



# **INTERMEDIATE APPARE PRODUCTION**

## **NTQF LEVEL II**

# **Learning guide #20**

**Unit of Competence: Develop Pattern from a Block Using Basic Patternmaking Principles**

**Module Title: Developing Pattern from a Block Using Basic Patternmaking Principles**

**LG Code: IND IAP2M06 –LO2- LG-20**

**TTLM Code: IND IAP2TTLM06 09 2019**

**LO2: Select blocks to be used**



<b>Instruction Sheet</b>	<b>Learning Guide 20</b>
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**This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –**

- Identifying and analyzing design to appropriate modifications.
- Identifying fabric performance characteristics that may affect garment pattern
- Planning pattern development according to design
- Determining ease allowances
- Selecting appropriate block

**This assessed guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –**

- Analyze Design to identify appropriate modifications.
- Identify Fabric performance characteristics that may affect garment pattern.
- Plan Pattern development according to design, quality standards and workplace practices.
- Determine .Ease allowances
- Selected appropriate block



### ***Learning Instructions:***

1. Read the specific objectives of this Learning Guide.
  2. Follow the instructions described in number 1 to 7.
  3. Read the information written in the “Information Sheets 1” “Information Sheets 2” “Information Sheets 3” “Information Sheets 4” “Information Sheets 5”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
  4. Accomplish the “Self-check 1” Self-check 2” Self-check 3” Self-check 4” Self-check 5”.
  5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the “Self-check 1” Self-check 2” Self-check 3” Self-check 4” Self-check 5”).
  6. If you earned a satisfactory evaluation and try to understand the procedure discussed Learning Guide #20
  7. And proceed to Learning Guide #21
- However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.
8. Submit your accomplished Self-check. This will form part of your training portfolio.
  9. do the lap test if you are redy.

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<b>Information Sheet-1</b>	<b>Analyze appropriate design modifications</b>
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## 2.1 Analyze appropriate design modifications

### Introduction

**Block pattern** is a basic pattern without any style features and incorporates the measurements, proportions and posture of the body for which garments, developed from this pattern, are intended. Block pattern can be developed by either of the following methods.

A block is the pattern of a style that sells well for you. It sells so well for you that you use that pattern to generate new styles. If you are in the gestation of your line, you won't have any real blocks because you haven't sold anything yet. In such case, a block could be whatever pattern you've used to generate most of your products. It is the building block of your product line. Let's call it a parent pattern. You use the parent pattern to generate styles from it or children.

A block pattern applies to any kind of sewn product (remember, it is not a fitting shell). If you're making bags and have one style that consistently outperforms the others, that one should be your block.

The styled patterns used for cutting the original sample garments can be developed by a variety of means, including the flat method, modeling or a combination of both. When using the flat method, the pattern maker introduces style lines of the garment on to a copy of the block pattern, performs the necessary manipulation and then adds the requisite sewing and other allowances to each component.

At most large manufacturers, patterns are made on a computer with computer aided design (CAD) systems, the pattern maker manipulating small graphic patterns on the



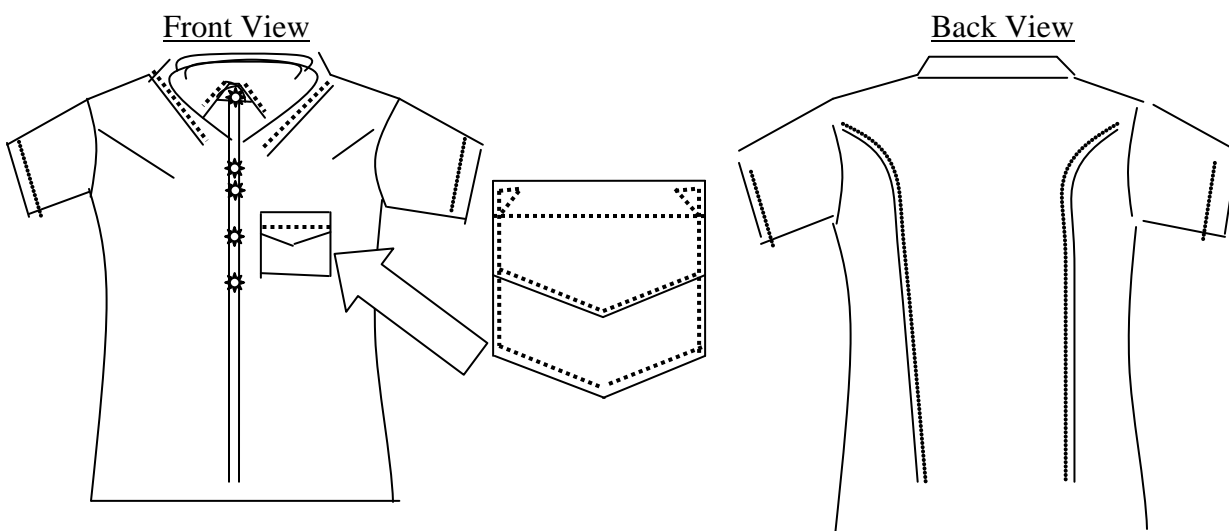
computer screen with a hand-held control device. Geometry drives can make an infinite number of changes to the shapes and sizes the pattern including creating new design lines or adding pleats, fullness, and seam allowances.

