



Measuring & Pattern Layout

Learn how to measure the body correctly for proper fit. Members will learn how to take body measurements, select the appropriate pattern and size, and make pattern alterations. Members will demonstrate how to lay a pattern out correctly on the straight of the grain, and then will practice laying out pattern pieces correctly.



Background

Begin by discarding any assumptions you may have about what size you wear. Then think about the last time you went clothes shopping. Did every garment in “your” size fit you? Of course not! Standard body measurements vary from one garment manufacturer to another. And the ones used by your favorite ready-to-wear brands may not correspond to other ready-to-wear brands or to the pattern industry’s standard body measurements.

After getting your measurements correct, then you can choose your pattern size. The pattern pieces are constructed in a way to show all the little extra information you may need. From darts to finished measurements, sizes to grainlines.



Activity 1 Instructions (20 minutes)

1. Show members three different outfits that all claim to be the same size. The point that will be illustrated is that size 8 in ready-to wear may be a size 6 in designer wear, and a size 12 in home sewn. Have members take turns reading from the handout. Read “Look at Size with New Eyes” and “Measure and Compare”. Points to discuss: Butterick, McCall’s Simplicity, and Vogue all use the same standard body measurements. Pattern size may be one or two sizes larger than ready-to-wear.
2. Demonstrate how to correctly measure your body. This can be done on a mannequin, or you may use yourself as an example. Reference the visual in the packet as you are demonstrating.
3. Explain the body measurement chart. Points to discuss: There are 4 main measurements to be considered when sizing for a pattern. Measurements are based on a well-proportioned, developed figure about 5’5” to 5’6” without shoes. (You can customize your pattern to adjust for differences in your body.) It is possible for a person to be one size in the bust, and another size for the hip or waist. If you are making a top or vest/jacket then you buy the pattern that corresponds with your bust measurement. If you are making pants or a skirt, then you get the pattern that corresponds with the hip measurement. If you are making a dress then you get the pattern that corresponds with the larger size, and make adjustments where necessary.
4. Members will take their own measurements and record them in their packets. It works best to have members partner up and work together to double check measurements.
5. After members take their measurements, they need to analyze the pattern sizing chart and identify their pattern size. Then go over the third page together as a class and talk about the 3 Steps and the Tips section together.
5. Discuss reflect and apply questions.

Time

45 minutes total

Activity 1 Materials

- Same size garment from ready-to-wear, designer wear, and home-sewn to show comparison
- Do You Really Know Your Pattern Size? worksheet
- Tape Measure
- Pattern Pieces

Activity 2 Materials

- Pattern Guide
- Shrunken pattern pieces with grain lines and fold lines on them
- Construction paper
- Glue sticks
- Scissors

Space Required

Room with table space for each youth and space to complete their examples



Before the Meeting

Set up two activity tables with all supplies for each activity laid out. Youth will collect their supplies after background introduction and return to their seats. Have them collect supplies one activity at a time.



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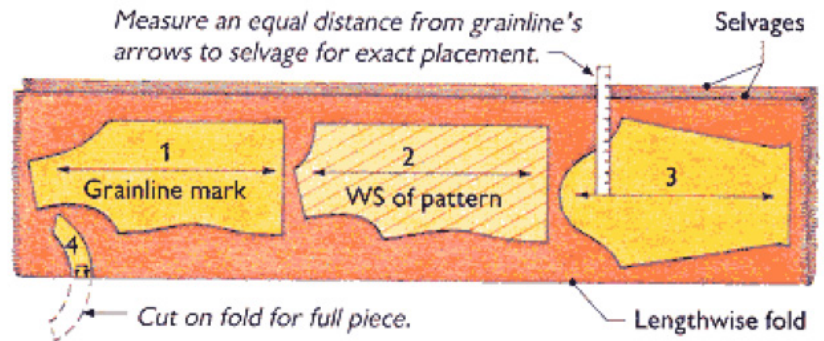
Reflect and Apply Questions

1. Is it ok to choose a pattern size based on your ready to wear size? Why?
2. How do you find where to measure your waist?
3. What are the 3 main measurements when considering your pattern size?



