Sewing with Stripes, Checks, and Plaids

Striped, checked, and plaid fabric designs seem to be in fashion every season. They are available in new color combinations, new sizes and spacing, and new intensities of softness or boldness of design.

Any fiber may be used for a striped, checked, or plaid fabric. The design may be woven or knitted into the fabric or printed on the material.

Constructing a successful stripe, check, or plaid garment takes knowledge, skill, time, planning, and more fabric than plain solid color garments. Ordrely repetition and perfect matching distinguish quality garments which are expensive to manufacture, but economical to sew at home if the fabric is correctly handled.

Understanding stripes, checks, and plaids

Stripes are lines that go crosswise or lengthwise on fabric. Even or balanced stripes repeat to the left and right of the main stripe in the same colors and widths. Uneven or unbalanced stripes repeat in only one direction.

To determine whether a stripe is even or uneven, squint to find the most important stripe in the fabric. Fold that stripe in half along its length; then turn back a corner of the fabric at a right angle, making a true bias fold. If every line matches in both width and color at the fold, the stripe is even. If it doesn't match, it is uneven.

Checks are small squares or rectangular patterns. The check design originates from the regular arrangements of colored yarns in the lengthwise and crosswise direction of woven fabrics. The weaving process regulates the size of the lengthwise and crosswise checks; the size of the check is not necessarily the same in these two directions. Examples of woven check designs include gingham and houndstooth. Check designs may also be knitted into the fabric or may be applied by printing.
Plaids are fabric designs made of stripes crossing each other at right angles. The four-sided area of a complete plaid design is called a repeat. The arrangement of the sizes and colors of the stripes within a repeat determines whether a plaid is even or uneven.

Even plaids, like even stripes, repeat to the left and right of the main stripe in the same colors and widths. A plaid may be even in the lengthwise direction, the crosswise direction, or both directions. Even though a plaid appears even in both directions, it may not be because of the fabric construction process.

Uneven plaids repeat in only one direction. They may have an uneven right and left direction, an uneven up and down direction, or may be uneven in both directions.

To find out if a plaid is even or uneven, squint to find the most important stripe. Fold that stripe in half along its length; then turn back a corner of the fabric at a right angle, making a true bias fold. If every line matches in both width and color at the fold, the plaid is even; if it doesn't match, it is uneven.

Selecting stripes, checks, and plaids

Printed stripes, checks, and plaids should line up with the lengthwise and crosswise yarns in a woven fabric or the vertical and horizontal loop stitches of a knit fabric. If the print does not line up with the yarns or knit stitches, the garment will not be satisfactory. The print will be crooked if the yarns or stitches are followed; the hang of the garment will be crooked if the print is followed.

The finishing or final pressing during the manufacture of woven or knit stripe, check, or plaid fabrics can pull the design out of line. If the design is formed by weaving or knitting, the finishing may distort the yarns or stitches out of true right angles as well as the design. Most of today's permanent press finishes will not permit the fabric and resulting design to be straightened. Avoid buying distorted fabrics that will cause layout and construction problems.

Looking at a striped, checked, or plaid fabric from a distance will give you the total design effect (large or small, distinct or softened). Small or softened designs are easier for most people to wear. Large and distinct designs emphasize body contours which can call attention to poor posture, a body area that is not in proportion, or asymmetric figure problems. Such designs are flattering, however, to the tall person with a well-proportioned figure. As you view a striped, checked, or plaid design, squint your eyes to determine if there is a predominant direction. If the design seems stronger in one direction, decide if that emphasis will be flattering to you.
When you are selecting ready-to-wear garments made of striped, checked, or plaid fabric, the amount of matching relates to the price of the garment. In a well-made, high quality garment the design is matched at the following locations:

- Center front and center back
- Side seams
- Sleeve and garment front in the area of the large muscle at the lower front armpit
- Center back of collar to center back
- Details such as pockets, flaps, and tabs unless cut on the bias
- If two bias pieces of balanced plaid are seamed, they should match in an upward diagonal or downward diagonal

If the stripe, check, or plaid is uneven, the same left to right order should continue around the body as well as matching at the locations listed above. Uneven designs may balance to the left and right after matching at the center front, if the garment is symmetrical.

