



# QUILTING

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JOANN'S FIELD GUIDE

NAME

JOANN



# QUILTING

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# Introduction

Hi there! Welcome to Joann's Field Guide to Quilting.

If you picked this up, you must be interested in quilting something personal and meaningful to be enjoyed for years to come. Just getting started? Lucky for you, we've got lots of tips!

For specific projects and inspiration, make sure to visit [joann.com/projects](http://joann.com/projects). But if you need some basic information to get started, you've got the right guide in your hands. After reading through this information, you'll be able to select the right fabric for your project and know how to get quilting.

Have more questions? Stop by the cut bar for some friendly advice, or check out the classes we offer at [joann.com/classes](http://joann.com/classes).

As always, we can hardly wait to see what you make. Share with us! [#handmadewithjoann](https://twitter.com/handmadewithjoann)

## Words to Know

**Basting**- long stitches used to temporarily keep the fabric layers from shifting while quilting. The stitches are removed once quilting is finished.

**Bias**- the diagonal direction, a 45 degree angle, across a piece of woven cloth that creates a greater amount of stretch.

**Block**- the basic unit of quilt construction, usually in the shape of a square. Blocks may be any size and are sewn together with other blocks using a ¼-inch seam allowance.

**Layer cake, charm pack, fat eighth, fat quarter, jelly roll**- pre-cut fabric blocks or strips in various standard sizes

**Grain**- the orientation of the weft and warp threads running through a woven fabric. The grain affects the way the fabric hangs and stretches. The three named grains are straight, cross and bias grain.

**Loft**- the thickness, height and weight of batting. The higher the loft of batting, the thicker the quilt. Loft is not synonymous with warmth, however.

**Piecing**- the process of sewing together fabric pieces to form a block.

**Quarter-inch stitching**- parallel lines  $\frac{1}{4}$  inch apart.

**Quilting**- the process of sewing the three layers of fabric--quilt top, batting and backing--together with stitching.

**Seam**- the line where two pieces of fabric are joined together with stitches. In quilting, the standard seam is  $\frac{1}{4}$  inch.

**Seam allowance**- the width of fabric to the right of the sewn seam. In quilting, the standard seam allowance is  $\frac{1}{4}$  inch.

**Stitch in the ditch**- a technique for quilting a straight line, directly in the seam, or "ditch," between the quilt top to stitch together with batting and backing.

## Tools

**Rotary cutter and blades**- A rotary cutter is a tool with a round blade that looks like a pizza cutter. It's used to cut through several layers of fabric at once, allowing you to cut multiple fabric strips at the same time, instead of marking and cutting individual pieces of fabric. A rotary cutter is fast, easy to use and improves accuracy. The blade is very sharp and can cause injury if not handled properly. Blades come in a variety of sizes and types, including:

- 18mm- for curved pieces of quilting, applique trimming, seams, cutting templates and miniature work
- 28mm- for small-scale projects and miniature work
- 45mm- most popular size for general quilting, sewing and crafts
- 60mm- easily cuts multiple layers of fabric, heavy wool, denim and leather

Rotary cutters should only be used in conjunction with an acrylic ruler and cutting mat.

**Cutting mat-** Cutting mats help the rotary cutter glide smoothly over the surface of the fabric. Mats extend rotary blade life and protect the sewing table surface from cuts, nicks and other damage. Mats are available in a wide selection of sizes and some have measuring lines to help align fabric perpendicular to the cutting tool. A self-healing surface makes cut marks disappear, preventing the blade from leaving ridges in the mat.

**Rulers-** Acrylic see-through rulers come in a wide assortment of sizes and shapes for standard and more specialized patterns or techniques. Raised edges help guide the rotary cutter along the fabric. Rulers with non-skid surfaces or non-slip sandpaper feet prevent the ruler from sliding and causing inaccurate fabric cuts. Easy-to-read numbers and gridlines that go all the way to the edges ensure precise measuring, and multiple-angle lines make it easy to pivot for 30, 45 and 60 degree cuts. The double-sided lines, for left- and right-handed users, are easily visible on light or dark fabrics.

