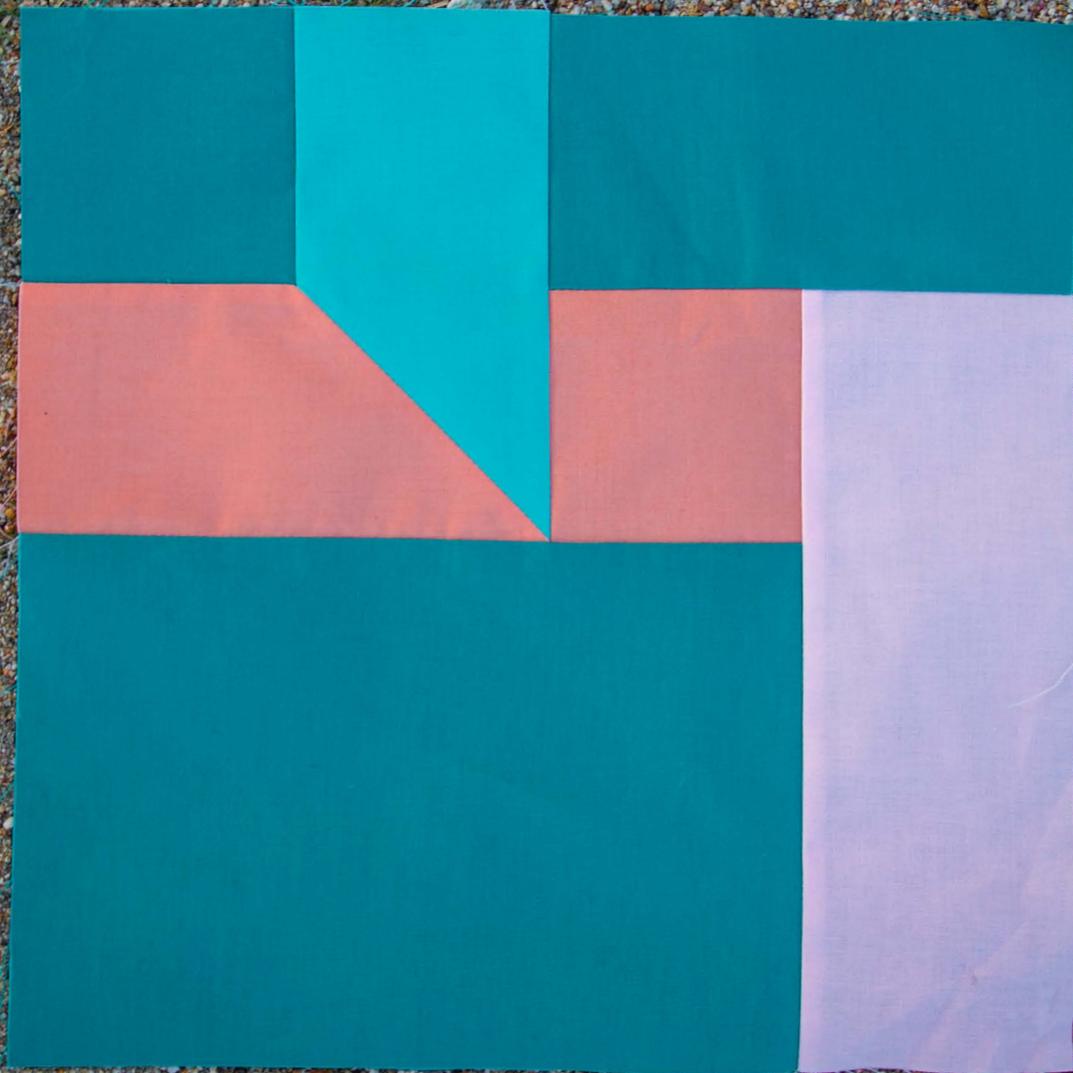


TESSERACT

BY SARAH RUIZ



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INTRODUCTION

The MQG Journal is a quarterly collection of modern quilting patterns, articles, webinars and blocks presented by The Modern Quilt Guild. Full patterns and resources are available to MQG members at themqg.org/resources.

