FREE Sewing Book
Sewing Lessons For Beginners

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Chapter One

INTRODUCTION TO SEWING

Welcome to the world of sewing! This is an exciting and fun place to be. There is nothing more wonderful than the feeling of pride you get when you create something yourself. Sewing opens up a world of opportunities and possibilities for expressing your creative side. Whether sewing for practical reasons, or as an art form, it should always be a rewarding, positive experience. Proper equipment and instruction is the key to success. Confidence comes with experience. For me, there is nothing more relaxing than spending time at my sewing machine.

There are so many directions to go with your new skills. From wearable art to quilt art to vests, lingerie and applique - you’ll want to try it all. You not only get to create a new world using your own ideas, but you can get everyday, practical use of your new talent. When you make something yourself, you have something that is truly unique. Custom made clothing and other items now come in the size, color and fabric YOU want and choose.

Mix and match your sewing skills with crafting. Dye your own fabric, sew beads onto a hat you have made, hand paint a sweatshirt you designed. The possibilities are endless. Crafting and sewing go together, and that is why this site includes both.

Relax, get ready, SEW!

Safety Reminders For Little Helpers

A. Always have an adult do all the ironing!
B. Never run with scissors. Carry them pointed end down.
C. Never use a sewing machine without adult supervision.
D. Always let an adult use the seam ripper for you.

Chapter Two
CHOOSING YOUR PATTERN & FABRIC

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Fabric Selection   Pattern Selection

Fabric Selection
Proper fabric selection is important. Some fabrics are difficult to work with and would be the cause of a very frustrating experience for you. We want to avoid that!

In choosing fabric, remember your project. Is this fabric appropriate for what you are making? Also, remember that patterns do not allow for shrinkage when stating quantity of fabric to purchase. It is better to buy a bit extra, especially if you need to add to length or allow for shrinkage.

Although stretch knits are wonderful to use with sergers, they are difficult to work with on a regular sewing machine. Suggested fabrics for beginners are cottons and cotton-poly blends that do not have much stretch. Calico fabrics, for example, are nice to work with. Calico fabrics are found in just about any fabric store. They are cotton and come in 45” width and have many types of cute prints. They’re often used for quilt making. It is also important to avoid plaids and obvious diagonals, because they require pattern matching - a skill not covered in this book.

For your particular project, you need to refer to the back of the pattern for fabric suggestions. See Chapter 3 for more information on reading pattern backs. You have some choice in fabrics, but do not choose a fabric that the pattern specifically says not to use.

ALWAYS pre-wash your fabric (if it is washable). This is not a place to cut corners! What a shame it would be to make a wonderful skirt that has a perfect fit, only to have it shrink in the wash! One of the benefits of sewing is that you can prevent this problem. If the fabric comes out wrinkled, a good ironing will make it easier to work with.

Pattern Selection
Patterns can be very simple to very advanced. It is best to choose a pattern that does not require the learning of too many new skills at once. This, too, can lead to frustration. Names such as “E-Z” tend to be easy, but are not necessarily for the totally inexperienced. Rather than looking for words like “Quick” or “easy”, look at what type of sewing skills and techniques are required. Try to take on only one new concept at a time. For example, it would be best not to get a pattern with buttonholes, zippers, gathering, darts and difficult collars if you have not done any of these things previously. It is always best to master one skill before moving on to another. Otherwise, you may feel it is “too hard” and (heaven forbid!) not fun.

Choosing a pattern goes along with choosing your fabric, so don't purchase one until you have chosen the other. CraftAndFabricLinks has wonderful patterns for beginners. Best of all, they are free! Other sites have very good patterns as well.

For a complete selection of our FREE patterns, go to: FREE Sewing Patterns

I recommend a non-clothing item as your first project. Getting clothing to fit is a skill by itself.
and may be a bit much as a first project. For your first project, you will be getting to know your machine, getting familiar with various stitches and cutting techniques and learning to guide your fabric through the machine - not to mention learning to sew a straight line. That is enough without the added complications of fitting a pattern to your body! In past sewing classes, I have used the tote bag pattern for beginners. It is a fun, practical item to make. If your first project is clothing, be sure to measure carefully. It is better to choose a pattern that is a little too large, rather than too small. This is because you can always take in the waist and make other adjustments.
Chapter Three

PATTERN INSTRUCTIONS

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Instructions & Symbols Pattern Pieces

Understanding And Following Instruction
Read through all instructions first! It is important that you understand the sequence of assembly. You may not understand a particular step if you do not understand the whole picture. Be sure you have carefully reviewed all areas of the instructions, from lay-out, to symbol definition, to the sewing instructions themselves.

What Does It All Mean?
There are four main areas in the instructions, plus the back of the pattern, and each area is very important.

1. Fabric Lay-out
The first part of the pattern shows a diagram of recommended fabric lay-out. This is covered more in Chapter Four.

2. Instruction Symbols
There are various symbols used throughout the instructions to designate different pieces of fabric. Check this part of the instructions very carefully. You wouldn’t want to end up with the top of your collar sewn on wrong side out! The following are some examples.

![Symbols](image)

NOTE: Your pattern symbols may be different. Refer to your pattern instructions.

3. Body of Instructions
This is the area that takes you step by step through the assembly of your project piece. Read through the entire set of instructions before you begin to sew. You may need to read through the entire set of instructions more than once to fully understand them. Look carefully at the diagrams in the instructions. They are very helpful in understanding what is being said.

NOTE: When sewing, follow the proper sequence of instructions. It is always tempting to skip ahead in any project. However, until you are skilled, it is safest to carefully follow the sequence

of construction laid out for you in your pattern instructions. There is usually a very good reason they have you do one particular step before another.

4. **Pattern Back**

The back of the pattern contains a chart of yardage requirements for fabric and interfacing, and notions (snaps, elastic, etc.). Below is a typical pattern back, showing where information is found.