**Straight pins-** Pins that hold fabric layers together before sewing. There are several kinds, but long, thin, straight pins are best for quilting as they don't leave a large hole and are easier to put in and out of the fabric. Proper pinning can mean the difference between the blocks properly fitting together and having uneven sides.

**Curved safety pins-** No. 1 or 1-inch non-corrosive safety pins hold fabric layers together for machine quilting or when pinning multiple applique motifs on a project. The curved design helps prevent the three layers from shifting.

**Binding clips-** These metal clips snap into place and hold the binding over the raw edge of the quilt until it is sewn in place. They're much quicker than pins and mean no poked fingers!

**Quilt frame-** A small quilt hoop or a large floor frame that holds the three layers of a quilt together as it is hand quilted.

**Quilt hoop-** Two circles that hold the quilt layers together during the quilting process. One circle has an adjustment to fit snugly over layers.

**Basting spray and fusible web-** Temporary adhesives that help keep small applique pieces in place while being stitched down.

**Marking tools-** There is a wide selection of marking tools because different tools are required for different stages of the quilting process.

- **Chalk-marking-** For transferring quilting designs, seam allowances, embroidery designs or other craft markings. Marks can be brushed away or rubbed off with a damp cloth.
  - Chalk pencils are easy to use, can be sharpened and come in a variety of colors for light and dark fabrics
  - Chalk markers have a small serrated metal wheel that runs along fabric to leave a dotted line of chalk
  - Chalk powder comes in a small fabric bag. Use with Quilting stencils or perforated paper. Use fingers to lightly pounce bag along stencil channels or paper holes.
- **Template-marking-** Mark or design quilt templates
- **Temporary fabric-marking pens & pencils-** Transfer quilting or embroidery designs. Use pens with extra-fine points for detailed marking. Don't use pens on dry clean-only fabrics.
  - Water-soluble fabric pen and pencil marks can be removed with a damp cloth. Soapstone is a naturally soft, fabric-safe substance that gently rubs off pencil markings.
  - Disappearing-ink or air-soluble fabric pen marks disappear within 24 to 72 hours or can be removed with plain water.

- **Permanent fabric-marking**- Sign friendship quilts, quilt labels or journal memory quilts. Also great for detailing, shading or adding dimension to applique designs.
- **Non-smudge eraser**- specially designed for fabric and does not leave marks or smudges.

**Machine quilting needles**- The fabrics, threads and type of stitch being used determines the size of the needle needed. Generally, use a universal needle for quilting. The most common size is 75/11 or 80/12 for piecing, quilting and attaching binding. A larger needle, at least a 90/14, is needed when quilting layers. Change sewing machine needles approximately every eight hours as batting fibers can dull the needle.

**Hand quilting needles**- Hand needles vary according to the shape of the eye, the length and point. Needles are numbered 1-12 and categorized as sharps or betweens. The higher the number, the finer and shorter the needle.

- Sharps are all-purpose needles with a sharp point and are used for applique and piecing.
- Quilting Betweens are short needles with round eyes and are used for quilting and detailed handwork. The recommended size range for quiltmaking is 7-12.

**Needle threaders**- Needle threaders allow quick and easy threading of all types of needles, which can be difficult to see or reach.

**Thimbles**- A thimble is a protective covering for fingertips while hand quilting, applique and sewing binding. A thimble prevents accidental piercing or abrasion and helps to push the needle through all layers of fabric and batting. There are various styles or types of thimbles and are available in a variety of materials including metal, plastic, leather, glass and wood.

- Slip-stop thimble- a traditional style of metal thimble with built-in safety features. The ridges on the top and sides of the thimble prevent the needle from slipping.
- Fingertip thimble- long fingernails are not a problem when hand sewing with this thimble. It protects the bottom and tip of the finger while the top is open to accommodate the nail.
- Leather thimble- use soft, durable leather thimble for either sewing or quilting. The elastic band on the top adjusts to fit finger size. The side vents allow finger to breathe.