Activity 2 Instructions (25 minutes)

1. Show members a pattern guide. Have members look at the layout guide on the first one or two pages and discuss:
 - a. Lengthwise fold: all pattern pieces placed in the same direction, so any designs or nap on the fabric will be consistently positioned on the garment.
2. Each member needs a piece of construction paper. Fold in half lengthwise. The fold will be the fold edge, the open ends the selvages.
3. Have members label the fold, selvage, lengthwise grain, crosswise grain, and bias.
4. Members need to cut out the shrunken pattern pieces and attach them to paper with a glue stick. Pay special attention to the grain lines and fold lines; place on paper accordingly.
5. Go over tips:
 - a. Pre-wash your fabric according to the care instructions found on the bolt end. Press the fabric.
 - b. Refer to the pattern instruction sheet(s) or the back of the pattern envelope to see which pattern pieces are needed for the version, or view, of the pattern you are making
 - c. Find these pieces and separate them from the rest
 - d. Fold the fabric, right sides together, along a single lengthwise or crosswise thread as indicated in the layout diagram. This will allow any necessary pattern markings to be made on the wrong side of the fabric.
 - e. Place the fabric on a flat surface. Make sure the fabric edges line up evenly.
 - f. Take note of any special symbols used on the layout diagram. These will be explained in the pattern instructions.
 - g. Lay out and pin larger pieces first, then position the smaller ones.
 - h. Place all pieces as close together as possible without overlapping printed cutting lines.
 - i. Find the grain-line arrow on any pattern piece not placed along a fold. Position the pattern piece so that this arrow runs exactly parallel to the selvage, or finished edge, of the fabric.
 - j. Pin the pattern pieces to the fabric along the fold first.
 - k. Place pins perpendicular to the pattern edge, about 6 inches apart.
 - l. Pin remaining pattern pieces, keeping pins inside the cutting line and perpendicular to the cutting edge.
 - m. Press necessary pattern pieces with a warm, dry iron. Pattern pieces will be creased and pressing them will give you a more accurate cutting line.
 - n. Circle the appropriate layout diagram with a pen or a highlighter pen. This will help you distinguish your layout diagram from all others.
 - o. Fabrics that have a nap, such as velvet or a one-way design, use distinct layout diagrams. If you are using one of these fabrics, make sure that the layout diagram you are using is the appropriate one.
 - p. Measure the distance from each arrow point on the grain-line arrow to the selvage. If the grain-line arrow is truly parallel to the selvage, these measurements will be the same
 - q. If your pattern calls for interfacing or lining, save time by pinning and cutting these items at the same time as your fabric.
 - r. Pin the grain-line arrow to the fabric before pinning the remainder of the pattern piece. This will assist you in keeping the grain-line arrow correctly aligned.
6. Discuss reflect and apply questions.





Reflect and Apply Questions

1. What is the best practice to follow for how to lay down your pattern pieces?
2. If you have a pattern piece that will not fit on the fabric lengthwise, but will at an angle, is it ok to lay it out that way?
3. Which way should you cut your triangles? Out or into your pattern?
4. What happens if you get your pattern pieces off grain?



Other Related Resources:

Fitting Brochure



References

: Adapted from: Utah Education Network



Do You REALLY Know Your Pattern Size?

from

Simplicity[®] McCall's[®]
VOGUE[®] / **Butterick**[®]
PATTERNS

We want you to look your best!

"Why doesn't my pattern fit the way my ready-to-wear garments fit and why isn't it the same size? What can I do to improve the fit of the garments I sew?" You may not want to hear this, but you will need to measure yourself. Good fit begins with good body measurements.

Look at Size with New Eyes

Begin by discarding any assumptions you may have about what size you wear. Then think about the last time you went clothes shopping. Did every garment in "your" size fit you? Of course not! Standard body measurements vary from one garment manufacturer to another. And the ones used by your favorite ready-to-wear brands may not correspond to other ready-to-wear brands or to the pattern industry's standard body measurements.

But the good news is that within the sewing industry, Butterick, McCall's, Simplicity and Vogue all use the same set of standard body measurements. Once you have determined your pattern size, it will be consistent, regardless of pattern brand.

Measure and Compare

The way to determine pattern size is to take accurate body measurements, then compare them with the pattern industry standards. The illustrations and charts on the following pages will take you, step by step, through this process.

Be prepared for a possible shock: In some cases, your pattern size may be one or two sizes larger than the one you are accustomed to in ready-to-wear. But PLEASE don't let preconceived notions stand in the way of good fit. Who's to know what pattern size you use? There certainly won't be any size labels in your finished garments!

Be aware, too, that only a lucky few are the same size their whole life. With age comes wisdom . . . and changing body contours. It's a good idea to retake your measurements every six months.