Pattern design system the pattern maker inputs to the system all the block patterns in current use and with the aid of the computer can construct garment patterns from them. Pattern generation system when the pattern components for the top cloth have been developed on the computer via pattern design system. The pattern generation programmer automatically generates the pattern for auxiliary components such as linings and foibles.

Before commencing developing a pattern, you should interpret and analyze the design of the given garment. Unless you interpret each part, step by step, your final pattern might get mistake.

For example interpret the following design.

### **1. Blouse/ Ladies shirt**



Analysis result:

- The collar is two piece (collar & stand),
- There is bust dart at the front rising from the arm hole,

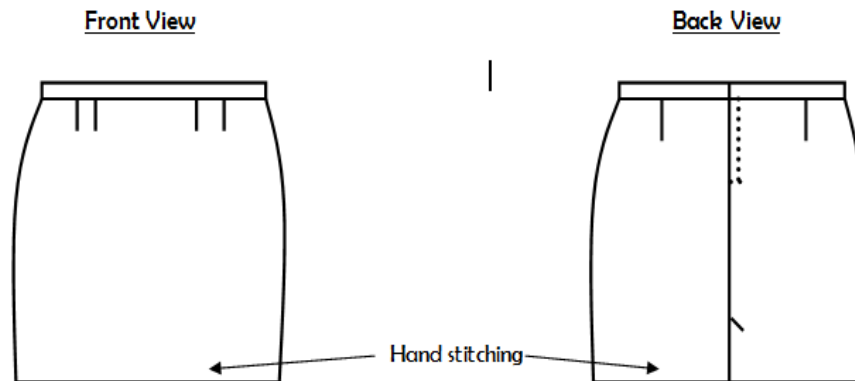


- The pocket is pointed patch type,
- The back is two pieces connected by Vienna seam,
- The sleeve is a short sleeve,
- Sleeve is done by SNLS machine where as the bottom is hand stitch or by blind stitch machine.

## 2. Skirt

In the course **Skirt** we will limit and focus on the main body measurements needed for skirt pattern-especially for the basic pattern:

- Waist
- Hip
- Waist to hip and
- Skirt length.

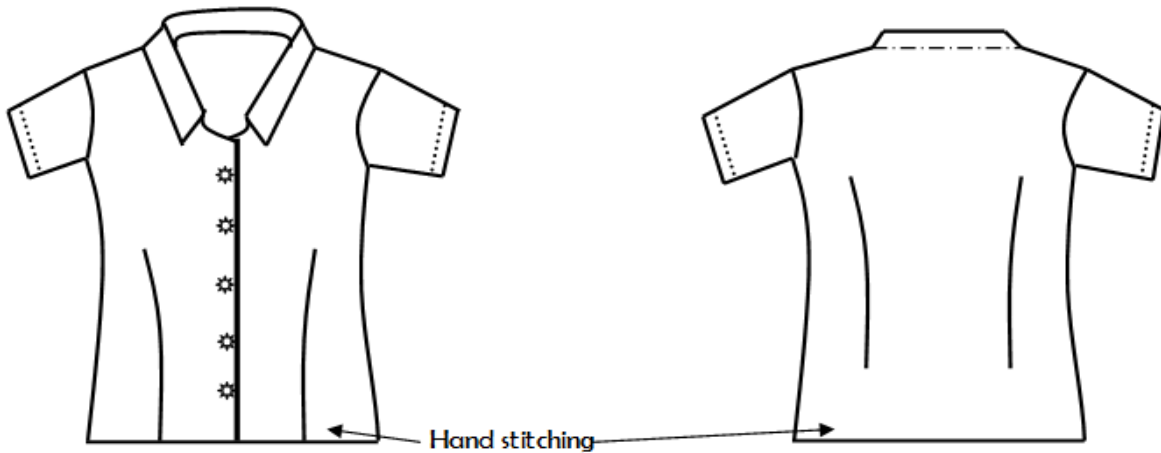


3. Blouse:-To make blouse the important body measurements are:-

- Model length
- Bust girth
- Waist girth
- Hip girth
- Sleeve length
- Back height/Armhole depth
- Back length (back neck to waist)
- Neck circumference
- Armhole/ Arm hole circumference
- Shoulder/ Shoulder width
- Front Length/ Front waist length
- Chest width/ Front chest width
- Back chest width
- Bust depth
- Bust point distance