**Beeswax-** Prevents thread tangles when hand sewing. Pull thread through beeswax to coat the thread.

**Needle pullers-** Lightweight, flexible needle pullers are essential to hand sewing, especially when stitching through heavy or multiple fabric layers. The flower-shaped puller will grip the needle securely and help pull it through the layers.

**Thread-** There are different types and weights of threads for quilting by hand or machine. For most piecing, cotton or cotton-covered polyester is recommended, though other types can be used for applique or finishing details. Threads used for piecing can be used for quilting but needs to be run through beeswax to prevent tangling. Quilting threads are specially made to strengthen quilting stitches but are not to be used for machine quilting unless it is labeled as safe to do so. Threads should not be seen when pulling at the seams. Choose thread colors that blend with fabric colors. This may mean frequent thread changes.

**Templates-** Transparent plastic templates are available in a variety of sizes and styles for many popular patterns. Because they are pre-cut, they are extremely accurate and won't get distorted, unlike homemade cardboard templates.

# Types of Quilts

Quilts come in all shapes and sizes and are often decided by purpose. You can quilt a bed covering, hang one as wall art or wear it as clothing. Quilts are rich in history and can incorporate different themes ranging from traditional to modern and can commemorate a birth or wedding. Quilts can incorporate patterns and serve as keepsakes. Quilting techniques include:

- Applique- a piecing technique where smaller pieces of fabric are cut and sewn as an embellishment onto a background.
- Art quilt- a technique designed to make an original artistic statement that may use unconventional materials or construction techniques.
- English paper piecing- a traditional form of patchwork commonly used to piece shapes with many sides and in-set seams, such as hexagons. The technique involves cutting individual paper templates to the exact size and shape, then basting and pressing to piece the shapes together.
- Foundation paper-piece- a technique to stitch fabric onto paper pieces. The paper patterns usually have lines or numbers to follow.
- Patchwork- the most basic and common quilting technique involves sewing different fabric blocks and shapes together.
- Postage stamp- a technique to assemble a quilt entirely of squares between 1 to 2 ½ inches big and sewn together in rows.
- Rag quilt- a technique that uses typical patchwork concepts but incorporates unconventional fabrics such as denim and flannel.

- Sampler quilt or Farmer's wife quilt- a technique for making a specific number of pieced quilt blocks and sewing them together.
- Trapunto- a "stuffed" quilting technique that includes at least two layers to produce a raised surface on the quilt.

# Parts of a Quilt

## CHOOSING YOUR QUILT TOP

The top layer of a quilt is formed by sewing fabric shapes together into designs. You can create a design, combine colors, mix textures and pair prints. Choosing your quilt top fabric is possibly the biggest job when making a quilt. It can also be one of the most fun parts of quilting because you can unleash your creativity.

When choosing fabrics, there are a number of material considerations. The fabric needs to be strong enough to withstand years of love, washing and use. A loosely woven fabric may lead to rips, tears and overall damage. If the fabric is too dense or tightly woven, it may be difficult to quilt. If you are planning on using the quilt in your everyday life, it is better to choose a moderately dense/woven fabric. For quilts, you can't go wrong with cotton. The world's most popular fabric is durable, creases easily, absorbs moisture and wears well.

Consider principles of color theory or buying a color wheel to help ensure fabrics complement each other. Also look at the scale of a print and how it will look when cut into small patches. If a print is too large, and it has to be cut into tiny pieces, the design or colors may get lost. Make sure to cut all pieces the same way up when using patterned fabric. Directional prints may require buying extra material because special cutting will use more fabric.

## **CHOOSE YOUR BATTING**

Batting, padding or wadding refers to the thick middle layer of a quilt. Batting is a lightweight fabric that adds to the loft of the quilt.

The quilt's purpose and sewing method can help determine the most appropriate batting, as thicker batting is more difficult to quilt by hand. The batting affects the overall quilt's drape, resiliency and care instructions. If a quilt will be frequently used, the batting should be sturdy and washable.