Coordinating patterns with the material

To make the most of the fabric design, select patterns with as few pieces as possible. Avoid circular lines such as princess seaming, curved yokes, and flared skirts. Some patterns are marked as not suitable for certain fabrics, for example, "not suitable for plaids."

Careful planning of the direction of the stripe, check, or plaid gives interest to a garment. Details such as collars, cuffs, tabs, or pockets can be cut on the opposite yarn direction for stripes or on the bias for stripes, checks, or plaids.

Because you must match stripes, checks, and plaids, buy enough extra fabric to place the pattern pieces so the design matches. The extra amount of fabric depends on the size of the stripe, check, or plaid, and whether it is an even or uneven design.
Preparing the fabric

If the design is even, begin with the yardage amount on the back of the pattern envelope for fabric without nap. Then add the size of the check or plaid repeat plus one half repeat for each major pattern piece such as bodice front, bodice back, sleeve, skirt front, and skirt back. If you have a 4 inch (10 cm) repeat and the five pieces listed above you would need 4 inches plus 2 inches times 5 pieces or 14 inches additional fabric for matching. Since fabric is sold as eighths of a yard, you would buy an additional 14 inches or 5/8 yard. (In metric this would be 10 cm plus 5 cm times 5 pieces or 35 cm additional fabric).

If the design is an uneven stripe, check, or plaid, begin with the yardage amount on the back of the pattern envelope for fabric with nap since the pieces will be laid out in one direction. For check or plaid fabrics, add on half the size of the repeat for each major piece as described above.

Preshrink fashion fabric, interfacing if it is not a fusible, and lining. If the fashion fabric is washable, launder it as you will care for the garment. This removes excess finish that causes skipped stitches. If the fashion fabric is a wool which requires dry cleaning, have it steamed by a commercial cleaner or preshrink it between dampened sheets. Press the fabric as needed.

You may need to pin the two layers of fabric at intervals to assure matching of the design and prevent the underneath layer from slipping. An alternative is to cut out each pattern piece individually on a single layer of fabric.

Deciding about design location on the body

Before you lay the pattern pieces on the fabric, decide where on the body the most dominant repeat looks best. With large, distinct designs that are uneven, hold the material up to the body, then look in a mirror to determine the most flattering location. The major vertical line should line up on the garment center front and center back and center of the sleeves. With a front closing, however, the major vertical line may be an equal distance from the center front.

After placing the major vertical line, decide where the most dominant horizontal line will look best. It is usually near the hem of the skirt, lower edge of the jacket, or yoke line. For checks and plaids, the main repeat is usually at the shoulder line or above the bust line. Consider the whole look of the garment—there should be a continuous look between the bodice and skirt without two dominant lines appearing closer together than the regular design repeat.
Preparing for pattern placement and design matching

As you lay the pattern pieces on the fabric, notice the angles of the design to be joined in bias seams such as flared skirts, kimono sleeves, and yokes. For perfect matching, join the slant or edge angles the same. When necessary, reposition or alter darts to fall in a plain area rather than on the dominant design.

Before you pin the pattern onto the fabric, decide how you will cut the fabric. If the stripe, check, or plaid is even, it is better to fold the fabric double and cut both layers at once. Checking, matching, and pinning the intersections of the repeats through both layers every few inches reduces the risk of slippage and mismatching on the bottom layer.

A single layer of fabric for the layout and cutting of even and uneven designs increases matching accuracy. Be sure to work with the right side of the fabric up, then place the pattern piece face up for the first layout and face down for the second layout; you then have a right and left side of your garment.

To increase the accuracy of matching when you cut a single layer at a time, trace the stripe, check, or plaid design onto the pattern. After positioning the pattern piece, trace the design along the seam line that is to be matched. Use a soft lead pencil to mark easily without damaging the pattern, and use a ruler for accuracy. Write the color of the design on the appropriate line.

To match a second pattern piece with the first, place the second pattern over the first, lining up seam lines, notches, and dots. Trace the fabric design from the first pattern piece onto the second pattern piece along the seam line. When you place the second pattern piece on the fabric, match the traced lines and colors to the fabric. This technique matches the stripe, check, or plaid design at the seam line, not at the cutting line. It also works well for matching details such as pockets, tabs, and flaps.