Front View

Back View



#### 4. Basic shirt

The following measurements may be given to construct the basic shirt:

- Neck size/ Neck circumference
- Chest
- Center back length/ Shirt length
- Half across back=(1/5 of chest)
- Shoulder length
- Front waist length/ Neck to waist

#### **Understanding of Body form and Shapes**

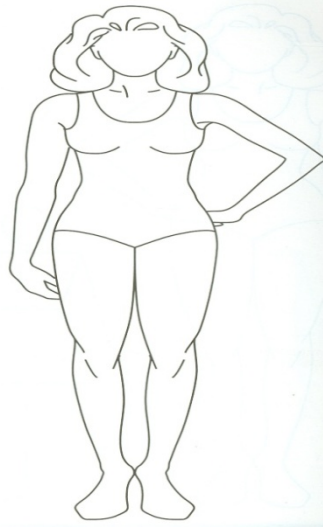
Body form shapes and types fall into six major categories, with each having variations.

**Ideal figure:** - The ideal body is in which bust and hips are the same measurement and the waist is smaller. This body shape would confirm the government standard specifications that are re-evaluated approximately every seven years. The dress forms company uses these measurements to create dress, sportswear and other forms that are used in industry for the new sample designs.

**The aim of clothing** is to camouflage, conceal, enhance, and flatter the figure as much as possible. Most women find it easier to fit into the sportswear and separates



categories of clothing because they can buy tops and bottoms of different sizes to accommodate their figures.

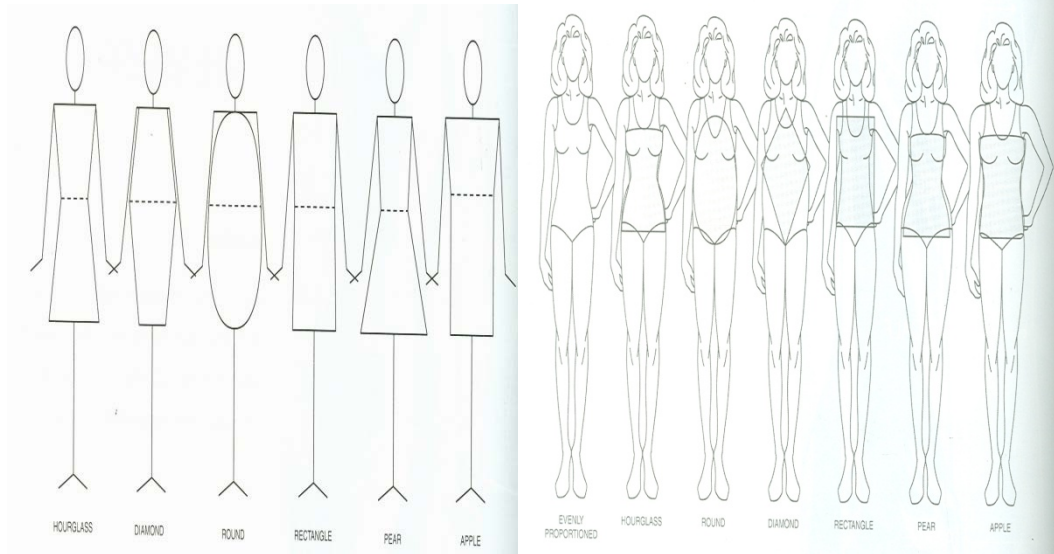


1. **Hourglass figure:** - this figure has a very small waist, in proportion to a larger bust and hip, when compared to ideal figure.
2. **Round figure:** - This body type is rounded all over and does not have a waist definition. Usually, the upper arms, back, and buttocks are also noticeably rounded or fuller.
3. **Diamond figure:** - This body type, although similar to the round, usually has thinner arms and legs. Most of the weight is in the midriff, tapering to a narrower proportion at the bust and hips.
4. **Rectangle figure:** - This body shape has approximately the same width from bust to waist to hips. There is usually no visible waist definition. The body appears very thin, straight, and narrow.
5. **Pear figure:** - This body is much smaller in the shoulders, bust, and waist. The hips, buttocks, and thighs are larger in proportion to the above.





6. **Apple figure:** - This body shape is the opposite of the pear. The shoulder, bust, upper arm, and upper waist area are heavier and much larger in proportion to the narrower hips and usually thin leg





<b>Self-Check -1</b>	<b>Written Test</b>
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**Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page**

1. What is Block pattern?(**3 points**)
2. Write upper body measurement. (**3 points**)
3. Write lower body measurement. (**3 points**)

**Note: Satisfactory rating – 4.5 points                      Unsatisfactory - below 4 .5points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



<b>Information Sheet-2</b>	<b>Fabric performance characteristics that may affect garment pattern</b>
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## 2.2 Fabric performance characteristics that may affect garment pattern

In making this judgment, there are four main factors to consider: appearance, comfort, design and fabric. For a good appearance, all darts and seams must fall in the proper places, as shown below

### Factors affecting good fit and causes for poor fitting

The goal of any pattern alteration is to make the pattern fit better, but before you alter, you must decide what you mean by good fit. In making this judgments, there are four main factors to consider: **appearance, comfort, design and fabric.**

For a good **appearance**, all darts and seams must fall in the proper places, as shown below. The garment should have a smooth look, with no pulls or wrinkles, no sagging or baggy areas.

