will be successful.

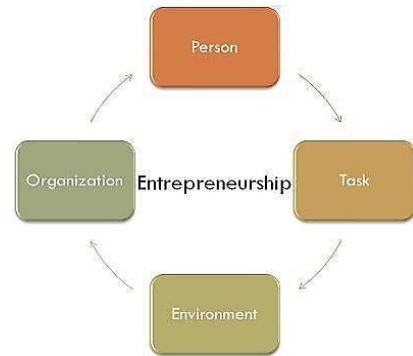


Do You Know? Key points of entrepreneurship

Business, Owner, New Venture, Innovation, Risk, Management, Startup, Plan, Solution, Vision.

Key Concepts of Entrepreneurship

Entrepreneurship is the act of setting out on your own and starting a business instead of working for someone else in his business. While entrepreneurs must deal with a larger number of obstacles and fears than hourly or salaried employees, the payoff may be far greater as well.



Conceptual Model of Entrepreneurship

Interest and Vision

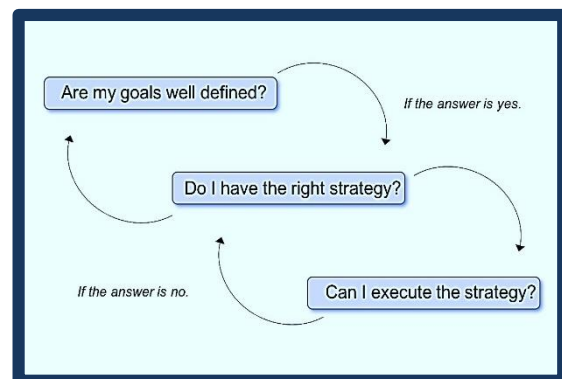
The first factor for entrepreneurial success is interest. Since entrepreneurship pays off according to performance rather than time spent on a particular effort, an entrepreneur must work in an area that interests him/her. Otherwise, He/she will not be able to maintain a high level of work ethic, and she will most likely fail. This interest must also translate into a vision for the company's growth.

Organization and Delegation

While many new businesses start as a one-man show, successful entrepreneurship is characterized by quick and stable growth. This means hiring other people to do specialized jobs. For this reason, entrepreneurship requires extensive organization and delegation of tasks. It is important for entrepreneurs to pay close attention to everything that goes on in their companies, but if they want their companies to succeed, they must learn to hire the right people for the right jobs and let them do their jobs with minimal interference from management.

Risk and Rewards

Entrepreneurship requires risk. The measurement of this risk equates to the amount of time and money you invest into your business. However, this risk also tends to relate directly to the rewards involved.



Points to Ponder

- ❖ Can you describe key concept about your goal of entrepreneurship? What are the basic

necessities of entrepreneurship?

- ❖ Define your plan and strategy?

Activity

- ❖ Make a plan and strategy that you're developing for your own business.

Good Characteristics of an Entrepreneur

From local specialty food shops to multimillion dollar social media companies, many businesses only exist thanks to the vision and dedication of an entrepreneur. No matter the size or industry, starting a company requires a set of skills and attributes not all workers possess. Although their levels of education and experience may vary, successful entrepreneurs often share the same set of characteristics.



Self-Motivated and Enjoy a Challenge

Often, workers are motivated to go to work every day simply to earn a paycheck or even simply not to get fired. An entrepreneur is intrinsically motivated as there is typically no financial reward in the beginning stages of starting a business. Rather than wait for progress and success, an entrepreneur takes whatever action is necessary to facilitate these things.

Motivation and Leadership Skills

Whether overseeing a team of two or 200, entrepreneurs must have strong leadership qualities, according to Jason Bowser in his article, “8 Traits of Successful Entrepreneurs,” published on the Minority Business Development Agency website. Entrepreneurs must also have excellent communication skills as they will work with a variety of types of personalities in dealing with employees, clients and investors.

