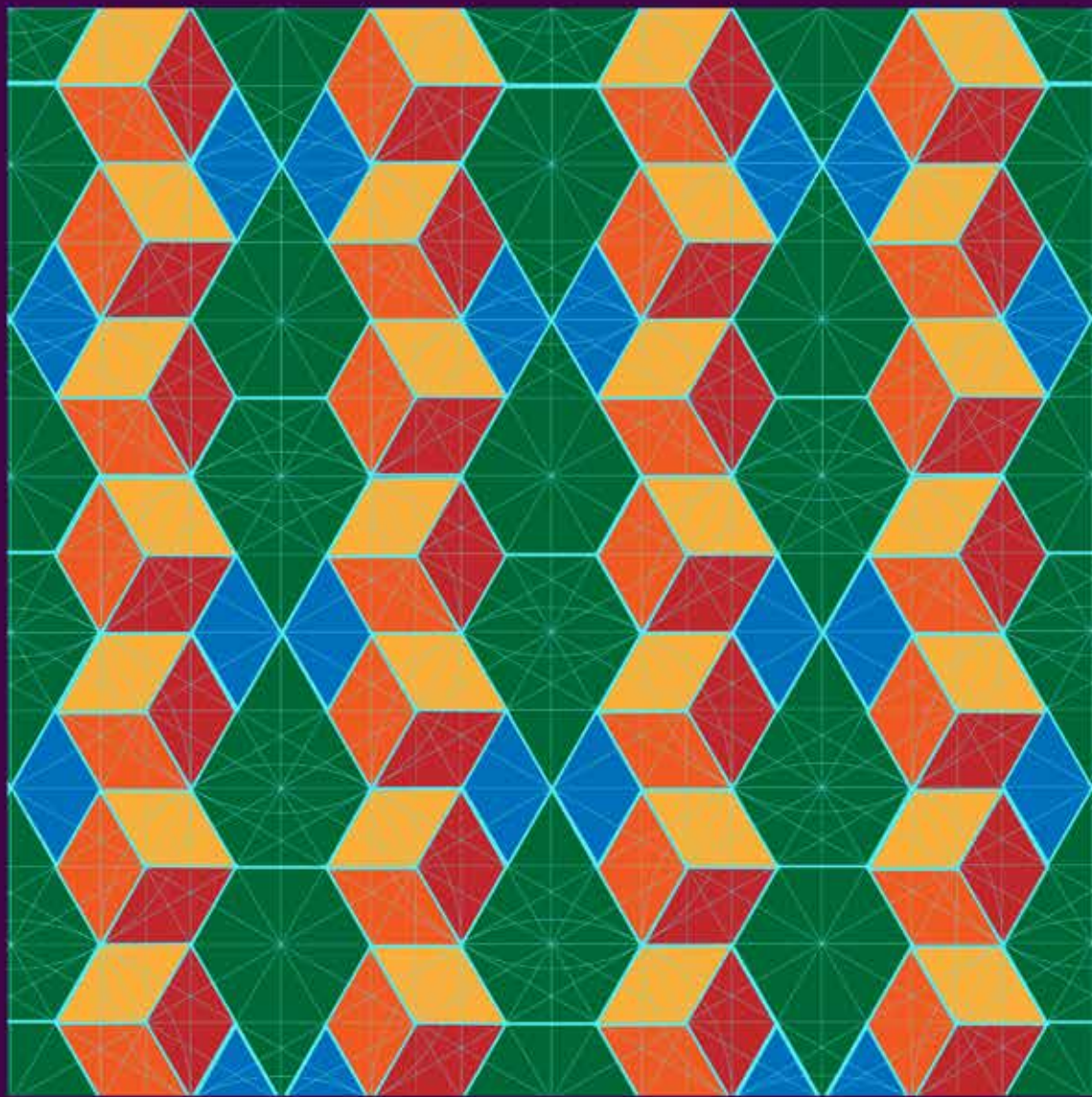


# GEOMETRIC COLORING DESIGNS

## 5–Advanced Tessellations



# DENISE GASKINS

AUTHOR OF *LET'S PLAY MATH: HOW FAMILIES CAN LEARN MATH TOGETHER AND ENJOY IT*

# Advanced Tessellation Patterns

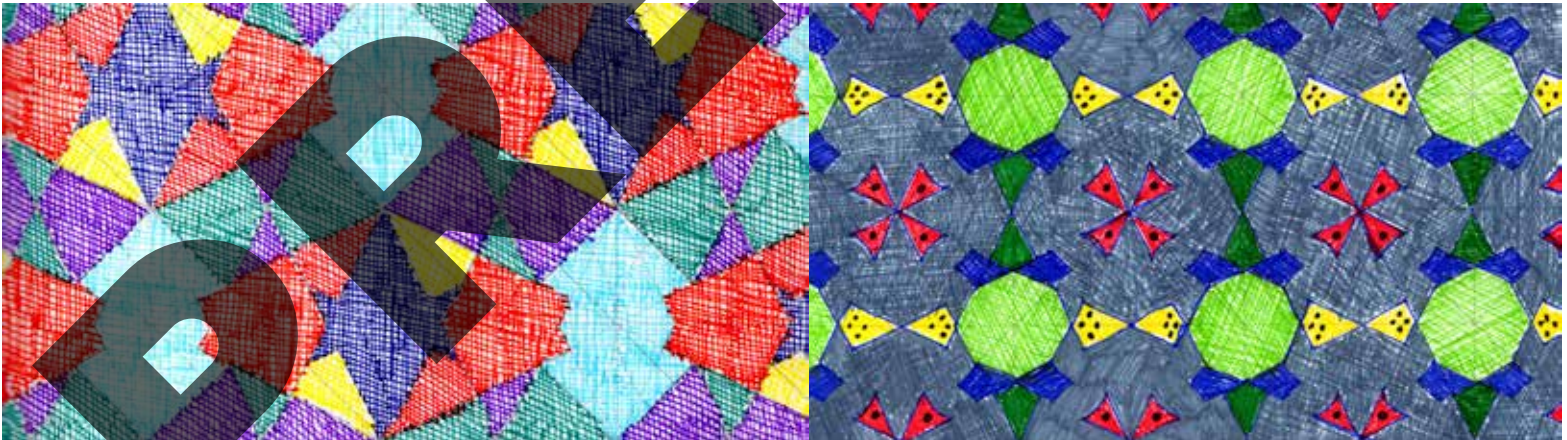
## Guidelines for Creative Play

ON THE TEMPLATE PAGES IN this math art activity guide, each construction guideline represents a choice for the creative artist. Each page will be different for every person. And whenever you come back to the same template, you'll discover a fresh design.

Some of the templates are based on classic Islamic tessellation patterns, others on geometric relationships that seem interesting.

- Print any template page and study the guidelines until you find a shape you like—perhaps a triangle, kite, or star. Trace it with your pencil. Then search out repetitions or rotations of your chosen shape.
- Look for a complementary shape between or overlapping the copies of your original discovery.
- Trace any additional lines you need to weave the shapes together into a design.
- Ignore the template lines that don't fit the design you are building. The light blue will disappear under the colors you apply.