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These locations should match:
- Center front—both horizontally to left and right of the garment and vertically, if connected by a seam at the waistline
- Center back—both horizontally to left and right of the garment and vertically at the waistline, if connected by a seam
- Garment side seams except above the bust dart on fitted bodices
- Set-in sleeve to garment front at armhole notch
- Two-piece outfits in the area where they overlap such as jacket and skirt.

These locations should match unless the material is used on the bias for design interest:
- Collar or yoke with center back
- Details such as pockets, tabs, or flaps
- Plaids might not match at these areas:
  - Shoulder seams
  - Princess seams—vertical strips above the curve (they should match horizontally)
  - Darts
  - Above bustline dart on side seam
  - Set-in sleeve to bodice back at armhole notch

There are several steps to placing the pattern pieces so that the design matches, regardless of whether the crosswise, lengthwise, or bias yarn direction is used.

For shirts, blouses or bodices of dresses, and skirts, begin the layout and matching by placing the garment pattern front on the fabric to get the design effect you want at center front. Next place the back garment pattern centered on the same design at center back. With checks and plaids you may need to slide the pattern back up or down along the center back until the crosswise design matches the pattern front at the side seams below a horizontal underarm dart.

If the garment has set-in or raglan sleeves, match the armhole seam in the area of the notches of the sleeve and garment. Remember to match exactly on the seam, not the cutting line where the notch is located. Measure the length of the garment and sleeve armhole seams from the underarm to be precise in determining the place to match.
For jackets with lapels, be sure to lay the front facing so that the center front and crosswise designs match that of the garment. The button overlap and lapels will then match the garment. In addition, make sure the lapels match each other.

_Pants and slacks_ require layout decisions that depend on the size of the stripe, check, or plaid design and whether the design needs to coordinate with a jacket or top. The primary requirement is that the design should match crosswise on the center front, center back, and sides.

If the pants will be worn with a matching jacket or top, the fabric design should line up and be continuous between the two garments. The same center front and center back design should be used for the pants as was used for the jacket or top. Determine from the jacket or top the center front waistline and the design that occurs there. Locate this same design at the waistline seam of the pants front. Match any crosswise design at the side seams. Adjust the pants back pattern along the crosswise yarn direction until the center back matches the jacket or top center back.

Matching pants to a jacket or top, some less attractive design arrangements can occur. These include the possibility of a less dominant design that falls at the crease line or an unflattering large design occurring at a bulgy area of the body such as side hip or derriere. If there is not a requirement to match the design with a jacket or top, give consideration to having the dominant design on each creaseline as well as where any unflattering large designs occur on the body. Check that the design matches crosswise at the center front, center back, and sides.

If details such as pockets, tabs, or flaps are to match, be sure the major garment pieces are laid out first, then trace the design as described for matching single layers. If the detail is to match the garment, lay the detail pattern piece over the garment. Use a soft lead pencil and ruler to trace and label the design. Move the detail pattern piece to the fabric that corresponds to the traced design and pin in place.

For bound buttonholes, use the window or organza patch method to permit the greatest flexibility and accuracy in lining up the design to match at the buttonholes.
Pattern placement for even designs

Place the pattern on the material so that the design lines will match where they should, regardless of whether the crosswise, lengthwise, or bias yarn direction is used. You may use the "without nap" layout on the instruction guide unless the fabric is brushed or napped which requires the "with nap" layout.

Follow the suggestions in the section on Preparing for pattern placement and design matching.

Special pattern placements for uneven designs

Uneven stripe, check, and plaid designs do not have a center from which the design moves in both directions. Generally garments are cut by laying out the pattern using the "with nap" (one-way) layout which keeps the design moving in one direction around the body. Menswear is cut this way with the design repeating in one direction.

The main stripe or center of the vertical repeat of a check or plaid is used for center front, center back, and center of set-in sleeves. If any pieces are to be laid on a fold, the main stripe or center of the vertical repeat should be used as the fold. Cut other pieces from a single layer of fabric, remembering to turn the pattern face down for the second piece so you have left and right sides of the garment. Follow the same order of placement as was described under even designs; first placing the pattern front, then pattern back, sleeves, and finally details.