ABOUT

The Modern Quilt Guild's mission is to support and encourage the growth and development of modern quilting through art, education and community. © 2022 by Sarah Ruiz and The Modern Quilt Guild. All rights reserved. This pattern may not be reproduced, sold, commercialized or distributed in any manner whatsoever without the express written permission of Sarah Ruiz and The Modern Quilt Guild.

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ABOUT SARAH RUIZ

Sarah Ruiz is a quilter and aerospace engineer from Houston, TX. Her creative and technical sides have always been intertwined, from drawing Disney characters and memorizing constellations as a kid to taking humans back to the moon and dreaming up new quilts today. Quilting perfectly combines her engineering and artistic mind sets, and she loves the puzzle-solving required to turn an idea into reality. Her quilts feature bright colors, bold lines, and graphic shapes that are easy to make but pack a visual punch.

FINISHED SIZE

12" x 12"

SKILL LEVEL

CONFIDENT

BEGINNER



ABOUT THE BLOCK

Tesseract is designed to help you master Y-seam and partial seam piecing techniques. Choose a single color palette for a cohesive, ordered quilt — or go scrappy and see what happens!



MATERIALS

This block can be made with 3-6 different fabrics depending on the desired look. For this tutorial, the block will be made with 4 fabrics, A-D (Figure 1). The fabric requirements below are enough to make 2 blocks.

Fabric A: fat eighth
Fabric B: 10" square
Fabric C: 10" square
Fabric D: 10" square

Materials used in samples include:

Moda Bella Solids in
Caribbean 9900-86,
Lagoon 9900-270,
Coral 9900-147,
Saffron 9900-232,
Citrine 9900-211,
Sunshine 9900-130, and
Baby Pink 9900-30

GENERAL INSTRUCTIONS

Read through all instructions before beginning. All seam allowances are $\frac{1}{4}$ ".

CUTTING INSTRUCTIONS

From Fabric A, cut:

- (1) $6\frac{1}{2}$ " x $9\frac{1}{2}$ " rectangle (A3)
- (1) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangle (A2)
- (1) $3\frac{1}{2}$ " x $3\frac{1}{2}$ " rectangle (A1)

From Fabric B, cut:

- (1) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangle (B1)
- (1) $3\frac{1}{2}$ " x $3\frac{1}{2}$ " rectangle (B2)

From Fabric C, cut:

- (1) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangle

From Fabric D, cut:

- (1) $3\frac{1}{2}$ " x $9\frac{1}{2}$ " rectangle

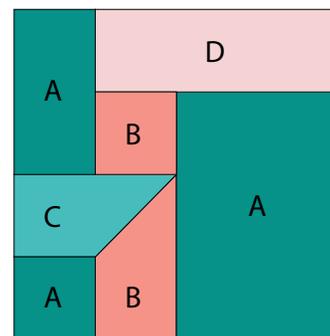


FIGURE 1

BLOCK ASSEMBLY

The Tesseract block is constructed in two parts. The Y-seam unit at lower left is created first. That unit then joins three additional rectangles to surround a center square (Figure 2).

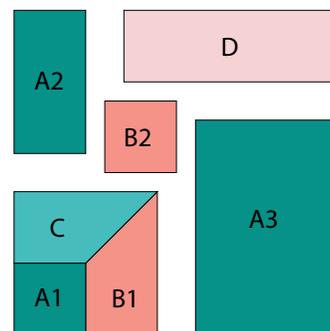


FIGURE 2

PIECING INSTRUCTIONS

1. On the wrong side of the $3\frac{1}{2}$ " x $6\frac{1}{2}$ " B1 and C rectangles, mark a 45-degree line from the bottom corner toward the top middle. On piece B1, the line should start at the bottom left corner; on piece C, the line should start from the bottom right corner. Cut $\frac{1}{4}$ " outside each marked line to create a pointed end. The bottom corner will be squared off (Figure 3).
2. Mark an additional $\frac{1}{4}$ " seam allowance along the short side of each pointed rectangle. On the wrong side of the $3\frac{1}{2}$ " A1 square, mark $\frac{1}{4}$ " from two adjacent edges. The intersections of the marked lines, shown by the black dots, are where you will begin each part of the Y-seam (Figure 4).

