

Kindergarten Lesson Plan — Shapes

Overview

This series of lessons was designed to meet the needs of gifted children for extension beyond the standard curriculum with the greatest ease of use for the educator. The lessons may be given to the students for individual self-guided work, or they may be taught in a classroom or a homeschool setting. The lessons will need to be read to children who are below the reading level of the text. Assessment strategies and rubrics are included at the end of the unit. The lessons were developed by Lisa Van Gemert, M.Ed.T., the Mensa Foundation's Gifted Children Specialist.

Introduction

The ability to accurately identify shapes is a foundational mathematic skill, and it is quite rewarding for children because their world is full of shapes. Understanding shapes will enable students to be more in tune to the world around them and see the connections between objects, as well as being better able to appreciate artistic works.

Guiding Questions

- What are some basic shapes?
- Where are these shapes found?
- How can a child incorporate a knowledge of shapes into his/her life?

Learning Objectives

After completing the lessons in this unit, students will be able to:

- Identify specific shapes.
- Recognize shapes in the environment.
- Create original works of art using the shapes.

Preparation

- Read through each of the mini-lessons.
- Find the suggested materials you want to use.
- Make any copies needed and gather any materials you want to use.
- Choose appropriate extension activities.

Lesson 1. Introducing Shapes

Select a couple of books about shapes to introduce the idea. Some recommended choices are:

- *Shapes, Shapes, Shapes* by Tana Hoban
- *The Greedy Triangle* by Marilyn Burns
- *Round is a Mooncake* by Roseanne Thong
- *Food for Thought* by Joost Elffers
- *Museum Shapes* from the New York Metropolitan Museum of Art

Read them to the student and encourage thinking about the concept of all objects having shapes.



Shapes-1.1

Lesson 2. Identifying Shapes

Materials

- Standard set of eight crayons
- Sand, sugar, or flour
- Two small cups
- Container with fairly short sides (like a plastic food storage container or a small box)

Use the table below to give the child an overview of basic shapes. Go over them twice, then go on to the activities.

Shape	Sides	Corners	Need to Know
triangle	3	3	Yield signs are triangles, and a piece of bread can easily be cut into two triangles.
square	4	4	All sides are the same length. The boxes on a checkerboard are square.
circle			Stoplights are circles, and so are most dinner plates
oval			It looks like a squashed circle.
rectangle	4	4	It has two pairs of sides that are the same length. A ping-pong table is a rectangle.
rhombus	4	4	This is a diamond shape. All sides are the same length.
pentagon	5	5	Morning Glories are a pentagon shape, as is the Pentagon in Washington, D.C. and the cut side of okra.
parallelogram	4	4	It's like a rectangle that leaned over.
hexagon	6	6	Beehive honeycomb is hexagon-shaped, as are the skutes of a turtle shell
trapezoid	4	4	Only one pair of sides is parallel, and the sides that are parallel aren't the same length. If you cut the top off of a pyramid, you would have a trapezoid.
octagon	8	8	Stop signs are octagons, along with most umbrellas.

Identification Activity

After you have gone over the list twice, give the student the Shape Sheet at the end of this lesson and have him/her use the crayons to mark the shapes as you direct, reading through the directions on the next page. Feel free to give hints using the "Need to Know" section in the chart above.

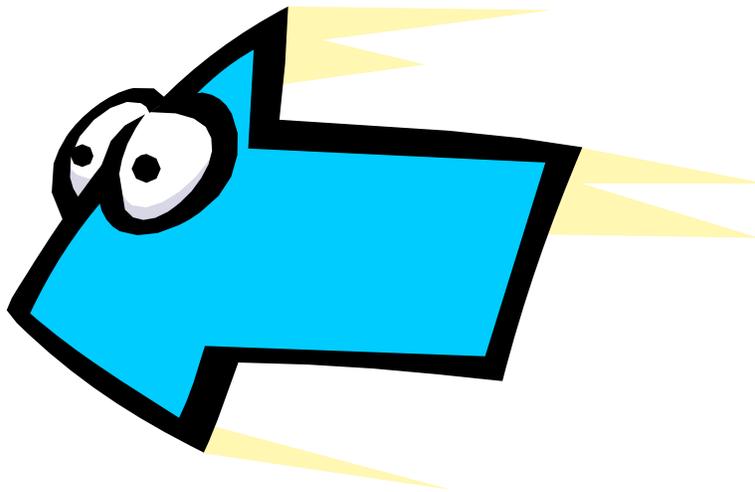
Drawing Activity

Next, the student will draw the shapes with a finger in sand, sugar, or flour.

To do this, put the two cups of sand, sugar, or flour in the container. The child should be able to reach into the container with ease.