Risk-Taking and Decision Making

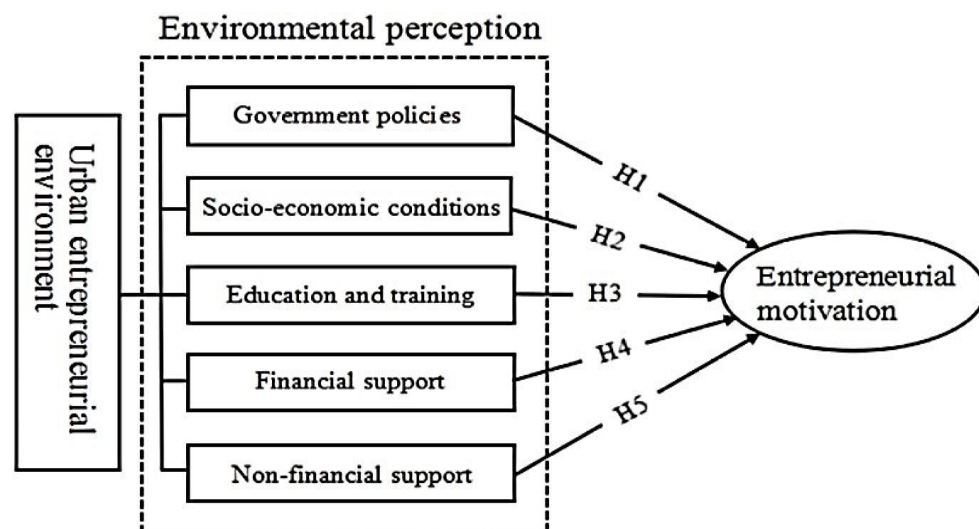
Risk is inherent when starting a business. According to Joe Hadzima in his article “Seven Characteristics of Highly Effective Entrepreneurial Employees,” entrepreneurs must be able to “operate effectively in an environment filled with risk.” This requires possessing well-developed decision-making skills, even in the face of failure, as well as being flexible enough to alter methods when things do not go as planned.

Innovative and Always Looking for Ways to Improve

All businesses began with an idea, such as create fashionable apparel from recycled clothing or connect travelers all over the world with a free online travel network. The ability to not only come up with new ideas but develop and improve them as the business grows is an essential characteristic of a good entrepreneur.

Ethics and Integrity

Entrepreneurs often answer only to themselves and must therefore possess a “strong sense of basic ethics and integrity,” Bowser states. Although some new business owners may experience immediate success through cheating or lying, in the long run, clients and investors will lose interest in doing business with an entrepreneur who lacks credibility.





Do You Know? Good characteristic of entrepreneurship is hardworking, sincerity, self-reliance, high optimistic, planning and responsibility, innovation, risk taking, communication skills and secrecy maintainer.

Key Components of Entrepreneurship

An entrepreneur is the sole proprietor and administrator of his business. The word means "the person who embraces" in French. From a financial matter's perspective, a business visionary is a person who bears all the danger of a business. What's more, consequently, he will appreciate the entirety of the benefits from the company too.

While understanding the idea of entrepreneurship, it is essential to learn its components.

Idea Generation



The entrepreneur begins to wonder why there is not available a product or service, why not improve certain things.

Motivation

The bottom line is: do you want to play it safe and be a ‘Steady Eddy’ or do you want to take a chance and be remarkable? Getting this bit right in your head is fundamental to your approach to your business. However entrepreneurial you are in character and behavioral style, if you don’t really want it you are going to struggle to achieve it.

Risk

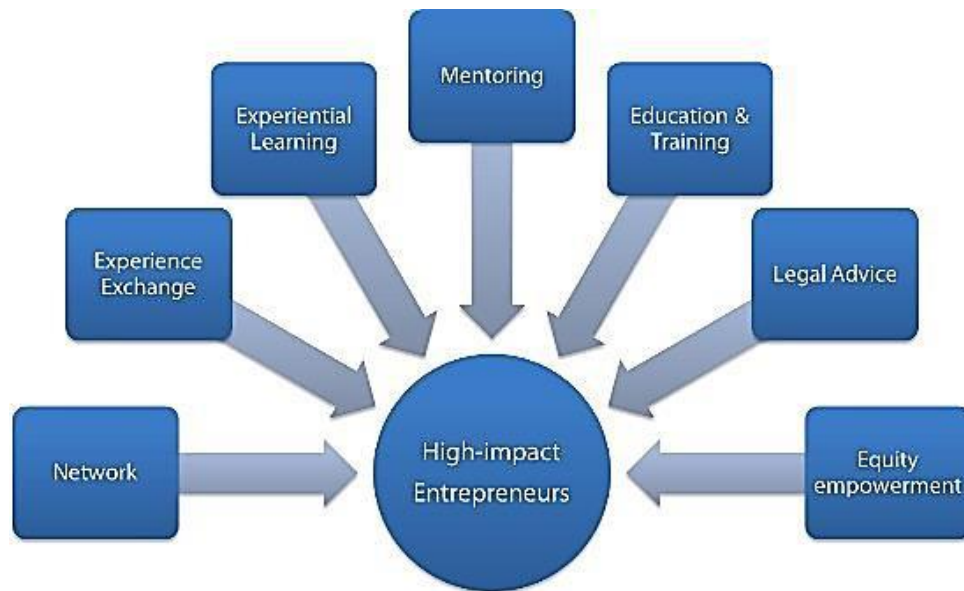
The overriding driver behind making business, or indeed life decisions, is understanding and mitigating risk. Risk is not just the reason why people don’t do things; perversely, it’s also the reason why people do them.