Batting is generally made of cotton, cotton/poly blend, bamboo, wool or bamboo/cotton blend. Regardless of material, you will need about 4 inches of excess on all sides. The quilting process will pull up the layers, meaning the batting will be slightly smaller after the quilt is finished. Insufficient excess can cause drawing up between the layers, thereby shrinking the quilt. Batting is sold in pre-cut packaged sizes and by the yard. You will need to know the final size of your quilt top and backing before purchasing the batting.

## **CHOOSE YOUR BACKING**

It's a good idea to use the same fabric type for the quilt top and backing, as it can be difficult to sew through uneven levels of material. It's also a good idea to keep the back simple, using a subtle print or solid color. Traditional white fabric is the most popular backing. Additional options include choosing a color from the quilt top. Sometimes, the backing can be used as a "second quilt top" to create a reversible option. Fabric options include:

Quilting cotton - the most popular option is plain or patterned quilting cotton.

Pieced quilt backs - Some quilters choose to decorate their quilt backs with some blocks featured on the quilt front or use several cuts of quilting cotton.

Minky backing- This soft and luxurious option is available in textures, prints and non-textured solids.

As with the batting, you will need about 4 inches of excess on all sides. For larger quilting projects, such as bed-size quilts, you may need to piece together multiple pieces of fabric, as most quilting cottons are only 42 to 44 inches wide. Alternatively, you can use extra wide quilting fabric that's up to 108 inches wide.

## **CHOOSE YOUR BINDING**

Binding refers to the long thin fabric strips that are sewn together and folded in half to cover the raw edges. The binding is the final step in the process and finishes the quilt. It is generally around ½ inch thick. Often, the binding is the same color as one of the dominant fabrics in the quilt top. Another option is to use a plain-colored fabric in a similar color.

# **4 Steps to Quilt Assembly**

Now that you've picked out your pattern and your fabrics, it's time to get quilting!

## **CUT**

It's very important to use a ruler, cutting mat and rotary cutter to measure your fabric.

Inaccurate measurements can affect your quilt construction/assembly. Remember: Fabric strips should be ½ inch wider than the finished square size to account for seam allowances.

Remove any selvage edges. The first step in rotary cutting is to "square up" or straighten one end of the fabric to ensure future fabric pieces are accurate. Make sure the fabric is smooth with no bumps or puckers. Line up the fabric near the bottom edge of the cutting mat and place the ruler on top of the fabric. The ruler should extend

beyond the top and bottom edges of the fabric. Place your nondominant hand firmly on the ruler with fingers safely away from the edge. Roll the rotary cutter from the bottom to top of the board, moving away from you. Before lifting the ruler, make sure the rotary blade cut through the fabric. If not, roll the cutter again. Continue to measure and cut fabric according to instructions.

## **PIECE**

Sew all quilt top pieces together with right sides facing and a ¼ inch seam allowance.

If sewing by machine, run a test seam to find where the ¼ inch mark is. Keep to the same mark by marking the point on a sewing machine or using a piece of tape to guide the fabric.

## **PRESS**

Use an iron to get a wrinkle-free quilt. Press the quilt top and back by moving the iron up and down. Do not move the iron back and forth. Make sure seams are all pressed either open or to the side. Use spray starch to smooth out stubborn wrinkles.

If your batting has folds wrinkles, do not iron. Pop in the dryer with a wet washcloth or spray with water.

## **ASSEMBLE**

When you are ready to assemble the quilt layers, place the quilt back down, wrong-side up, on your table or floor. Next place the batting. Finally, place the quilt top right-side up.

Baste or temporarily secure these layers together to prevent them from shifting with basting stitches, curved safety pins, basting spray or fusible web or quilt frame.

## QUILT

Once you've basted the layers together, and made sure all the layers feel securely fastened, start quilting!