<table>
<thead>
<tr>
<th>Pattern Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1047</td>
<td>Misses' Pleated Skirt: Below calf length skirt, pleated to buttoned waistband. Opening concealed in side pocket. Optional belt loops.</td>
</tr>
<tr>
<td></td>
<td>Fabrics: Challis, wool blends, gabardine, flannel, lightweight denim, damask, pinwale corduroy. Not suitable for obvious diagonal.</td>
</tr>
<tr>
<td></td>
<td>Notions: Thread, seam binding (opt.), one 5/8&quot; button, one hook closure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Body Measurements</th>
<th>Waist 23</th>
<th>Waist 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip</td>
<td>32 1/2</td>
<td>34 1/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sizes</th>
<th>6 45&quot;</th>
<th>10 60&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 3/8</td>
<td>2 5/8</td>
<td></td>
</tr>
<tr>
<td>2 1/4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interfacing: 1 1/4 yd. of 22" to 36" light to mid weight.

The pattern number is 1047. The drawing shows the item(s) included in the pattern. This consists of one skirt style; the pattern includes a total of 5 pattern pieces. The description says that the skirt is pleated and has one pocket that is concealed in the side closure.

Under Fabrics, you find out that this pattern is not suitable for obvious diagonal prints. It lists many types of fabric which can be used. All seem to be medium weight fabric.

Under sizes, you can see that a 23" waist is a size 6 and a 25" waist is a size 10 (also check hip measurement to be sure the size is correct).

To find out how much fabric you need, simply look down to the next section. 45" and 60" refers to the width of the fabric. If the fabric you are using is 45" wide, you will need to buy 2 3/8 yard for size 6. If the fabric is 60" wide, you only have to buy 2 yards. Remember to buy extra if you are tall or you have to allow for shrinkage. It is always better to have a bit extra than be a bit short!

You will also need interfacing according to this pattern. 22" to 36" refers to the width of the interfacing. You will need 1 1/4 yard of light to mid weight.

Under Notions, you can see that you need thread, a button and a hook & eye closure. Purchase thread to be one shade darker than the background color of the fabric.

The salesperson can be a tremendous help in choosing proper fabric and notions. Don't hesitate to ask for help!

4. Pattern Pieces and Pattern Symbols

Fabric Placement
Some of the symbols on a pattern piece provide instructions on how the pattern piece is to be laid out on the fabric. These include the DIRECTION the piece is to be laid on the fabric, as well as whether it is to be on a fold. Direction is very important because fabric usually has more stretch in one direction than in the other (perpendicular) direction. The double ended arrow means that the direction of the grain of fabric (it means the arrow will run the direction of least stretch on the fabric). Sometimes, however, this arrow will say "stretch", which means the arrow is to be placed in the direction of greatest stretch. This line should be parallel to the edge of the fabric. "Place on fold" with arrows pointing to one side means that the side the arrows are pointing to is to be placed right on the folded edge of the fabric. This is used when two halves of a piece are identical. If the pattern piece is cut down the center and the piece is placed on a fabric that is doubled over, a finished piece with two identical halves is created.

Sewing Symbols
Other symbols assist in lining up pieces that will be stitched together. These marks can either be cut into the fabric, or drawn onto the fabric. Notches are cut OUTWARD from the fabric piece (even though they point toward the seam on the pattern). Dots are drawn onto the fabric. Notches and dots are used to properly align the fabric pieces that will be stitched together. The broken line represents the stitch line.

Cutting Instructions
The pattern pieces might contain instructions. A piece might tell you to "cut two" or "cut one". This refers to the number of pieces you are to cut. Usually "cut two" means two opposite pieces are to be cut. If the fabric is folded, place the pattern piece on top of the folded fabric and cut through both layers of fabric. You will end up with two opposite pieces. Your fabric lay-out instructions will show this in detail.

Altering Instructions
A straight line with the term "Shorten or Lengthen Here" means this is the area you can shorten or lengthen without changing overall shape of the garment. For example, to shorten a pant leg, fold the pattern piece so that the 2 lines meet. Re-draw the outline of the pant leg as needed. A shortened boot cut pant leg is shown on the right.
We have excellent free patterns that teach various methods of pattern alteration and pattern making. Use our free robe pattern to learn how to create your own robe pattern out of a simple tee shirt pattern. Use our free pajama pattern to learn how to alter a pajama pattern or create your own pajama pattern. The image on the right is from our free pajama pattern and shows how to enlarge and lengthen the pant leg.

Chapter Four

GETTING READY TO SEW:

Lay-Out, Cutting & Marking

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Fabric Lay-out  Fabric Cutting  Fabric Marking  Pattern Notches

Fabric Lay-out

Whenever possible, I trace my patterns onto freezer paper (bought on a roll at Costco). The reason is that most patterns come with multiple sizes. I can trace and cut only my size, without cutting the original pattern.

Be sure you have plenty of space to work. A large table is best, because it is at a height that is friendly to backs (especially a sewing table, which is higher than a regular table). Laying and cutting on a floor leads to very sore back and leg muscles. Assemble everything you will need: pattern pieces, pattern instructions (for lay-out instruction), pins, scissors and fabric.

In laying out your fabric, there are some important concepts to keep in mind.

1. Stretching Fabric Back Into Shape

Fold the fabric as shown in your pattern instructions and lay out flat on a cutting surface. If the fabric does not lay in line nicely, it may be a bit stretched out of shape. If this is the case, you will need to stretch the fabric on the diagonal. Get someone to help you, and stretch the fabric from one corner to the opposite corner, in the direction that needs the adjustment. This should take care of the problem (pre-washing the fabric tends to take care of this problem also).

The grain generally runs the length of the fabric (parallel to the selvages), with the greater stretch running in the opposite direction (perpendicular to the selvages). The selvages are the side edges of the fabric. The distance between the selvages is the width of the fabric, such as 45", 54" or 60".