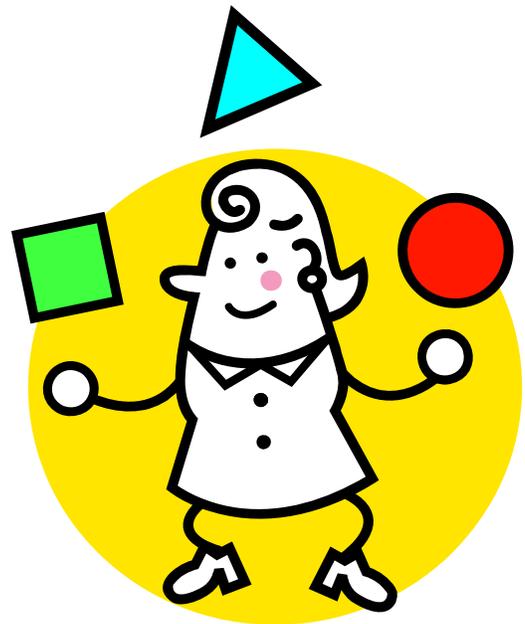
Allowing the child to reference the Shape Sheet, have the child draw the shapes with his or her finger.

If there is more than one child, allow them to share the exercise, with one child drawing a shape and the other identifying it, then exchanging roles.

