



Respect the Bias

By Kelly Gallagher-Abbott

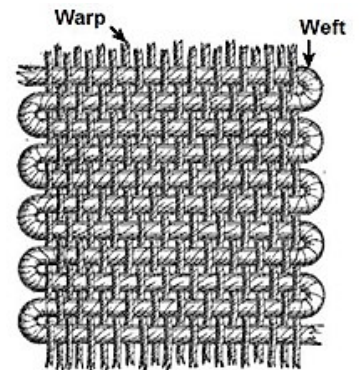
In any context beyond fabric, this title means something entirely different, but when it comes to fabric there are some pretty important rules. We see a lot of quilts that come in for quilting where a new quilter has designed a pattern that doesn't respect the bias. The individual trying to make the quilt may also be a new quilter that follows the pattern not realizing it was not well designed, adds to the problem by using steam in an iron, and then wonders why the borders won't fit or there are 30 foot ocean waves all around the edges that are never going to lay flat.

One of the rules we have here is to never use steam. Ever. Never ever. If we need to steam out a fold on a large flat piece of fabric or a backing, we use a spray bottle to mist the fabric, but for piecing it's a no-no. Spray starch is appropriate at times, like before cutting a yard of fabric into smaller pieces, but after that, forget about it. Once you start cutting smaller pieces and sewing things together it can contribute to permanent distortion.

The other rule is that all of the edges of every unit of a quilt should be straight of grain. Every block, and around the quilt center (where all blocks combined before borders are added).

Some basic information: fabric is woven with long threads extending hundreds of yards parallel to the selvage edge. These threads, also called warp or longitudinal threads, are pulled tight during weaving. This is the strongest, most stable direction of the fabric and can also be referred to as lengthwise grain. **Ideally, long strips should be cut parallel to the selvage for borders, etc.** They will have the least amount of stretch.

The second most stable direction is crossgrain, perpendicular to the selvages (weft threads). On quilting fabrics, these are generally 42-44" long (before they reverse direction), and don't have tension on them during the weaving process. Let's say you cut 5" strips crossgrain for a border, then piece them end to end or on a diagonal to make them the length you need. This unit will stretch a lot more than one long piece cut parallel to the selvages. It may use more fabric, but your quilt will be much flatter and easier to quilt with borders cut parallel to the selvages. Cutting binding this way is also very stable for a wall piece (I'll talk about bias binding in the next newsletter).



[Image Source](#)

Independent Authorized Innova Quilting Machine, Juki,
and Bravo 16 Needle Embroidery Machine Dealer

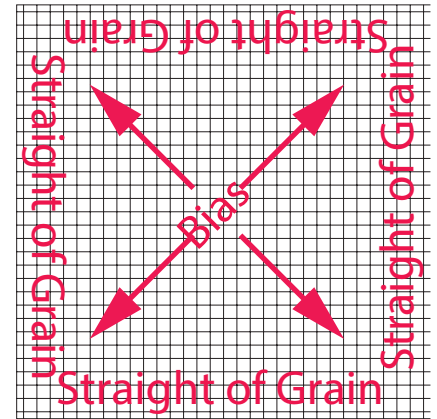
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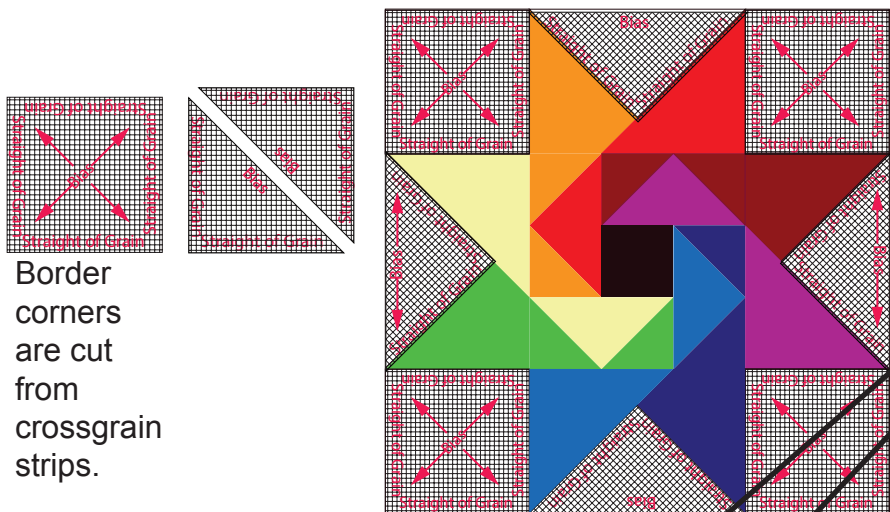
The worst thing you can have on the outer edge of a block or center of the quilt is bias. Inexperienced pattern designers don't always get this. Bias is at a 45 degree angle to the warp and weft threads and has a huge amount of stretch. (There are times this stretch is desirable, like for binding curves or scallops or for stems in appliqué that curve).