2. Grain vs. Stretch of Fabric

It is very important to follow layout according to the correct direction. There are directions where you want stretch (such as across the back width of a skirt) and areas where you want less or no stretch (such as the length of the skirt). The pattern pieces will be clearly marked as to what direction they should be laid.

Below is a diagram of typical fabric. Please note, however, that the greatest stretch may be opposite of what is shown below. If you are not sure, grab the fabric in two places, 1" apart. Pull the points apart and measure the length of stretch. Repeat in the opposite direction to see which direction has the greatest stretch. Be sure to place the pattern pieces according to greatest stretch.

**Fabric Cutting**

1. **Positioning and Cutting Pieces**
2. Fold your fabric according to lay-out instructions.
3. Lay your pattern pieces in the correct direction.
4. Place pattern pieces on folds where required.

**Positioning Pattern Pieces.**

Always position all pieces before cutting any out. This way, you can be sure you understand lay-out and have allowed space for all pieces. Check over the lay-out instruction in the pattern and carefully follow these directions. When you are more experienced, you may have your own ways to lay out pieces; for now I suggest you use the lay-out recommended by the pattern instructions.

**Securing Pattern Pieces**

You need to secure your pattern in place before cutting. You can do this with pins or weights. Pins are more precise, and you do not run the risk of knocking a piece out of place. Therefore, I recommend pins for beginners. Always place pins in the seam allowance.

Cutting Out Fabric Pieces

For cutting out the pieces, you can use a rotary cutter or scissors. As with pins, scissors are more precise. A rotary cutter is difficult to use around corners, it's easy to overshoot your mark, and they are very sharp (not at all appropriate for children). I definitely recommend scissors until you are experienced.

1. Cutting Around Notches

To save space when printing patterns, companies often print the notch (triangles) TOWARD the main part of the pattern piece. DO NOT CUT toward the pattern piece. Instead, cut away from the pattern piece. Notches are used to line up pieces when sewing them together.

Marking Pieces

There are many different places where you will need to mark your fabric pieces. In marking fabric, you are transferring important information from the pattern piece to the cut fabric, such as where to sew in darts, where to place buttonholes, where to place a zipper, etc.

There are various ways to mark fabric. You need to consider your own preferences, as well as the type of fabric, when you choose your method.

1. Pins

Pins can be used to mark places such as start and stop places for sewing and measurements. You must be careful with pins, however, because they can leave tiny holes in our garment. Consider the placement of the pins as well as the type of fabric before choosing this method. Pins are best used only where you will sew a seam line.

2. Tailor Tacks

Tailor tacking uses thread to mark the fabric pieces. The following is an example. The thread can be sewn through the fabric only, or the pattern piece and the fabric. Then cut the thread and pull away the pattern piece. You now have your mark in exactly the right place.

3. Washable or "Disappearing Ink" Markers

Washable markers and markers with disappearing ink come in many colors, and are very easy to
use. NOTE: ALWAYS before using a marker or pencil, try it on a piece of scrap fabric to be sure it performs well. It should stay on long enough to be useful (not smear or rub off), but should be easily erased with a fabric eraser.

4. Tracing Paper and Tracing Wheel

The tracing paper is placed between the fabric and pattern piece with the transfer color toward the fabric. Use the wheel to press down on the pattern marking to be transferred. The color on the paper will rub off onto your fabric.
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SETTING UP YOUR SEWING MACHINE

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Differential Feed
Feed Dogs
Needle Choice
Presser Feet
Sewing Machine
Stitch Length/Width
Tension
Thread Choice
Threading Machine
Throat Plate
Walking Foot

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Read our article: Choose The Right Machine for a review of machine features before purchasing a machine. Ready to purchase a new machine? Check our directory of sewing machine retailers.

Getting To Know Your Machine

Review our diagram and photo of typical sewing machines. Each make of machine is different, however. You will need to refer to your own sewing machine manual and become familiar with your machine and its parts. Learn to care properly for your machine, and it will take care of you for many years.

Throat Plate & Bobbin

The throat plate (also called needle plate) covers the area that holds the bobbin. It has an opening for the needle to pass through, as well as lines that serve as sewing guides. The needle may be a single hole, used for straight stitching, or an oblong hole, which allows the needle to make stitches that have width (such as zig-zag stitches).

NOTE: Be careful when using a straight stitch throat plate. If you accidentally change to a zig-zag (or other stitch that has a width) while the straight stitch throat plate is in place, you will BREAK YOUR NEEDLE. A straight stitch throat plate is the best one to use, however, when making a straight stitch (regular sewing stitch). It helps prevent the fabric from being pulled down into the machine (having a needle that is sharp enough helps prevent this also, although you must use a ball-point needle for knits).

Notice the throat plate on the left has an oblong hole and the one on the right has just one small circular hole. Use the type on the left for stitches with width (such as zig-zags) and the one on the right for regular, straight stitching.

The two long openings on the outer edges allow the feed dogs to come up (an explanation of feed dogs follows).
The following photograph shows a bobbin. The bobbin is housed under the throat plate. It holds the thread that locks your stitches in place. When you sew a line, the stitches on top come from your spool of thread, while the underside stitches come from the bobbin. Read Bobbin Winding (later in this chapter) for basic instructions on winding a bobbin. Also, refer to your own sewing machine manual for information on your sewing machine bobbin.

**Feed Dogs**

The photo on the right shows the feed dogs. Feed dogs feed the fabric (keep the fabric moving) while the machine sews. Never push or pull your fabric. The fabric will be fed through for you. All you have to do is gently guide your fabric.

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Differential Feed And Walking Feet

Feed dogs feed from the bottom only. When sewing through two layers of fabric, it is possible that one layer will be fed at a slightly different rate than the other layer. Although your two layers can be perfectly lined up when you start your stitching, by the time you are at the end of the stitching line, the layers can be “off” (one shorter than the other). This is VERY frustrating. Therefore, two different solutions have been developed.