Organization

Being an entrepreneur is basically a one-man show and in order to run a business smoothly, one should have the option to oversee and sort out his funds, his finances, his representatives, and his assets. To manage all this, the entrepreneur needs to have the organizational skill as a major component.

Vision

An entrepreneur should be future-focused. If there is no vision, no goal, then the business will not move forward and it will not be profitable. Having a vision gives a future framework to the business – the assignments to finish, the risks to take, the way of life to build up, and so on.



Feasibility and Business Plan

The feasibility study helps determine whether an idea or business is a viable option. The business plan is developed after the business opportunity is created. Strategic BusinessTeam.com explained, “A feasibility study is carried out with the aim of finding out the workability and profitability of a business venture.



Identification of Business Opportunity

To be successful entrepreneurs, we need to be continually innovating and looking for opportunities to grow our startups. But how do you find new opportunities to take your startup to new markets and growth levels? Here are four ways to identify more business opportunities.

Listen to Your Potential Clients And Past Leads

When you're targeting potential customers listen to their needs, wants, challenges and frustrations with your industry. Have they used similar products and services before? What did they like and dislike? Why did they come to you? What are their objections to your products or services? This will help you to find opportunities to develop more tailored products and services, hone your target market and identify and overcome common objections.

Listen to Your Customers

When you're talking to your customers listen to what they saying about your industry, products and services. What are their frequently asked questions? Experiences? Frustrations? Feedback and complaints? This valuable customer information will help you identify key business opportunities to expand and develop your current products and services.



Phase 1: Opportunity Identification/Selection

- Active and passive generation of new product opportunities as spinouts of
 - the ongoing business operation
 - new product suggestions
 - changes in marketing plan
 - resource changes
 - new needs/wants in the marketplace
- Research, evaluate, validate, and rank them (as opportunities, not specific product concepts).
- Give major ones a preliminary strategic statement to guide further work on it.

Look At Your Competitors

Does a little competitive analysis (don't let it led to competitive paralysis though) to see what other startups are doing, and more importantly, not doing? Where are they falling down? What are they doing right? What makes customers go to them over you? Analyzing your competitors will help you identify key business opportunities to expand your market reach and develop your products and services.

Look At Industry Trends and Insights

Subscribe to industry publications, join relevant associations, set Google alerts for key industry terms and news and follow other industry experts on social media. Absorb yourself in your industry and continually educate yourself on the latest techniques and trends

Do You Know? To be successful entrepreneurs, we need to be continually innovating and looking for opportunities to grow our startups. Looking to your potential clients. Helping out customers. A keen eye to competitors.

Ask yourself:

1

Who would my customers be?

2

Why will customers buy the product from me?

3

How will customers benefit from my product?

Development of Feasibility and Business Plan

How to Create a Feasibility Business Plan. A feasibility business plan is a study conducted prior to initiating a business plan. Whether you're an established business launching a new product or an individual with a new idea, a feasibility plan is that part of a business plan that will help you and your investors determine if your idea will thrive. Write a cover letter to potential investors outlining your product or idea. Show how you have researched and come to a conclusion that your product or idea is viable. Sum up your analysis in an executive summary outlining the main points of your research. Provide information on your product, potential buyers and why you believe your venture is ideal. Describe your product or idea in detail. List your potential customers and explain their views about your product or idea. Explain how customers will use the product. Lay out the infrastructure. Indicate where you intend to house the business and if you intend to rent or buy. Describe the technology you will use.

Activity

- ❖ Conduct a Preliminary Analysis. Begin by outlining your plan.
- ❖ Prepare a Projected Income Statement.
- ❖ Conduct a Market Survey, or Perform Market Research.
- ❖ Plan Business Organization and Operations.
- ❖ Prepare an Opening Day Balance Sheet.
- ❖ Review and Analyze All Data.
- ❖ Make a Go/No-Go Decision.

BENEFITS OF A FEASIBILITY STUDY

- 1 Point out the valid reasons to go ahead with the idea
- 2 Saves time money and resources.
- 3 Enhances the team's focus
- 4 Helps in identification of new oppurtunities
- 5 Helps to take an informed "go/no-go" decision
- 6 Narrow down the business alternatives
- 7 Enhances the probability of success in a short span of time
- 8 Helps to make clear future growth plans
- 9 Adds value to funding pitches
- 10 Helps make realistic assumptions

Conducting a Feasibility Study

If you are doing the feasibility study yourself, conduct a complete competitive analysis considering the following:

Product Demand: Is there a need or want for your product or service? Is the need already being met, or is there room for another product?

Market Conditions: Who would buy your product and where are they? Can you serve their location? Is the market saturated, or is there room/need for more products?

Pricing: What do current users pay for similar products? What do you need to charge so that you will be profitable, and will consumers pay your price?