**Comfort**, is extremely important. The most attractive garment in your wardrobe will never be worn unless it feels good when you wear it. Some garments though less comfortable than others are still worn, as people tend to make more notice of current fashion trends than of the practical aspects of clothing; but it is common sense to make sure that you can sit, bend, walk and reach in any garment without straining its seams or feeling restricted.

The **design** of a garment may be based on either a close fit or a loose fit. It is important to bear in mind the look the designer was aiming for when you fit individual garments.

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The photographs and illustrations in the pattern catalogue and on the pattern envelop you choose can be valuable guides.

In addition, certain features of a garment indicate close fit: a silhouette that defines the form and, within it, such details as a waist seam; darts and curved seams; shaped inserts, and occasionally bias cut sections.

A loose fit is often signaled by such design devices as a silhouette that camouflages the details of the figure beneath; within the silhouette, fullness controlled softly by gathers, shirring, release tucks or unpressed pleats rather than by darts and fitted seams. Some parts of a garment may be close fitting and other parts soft and loose. The classic shirt dress, made with a gathered or pleated skirt is an example. Even on the loose fitting garments, some parts of the garment may be fitted to the body, as is the waistband on a full, gathered skirt, or the shoulder seam on a smock.

**Fabric** is crucial to good fit – recommendations on the pattern envelope are to be taken seriously. Styles for ‘stretch knits only’ are relying on some stretch in the fabric. Those calling for thick fabrics are usually designed a bit larger to accommodate the bulk; the same style in a thinner fabric would probably be too big.

When fabric types are interchangeable – soft or crisp, for example – remember that the style will look different according to the one used. Also note the clinging tendency of some fabrics; these define body shape even if a garment is loose fitting.

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### Lines and Symbols for Garment Structure Drawing

	Thick outline		Alternate long and two short dashes line
	Basic line		Equation line
	Dotted line		Gather mark
	Alternate long and short dashes line		Shrink mark
	Vertical mark		Lace mark
	Dart line		Distance line
	Pleat line		Zip

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	Radial mark		
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### Symbols for garment structure drawing

No.	position	code name	No.	position	code name
1	Bust girth	B	5	Neck line	N.L
2	Waist	W	6	Elbow line	E.L
3	Hip girth	H	7	Knee line	K.L
4	Neck girth	N	8	Bust point	B.P

#### 1. Line

- ✓ The path of a point.
- ✓ Distinct, elongated mark as if drawn by a pencil. Eyes follow lines up, down, side to side or around.

#### Line Types

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**Vertical Lines:-**These produce an illusion of added to the out-fit design by adding and constructing colored vertical band in the center or a center panel added with vertical line gives an added to the outfit .these lines tends to make a short persons looks tall.

**Horizontal lines:** - these lines add width to the garment and decrease the apparent height

**Diagonal line:-**these lines can add or decrease the height of the wearer depending on their slope. Long uninterrupted diagonals tilting almost vertically are the most lengthening and most dramatic of all lines.

**Curved lines:-**these lines are more romantic and pensive by nature. Curved lines can be a full circle or may even appear almost straight. Curved lines are considered graceful and feminine

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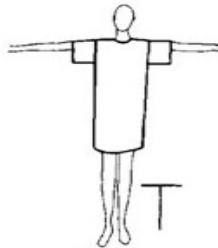
A line



H line



I line



T line



V line



X line



Y line



Trapezoid



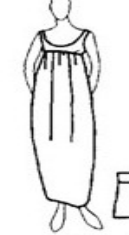
Tent line



Bell line



Balloon line



Empire line



Charleston line



Princess line



Symmetric sectioning



Asymmetric sectioning

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<b>Self-Check -2</b>	<b>Written Test</b>
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**Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page**