If you are lucky, your machine will have differential feed. This can be engaged or not engaged depending on what you are sewing. My Pfaff quilting machine has differential feed and it is truly wonderful. Both layers of fabric are fed at the same rate.

If your machine does not have differential feed, you can accomplish the same thing by using a walking foot. It is a special foot that attaches to your machine. A sales person familiar with your type of machine can help you select the right foot for your machine.

Presser Feet

Presser feet hold down the fabric and help guide it through. They also serve various special functions. Examples of special feet are the rolled hem foot, which causes the fabric to roll, and the applique foot, which has an opening in the back to allow the bulk of the satin stitch to pass through. Other special feet that are commonly used include the zipper foot and buttonhole foot. Knowing what types are available, and when to use them, can make all the difference in the quality of your work. These special feet also take a lot of the frustration out of sewing.

Find out what type of feet are available for your machine. Special sewing functions can be performed using other specialty feet such as: applique foot, bias binder, pintuck feet, felling foot, cording foot, special hemmers and many more.

Stitch Length and Width

Stitch length refers to how long each individual stitch is.

Regular  11 - 12 stitches per inch

Basting  6 stitches per inch (i.e. a longer stitch, so fewer per inch)

Gathering  6 - 8 stitches per inch

Generally, heavier fabrics work best with a longer stitch length, and finer fabrics are best with a shorter stitch length. Proper stitch length is important and is a first place to start if you do not like the look of your stitching. For example, a slightly puckered seam in the fine fabric could be caused from too long of a stitch length - the feed dogs are feeding too much fabric through each stitch, making a puckered look. To correct this, a shorter stitch length should be used (also check tension - more on this later).

Remember that the higher number of stitches per inch translates to a short, tighter stitch.

Stitch width refers to how wide the stitch is. A regular straight stitch has no width, but a zig-zag or decorative stitch can be set to any number of widths.

Choice of Needle

There are many different sizes of needles available. Also, needles are either sharp, or ball point. Ball point needles are used when sewing knits and sharp needles are for other non-stretch fabrics (sharp needles can tear a knit).

Refer to the following table for a general idea, and the Refer to the [Thread and Needle chart](http://www.craftandfabriclinks.com/sewingbook/sewbk10.html) for more detail.
**Small Ball Point:** single knit or tricot

**Heavy or Medium Ball Point:** double knit

**Sharp Needles:** non stretch fabrics, such as calicos, muslin, percales, broadcloth, linen

**Wedge Point** very heavy fabrics - has a tiny blade which cuts its way through the fabric
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Setting Proper Tension

Tension refers to the force that is applied by the machine on your thread. You can also effect tension by the amount of pull or push you apply to the fabric as you feed it through under the needle - you should not apply force. Instead, just use your hands to guide the fabric through. Let the feed dogs actually feed the fabric through.

There are two areas in which you can adjust tension. The upper thread (needle thread - coming from the spool) and the bobbin thread each have tension.

Needle Thread Tension
This is the most likely place to find a problem. Generally the tension ranges from low to high in number, with high being the tightest. Check your own machine's manual for setting your tension.

Bobbin Tension
Check your own manual on this, also. With some machines, a screw is present which controls the bobbin tension. Usually, the bobbin does not need to be adjusted, and some machine do not even allow you to do this. In all of my time sewing, I have never adjusted bobbin tension.

Too little tension can cause weak seams, which can be pulled apart easily. Adjust to a higher tension. Too much tension causes a seam that is too tight and causes your fabric to pucker. Adjust to a lower tension.

When both threads have an even amount of tension, a smooth, "balanced" stitch is produced. The needle and bobbin threads are locked between the two layers of fabric with no loops on top or bottom and no puckers.

Choice of Thread

See your machine instructions for information on threading your machine. Refer to the Thread and Needle chart for information on choosing the proper thread. All purpose thread serves most fabric weights. Denim would require a heavier weight thread and silks and finer fabrics require a lighter weight thread. In choosing the color, the general rule is to choose one shade darker than your fabric, unless you feel you can get a perfect match. For topstitching and decorative

stitching, you can choose a contrasting color.

**Threading Your Machine**

Machines vary as to how exactly they are threaded, but all have certain common features. The thread runs from the spool holder, through a tension device and down through the needle. The tension device controls the tension on the thread. It consists of a groove that the thread slides through. The mechanism for setting the tension may be a dial or buttons (computerized machines).

With the machine on the left, below, the thread runs from the spool to a hook at the top of the tension area, down the right groove and up the left groove, over a little hook and down the left groove again, and on to the needle. The dial is turned to set the tension.

With the machine on the right below, the thread runs from the spool to a hook at the top of the tension area, down and up the left groove and down the right groove to the needle.

The thread runs from the tension device, down to the needle area. There are usually small grooves in the arm that holds the needle, for the thread to pass through. This holds the thread close to the needle arm. The thread then runs down to and through the eye of the needle. Refer to your machine manual for proper threading of your machine.

**Winding Your Bobbin**

For most machines, the thread must be taken out of the needle in order to wind the bobbin. There is normally a bobbin holder on top of the machine. The thread runs from the spool through a sequence of hooks etc. that are specific to the type of machine and on to the spool. The needle is disengaged when the bobbin is winding. This is done automatically (when the bobbin is in position for winding) or manually, depending on the machine. After the bobbin is wound, the machine is re-threaded, the needle is engaged and the bobbin is placed in its area under the throat plate. Refer to your machine’s manual for instructions on winding the bobbin.

Once the bobbin is in place and the machine is threaded, gently turn the wheel of the machine while holding the needle thread off to the side (it should go from the needle under the presser foot and off to the side). This will bring down the needle. The needle will pass down through the throat plate and the needle thread will catch the bobbin thread and pull it up through the throat plate when it comes back up again.

Do you need a new sewing, quilting or embroidery machine? Or a manual for your current machine? Visit our Machines page for a directory of companies that sell machines or offer manuals.

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NOW WE'RE SEWING!

