# Repetitive Patterns

## (art + math)

This lesson plan will help to develop basic knowledge of patterns and gain experience with repetition. It is fundamental and only a place to start in the study of pattern.

A pattern is a series of repeated design units. They can be repeated in a regular or irregular way. This lesson challenges students to discover pattern in a variety of places.

## **Grade Levels 3-8**

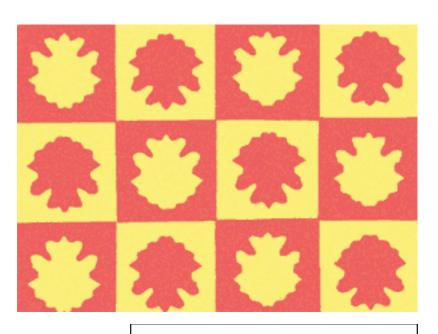
Note: instructions and materials based on a class of 25 students. Adjust as needed.

# **Preparation**

1. Discuss where patterns are found. In visual art, some of the places it can be found are fabrics, jewelry and mosaics. In music, students may recognize repeating patterns of note progressions, instrument sounds and lyrics. In the everyday world, patterns can be found anywhere - from grocery stores to packaging, to fast food restaurants.

#### **Process**

- 1. On one sheet of construction paper, students measure and cut out six 3" squares. For younger ages, it would help to pre-cut squares.
- 2. Fold one of the 3" squares and draw a simple design from the fold.
- 3. Cut out the design from the fold, leaving a hole in the square which is the same shape as the cutout part.
- 4. Using the first square, with cut-out shape as a pattern, trace the design and cut out the shapes from the remaining five squares.
- 5. Begin by placing one of the cut-out squares in one corner of the second sheet of construction paper. DO NOT GLUE YET.
- 6. Arrange the remaining cut-out squares on the paper in a checker-board style.
- 7. When the position of each square is determined, begin gluing them in place.
- 8. In the blank spaces, glue the shapes that were cut from the squares. For interest, turn them in an opposite direction from the cut-out shapes in the squares.



# **Materials**

Blick Premium Construction Paper, 80-lb (11409-1003), 50sheet package 9" x 12", need two sheets per student

Blick All-Purpose Glue (23872-1065), share one 8-oz bottle between two students

Snippy Scissors (57040-2009), package of 12, need one per student

Blick Plastic Ruler, 12" (55402-1012), need one per student

Blick Economy Graphite Pencils (20302-2009), box of 12, need one per student

# **Optional Materials**

Blick Premium Construction Paper, 80-lb Gold Metallic (11409-4073) and Silver Metallic (11409-2593), 50-sheet packages

Riverside™ Marbled Construction Paper (11418-1023) 50-sheet package, 9" x 12"

Riverside™ Confetti Construction Paper (11421-1023), 50-sheet package, 9" x 12"

### **Options**

- Finished projects can be displayed individually or assembled into an attractive and interesting ensemble. Attach together, one sheet under the other vertically or horizontally as a banner
- This project can be expanded to challenge the creativity of students by using more shapes and colors to form a regular pattern that will differ from the standard checker-board style design.
- Use colored pencils to draw details and enhance patterns.

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#### **National Standards**

<u>Content Standard #1</u> — Understanding and applying media, techniques, and processes

- **K-4** Students use art materials and tools in a safe and responsible manner
- **5-8** Students select media, techniques, and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices

<u>Content Standard #2</u> — Using knowledge of structures and functions

- **K-4** Students know the differences among visual characteristics and purposes of art in order to convey ideas
- **5-8** Students employ organizational structures and analyze what makes them effective or not effective in the communication of ideas

<u>Content Standard #6</u> — Making connections between visual arts and other disciplines

- **K-4** Students identify connections between the visual arts and other disciplines in the curriculum
- **5-8** Students describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual arts