Tip: Marking ensures accuracy, but can be time consuming. For a quicker way to mark without a specific tool, try folding each top corner in half to create a crease, then use the crease as the reference point for where to start and stop sewing. As you gain experience, you may also find that you are able to "eyeball" these seam intersections and still achieve satisfactory results.

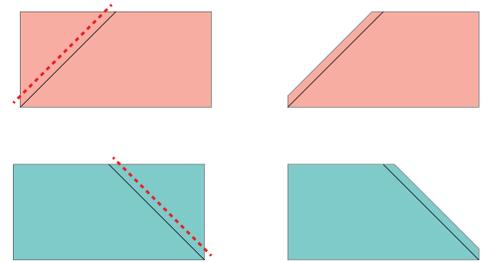


FIGURE 3

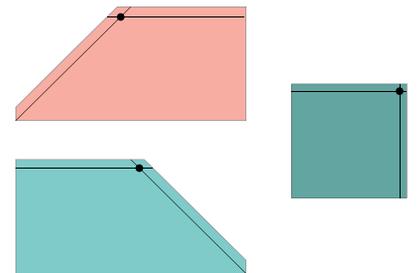


FIGURE 4

3. Align pieces A1 and B1 with right sides together, with the bottom edges even as shown. The pointed tail of B1 will extend past the A1 square (Figure 5). Lower your needle at the marked start point, sew 1-2 stitches forward, then backstitch, without going beyond the marked start point, to secure.
4. Sew the length of the seam, to the edge of the fabric pieces. Backstitch if desired, and finger press the seam away from Fabric A (Figure 6).

Tip: Wait until the unit is complete before pressing with an iron. This makes it easier to manipulate the unit and seam allowances as needed to sew the Y-seam.

5. Align piece C right sides together with the adjacent side of the A1 square as shown. The marked start point should fall on top of the A1-B1 seam line (Figure 7). Lower your needle at the marked point, making sure the needle passes only through pieces A1 and C. Sew 1-2 stitches forward, then backstitch, without going beyond the marked start point, to secure.

Tip: You can feel for the "bump" of the A1-B1 seam line underneath piece C to help ensure your start/end points are positioned correctly and that your seams will meet, but not overlap.

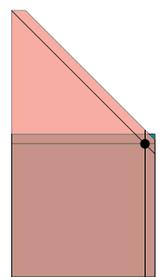


FIGURE 5

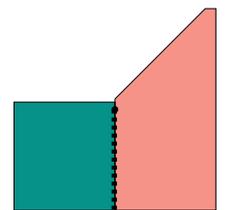


FIGURE 6

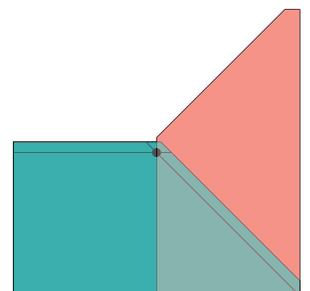
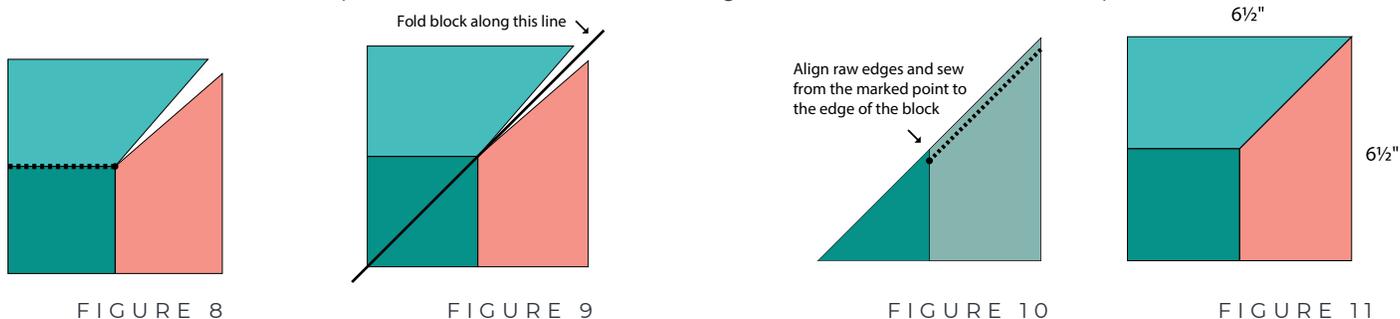