Risks: What are the risks associated with your idea?

Probability of Success: Can you reasonably overcome the risks to become profitable?

Writing a Business Plan

Writing a business plan may seem daunting, but if you take it step-by-step, it will come to fruition.

The Small Business Administration advises that business plans should include the following:

Executive Summary: Include your mission statement, products and or services, some brief information about your leadership team and key employees, as well as the location of your business. To attract investors, add current financial information and projections for growth.

Company Description: Detail the problems your business solves; its target market; its competitive advantages, compared with the competition, and anything else that makes your company superior to others: i.e., product awards or recognition, big increases in sales, and so on.

Market Analysis: Perform competitive research of what other businesses are doing; their strengths and weaknesses, and how and why your business will be competitive and successful in the market.

Organization or Management: State the legal status of your business, such as a corporation or partnership, and include an organizational chart showing management levels, departments, and so on.

Service or Product Line: State what you will sell or provide and describe the benefits of each. Explain any research done, and any patents filed, and so on.

Marketing and Sales: Explain in detail your marketing strategy and how sales will be made.

Funding Request: If necessary, detail the amount of funding you'll need for the next five years - specifically, what you'll do with the funds, and the terms you're asking for.

Financial Projections: This is the business's financial outlook for the next five years. Include current financial statements, if the business is in operation.

Appendix: This includes supporting documents or requested materials, such as resumes, product photos, and letters of reference, patents, and licenses and so on.



Activity

- ❖ Write a feasibility plan?
- ❖ Write a business plan?
- ❖ Determine the feasibility of a business plan?
- ❖ What comes first feasibility or business plan?

Marketing and Marketing Mix

A marketing mix is the set of marketing tools that a business uses to sell products or services to its target customers.

Businesses have technically always used marketing tools to promote and sell their work, but the term "marketing mix" was coined in the mid-20th century. One of its first uses was in a 1953 address to the American Marketing Association, in which Harvard professor and marketing expert Neil Bordon outlined how marketers develop and execute a successful marketing plan.

Identifying and arranging the elements of its marketing mix allows a business to make profitable marketing decisions at every level.

These following decisions help a business:

1. Develop its strengths and limit its weaknesses
2. Become more competitive and adaptable in its market
3. Improve profitable collaboration between departments and partners

Concepts of Marketing and Marketing Mix

Definition: The marketing mix refers to the set of actions, or tactics, that a company uses to promote its brand or product in the market.

Characteristics/Features/Nature of Marketing Mix

What Is a Digital Marketing Mix?

A digital marketing mix is how a business achieves its marketing goals using digital technologies. As more business is done online, digital marketing tools become important to all types of businesses, not only those in the tech industry.

Do You Know? The Marketing Mix

Price: Price is the cost consumers pay for a product.

Product: Product refers to a good or service that a company offers to customers.

Promotion: Promotion includes advertising, public relations, and promotional state.

Place: When a company makes decisions regarding place, they are trying to determine they should sell a product and how to deliver the product to the market.



A digital marketing mix follows the same principles of a traditional marketing mix. However,

those elements are adapted to the way the Internet influences new technologies and consumer behavior.

Activity

- ❖ Define 4 P's
- ❖ Explain how the 4 P's work
- ❖ What are the characteristic of 4 P's?

Do You Know? Any successful marketing strategy requires revisiting over time. If you are developing a 4 Ps strategy for your business, it's important to understand that the elements of the first marketing mix you create are not intended to be static; they are meant to be adjusted and refined as your company's product grows and as your potential buyers change.



1. Marketing Mix is The Crux of Marketing Process

Marketing mix involves many crucial decisions relating to each element of the mix. The impact of the mix will be the best when proper weightage is assigned to each element and they are integrated so that the combined effect leads to the best results.

2. Marketing Mix Has to be Reviewed Constantly in Order to Meet the Changing Requirements

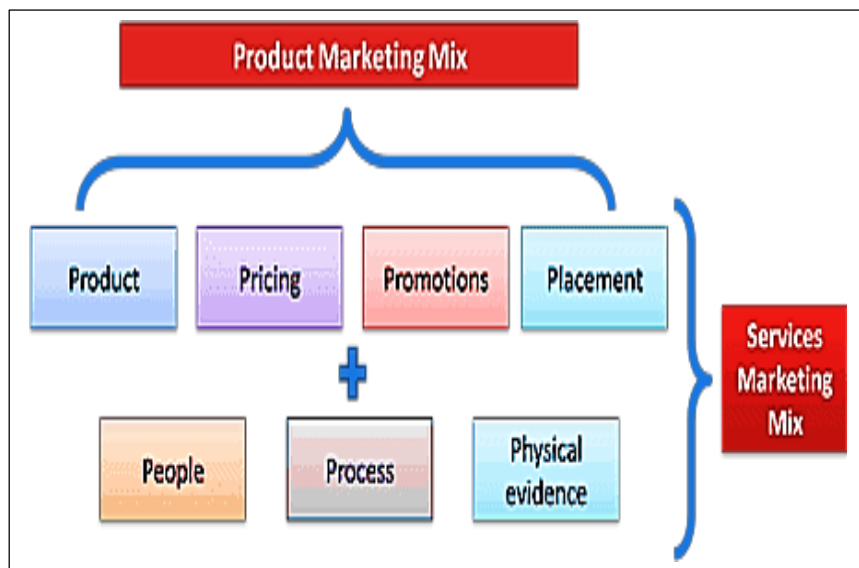
The marketing manager has to constantly review the mix and conditions of the market and make necessary changes in the marketing mix according to changes in the conditions and complexity of the market.