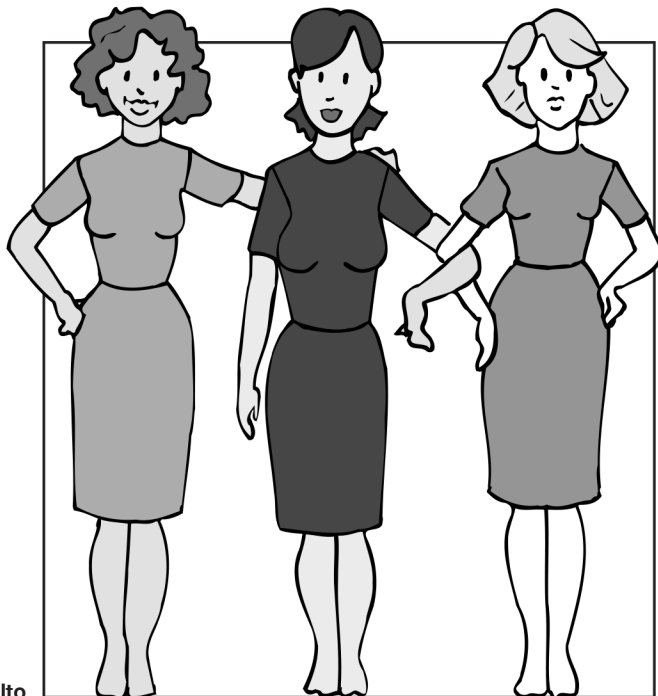


Illustration shown is from *Fit for Real People*[™] by Pati Palmer & Marta Alto

Different shapes, but all a size 12!

How to Measure

Measure over comfortable undergarments. Hold the tape measure snug, but not tight. Tie a narrow elastic around the waist. Bend and stretch until it settles at the natural waistline. Record your measurements on the chart below.

1. Bust:

Around the fullest part of the bust and straight across the back.

2. High Bust/Chest:

Around the body, under the arms above the fullest part of the bust.

3. Waist:

Around the body, over the waistline elastic.

4. Hip:

Around the body at the fullest part, usually 7"-9" below the waist.

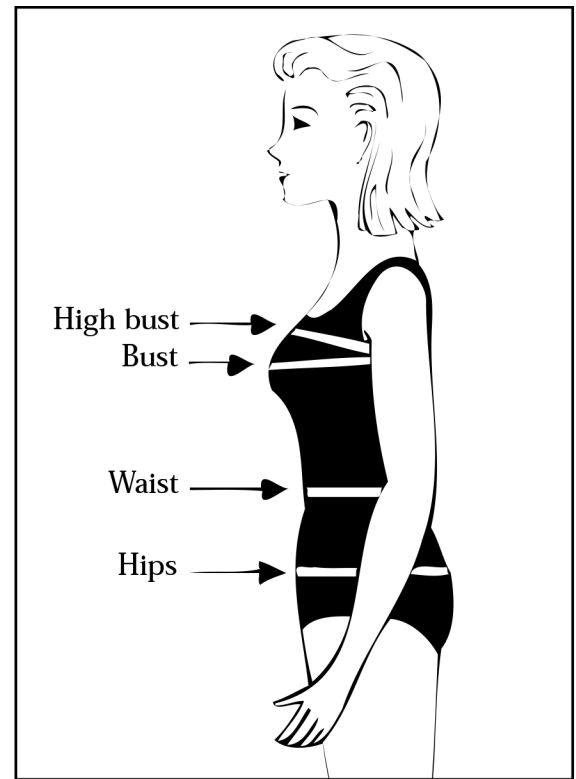
5. Back Waist*:

Lower your head to identify the prominent bone at the base of the neck. Measure from this bone to the waistline elastic.

6. Height*:

Stand barefoot against a flat wall. Measure from the floor to the top of your head.

*These two measurements require the help of a friend.



Body Measurement Charts

The following chart gives the standard bust, waist, hip and back waist length measurements that correspond to Misses' pattern sizes 4 to 26. These Pattern Industry Standards are used by Butterick, McCall's, Simplicity and Vogue.