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Gathering
Stitch Locking
Staystitching
Topstitching
Zig Zag Stitch

The following are basic sewing techniques as well as some good tips. They are listed alphabetically.

Clipping & Notching Curves

Clipping and notching seam allowances allows the fabric to mold into a curve. This is what makes the finished garment lie flat, with nice flat seams and edges.

If the fabric edge is outside the curve of the seam allowance, a straight snip is made in the seam allowance. This is called clipping. The fabric in the seam allowance will separate into segments allowing the seam allowance to lie flat. Cut from the outside just to, but not into, the seam allowance.

If the fabric edge curve is inside the curve of the seam, a notch is cut into the seam allowance. A notch is a wedge shaped cut. This removes bulk in the seam allowance and allows the seam allowance to lie flat. Cut from the outside just to, but not into, the seam allowance.

Facing

Edges of a garment must be finished in some way (unless you like the look of raw edges). There are several ways to finish an edge. Seam binding can be sewn to the edge. A straight edge can be hemmed. What if you do not want anything showing on the outside? If the edge is curved (such as around an arm hole of a sleeveless dress or along the neckline), hemming would not work. To finish such an edge, a facing is used. The facing is cut to the same shape as the edge, and is sewn to the edge, right sides together, and then turned to the inside of the garment (after trimming seam allowances). Pressing with an iron helps give it a crisp edge.

Interfacing is used to line the facing, giving it more body. This gives a firmness to the edge of the garment. Refer to [Interfacing](#) later in this chapter.

The photos below show the front of a dress. The facing is on the inside of the dress front. The dress has a nice "finished" look inside and out.

![outside of dress](image)

![inside of dress](image)

**Guiding Fabric When Sewing**

Guiding fabric is most difficult when working with stretch knits, and is why we prefer not to work with stretch knits in a beginning class. They are wonderful if you have a serger, but can be very difficult on a regular machine.

For example, if you have stretched ribbing to fit the edge of the garment body or sleeve, be sure you keep it the same as it passes through. In other words, don't stretch it further. This way, you are keeping the ribbing in place, but not adding any more tension as you sew. Think of it this way. If you have stretched the ribbing so that your left hand is holding a point 4" in front of your right hand, your hands should remain exactly 4" apart all the way through as you guide your piece through. The ribbing is stretched, but the garment fabric is not. Don't pull or push the piece through.

Other fabrics, such as tricot and other similar synthetic knits, require support while being stitched. Apply gentle tension by holding the two layers of fabric at the front and back of the pressor foot as you sew. Do not pull on the fabric.

For elasticized fabric (stretch lycra or stretch lace and knits with an unusual amount of elasticity), you do need to gently stretch the fabric as it passes through, but by an even amount all the way through. Hold the two layers of fabric firmly in front and back of the pressor foot and gently stretch the fabric as the stitches are being placed (use a long stitch). You may find that you need to tighten the tension slightly if the stitches seem to be too loose.

Refer to Chapter Five for information on feed dogs and differential feed.

**Elastic**
Elastic is used to hold a garment in place while allowing flexible movement of the body. Swimsuit leg openings, waistbands of pyjamas, and wrists of full sleeves are a few examples. As the body moves, the garment fabric stretches and gives, yet stays in place.

For instructions on properly attaching elastic, go to our free lesson: Attaching Elastic.
Chapter Six: Page 2

NOW WE'RE SEWING!

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The following are basic sewing techniques as well as some good tips, listed alphabetically, continued from page 1.

Hemming

I will cover three ways to hem your item. No matter which method you choose, always take the time to take careful measurements (a hem guage is very useful) and iron under your hems before sewing. Use of hem tape makes for a nice finish, and is helpful when hand sewing a hem. The hem tape is sewn along the edge of the hem before ironing under the hem.

Use a hem guage to ensure your hem is accurate and straight.

Hand Sewn Hem

Hand sewing works very well, if you are good at hand sewing. If not, you will want to learn how to machine hem. There are times, however, when hand sewing will work best, such as when you want a truly invisible hem stitch. It takes a lot of practice with machine hemming to get an

"invisible" stitch.

For a nice, almost invisible hand sewn hem stitch, fold your hem under 1/4" and press with iron. Fold it under again to the height you want for your hem (1/2", 1", 1/5" hem depending on what you are hemming and how large you want your hem to be) and press with iron again. Thread your hand sewing needle and tie a knot in one end. Pull the needle and thread through the fold of the hem, close to the folded edge, from the underside to the top. This way, the knot will be hidden under the hem. Pull your needle through only a couple of threads from your garment, just above the place your needle originally came up. If you take too many threads, your stitch will show on the outside. If you take only one or two, your hem could break away later. Refer to figure 1, below. Practice to get a good, strong stitch and the look you want on the outside. Run the needle under the fold of the hem and come up through the fold again. Repeat this stitch around the hem. Your stitch should not show much on the inside, and should be almost invisible on the outside.

Use a thread that matches your garment. Be sure your needle is appropriate for the type of fabric you are using.

figure 1

**Top-Stitched Hem**

Iron under the hem 1/4". Then iron under again to desired hem width and stitch the hem in place. Topstitching is actually done on the outside of the garment. I prefer to stitch hems from the wrong side, so I know I am stitching close to the edge of the hem. The hem stitch line will show on the outside of the garment.

**Machine Invisible Hem Stitch**

This one takes some practice, as stated above, but is very easy once you get the hang of it. Fold under to the desired hem width. Set your machine to "hem stitch" (refer to your machine's manual). Then, bend back the edge of the hem, away from the garment. Stitch along this edge, and with every fourth stitch or so your needle will zig-zag over to catch the edge of the garment side. If it zig-zags too far into the garment, it will show more. If it just barely catches it, it may break away.
Interfacing

Interfacing is used to give stability to the garment piece. It usually lines a facing (see "Facing" earlier in this chapter). It gives body to the piece, and can stiffen the piece if a heavy weight is used. There are various weights and types of interfacing available.