1. List line type **(4 point)**
2. Write symbols of garment structure drawing **(4 point)**

**Note: Satisfactory rating - 4 points                      Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

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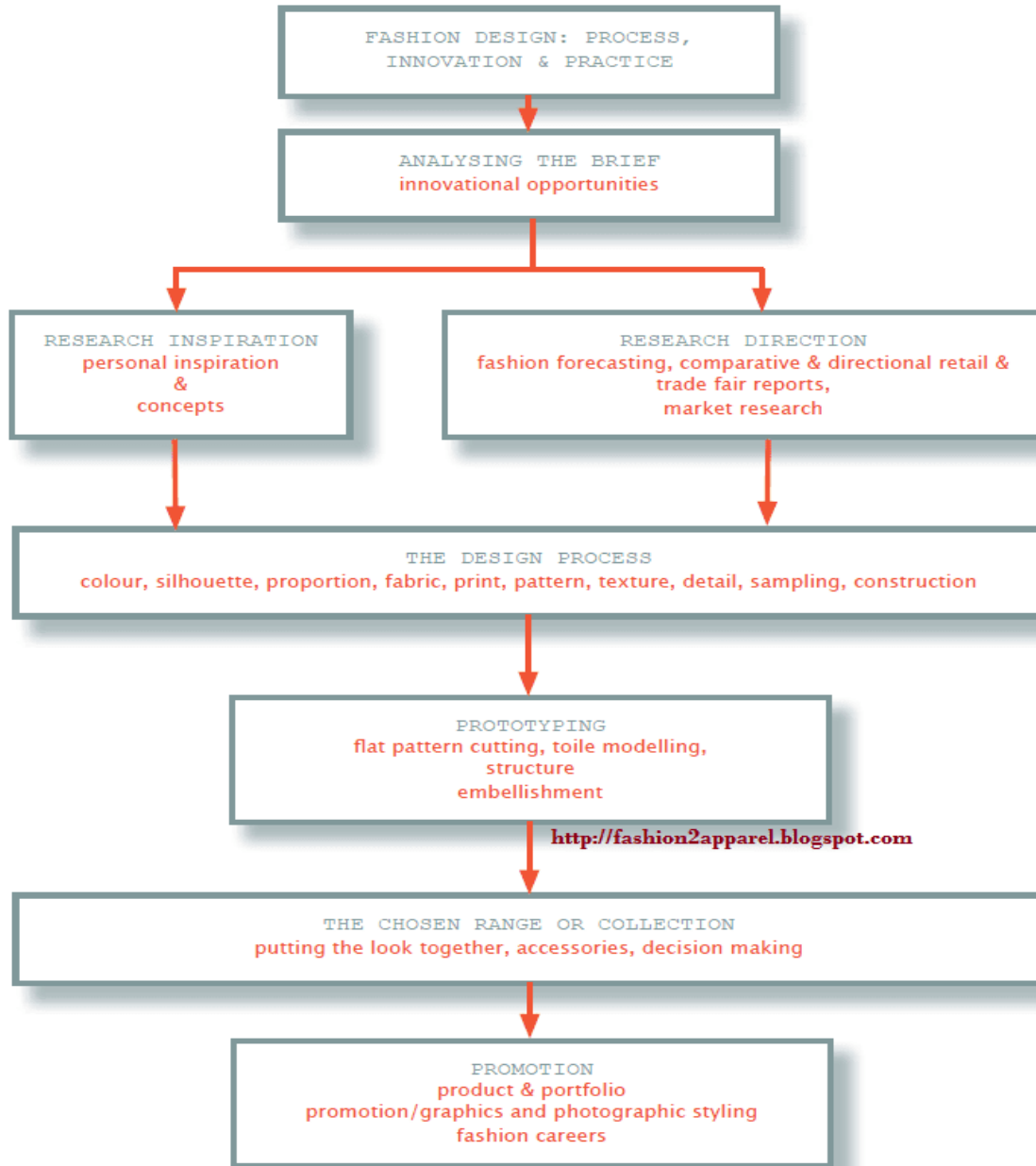
<b>Information Sheet-3</b>	<b>Planning pattern development according to design</b>
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### 2.3 Planning pattern development according to design

Designers tend to use a six-stage process to organize their fact finding and decision making: (1) Empathy, (2) Define, (3) Ideate, (4) Prototype, (5) Test, and (6) Launch.

**Fashion designer creates** all kinds of garment and accessories. Most of the designers choose to work in men's, women's, or children's wear for their entire careers. But some creative designers are specialize in one type of clothing or accessory such as maternity wear, suits, lingerie, hand bags, or shoes

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<b>Self-Check -3</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page

1. .... is designers use stage of process to organize their fact finding and decision making **(3 point)**
  - a) Empathy
  - b) Define
  - c) Ideate
  - d) Prototype
  - e) all
2. which stage of process is correct to organize their fact finding and decision making **(3 point)**
  - a) Empathy, Ideate, , Define ,Prototype, Test, and Launch
  - b) Empathy, Define, Prototype, Ideate, Test, and Launch
  - c) Empathy, Define, Ideate, Prototype, Test, and Launch
  - d) Prototype, Empathy, Define, Ideate, Test and Launch

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**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3 points**

You can ask your teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

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<b>Information Sheet-4</b>	<b>Determine ease allowances</b>
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#### 2.4 Determine ease allowances

In sewing and patternmaking, **ease** is the amount of room a garment allows the wearer beyond the measurements of their body. An **ease** of 3 or 4 inches might be added to the pattern (making a 43-44 inch chest), or more to enhance comfort or style.