Pattern Industry Standards												
Misses' patterns are designed for a well proportioned, developed figure, about 5'5" to 5'6" without shoes.												
Size	4	6	8	10	12	14	16	18	20	22	24	26
Bust	29½	30½	31½	32½	34	36	38	40	42	44	46	48
Waist	22	23	24	25	26½	28	30	32	34	37	39	41½
Hip	31½	32½	33½	34½	36	38	40	42	44	46	48	50
Bk.Wst. Lgth	15½	15½	15¾	16	16¼	16½	16¾	17	17¼	17⅝	17½	17¾



Your Measurement Worksheet

What to Measure	Body Measurements		Your Pattern Size	
	Yours	Pattern Standards	Preliminary	Final
Bust (around the fullest part)				
High Bust/Chest (directly under arms, above the Bust and around the back)				
Waist (around elastic)				
Full Hip (around fullest part approx. 7"-9" below waist)				

How to use Measurements to Determine Size

Our “Analyze Your Size” chart provides an easy way to determine your pattern sizes. We say “sizes” because you may find that your dress size is different from your skirt or pant size. Follow these step-by-step instructions for filling in the chart.

Step 1: Your Body Measurements

Enter your personal body measurements in the appropriate spaces in the first blank column.

Step 2: Pattern Standards

Turn to the Pattern Industry Standards chart on the opposite page. Find the standard measurements that are closest to your personal measurements for bust, waist and hip. Enter each measurement and its corresponding pattern size (which will be your preliminary pattern size) in the appropriate spaces in the next two columns. If you fall between two sizes, write them both down. For example, if your bust measures 37-1/2”, the closest standard measurement is 38”, which gives you size 16 as the preliminary size. If your bust measures 37”, your preliminary pattern size options are size 14 (a 36” bust) or size 16 (a 38” bust).

Step 3: Final Pattern Size

• **The Bust Measurement** determines final pattern size for tops, dresses, jackets & coats.

There is, however, an exception.

Patterns are drafted for the B-cup figure. If your bra cup size is larger than a B, it will affect the way the pattern fits. Use Your Measurement Worksheet to determine your cup size. Subtract your High Bust/Chest measurement from your Bust measurement.

Here’s what the difference means:

Less than 2 1/2”: You’re an A- or B-cup.

2-1/2” to 3” You’re a C-cup

3-1/2” to 4”: You’re a D-cup

4” or more: You’re larger than a D-cup

If you are a B cup or smaller, use your Bust measurement to determine your final pattern size.

If you are a C-cup or larger, match your High Bust/Chest measurement to the Bust measurement of the Pattern Industry Standards Chart to determine your final pattern size. This will ensure good fit in those hard-to-adjust areas - shoulders, neckline, chest and upper back.

• **The Waist Measurement** determines final pattern size for skirts that are not fitted in the hip area.

• **The Hip Measurement** determines the final pattern size for pants and most skirts.

Tips:

If you fall between sizes, here are a few factors to consider:

1. Bone structure. If you’re small boned, choose the smaller size; if you’re large boned, choose the larger one.

2. Fitting preference. If you like a close fit, choose the smaller size; if you prefer a loose fit, go for the larger one.

3. Fashion silhouette. The more closely fitted the silhouette, the safer you are in choosing the larger size.

If you are larger than a B-cup size, you’ll get a better fit if you look for designs with bust darts and increase the size of the dart. On the next page, we will show you how to adjust the pattern to accommodate for a larger cup size.

See “Fitting FAQ’s” on page 4 for more information.

Take this handy pattern size chart to the store! (Just cut at dotted line below.)

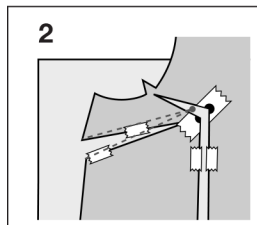
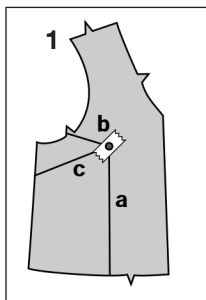
Garment:	Tops, Dresses, Jackets & Coats	Pants and Slim Skirts	Fuller Skirts
My Pattern Size			

How to Increase the Size of a Dart-For the C-cup or larger figure

1. Use a piece of transparent tape to reinforce the bust point on your pattern, appr. 1/2" from end of dart. Draw a line parallel to the center front, from the lower edge through the bust point, (a).

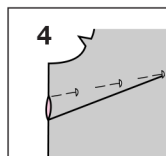
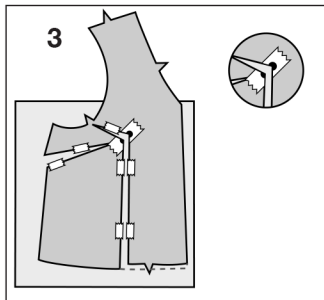
Extend the line diagonally up to the armhole notch (b).

Draw a line from the bust point through the center of the existing underarm dart (c).