FIGURE 7

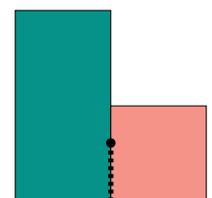
PIECING INSTRUCTIONS (continued)

- Sew the length of the seam, all the way to the edge of the fabric pieces. Backstitch if desired, and finger press the seam away from piece A1 (Figure 8).
- There is one remaining seam in this unit. Gently fold the block in half diagonally (Figure 9) and align the raw edges of piece B1 and C. Lower your needle at the marked start point, sew 1-2 stitches, then backstitch, without going beyond the marked start point, to secure.
- Sew the length of the seam, all the way to the edge of the fabric pieces (Figure 10). Backstitch if desired, then press the seams with an iron to complete the $6\frac{1}{2}$ " x $6\frac{1}{2}$ " Y-seam unit (Figure 11). Set this unit aside until step 11.



Note: For clarity, Figures 12-17 show the block as it appears after the pieces are stitched together and finger pressed open.

- Align the bottom edges of pieces A2 and B2 with right sides together. Since A2 is a rectangle, it will extend beyond B2.
- Starting from the edge where the pieces are aligned, begin sewing the seam. Stop when you are $\frac{1}{2}$ " from the edge of piece B2 (indicated by the black dot), and backstitch to secure. Finger press the seam open or towards A2 as desired (Figure 12).



- Align the Y-seam unit from step 8 right sides together with the bottom of unit A2-B2. This time, the edges align evenly, and you can sew the full length of the seam. Finger press the seam open or towards piece C as desired (Figure 13).
- Continue to build the block by adding pieces A3 (Figure 14) and D (Figure 15). Finger press each seam open or towards the outside of the block. Tip: As you add the final piece D, you may need to fold piece A2 out of the way to make sure it doesn't get caught in your stitching.

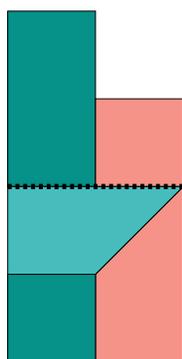


FIGURE 13

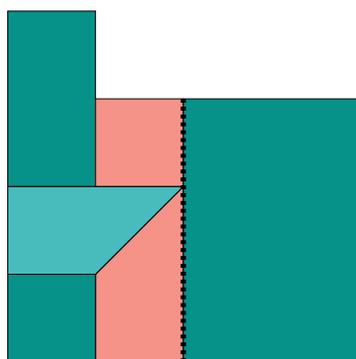


FIGURE 14

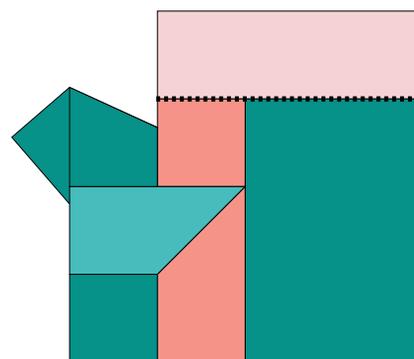


FIGURE 15

PIECING INSTRUCTIONS (continued)

- All block pieces are now attached, but the "tail" of piece A2 is still loose. Align the B2-D edge with piece A2; you will need to gently fold the block to make this possible. (Figure 16) Lower your needle where the partial seam from step 10 ended, backstitch to secure, and finish the seam. (Figure 17)
- The Tesseract block is complete! The block measures $12\frac{1}{2}" \times 12\frac{1}{2}"$ (unfinished size).