**Adding ease:** Several techniques can be used to add ease to a pattern. The simplest may be to add width to the pattern pieces, such as at the side seams. Pleats or gathers may also be used. Reducing the intake of darts will also add ease.

**Contouring:** Contouring is the process of fitting a pattern to the body more nearly than the slope, but it is not the same as removing ease. Contouring removes extra space *within* the measurements of the wearer. For example, a dress sloper will span the bust points, but a more fitted or 'contoured' bodice may dip toward the breastbone in between the breasts and fit each breast more closely, possibly even supporting each with **boning**. Contouring techniques can also be applied to other concave parts of the body which may be spanned by the slope, such as the underside of the buttocks, or the knee area for pants.

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<b>Self-Check -4</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page

1. Define ease (2 point)
2. Write the use of ease(2 point)
3. Define Contouring(2 point)
4. What is Adding ease(2 point)

**Note: Satisfactory rating - 4 points**

**Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

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<b>Information Sheet-5</b>	<b>Selection of block to be used</b>
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## **2.5 Selection of block to be used**

There are three ways of making a pattern

- 1) The Foundation/ Block pattern
- 2) The Drape pattern
- 3) Commercial pattern

### **The Foundation/ Block pattern**

A block pattern is a foundation pattern constructed to fit an average figure. It is made from the individual measurement. That means it is made by drafting from the measurements, which have been carefully taken from an individual or from a model. It is to be traced in another pattern paper for construction purpose.

### **The Drape pattern**

It is the placing of a fabric over the model's body of mannequin. It lets the fabric flow freely downward over the body's silhouette. This is the most expensive pattern as it utilizes more fabric. It is also known as the pattern that creates the original effect.

### **Commercial Pattern**

These are sold in department stores. They have a package of direction and contain the actual pattern pieces one will use to cut out fabric. They include a sheet of instructions. This sheet has both written directions and small drawings that explain what to do.

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Understanding the different ways of making a pattern, as a tailor, we select the block pattern for each style or components of a garment.

**For example**, the block patterns of a basic blouse, skirt and trouser consists of seven parts:

- 1) Front bodies,
- 2) Back bodies,
- 3) The sleeve,
- 4) The back skirt,
- 5) The front skirt,
- 6) Front panel and
- 7) Back panel.

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<b>Self-Check -5</b>	<b>Written Test</b>
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**Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page**

1. List out three ways of making a pattern(2 point)
2. What is Block pattern (2 point)
3. What is Drape pattern(2 point)
4. What is Commercial Pattern(2 point)
5. List out example of block patterns of a basic blouse, skirt and trouser (2 point)

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**Note: Satisfactory rating - 5 points**

**Unsatisfactory - below 5 points**

You can ask your teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

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## Operation Sheet 1

Drafting Ladies Block pattern of Blouse (Front and Back part)

**OPERATION TITLE:** Drafting Ladies Block pattern of Blouse (Front and Back part)

**PURPOSE:** To get fitted pattern as per the given measurement.

**CONDITIONS OR SITUTATIONS FOR THE OPERATION:**

- ❖ Trainees should know how to take body measurements and analyze the help measurements.
- ❖ Trainees should know and understand the needed measurements.

❖ Required body measurements:

<u>Measurement</u>	<u>Divisor</u>	<u>Remarks</u>
Shoulder	$\frac{1}{2}$	
Chest	$\frac{1}{2}$	
Bust	$\frac{1}{4}$	
Waist	$\frac{1}{4}$	
Bust height/ depth	as is	
Bust point distance	$\frac{1}{2}$	
Figure /Front length	as is	
Length of Blouse	as is	
1 st hip		
2 nd hip		

### EQUIPMENT,

Drawing instruments such as T-square, Meter stick, Set

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**TOOLS AND MATERIALS:**

square, Tape measure, French curve Pencil/ Fixer with eraser, compass, A<sub>0</sub> soft/ hard pattern paper, Scotch tape.