The types are basically fusible (iron-on) or sew-on. Which one you choose just depends on your own preference. Fusible interfacing is very popular because it is quick and easy to use. We highly recommend it. Follow the directions that come with the interfacing.

Proper interfacing weight depends on the weight of your fabric, or how stiff a look you are after. Use a light weight interfacing for lighter weight fabric, and a heavier weight for heavier weight fabric, such as denim.

The following are basic sewing techniques as well as some good tips, listed alphabetically, continued from page 2.

**Ribbing**

Properly attached ribbing is finished inside and out (no seam showing inside the cuff). Ribbing allows a snug fit around a wrist, ankle, neckline or waist, while still allowing flexible movement of the body.

For instructions on properly attaching ribbing, go to our free lesson: [Attaching Ribbing](http://www.craftandfabriclinks.com/sewingbook/sewbk10.html).

**Seam Finishing**

The first three methods finish the raw edges of the seam allowance after the seam has been stitched. Pin seams in place before sewing; trim and press open after stitching. The final two methods encase the entire seam. Binding a seam is a very nice way to finish bulkier seams, such as when working with double-sided prequilted fabric. The French seam method is a fabulous way to finish delicate fabrics that have a tendency to fray (sheer curtains for example).

Choose one of the following finishing methods.

**Pinking Shears**

Used to cut a zig-zag edge on the fabric. This gives a finished look and helps prevent fraying. NOTE: It is a good idea to add a line of stitching inside the pinked edge to add more protection against fraying.

**Zig-Zag Stitch**

A machine sewn zig-zag stitch on fabric edging to help prevent fraying. Zig-zag should be sewn close to the edge, allowing the outer zig-zag to fall over the edge of the fabric.

**Clean Finished Seam**

A nicely finished, sewn edge. Iron under 1/4" along edge of seam allowance. Then iron under another 1/4" and sew close to edge. This prevents against fraying and gives the most finished appearance.

**Binding Seams**

Binding is stitched onto the seam allowance in the same way that it is stitched around a quilt or placemat. The raw edges are totally covered. Use this method for heavy fabrics, such as very heavy denims or other bulky fabrics. It can also be used for delicate or lightweight fabrics, however.

In the photo above right, the side seams are encased in binding.

For more information on using this method, go to Free Totebag Pattern.

**French Seams**

By totally encasing the seam that holds the raw edges within a second seam, the raw edges are protected. The second seam provides a backup to the first seam. The inside of the garment or other item is nicely finished; there are no raw edges showing.

1. Stitch seam with layers WRONG sides together. Fold back fabric layers so that they are now right sides together, with seam allowances between the two layers.

2. Stitch a new seam so that the first seam edges are totally inside the new seam allowance.

**Sewing / Embroidery Stitches**

**Basting**

The purpose of basting is to temporarily hold fabric in place until the permanent stitching is in place. Example: Baste a seam that will later hold a zipper. For a center back dress zipper, the back of the dress is made in two halves. A center back seam is sewn from the bottom of the dress up to the point where the zipper will be installed. From that point up to the top, the seam is basted. This holds the seam edges in place until the zipper is installed. The basting is removed once the final stitching is completed.

**Embroidery**

Hand Embroidery Stitches

Hand embroidery adds a beautiful finish to items. Embroider a quilt; add decorative embroidery to tote bags, apparel, pillowcases, placemats and just about any other item you sew. See our Free Embroidery Glossary for a fully illustrated, alphabetized list of embroidery stitches.
Free Motion Machine Embroidery
Free motion embroidery can be done with any machine that has zig-zag capability. A darning foot is used, the feed dogs are lowered, and your hands guide the fabric under the needle. It is easy to learn. A stabilizer must be used to add body to the fabric. Learn how to free motion embroider with our free Sedona Landscape project.

Free Motion Embroidery

Gathering
Gathering can be done by hand or by machine. Most people find it easier to use the machine. The gathering stitch, like the basting stitch, is an extra long, straight stitch.

Gathering is done to ease in fabric along curves, such as when sewing in sleeves, and for adding fullness, such as with curtains. The gathering can be very subtle (just enough to ease in the sleeve) and not show along the seam, or can be much fuller, such as for a puffy sleeve or a skirt. The permanent stitch is placed right on top of the inside gathering stitch (away from the fabric edge).

An important note in gathering: Proper gathering for full skirts or puffy sleeves calls for two lines of gathering stitches (gathering for use in gently easing in a sleeve uses only one gathering line). Don’t omit the second stitch line! The second stitch line serves two important functions.

- It is a back-up in case the first line breaks.
- It makes for a much nicer row of gathers. They are easier to control in spacing, and have a much tighter, rounded appearance, instead of a flat, folded look.

Double Gather Line

Hem Stitch
See Quick Index at top of page for link to hem stitch page.

Stay Stitching
Stay stitching is used to prevent stretching and fraying in fabric. Stretching can occur when handling and sewing curved areas. Fraying can occur where curves are clipped. Start at the edge and stitch to the center. Repeat on opposite side.

Stitch Locking

When sewing any seam, always lock the stitch at both ends. To do this, sew in reverse at each end. This will hold your seam, so it does not come apart at the ends.

Topstitching

Topstitching refers to stitching done on the top side of the garment. In other words, it shows. It serves two main purposes. It can be a straight stitch, zig-zag or any other stitch you choose. If a straight stitch is used, it is usually done with a slightly longer stitch length.

1. Hold Seams Flat
   It is used to hold seams down flat, such as topstitching around the sleeve or waistband seam.

2. Decorative
   Use topstitching to add a decorative touch to a garment. Make it more noticeable by using contrast thread color.

Your machine may have several decorative stitches to choose from. The photo below shows several decorative stitches available on a Pfaff sewing machine.

Straight stitch topstitching is usually done close to the edge. The example on the right shows a place mat with topstitching 1/8" from the edge.