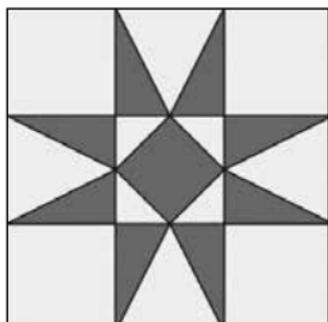
It's a good idea to begin quilting in the middle of the quilt and work outward to edges, especially for larger quilts. This helps to prevent fabric bunching and ensures any irregularities can be smoothed to the perimeter.

Each time you pause to adjust the quilt's position, leave the needle in the down position to help keep the quilt in the right spot.

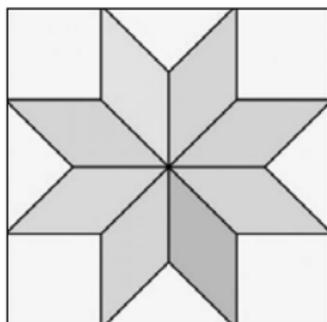
Be sure to leave enough slack around the area being stitched so the quilt doesn't pull. It should move with ease as you guide the quilt with your hands.

Once the quilt is sewn together and quilted, you are ready to sew the binding. The binding covers the raw edges of the layers and finishes off the quilt.

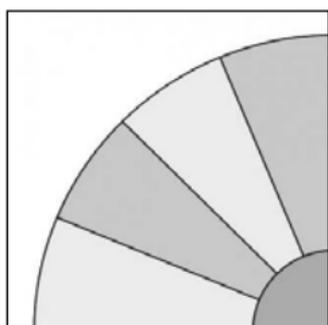
# Common Quilt Blocks



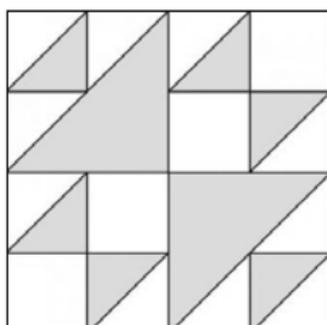
American Beauty



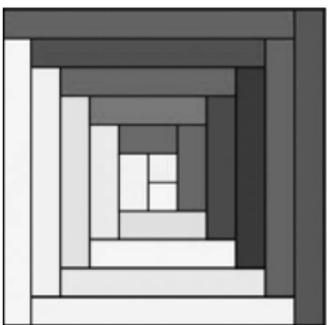
Eight Pointed Star



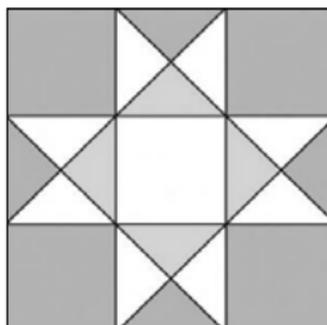
Fan



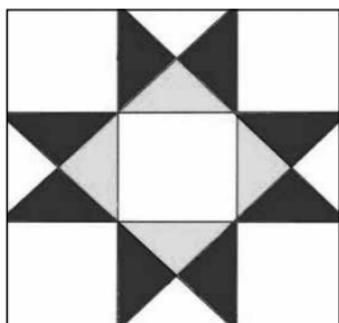
Fox & Geese



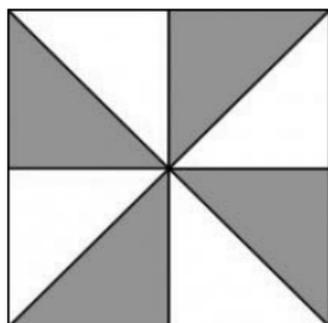
Log Cabin



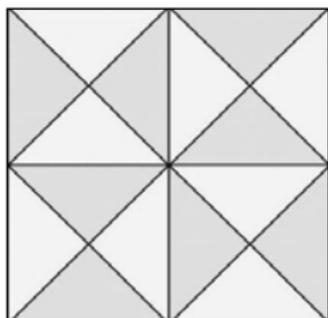
Lone Star



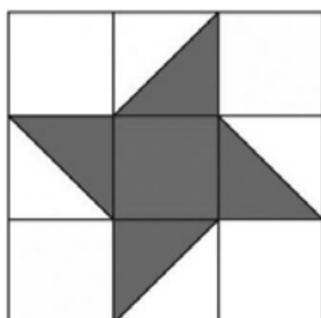
Ohio Star Block



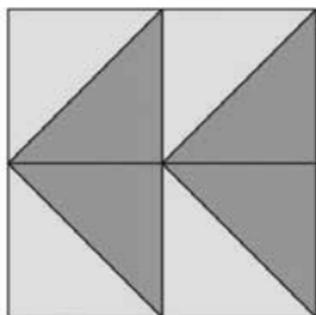
Pinwheel



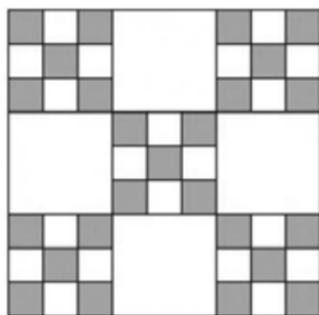
Hourglass



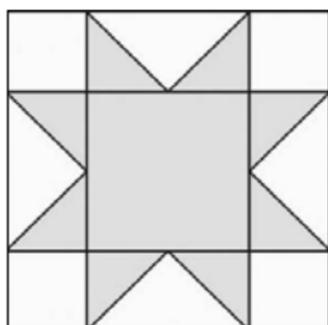
Friendship Star



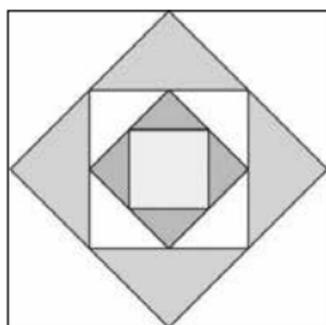
Flying Geese



Double Nine Patch



Sawtooth Star



Square in a Square

# Quilt Cleaning & Care

We recommend washing fabric before quilting in case it may shrink. Use of color catchers are recommended to prevent fabric dye bleeding.

The best way to care for your finished quilted materials is by infrequent cleaning. But when they do need to be cleaned, follow these steps:

1. **Inspect-** Make sure there is no damage, loose threads or stretched seams. If there are, make any minor repairs while the quilt is still dry.