**PROCEDURES:**

I. Drafting the FRONT pattern

Steps:

1. Draw vertical/ perpendicular line at the left hand side of paper.
2. Mark point A- Starting point,  
B- 3" down from A for neck depth,  
C- 5" down from A for chest line,  
D- 1/4 of bust circumference,  
E- From A-Figure (Front length)
3. Draw horizontal lines through A, B, C, D and E perpendicular to the vertical line.
4. Draw AF= 3" and AG= 1/2 shoulder measurement to the right.
5. GH = 1 1/2" down. Connect FB using French curve and FH using ruler to show the shoulder slope.
6. CI = 1/2 of chest measurement. Connect HI with a ruler.
7. DJ = 1/4 of bust measurement + 1/4". Connect I with J using French curve.
8. EK= 1/4" waist measurement + 1 1/4". Connect JK with a ruler.
9. AD1= bust height/ depth measurement.
10. D1 to L= 1/2 bust point distance to the right. Draw vertical line.
11. D1L=EM. Measure 5/8" on both sides of M. Connect the marks with L to manifest the waist dart.
12. KN=1/2" upward. Connect MN using hip curve.

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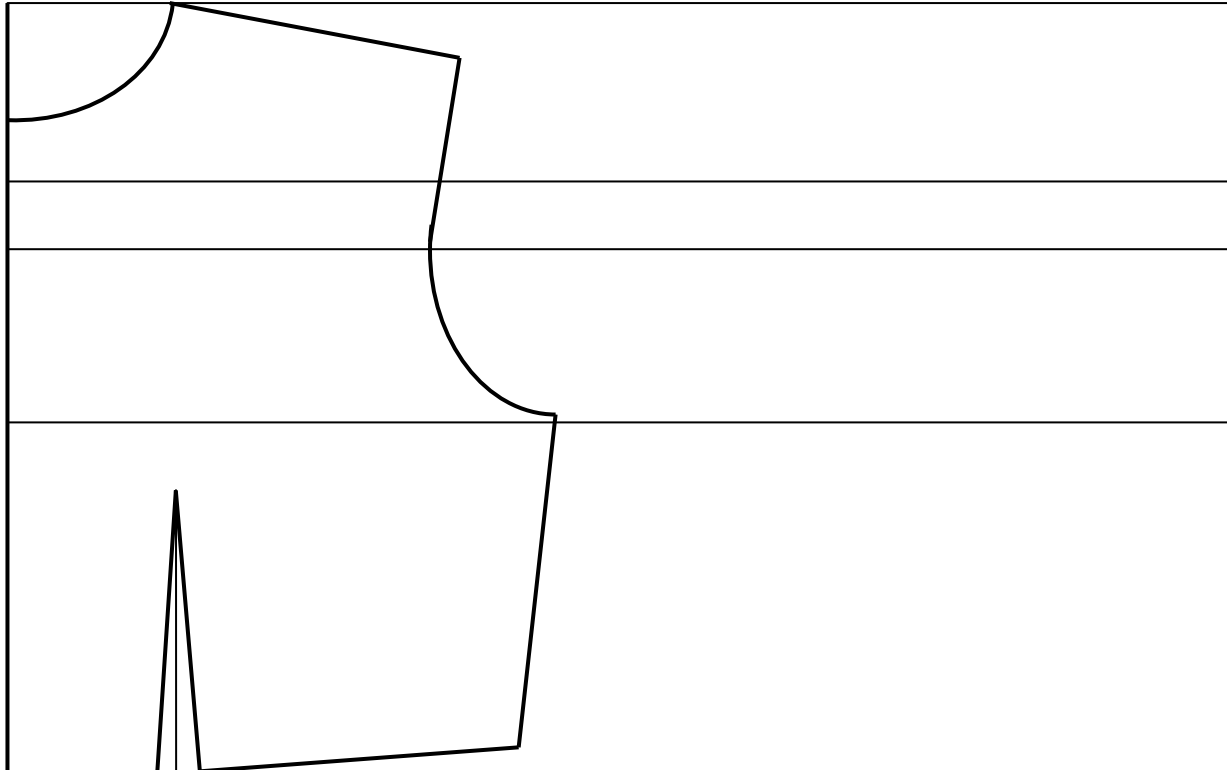


Fig. 1 Block pattern construction of Blouse (Front part)

❖ If full busted, raise J for the front and back pattern.

Example: For bust 33-34" raise J by  $\frac{3}{4}$ ";

35-36" raise J by 1";

37-38" raise J by  $1 \frac{1}{4}$ ";

39-40" raise J by  $1 \frac{1}{2}$ ".

I. Drafting the BACK pattern

Steps:

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1. Draw vertical/ perpendicular line at the right hand side of paper.
2. Transfer marks A, C, D, E.
3. Mark point A - Starting point,  
B' - 1/2" down from A for neck depth.
4. AF= 3" and AG= 1/2 shoulder measurement to the left.
5. GH = 1 1/2" down. Connect FB' using French curve and FH using ruler to show the shoulder slope.
6. CI' = 1/2 of back chest measurement. Connect HI' with a ruler.
7. DJ' = 1/4 of bust measurement. Connect I' with J' using French curve.
8. EK= 1/4" waist measurement + 1 1/4". Connect J'K with a ruler.
9. AD2= bust height/ depth measurement + 1" upward.
10. D2 to L'= 1/2 bust point distance to the left side + 1" upward. Draw a vertical line down ward.
11. D2L'=EM'. Measure 5/8" on both sides of M'. Connect the marks with L' to show the back waist dart.
12. KN=1/2" upward. Connect MN using hip curve