3. Changes in External Environment Necessitate Alterations in the Mix

Changes keep on taking place in the external environment. For many industries, the customer is the most fluctuating variable of environment.

Customers' tastes and preferences change very fast. Brand loyalty and purchasing power also change over a period. The marketing manager has to carry out



market analysis constantly to make necessary changes in the marketing mix.

4. Changes Taking Place within the Firm also Necessitate Changes in Marketing Mix

Changes within the firm may take place due to technological changes, changes in the product line or changes in the size and scale of operation. Such changes call for similar changes in the marketing mix.

5. Applicable to Business and Non-Business Organization

Marketing mix is applicable not only to business organizations but also to non-business organizations, such as clubs and educational institutions. For instance, an educational institution is expected to provide the right courses (product), charge the right fees (price), promote the institution and the courses, and provide the courses at the right place.



6. Helps To Achieve Organizational Goals

An application of an appropriate marketing mix helps to achieve organizational goals such as profits and market share.

7. Concentrates On Customers

A thorough understanding of the customer is common to all the four elements. The focus point of marketing mix is the customer, and the marketing mix is expected to provide maximum customer satisfaction.

Interesting Information

- A marketing mix often refers to E. Jerome McCarthy's four Ps: product, price, placement, and promotion.
- The different elements of a marketing mix work in conjunction with one another.
- Consumer-centric marketing mixes incorporate a focus on customers into their approaches.
- The marketing mix is most commonly executed through the 4 P's of marketing: Price, Product, Promotion, and Place.
- Product line to be offered-qualities and design and also services. Markets to sell: Whom, where, when and in what quantity.
- New product policy Research and development programmed.

6 P's Of Marketing

(Six Ps are better than the old four)

We are “6P’s” Marketing because the “4P’s” of marketing do not cut it in today’s highly competitive marketplace. We have added Passion and People and put a new spin on the other 4P’s as well. Here is how the 6P’s work together at 6P Marketing.

Passion: Passion matters because passion attracts attention and sparks conversations. Passion is caring about your brand, finding relevant brand news and sharing it with the brand’s social community. Communicate passionately with your clients and prospects and you’ll increase the odds that they will take notice of your brand and want to learn more.

People: The more you know about your customers and your products or services, the better, because at the root of all great advertising is a unique insight regarding the relationship your



customers have with your products or services.

Product: Because people buy benefits, not products, we focus on what your customers think of your brand, how they use your products and services, and who or what they see as the logical alternative to what you have to offer.

Place: Place can make or break a new or established brand and can be used to differentiate your brand from the competition. Province, city, neighborhood, street, store design, in-store product position, display type and product size are just a few of the variables that affect sales. While we've used a terrestrial example here, place is equally important online.

Promotion: Promotion lays out what and where you tell the world about your products or services to encourage more customers to buy more of what you have to offer more often. We like benefit-driven promotions that support a superior value proposition.

Price: Price is an integral piece of a good value equation. In a crowded marketplace, most organizations lower their prices to compete for the available business but a smart pricing strategy ensures that you remain competitive without diminishing brand's value. Remember – “cheaper” isn't “better.”

Activity

- ❖ What are the specific customer needs? Is the product part of an existing group?
- ❖ Are there variations in size, color, and cost?
- ❖ How does it differ from existing products already in the market?

Apply Casting and Pricing: Cost and price are often used interchangeably, however, the two words mean something different when it comes to accounting and financial statements. When conducting financial analysis or making investment decisions, it's important to understand the difference between cost and price and how they impact a company's financial profile.

Interesting Information

- Cost is typically the expense incurred for making a product or service that is sold by a company.
- Price is the amount a customer is willing to pay for a product or service.
- The cost of producing a product has a direct impact on both the price of the product and the profit from its sale.

