

Textile Designs and Math

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Teaching Artist

objectives

- Identify patterns in textile designs
- Use a grid to create a pleasing textile design
- Explore and decode a variety of grid designs in fashion
- Explore how math ideas can build pleasing designs

Batik

- Wax or resist—when applied to fabric, prevents dye from penetrating
- Stamps—carved blocks
- Dye—liquid color for fabric
- Pattern—repeated decoration



Batik artists: use stamps, dyes and **resist** to create unique designs on fabric



Nigerian-born Gasali Adeyamo is a world-renowned **indigo fiber artist** known for his work in batik, tie dye, and cassava paste resist methods.



handmade textile, fashion and art by Muiyiwa Togun of Philadelphia

Designs of Roy Urban, Philadelphia

Terms

Art

Textile

Design-block print

Pattern

Grid

Ink

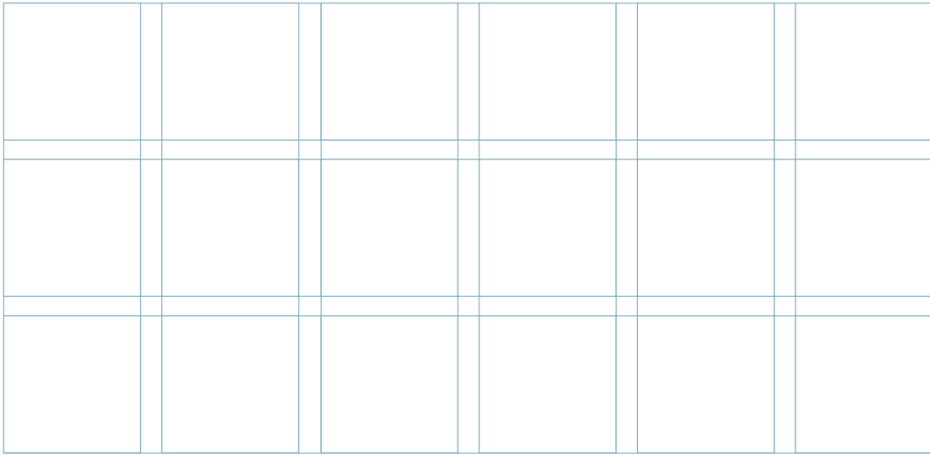
Straight edge/ruler

Healing mat

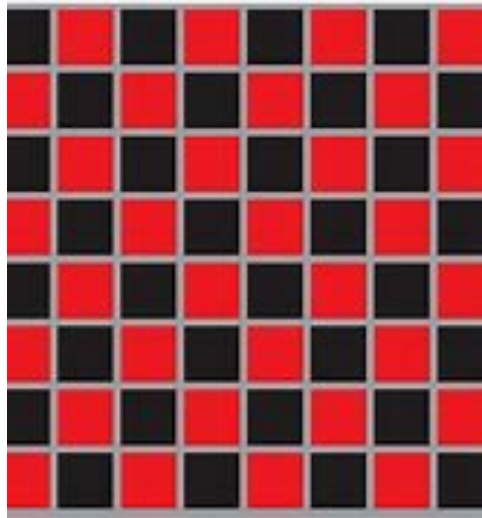
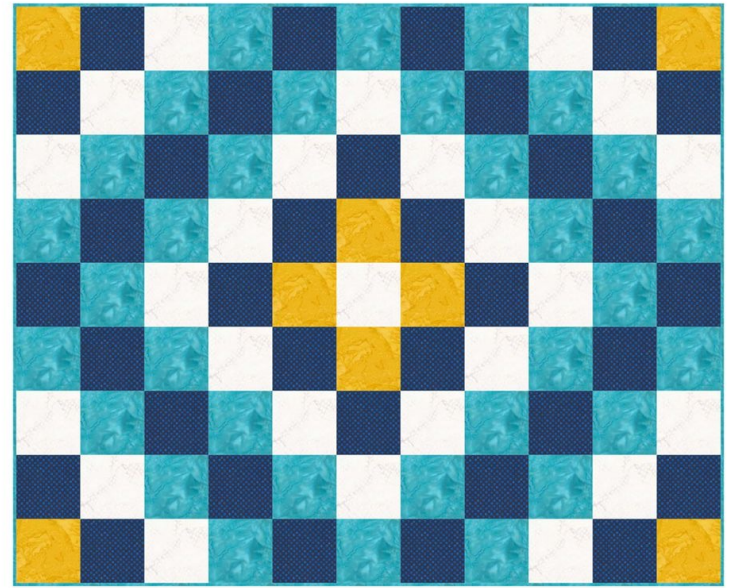
Printing block

Math

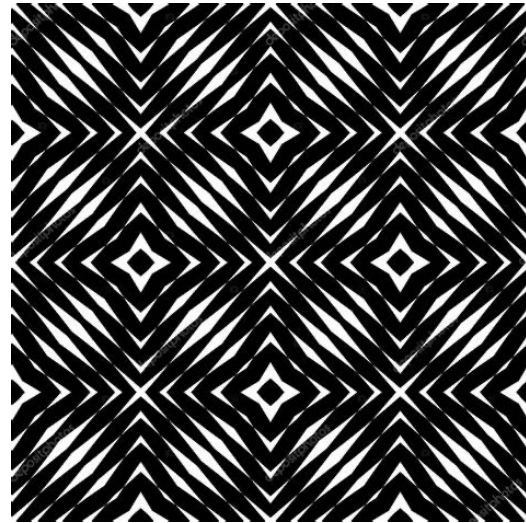
- Number patterns
- Array
- Multiplication table
- multiples