Square cut with the grains along all edges make up the corner blocks.

Note the 45 degree lines indicate the bias.

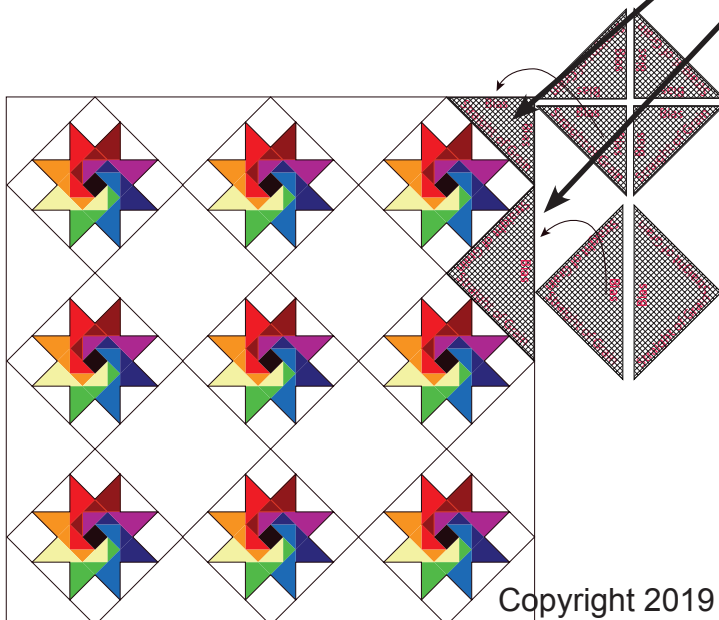
Here's an example of a badly designed block or quilt top. Setting triangles go around the edges. If these are made from 1/2 square triangles, you end up with bias all around the outer edge.



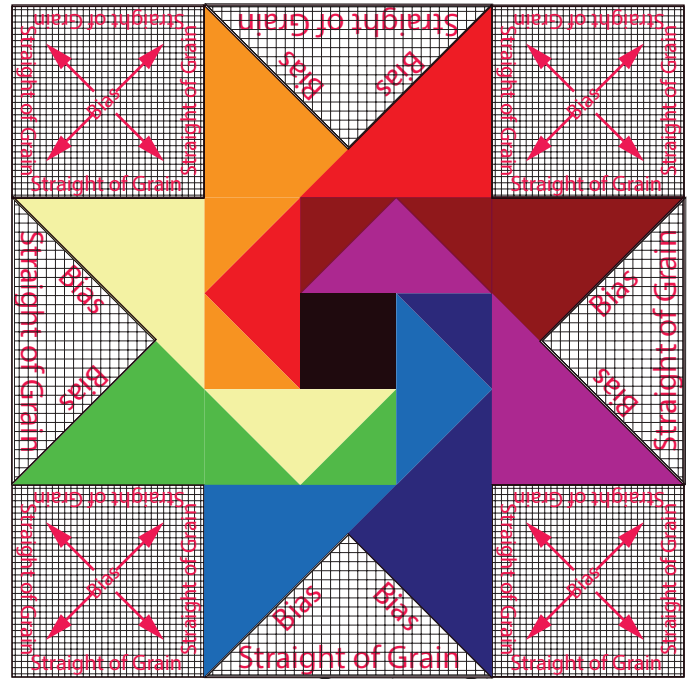
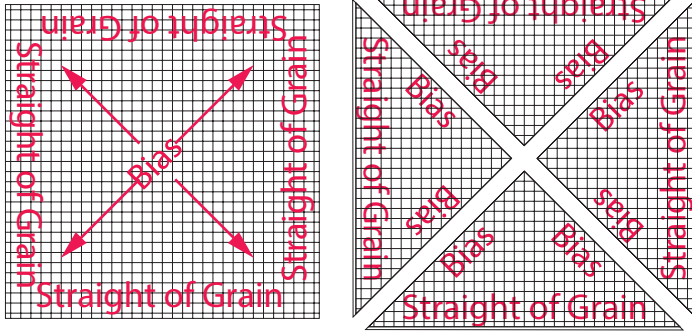
The wrong way to do setting triangles