Cost vs. Price

Cost is typically the expense incurred for creating a product or service a company sells. The cost to manufacture a product might include the cost of raw materials used. The amount of cost that goes into producing a product can directly impact its price and profit earned from each sale. Price is the amount a customer is willing to pay for a product or service. The difference between price paid and costs incurred is profit. If a customer pays \$10 for a product that costs \$6 to make and sell, the company earns \$4 in profit.

Cost

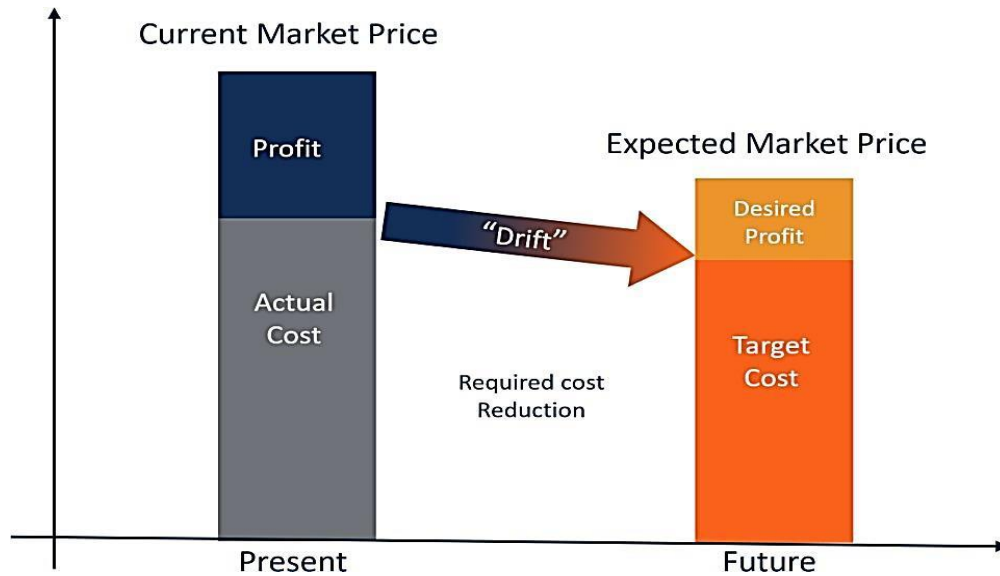
Some companies will list the total cost to make a product under cost of goods sold (COGS) on their financial statements. COGS is the total of direct costs involved in production. These costs might include direct materials, such as raw materials, and direct labor for the manufacturing plant. On the other hand, a retail store might include a portion of the building's operating expenses and salaries for sales associates in their costs. For items sold through a website rather than physical store, the expense of operating the website might be included in costs.

Price

The appropriate price of a product or service is based on supply and demand. The two opposing forces are always trying to achieve equilibrium, whereby the quantity of goods or services provided matches the market demand and its ability to acquire the goods or service. The concept allows for price adjustments as market conditions change.

For example, suppose that market forces determine a widget cost \$5. A widget buyer is, therefore, willing to forgo the utility in \$5 to possess the widget, and the widget seller perceives \$5 as a fair price for the widget. This simple theory of determining prices is one of the core principles underlying economic theory. Supply is the number of products or services the market can provide, including tangible goods (such as automobiles) or intangible goods (such as the ability to make an appointment with a skilled service provider). In each example, supply is finite—there are only a certain number of automobiles and appointments available at any given time.

Demand is the market's desire for the item, tangible or intangible. The number of potential consumers available is always finite as well. Demand may fluctuate depending on a variety of factors, such as an item's perceived value, or affordability, by the consumer market.



Activity

Step 1: Identify your ideal buyers.

Step 2: Perform competitor and market research **Step 3:** Determine your costs.

Step 4: Compute your average customer's Lifetime Value (LTV) .

Step 5: Select the right pricing strategy.

Step 6: Use the best-fitting pricing model for you.

Step 7: Implement, experiment, and learn.

Workshop Elasticity does not tell about where to start with pricing strategy. The most common methods for pricing are:

Cost-Plus Pricing

Cost-plus pricing is an effective way to build a profit margin directly into the price of your product or service. It's just what it sounds like: you calculate the cost to deliver a product or service (cost) and then add a 10% margin, for example (plus). Cost-plus is straightforward for the entrepreneur, but doesn't take into account the mindset of the customer. You may also leave money on the table by focusing on cost.

Competitive Pricing

Competitive pricing focuses neither on costs or customers. Instead, competitive pricing is all about

the existing market for your product or service. In competitive pricing, your job is to research the pricing strategies of many competitors to establish a pricing range. The range should have a high end and a low end, and the price of your product or service should fall somewhere between those bookends so that it is competitive.

Luxury Pricing

Luxury pricing is a classic strategy used by brands like Louis Vuitton, Mercedes, and Rolex. The price has more to do with the aspirations and image of the person making the purchase than anything else. By buying a product or service at a luxury price, we are buying our way into a club. That club is a representation of how we want others to see us in the world.