Easy placemat pattern.

Stitch Length and Width (from Chapter 5: Setting Up Your Machine)

Stitch length refers to how long each individual stitch is.

Regular  11 - 12 stitches per inch

Basting  6 stitches per inch (i.e. a longer stitch, so fewer per inch)

Gathering  6 - 8 stitches per inch

Generally, heavier fabrics work best with a longer stitch length, and finer fabrics are best with a shorter stitch length. Proper stitch length is important and is a first place to start if you do not like the look of your stitching. For example, a slightly puckered seam in the fine fabric could be caused from too long of a stitch length - the feed dogs are feeding too much fabric through each stitch, making a puckered look. To correct this, a shorter stitch length should be used (also check tension - more on this later).

Remember that the higher number of stitches per inch translates to a short, tighter stitch.

Stitch width refers to how wide the stitch is. A regular straight stitch has no width, but a zig-zag or decorative stitch can be set to any number of widths.

Tools For Sewing

Common tools for sewing include: cutting mat, rotary blade, large sewing ruler, pins, tape measure, sewing scissors, fabric markers, sewing neeедles, seam ripper, thread and sewing machine. Other tools might include embroidery hoops, quilting needles, a quilter's square, embroidery scissors, magnifying lights plus many more items that can make sewing much easier. Keep your tools and sewing items in a safe place, where they will not be damaged (such as a tupperware box with lid).

Chapter Seven
POCKETS

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QUICK INDEX

Side Seam Pocket  Shirt Pocket

There are several different methods for adding pockets to a garment or item. This chapter will cover side seam pockets (pocket sewn into the side seam of a skirt or dress) and front pockets (such as on a shirt).

Basically, a pocket must have a front and a back (inside). If a pocket is sewn directly onto a shirt front, the shirt front is the inside (or back) of the pocket. If the pocket is sewn into the the side seam of a skirt, the front of the skirt serves as the front of the pocket and a back is created by sewing in a pocket.

The upper edge of a pocket is often made stronger by adding a facing and interfacing (see Chapter Six). This is important if the pocket is on a shirt front or back of pants, for example. A pocket can also be lined, which gives it a nice finish.

Side Seam Pocket

1. Add extensions
If you wish to add a sideseam pocket, draw an extension on the sides of the skirt (these will be facings for the pockets). They should measure 1/2" and should extend a length that is equal to the hand that will use the pocket, plus about 2".

2. Draw Pockets
Draw pockets in the shape you want. They need to be large enough for the hand to fit into nicely and they must come to about 2" above and below the extensions.

3. **Reinforce and clip facings**
Stitch on each side of the corners of the facings (I marked with circles). Clip from the edge almost to the circle - do NOT cut your stitching. The clipping is shown in red. Press facing under. Sew a box along the edge of the facing to reinforce it (refer to photo in step 4 below).

4. **Stitch pocket to skirt front**
Stitch the RIGHT side of the pocket to the WRONG side of the skirt front around the curved edge (not the side seam edge). The pocket shows as pink in the diagram to the right.

5. **Stitch Skirt front to Skirt back.**
Stitch the skirt front to the skirt back at the side seams, being careful not to sew the pocket edge into the seam. The line that will be stitched is shown as a dashed red line (skirt back not shown).

6. **Press**
Your pocket now resides within the side seam. The stitching of the pocket shows on the skirt front.

---

**Shirt Type Pocket**

1. **Cut your pocket piece**
Cut a rectangular piece that is the size you want your pocket to be plus 1/2" for upper hem and seam allowances on the other three sides.

2. Press edges under
Iron under the three lower edges. Iron under the hem.

3. Topstitch upper hem
Turn pocket to right side. Topstitch (see Chapter Six on Topstitching) upper hem into place.

4. Sew pocket to shirt
Place your pocket on the shirt front (pocket is right side up) and stitch onto shirt around the lower three sides. Leave pocket top open. Reinforce the corners of the shirt pocket as shown on the right. Reinforcement stitching has been enhanced in the photo on the right.

Chapter Eight

ZIPPER & BUTTONHOLES

Creating a buttonhole is basically a 4-step process. Below is a typical buttonhole. Please note, however, that your machine may follow a different sequence (start at a different point, or go in the opposite direction). Please refer to your machine's manual.

1. Zig-zags across the upper end
2. Zig-zags down one side
3. Zig-zags across the lower end
4. Zig-zags up the other side

Simpler machines require you to select steps one through four by turning a dial. You must measure and mark the start and end of each buttonhole. More complex machines have the entire process automated. This is nice because every buttonhole is made in the exact same size. Read the manual for your machine to learn how to create buttonholes on your particular machine.

A buttonhole presser foot is used in making buttonholes. Snap off your regular foot and snap on the buttonhole foot. The photograph on the right shows a buttonhole foot for a Pfaff machine.

With some fabrics, there may be a difference in the density of the stitches on the right and left sides of the buttonhole. Your machine will have a way to correct for this, usually by turning the dial. Check your machine manual.

After the buttonhole has been sewn, the center is cut in one straight line. That's all there is to it. Remember, the cutting is not done until the buttonhole is completed, so if you feel the buttonhole is not the correct size, you can change it. Be sure that you do not cut any buttonholes until they are all sewn and you are sure they are correct.

**Zippers**

Refer to the diagram and instructions that come with your zipper, as well as the pattern instructions.

There are three styles of zipper that I will discuss here. Please note that it is difficult to explain how to put in a zipper.

When installing a zipper, always baste the seam first, and press open. Use medium or low setting to iron the zipper. Use a zipper foot for all steps. Remove the basting when the zipper is installed.