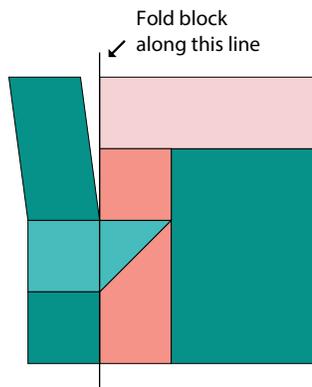


FIGURE 16

Align raw edges and sew from the marked point to the edge of the block

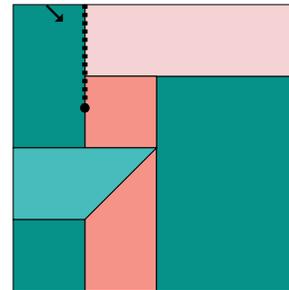


FIGURE 17

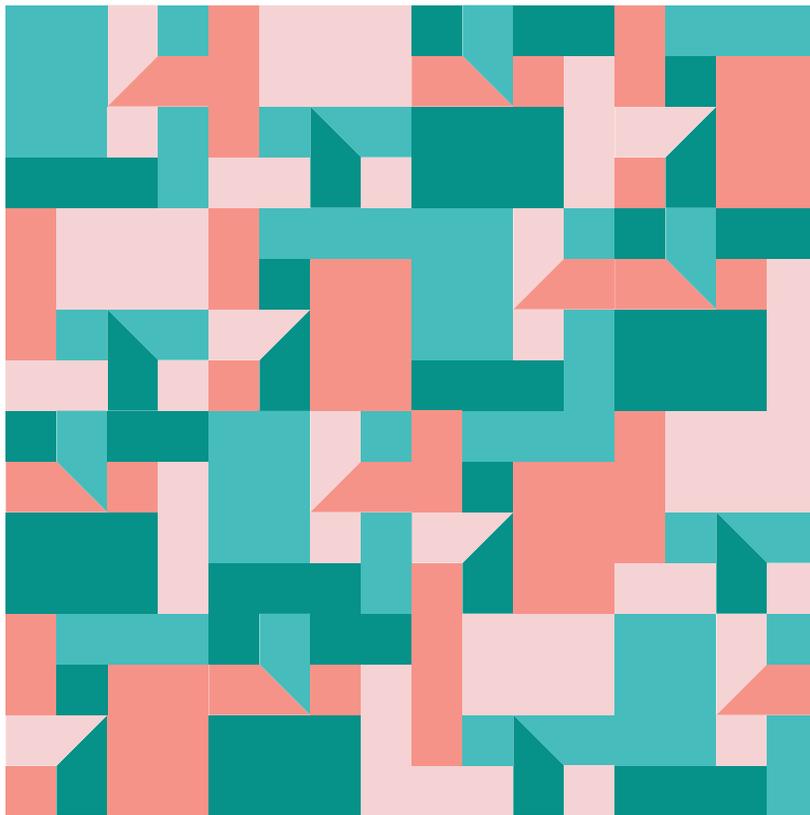


FIGURE 18

MAKE IT SCRAPPY

Figure 18 shows a 48" square baby size quilt made from 16 blocks. Fabrics A-D have been shuffled to create four different versions of the block, and each version is oriented in a different direction.

QUILT POSSIBILITIES

Figure 19 shows a 54" x 68" throw size quilt that features a different 4-color version of the block. All 20 blocks are the same, but alternating blocks are rotated by a quarter turn. By using the same fabric for both 3½" squares and 2½"-wide sashing, the blocks appear to float on the quilt top.