Grid: arrangement of rows and columns



Checkerboard grid pattern



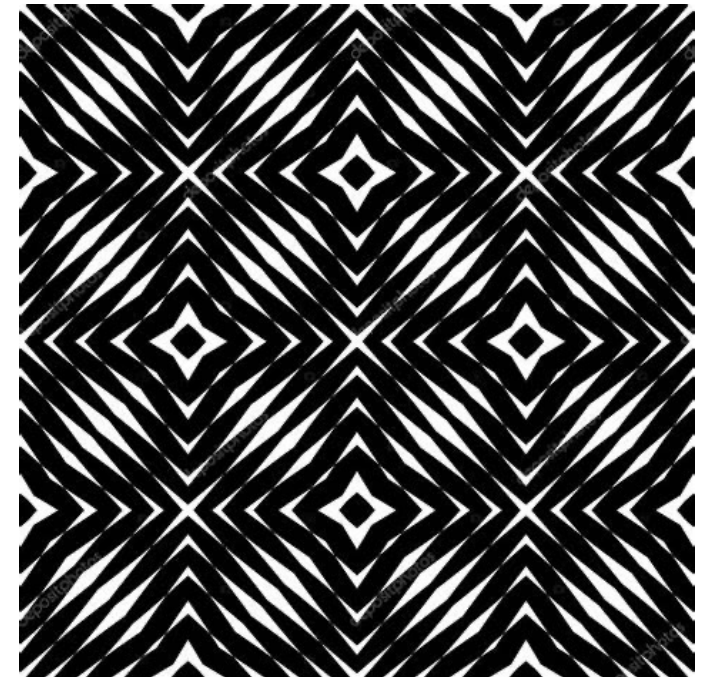
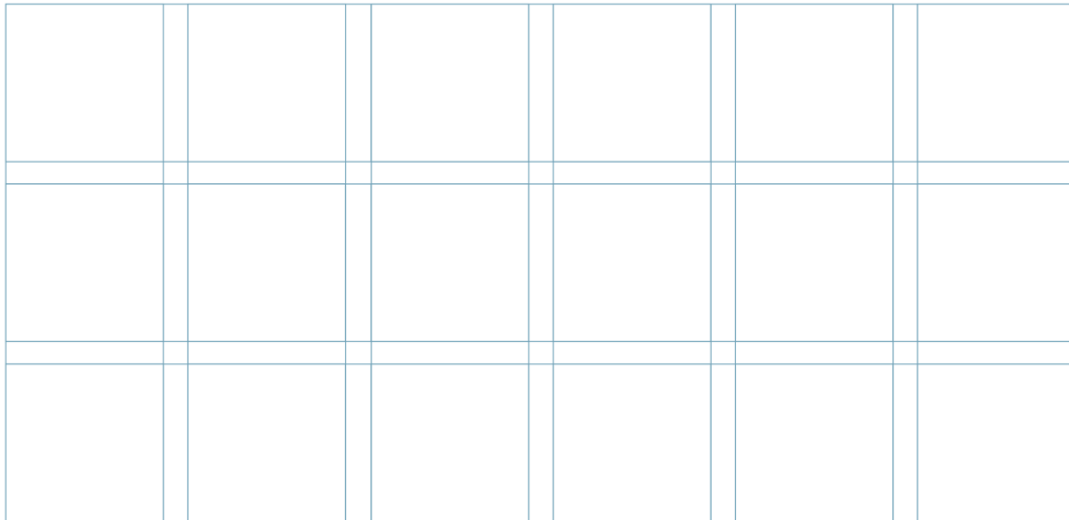
Mirror image grid pattern



Quilt patterns

create a grid design pattern

- Mark grid onto fabric: ruler, chalk, printing block
- Ink block, print the same design, same orientation
- Ink block, print the same design, vary orientation-checker board
- Ink block, print the same design, 4 square variation



Grids in Fiber arts Practice

- Gesali designs
- Roy Urban Designs-clothing, upholstery
- Adinkra gourd stamps, batik stamps
- CSG
 - Notebook, quilt designs
 - George Floyd Matters
 - Trayvon IV
 - carved woodblocks



Closing the circle

- Recognize the grid in textile design
- Grids in problem solving
 - Assign a 10 or 12 inch block per group or student
 - Assign various arrays, or multiplication tables
 - Assign different size stamps to fill the grid, 1 inch, 2 inch, 4inch
 - Predict how many will fill the grid
 - With filled grids, find different points on the grid (row 2, column 3)
- Tools for classroom use (Dollar store finds)
 - Grids on paper: Notepaper, stamps, pads, ruler, marker or pencil
 - Grids on fabric: Fabric, stamps, paint, ruler, marker or pencil
 - Design a quilt: With adult help, use the fabric block arrays in a quilt
 - Paper quilt blocks, quilts using 1 or 2 inch blocks of paper

References

- Cassandra Stancil Gunkel [Home | Cassandra Stancil Gunkel \(cstancilgunkel.wixsite.com\)](http://cstancilgunkel.wixsite.com)
- Roy Urban Kollektion LLC: [HOME | Textile, Art, Home & Fashion Designs \(royurbankollektion.com\)](http://royurbankollektion.com)
- Gasali Adeyemo: [Mood indigo: Gasali Adeyemo's textile designs | Art | santafenewmexican.com](http://santafenewmexican.com)