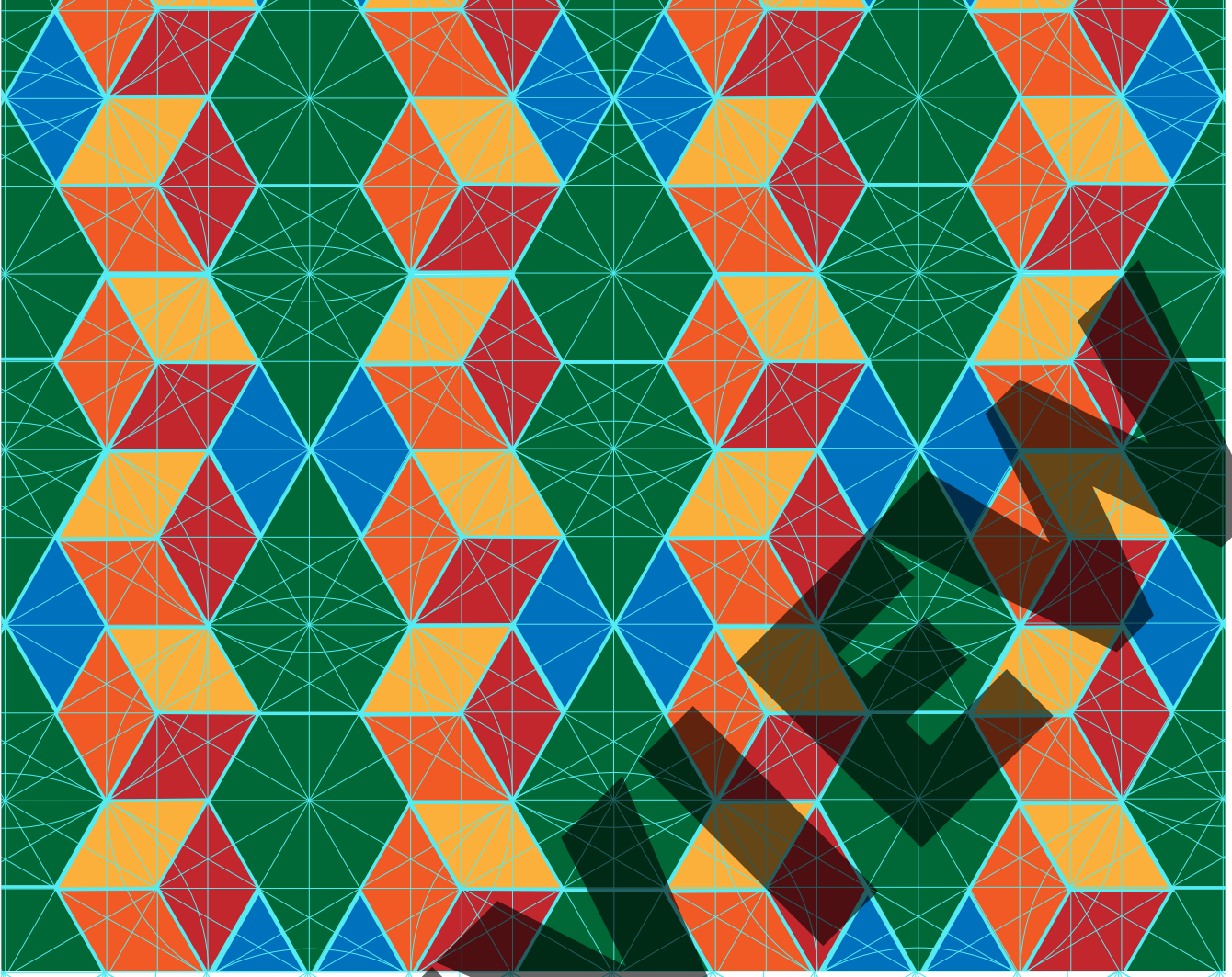
For example, below are two very different patterns my daughter and I created, both using the same template page. We even used a few of the same shapes, in almost the same colors. Can you find the similarities?



On the next page, I've copied the Falling Blocks illustration from the cover of this booklet, along with the template I used to create it. I made the template lines visible in the final image. Can you figure out how I built each shape?

Finally, you might be interested in how geometric tessellations show up in history. Visit Alex Bellos's article [Muslim Rule and Compass: The Magic of Islamic Geometric Design](#) to discover what kind of design Islamic artists created with the first template (on page four of this preview).

**PRE**



**PREVIEW**

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