Rate-based Pricing

Also known as hourly pricing. Freelancers, consultants, and coaches most commonly use rate-based pricing for their services. The downside is that you have to trade time for money. The upside is that you're guaranteed to get paid for every hour of work. Clients are sometimes hesitant about hourly pricing because they fear the incentive is to work more hours to make more money as opposed to being efficient.

Project-based Pricing

Project-based pricing is a flat fee arrangement agreed to at the outset of a project. The entrepreneur may make an estimate of how many hours she thinks the project will take and then price accordingly. Or, she may combine this strategy with some of the upcoming pricing strategies to charge more. The incentive is to finish the work quickly and with high quality. For this to work well, the scope of work should be well defined up front.

Value-based Pricing

Value-based pricing takes into account two key questions:

1. Can they pay?
2. Will they pay? They are the customers, which makes value-based pricing a customer-centered approach to pricing. The determinant factor in this pricing strategy is how much your customers are willing to pay, rather than how much a product or service costs to produce or deliver. There is huge upside for the entrepreneur when value-based pricing is used well.

Tiered Pricing

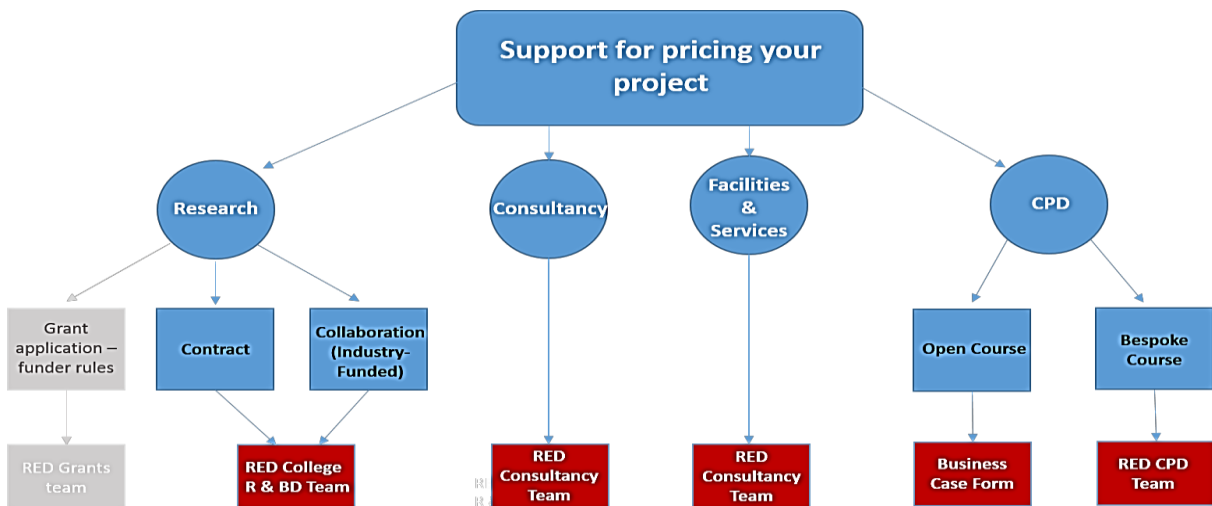
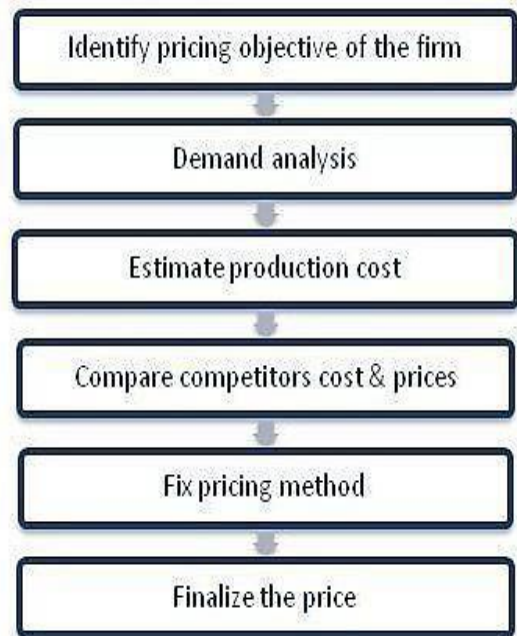
A tiered pricing strategy gives consumers the option of choosing between different versions of the same product or service. For example, imagine considering a single gear bike for \$299, a three-gear bike for \$399, and a seven-gear bike for \$499. A tiered pricing strategy turns a yes or no decision into an either-or decision for the potential customer. It also provides a price anchor (as a consumer, I can convince myself I am being frugal by spending \$299 on the single gear bike as compared to \$499 on the seven-gear).

