

# Pathway to Polygons

Third Grade  
Adapted by C Moore

## CORE SUBJECT AREA

Math

## ART FORM + ELEMENTS

Dance

## MSCCR STANDARDS

3.G.1. Understand that shapes in different categories (e.g. rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals).

## MSCCR CREATIVE ARTS STANDARDS

DA: Pr5.1.3 Develop and refine artistic technique and work for presentation.

- a. Replicate body shapes, movement characteristics, and movement patterns in a dance sequence with awareness of body alignment and core support.
- b. Adjust body-use to coordinate with a partner or other dancers to safely change levels, directions, and pathway designs.
- c. Recall movement sequences

## DURATION

45-60 minutes

## OBJECTIVES

To identify and demonstrate a specified polygon with the body. To identify and demonstrate a pathway that models a specified polygon. To identify and describe polygons by their attributes.

## MATERIALS NEEDED

The Greedy Triangle by Marilyn Burns, Chart paper, makers, music (slow), paper shapes: triangle, square, rectangle, trapezoid, rhombus, pentagon, hexagon, and octagon, whiteboard, dry erase markers, pencils, student worksheet (attached in artifacts)

## VOCABULARY

Sides  
Angles  
Corners  
Parallel  
Polygon  
Triangle  
quadrilateral  
Rectangle

## RECOMMENDED RESOURCES

The Greedy Triangle by Marilyn Burns

## LESSON SEQUENCE

### Introduction

- The teacher will read The Greedy Triangle to the students.

- The teacher and the students will make an anchor chart drawing and labeling the polygons featured in the book.
  - This also includes drawing and labeling specific quadrilaterals--square, rectangle, trapezoid, rhombus.

### Transition

The teacher will have the students imagine that they have paint on their hands. The student will “paint” a polygon in the air with their hands.

The student will imagine that they have paint on their feet. Then, the students will “paint” a polygon with their feet on the floor.

1. Divide the students into groups of four.
2. Assign each group a shape (triangle, square, or rectangle.) For students that need a challenge assign a rhombus or trapezoid.
3. Allow the groups to practice their shape dance for the 1-2 minutes.
  - Everyone in the group makes the assigned shape individually, but at the same time and the freezes.
  - The teacher starts the music. When the music begins, each member of the group will use their shape as their own individual pathway.
  - When the music ends, the students will go back to their group and freeze in their shape all together. Example: If you are in the triangle group, you will start with all four dancers making one frozen triangle together. When the music starts, ou will each make your own triangle pathway. When the music stops, you will quickly move to your group and freeze in your first triangle shape.
4. Have them perform for the class, one group at a time.

## EXTENDED LEARNING ACTIVITIES

As the teacher rereads *The Greedy Triangle*, students will use geo-boards to make the shapes from the book. (The teacher will pause reading while the student make each shape.) Afterwards, the students will choose one shape to create on their geoboard, and then replicate that shape using construction paper. The students can add facial features to their shapes for fun!

## SOURCES

Adapted from: Kaufman, K.A., & Dehline, J. (2014). *Dance integration: 36 dance lesson plans for science and mathematics*. Champaign, IL: Human Kinetics

## TIPS + FREQUENTLY ASKED QUESTIONS

Best in a large open area  
Emphasize personal space