An alternative look of balance can be achieved by placing left and right sides of the garment in opposite directions. This is possible only if the pattern has center front and center back seams, and if the check or plaid is balanced up and down so that the crosswise lines of the check or plaid are even. This way the check or plaid will match even though the pattern pieces are turned in opposite directions.
Uneven lengthwise plaid in balanced pattern starting from center front

Another alternative look is possible if the pattern has center front and center back seams, and if the fabric has no right or wrong side. Lay the pattern on the single layer of fabric with the right side of the pattern up for each piece. For the left side of the garment use one side of the fabric, for example the “right” side. Then for the right side of the garment use the other side of the fabric, the “wrong” side. The primary use of this layout is with yarn-dyed woven fabrics. It cannot be used for prints.

Balanced pattern placement for fabric without right or wrong side

Uneven lengthwise and crosswise plaid fabric cut and sewn for balanced effect from center front
Special pattern placements for bias and chevron effects

Layout of a stripe, check, or plaid on the bias can result in an attractive effect known as a chevron. This is the "V" formed when the design lines are matched at an angle. The angle of the chevron depends on the angle of the seams in relation to the lengthwise grainline. The angle of the pattern edges must be the same for the chevrons to match for the length of the seam (especially at center front, center back, and side seams).

For more interesting chevron effects, plan for center seam lines to go through one corner of a check or plaid repeat rather than through the center of the repeat. Unless your pattern is specifically recommended for bias-cut fabrics, you will need to establish bias grainlines on each pattern piece by drawing a long line at a 45 degree angle to the lengthwise grainline.

Even stripes, checks and plaids chevron easily. By prepinning the fabric layers to prevent slippage of the underfabric, both left and right sides can be cut at once.

Uneven stripes, checks, and plaids require pattern layout on a single layer in the opposite directions unless the fabric has no right or wrong side. Remember to lay the pattern face down for the second layout to get the right and left sides of the garment if the fabric has a definite right and wrong side. Use the line tracing technique to match the design for the chevron.
Constructing the garment

Most of the time spent working with stripes, checks, and plaids includes planning and doing the layout. To achieve the look of quality and to assure matching the design use care in sewing. Decide which of the following is the best sewing method for you and your fabric.

**Pin basting** can be used with a woven design. Pin the right sides together, taking as few as possible yarns exactly on the seam and inserting the pin crosswise. Check both sides for matching. When you sew, stitch very slowly over the pins, removing them after an area has been secured by the stitching. This method may not be suitable for smooth fabrics as the two layers can slip between the pins so that they no longer match.

The placed folded seam technique is especially good for long straight seams. It is the easiest method for bias seams and exact matching of fine lines. Working with the fabric right side up, fold and press under one seam allowance. Lap it over the other seam allowance, placing it to match the design. Temporarily pin in place. To hold the seam for stitching from the wrong side, there are several alternatives available.

- **Machine zigzag basting** works well with stable fabrics. Set your sewing machine on a long basting length stitch and medium or narrower width zigzag. Sew over the fold, making the stitches alternately on each side of the fold. Adjust the width of the stitch to catch only as much of the fold as needed to make a guide for sewing from the wrong side.
Basting tape or a glue stick is another way of basting. Apply the tape or glue about 1/8 inch (3 mm) under the fold before lapping and matching the pressed seam allowance over the other seam allowance. The tape and glue stick work well for fabrics that are stretchy, slippery, or do not feed together under the presser foot. After placing, matching, and holding the folded pressed seam allowance in place, turn the garment to the wrong side, open the fold and stitch the seam exactly on the folded line. Do not stitch through the basting tape. Remove the zigzag basting or basting tape before pressing the seam open.

- **Slip basting** by hand may replace machine zigzagging for curves and small areas that need extra care. Fold, lap, and pin the seam allowance as described under machine zigzagging. To slip baste, insert the needle through a few threads in the single layer then slip the needle into the fold for about 1/4 inch (6 mm). Keep the thread between the layers at a minimum so that the layers do not shift when the fold is opened out on the wrong side and the seam is sewn. Remove the slip basting before pressing.

- A machine attachment or built-in device is also available for some machines. It feeds two layers of material evenly while stitching.

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