From aqua fabric - 1¼ yards, cut:

- (4) 3½" x WOF strips. Subcut:
 - (40) 3½" squares (A1 and B2)
 - (11) 2½" x WOF strips. Subcut:
 - (15) 3½" x 12½" rectangles
- reserve (6) strips to make (4) 2½" x 54½" sashing strips

From light gold fabric - ½ yard, cut:

- (4) 3½" x WOF strips. Subcut:
 - (20) 3½" x 6½" rectangles (B1)

From yellow fabric - 1 yard, cut:

- (9) 3½" x WOF strips. Subcut:
 - (20) 3½" x 9½" rectangles (D)
 - (20) 3½" x 6½" rectangles (C)

From dark gold fabric - 1½ yards, cut:

- (5) 6½" x WOF strips. Subcut:
 - (20) 6½" x 9½" rectangles (A3)
- (4) 3½" x WOF strips. Subcut:
 - (20) 3½" x 6½" rectangles (A2)

Backing - 3½ yards

Binding - ⅝ yard

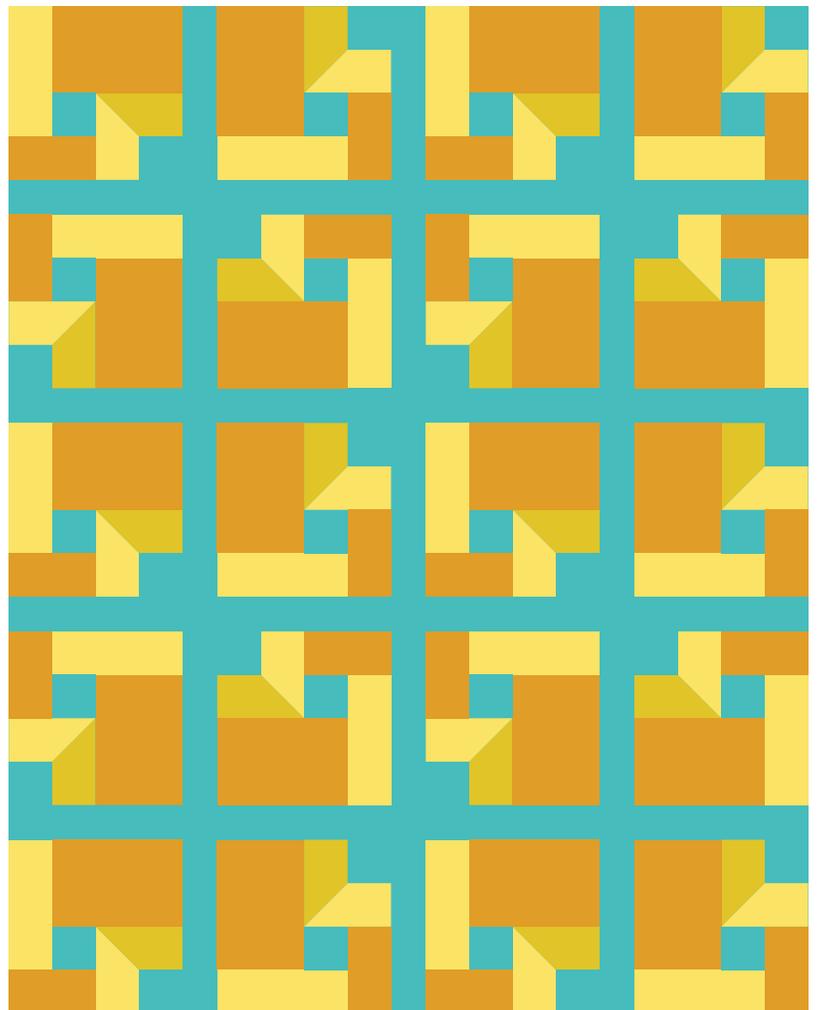
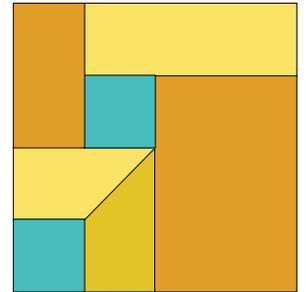


FIGURE 19

QUILT POSSIBILITIES

Figure 20 shows a 16-block 48" square baby size quilt using a 6-color version of the block. Blocks have been arranged in groups of four and rotated to form pinwheels.