Pay What You Want Pricing

Also known as a donation-based pricing strategy, pay what you want pricing allows the customer to make the decision on how much the product or service is worth to her. Pay what you want allows you to test market demand without knowing the price elasticity for your thing. When combined with a “suggested price,” a pay what you want pricing strategy can sometimes lead to more profit than a set price.

Activity

- ❖ Develop a marketing strategy for your business model developed in previous activity



Importance of Pricing

Traditionally, price has operated as the major determinant of buyer choice. Although recently there has been a shift in buyer behavior with non-price factors also playing a role in the consumer decision process, price still remains the major factor that influences the buyer's decision. Price is the only element of the marketing mix that generates revenues while all other elements lead to costs.

Similarly, price is also the most flexible element of the marketing mix, as in, it can be changed quickly, unlike other elements such as – product features, promotional campaigns or channel relationships.

Key Points

- Introduction to Entrepreneurs Types of Entrepreneurships
- Key Concepts of Entrepreneurship Characteristics of An Entrepreneur Feasibility and Business Plan Feasibility Study
- Marketing and Marketing Mix Digital Marketing Mix
- 4 P's of marketing 6 P's of marketing
- Costing and Pricing

Web Links

- <https://www.risingabovethenoise.com/the-4-types-of-entrepreneurs-which-one-are-you/>
- <https://vsocialize.com/2019/09/12/6-pieces-of-marketing-advice-you-can-actually-use/>
- <https://smallbusiness.chron.com/basic-concepts-characteristics-entrepreneurship-18526.html>
- <https://www.googlesir.com/concept-of-entrepreneurship/>
- <https://bizfluent.com/about-6609429-difference-marketing-strategy-marketing-mix-.html>
- <https://blog.hubspot.com/sales/cost-based-pricing>

Exercise

Tick (✓) the corrector option.

1. Which of these is not a type of entrepreneurship?
 - a) Small business entrepreneurship
 - b) Scalable entrepreneurship
 - c) Large scale entrepreneurship
 - d) Entrepreneurship
2. Which of these actions of an entrepreneur will most likely result in creative destruction?
 - a) Developing a new product
 - b) Taking over a competitor's business
 - c) Issuing shares to individuals and institutions
 - d) Lowering prices of your product or service
3. According to Schumpeter, innovative entrepreneurs would:
 - a) Thrive in the market
 - b) Not survive and disappear from the market.
 - c) Get absorbed within larger innovative businesses
 - d) Get absorbed within non-innovative businesses
4. Which of these is not a challenge for the entrepreneur?
 - a) Managing the cash flow of their business
 - b) Recruiting new employees
 - c) Choosing the product or service to sell in the market
 - d) Formulating rules and regulations relating To Conducting entrepreneurship in their country
5. Which of these theories involve taking a moderate amount of risk as a function of skill and not chance?
 - a) Need for achievement
 - b) Need for affiliation
 - c) Need for authority
 - d) Need for independence
6. Which of these is not a category of external forces that affects a business?
 - a) Competitive forces
 - b) Technological forces.

About the Author

Mohni Saif is a Director Academics for Faculty of Fashion & Textile Design @ Institute of Art, Design & Management. She completed his MFA from University of Punjab, College of Art& Design, Lahore. She has been attached to the field of Art & Design for more than twenty years with a passion to establish a sound basis for evolving Art & Design in Education. She is also a research scholar of' Education Leadership & Management.

She has been working with various companies and non-governmental organizations to promote art at different levels in Pakistani society. She has been attached to design and offer Art & Design, fashion & textile, interior design courses and workshops.

The learning and exposure that she got from Queensland University of Technology (QUT) Australia has been remarkable. She was exposed to the best VET practices in Australia to understand the harmony among all stakeholders in creating an exemplary demand driven TVET. Furthermore, her contribution towards an effective TVET in Pakistan till date includes: writing several Art & Design Books. Conducting and participating in trainings for DACUMs formulation for multiple trades and sectors, and development of Competency Standards & Curriculum, Teaching Learning Material (TLM) and Assessment packages for several qualifications, building the soft skills & entrepreneurship among trainees.

قومی ترانہ

پاک سر زمین شاد باد! کشورِ حسین شاد باد!
تو نشانِ عزمِ عالی شان ارضِ پاکستان
مرکزِ یقین شاد باد!

پاک سر زمین کا نظام قوتِ اخوتِ عوام
قوم، ملک، سلطنت پائندہ تابندہ باد!
شاد باد منزلِ مراد!

پرچمِ ستارہ و ہلال رہبرِ ترقی و کمال
ترجمانِ ماضی، شانِ حال جانِ استقبال
سایہ خدائے ذوالجلال!



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