2. **Wash-** Use cold water with a dye-free, perfume-free detergent.
  - Machine wash on gentle with color catchers.
  - Hand wash by submerging quilt in a clean sink or tub and gently agitating for several minutes. Drain soapy water and refill with fresh water. Add ½ cup distilled white vinegar to remove detergent residue. Continue rinsing until the water is suds free.
3. **Dry-**
  - Set dryer to tumble dry with low or no heat until quilt is damp, then let air dry. Don't machine dry completely.
  - Air dry flat to prevent threads from breaking under the weight of the wet fabric. Remove initial wetness by wrapping quilt in a towel sandwich. Roll and squeeze out water. Lay on flat rack or towels to dry.

Before placing in storage, make sure quilted items are clean. Store flat in a dry area with a stable temperature in cotton or muslin bags. Occasionally remove from bags to get fresh air.

# Fabric Calculator

Fabric needs will vary by project. Quilt top needs will depend on pattern and block size but typically require a large quantity of small cuts of fabric. You will, however, need large amounts of fabric batting and backing. The general recommendation is about 4 inches of excess on all sides of your quilt top as the quilting process will pull up the layers and slightly shrink the final product. Without excess beyond the edges, the batting can draw up between the layers.

For larger quilting projects, such as bed-sized quilts, you may need to piece together two cuts of fabric to make a quilt back, as many quilting cottons are only 42 to 44 inches wide. As an alternative, you can use extra-wide quilting fabric that's up to 108 inches wide.

Standard quilt sizes for finished projects are:

Wall	29 x 29 inches
Crib	45 x 60 inches
Throw	50 x 65 inches
Lap	60 x 72 inches
Twin	72 x 90 inches
Double/Full	81 x 96 inches
Queen	90 x 108 inches
King	108 x 108 inches
California King	120 x 120 inches

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