From yellow fabric - $\frac{1}{3}$ yard, cut:

- (2) $3\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $3\frac{1}{2}$ " squares (A1)

From light gold fabric - $\frac{5}{8}$ yard, cut:

- (5) $3\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangles (B1)
 - (16) $3\frac{1}{2}$ " x $3\frac{1}{2}$ " squares (B2)

From dark gold fabric - $\frac{3}{8}$ yard, cut:

- (3) $3\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangles (C)

From pink fabric - $\frac{3}{8}$ yard, cut:

- (3) $3\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $3\frac{1}{2}$ " x $6\frac{1}{2}$ " rectangles (A2)

From light aqua fabric - $\frac{7}{8}$ yard, cut:

- (4) $6\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $6\frac{1}{2}$ " x $9\frac{1}{2}$ " rectangles (A3)

From dark aqua fabric - $\frac{1}{2}$ yard, cut:

- (4) $3\frac{1}{2}$ " x WOF strips. Subcut:
 - (16) $3\frac{1}{2}$ " x $9\frac{1}{2}$ " rectangles (D)

Backing - $3\frac{1}{4}$ yards

Binding - $\frac{1}{2}$ yard

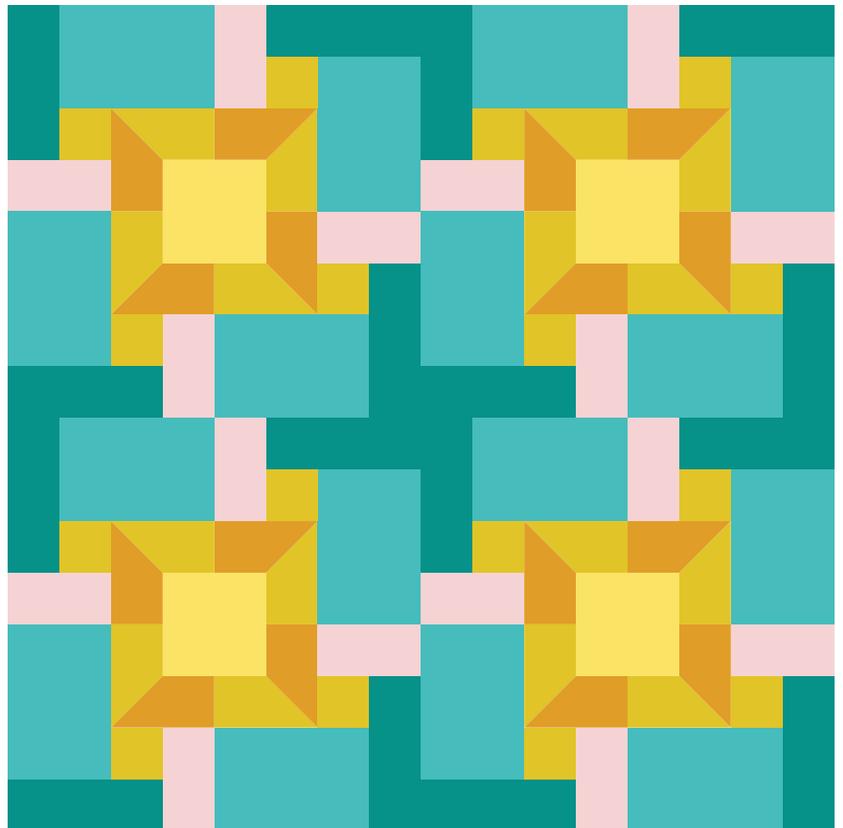
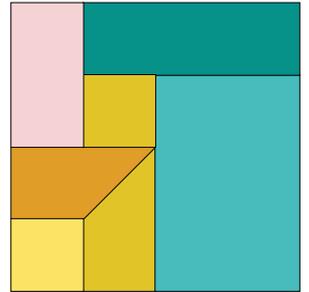


FIGURE 20



APREMOO

by TaMara Howard



FRONTIER STAR

by Lindlee Smith

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DECO BREEZE

by Kristyn Jansen



ABOUT THIS PATTERN

The Modern Quilt Guild's mission is to support and encourage the growth and development of modern quilting through art, education and community.

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