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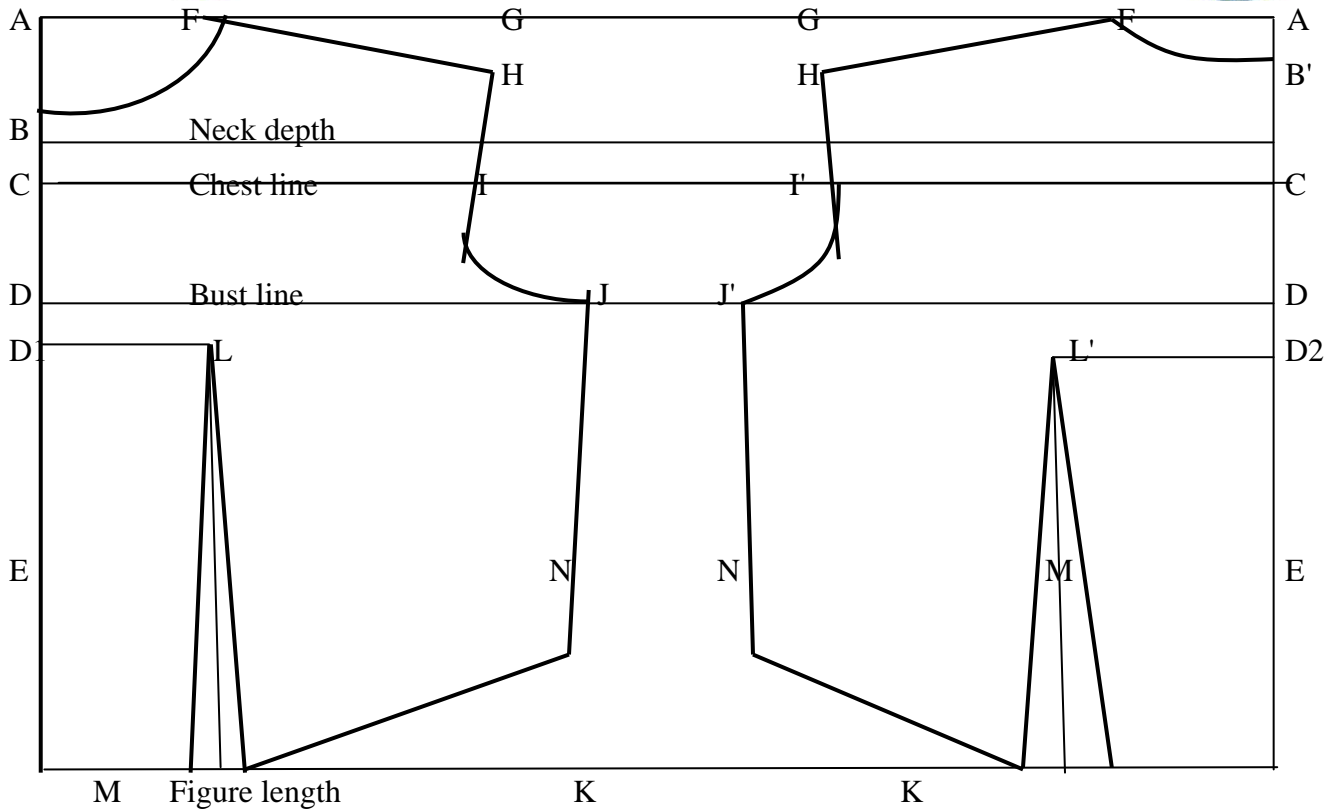


Fig. 1 Block pattern construction of Blouse (Back part)

**PRECAUTIONS:**

- ✓ Use the right drawing tools whenever necessary.
- ✓ Care must be taken when you use the divisor of body measurements.

**QUALITY CRITERIA:**

- Your pattern should fit with the given measurements..
  - The pattern should look like accurate, neat, and complete.
3. Necessary information and symbols should be written on each pattern.

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<b>LAP Test 1</b>	<b>Practical Demonstration</b>
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Name: \_\_\_\_\_

Date: \_\_\_\_\_

Time started: \_\_\_\_\_

Time finished: \_\_\_\_\_

**Instruction:** Given necessary templates, tools and materials you are required to perform the following tasks within --- hour

**Task 1,** Draw FRONT pattern of blouse

**Task 2,** Draft the BACK pattern blouse

**Task 3,** draft full pattern of blouse

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## Reference

1. Helen Joseph-Armstrong Patternmaking for Fashion Design, 5th Edition 2009
2. Metric pattern making book

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