Top Tip:

We never iron backs before loading them on the quilting machines. We make sure they are square (by tearing, especially on widebacks), then we load them, wrinkles and all. We mix 1 Tbsp. of Wrinkle Release (unscented if we can find it) in a large plant mister spray bottle full of water. Spray the backing as you advance and reverse it on your table and add a little tension. It dries quickly and the back will be perfectly pressed!



Instead, these should be made with quarter square triangles which keeps the straight of grain all around the perimeter of the block.

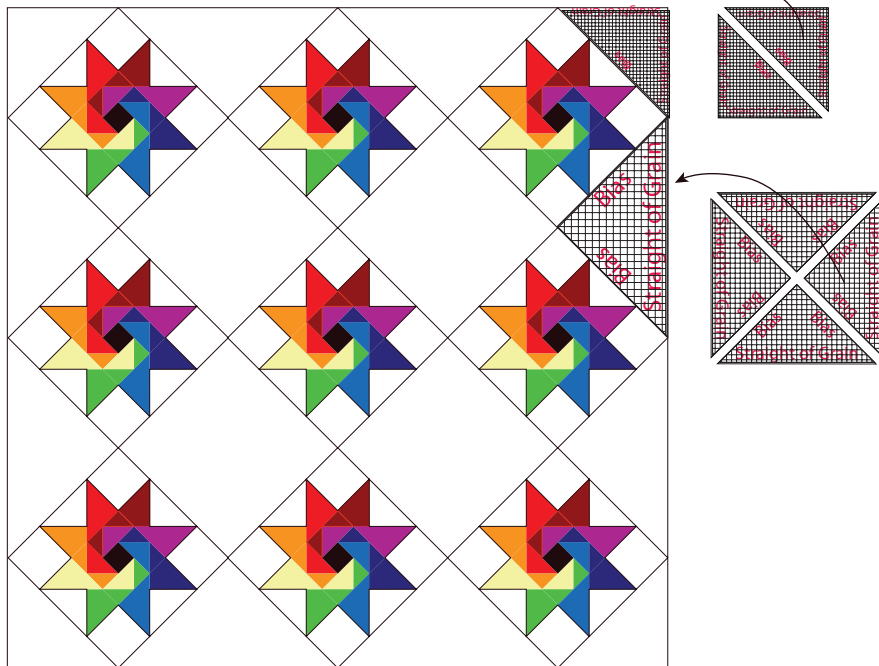


Spectrum Star

Designed by Kelly Gallagher-Abbott
Jukebox Quilts
Available as a laser cut kit.

Half square triangles are cut 7/8" larger than the finished size.
Quarter square are cut 1 1/4" longer than finished size.

The corner triangles should be 1/2 square triangles to keep the straight of grain on the outer edge.



Try a little test. Cut a 3" square, then cut it into two triangles on the bias. Pull all three sides and you'll see how much stretch you can get on the bias. Add steam and iron and it's permanent stretch, possibly adding over 1/2" or more to the long edge of the triangle. It will no longer fit where you want it to fit.

For more information on properly adding borders to a quilt, see my article on preparing a quilt for longarm quilting [here](#).