2. Cut along lines (a) and (b) from the bottom edge of the pattern to, but not through, the armhole seamline.

Cut along line (c) from the side to, but not through, the bust point.



3. Place tissue paper under the cut edges of the pattern tissue and pin between the center front and the cut edge. Spread the pattern at the bust point, keeping the cut edges parallel below the bust point.

- For a C-cup, spread 1/2"
- For a D-cup, spread 3/4"
- For larger than a D-cup, spread 1-1/4".

Pin or tape all the cut edges in place. Redraw the center-front lower edge, as shown.

Mark a new bust point at the same level as the original one but 1" to 1-1/4" closer to the side seam. Draw new dart lines from the side seam to the new bust point.

4. To redraw the side seam, pin the new dart together and fold it down. Draw over the dart, connecting the original side seamlines.

Unpin the dart. Draw from the center of the dart to the original seam. Redraw the cutting lines and remaining seamlines.

For other queries concerning fit, contact any of the pattern companies listed below.

Fitting FAQs

Why don't all patterns that are the same size fit me the same way?

The reason is something called "ease," the amount of fullness added to a pattern's design. There are two types of ease. Wearing ease is the minimum "wiggle room" built into the garment. All garments, except swimwear and some exercise wear, contain wearing ease. Design ease is the extra amount that gives the intended fashion look. If a particular pattern is too large or too small for you, it may be because the amount of design ease is not in proportion to your bone structure. Before purchasing a pattern, study the artwork and the photographs. These will give you information about the designer's intent.

Is there any way I can tell how much ease there is in a particular pattern?

Written descriptions and backviews on the

back of the pattern envelope indicate if the garment is "close-fitted" (no ease), "fitted," "semi-fitted," "loose fitting" or "very loose fitting."

Finished garment measurements for bust and hip are always printed on the pattern tissue. Note that, except for close-fitted garments, these measurements include standard body measurement + minimum ease (2" to 3" at bust and hip) + designer ease.

If you can't visualize what these measurements mean, measure and compare them with garments you already have in your wardrobe.

What if my height and back-waist length measurements are shorter than the standards for my pattern size?

If you are shorter than 5'5" and your back waist is at least 1" shorter than the one that corresponds to your bust size, you are probably a Miss Petite. Look for "Misses"

patterns that have a special "Petite" logo. These will give you instructions for adjusting the pattern's lengthwise proportions to suit your petite figure.

What's my size in Small, Medium, Large Size Patterns?

Patterns sized small, medium and large are cut for the larger size in each designation. Unisex patterns, because they are designed to fit both men and women, use the man's chest measurement to determine the size range. For these patterns, match your bust measurement to the chest measurement.

I'm a different size top and bottom. Are there any shortcuts to pattern adjustment?

Multi-size patterns are the perfect solution. Because several sizes are printed on the same pattern tissue, you can follow the cutting lines for the size you are in each body area.

Simplicity®

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Simplicity Pattern Co. Inc.
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1-888-588-2700
or www.simplicity.com

Where to Contact Us

McCALL'S®

Consumer Information Department
The McCall Pattern Company
11 Penn Plaza, New York, NY 10001
1-800-782-0323
or www.mccall.com

VOGUE®/Butterick®

Consumer Information Department
Butterick Company, Inc.
161 6th Ave., New York, NY 10013
1-800-766-2670
or www.butterick.com



Measuring & Pattern Layout

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Activity 1 Reflect and Apply Questions

1. Which type of injection was easier to do? Why?

IM is usually easier for people to do because you just push the needle straight in, as compared to SQ where you have to be concerned about not getting it in too deep, but getting it in adequately underneath the skin.

2. Would it be harder or easier to get the injectable product in the right place on an animal? Why?

Animals are going to be harder because they won't stand still. However, it will probably be easier to determine where the skin ends, because the skin will slide around over the tissues beneath it on many animals.

3. If IM is easier to give, why isn't it the preferred method of injection?

The muscle is the part of the animal that becomes meat. Many products are very irritating and can cause inflammation in the muscle, and have the potential to cause an abscess, even when given correctly. There is less irritation and less chance for problems in the meat with SQ.



Activity 2 Reflect and Apply Questions

1. Why was the water cloudy after you drank the milk? How many rinses did it take?

Some of the milk was still in the glass, this is a residue of the chocolate.

2. What effected how much chocolate was left in your cup? How can this relate to drug residues in meat?

- How much chocolate was used = How much medicine is administered
- How fast you stirred the milk = How fast the medicine metabolizes