1. Centered Zipper
2. Lapped Zipper
3. Fly Extension Zipper - like a Lapped Zipper, but it has an inside extension.

1. Centered Zipper

Remember to baste the garment seam closed first, using a 5/8” seam allowance. Work on the inside of the garment. With the bottom of the zipper away from you, extend the right seam allowance on the garment. By that, I mean that the garment is folded back out of the way, so you will only be basting through the seam allowance. You don’t want to sew to the garment at this point. This holds the zipper in place to make sewing it on easier. Place the zipper tape face down on the seam allowance with the bottom stop at the marking point on the seam and the zipper coil lying directly on the seam. It may be easier if you pin the zipper in place before basting.

Starting at the bottom of the zipper, machine baste the right zipper tape in place on the right seam allowance, using a zipper foot. Extend the left seam allowance. Baste the left zipper tape in place.

To topstitch the zipper, use a stitch that is slightly longer than a regular stitch length. Spread the garment flat and work on the outside (right side) of the garment. Mark the bottom of the zipper with a pin. Begin at the seam and stitch up one side of the zipper. Repeat with the other side.

2. Lapped Zipper

Keep the tab turned up for neck or skirt applications; down for side dress application. For side dress application, whip stitch tapes together above top stop to form a bar tack.

Work on the inside of the garment. With the bottom of the zipper opening away from you, extend the right seam allowance. Place the closed zipper face down on the seam allowance with the bottom stop at the marking on the garment and the zipper coil next to, not on, the seam. Machine baste the zipper into place. The stitching may curve out around the zipper slider.

Change to a regular stitch length. Turn the zipper face up, forming a fold in the seam allowance (not in the tape). Bring the fold close to the coil but not close enough to touch it. Stitch the fold to the zipper tape.

To topstitch, spread the garment flat. Turn the zipper face down over the free seam allowance. A pleat is formed at both ends of the zipper opening. Secure with pins. On the outside of the garment, mark the bottom of the zipper with a pin. Begin at the seam and stitch across the bottom and up one side of the zipper.

For waistbands and stand-up collars - stitch to end of tape.

For faced edges - stitch to 1” from edge. Cut off end of tape at leam line and stitch to edge.

For dresses with side openings - stitch beyond bar tack, pivot, and stitch to seam.

Chapter Nine

SLEEVE INSTALLATION

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It is best to follow the pattern instructions when setting in sleeves. I would like to point out two things, however.

Non-Stretch Fabric / Standard Method

Use a gathering stitch to ease in the sleeve. Use one gathering line for gently easing in sleeves, and two gathering lines for setting in a puffy sleeve (stretch fabric can be gently stretched to fit, so a gathering line is not necessary).

Transfer the pattern markers to your fabric (or mark with pins) and run your gathering stitches between the markers. They should run along the curved upper edge of the sleeve (the part that will go over the shoulder). This is where the sleeve must be eased in.

The sleeve is sewn into place AFTER the shoulder and side seams are sewn and AFTER the underarm seam of the sleeve is sewn. The finished sleeve must be sewn into the circular arm hole opening. The gathering stitches assist in easing the curved part of the sleeve into place. Pin the sleeve to the garment, right sides together and stitch into place. The pattern instructions should have good diagrams on exactly how to accomplish this.

Alternative Method

In some cases, I use a different method for setting in sleeves than most instructions call for, and I find it much easier. Instead of sewing the shoulder and side seams and then trying to ease in the sleeve, do the following. Sew the shoulder seams as per instructions. Then (here's the difference), sew the sleeve to the shoulder area of the garment, in between the marks or notches (front to back over the shoulder), and then sew the side seams last. I start at the sleeve end and sew on up under the arm and then down the side seam ending at the waist.

1. Sew Shoulder Seams   2. Sew Sleeve to Shoulder Area

3. Sew Underarm & Side Seam
Chapter Ten

DARTS & PLEATS

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Darts

Fabric is two dimensional, meaning that it has a length and width but no depth. Your body, on the other hand, is three dimensional. It has places that curve in and places that curve out. A piece of flat fabric must be sewn so that it accommodates a non-flat surface. This is done with the use of darts and pleats.

Darts are straight stitch lines that connect areas of fabric that must fit properly to the body. For example, darts may take in bulk in the center back of a man's fitted shirt. They may be placed at back shoulders to allow the shirt to be looser at the shoulder blades, but taper in up at the shoulder seam. They can also be placed on the sides or under the bustline. The top of a skirt often has darts to allow the skirt to be full at the hips, but taper in at the waist.

A dart starts and stops without creating any puckers in the fabric. In other words, the dart lies flat on the fabric. When sewing a dart, careful tapering from the largest part of the dart, to the end of the dart, is important. If you abruptly end a dart, you will get puckering. A dart is made by folding the fabric, and then sewing from one end of the dart to the other end of the dart.

In the diagram on the left below, the dart runs from the outer edge of the garment out to the bust area. Fold the dart along the center line, lining up Point A with Point B. Sew from the outer edge to the point of the dart. Take a couple of extra stitches at the point, very close to the folded edge. This helps prevent a pucker at the end of the dart.

If the dart is in the middle of a garment (such as a dart up the back of a shirt), fold the dart along the center line, then sew from one folded edge, along the line shown on the pattern (curves away from the folded edge) area and back again to the folded edge. Refer to the diagram on the right below.

Pleats

Pleats allow fabric to be fitted in one area and fuller in another area, and they also cause fullness at the end of the pleat. A pleat is made by folding the fabric, and stitching a straight line at some distance parallel to the fold. Because the stitching abruptly stops, there is a lot of fullness at the

end of the pleat.

**Topstitched Pleats**
The image below shows topstitched pleats. In this type of pleat, the fabric is folded, then the fold is topstitched on the RIGHT side of the garment. The folds are created on the RIGHT side of the fabric, then pressed to one side, then topstitched in place. All stitching is done on the right side.

**Hidden Stitch Pleats**
The images below shows pleats created by stitching a seam a certain distance from the fold on the WRONG side of the fabric. The folds are pressed to one side and all that shows on the front is the seam line. All stitching is done on the wrong side.

Several pleats are sewn, equal distance from one another, and all of the same length. The tool at the right marks pleats at equal distances.