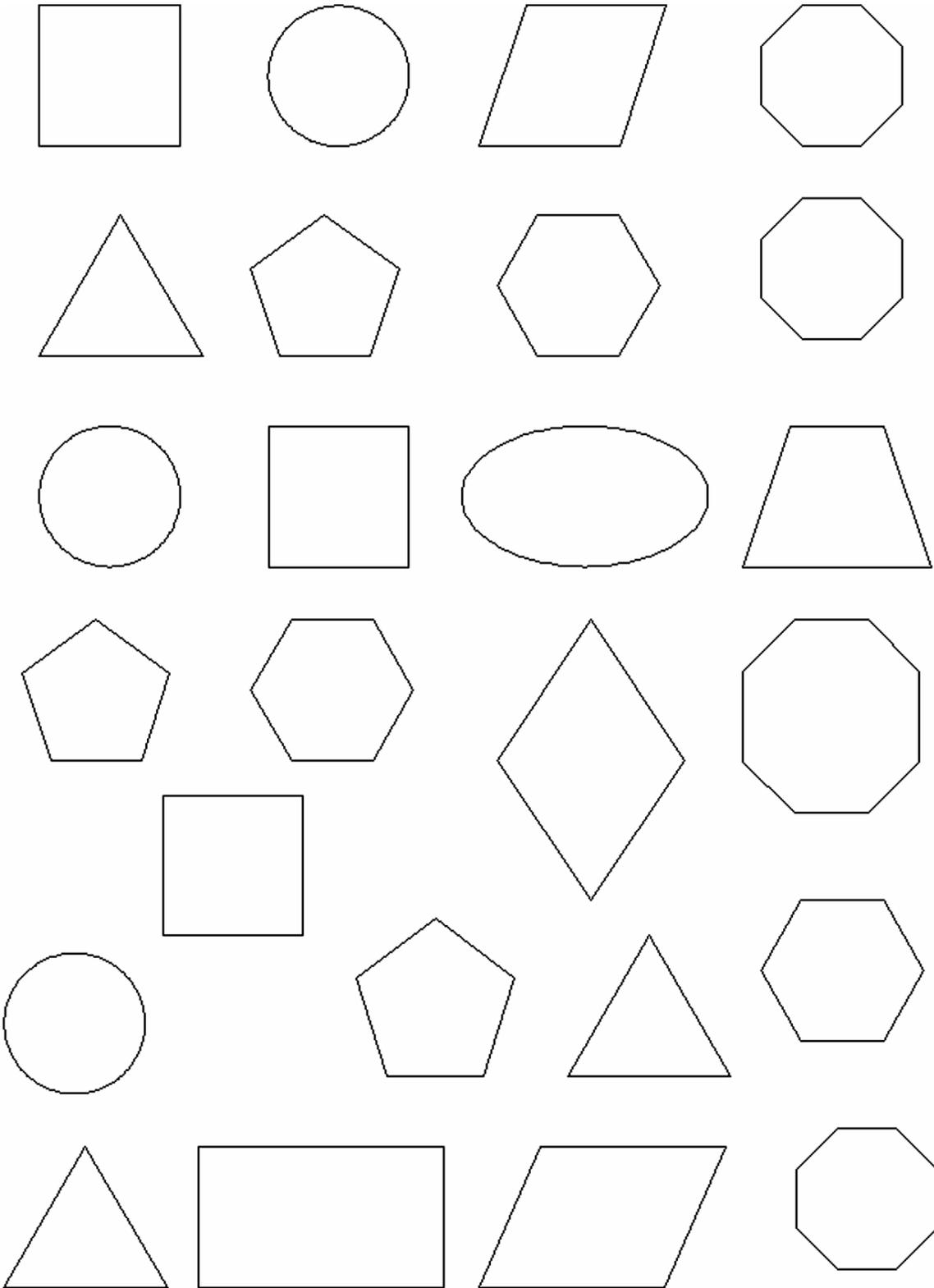


Identification Directions

- How many circles can you find? Color them **red**.
- How many squares can you find? Color them **green**.
- Can you find the oval? Draw a circle inside of it.
- How many triangles do you see? Color them **blue**.
- Find the rectangle and draw an oval around it.
- Color the rhombus **black**.
- Can you find three pentagons? Color them **purple**.
- Are there more parallelograms or pentagons? Put an "X" on the parallelograms.
- Find the hexagons and color them **yellow**.
- Do you see the trapezoid? Color it **brown**.
- Find all the octagons and color them **orange**.



Shape Sheet



Shapes-2.4

Lesson 3. Playing with Shapes

Sing and dance along with the Hokey Pokey Shape Song!

Cut out the shapes at the end of this lesson, one six-page set per child. You can print the sheets on colored paper or allow the child to color the shapes for easier identification. *(Note: You will also be using these shapes in later lessons.)*

Either with an adult or with other children, have child stand with shapes spread out near his/her feet.

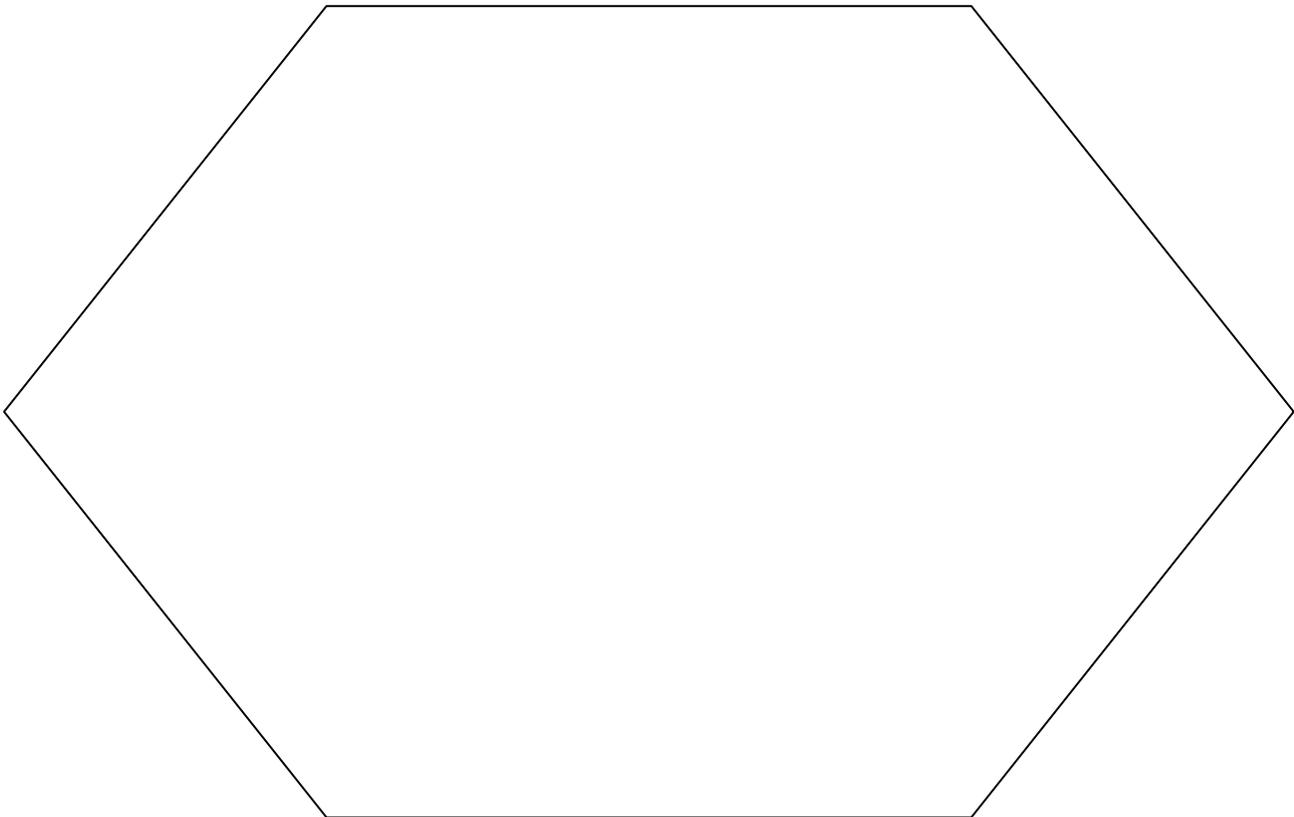
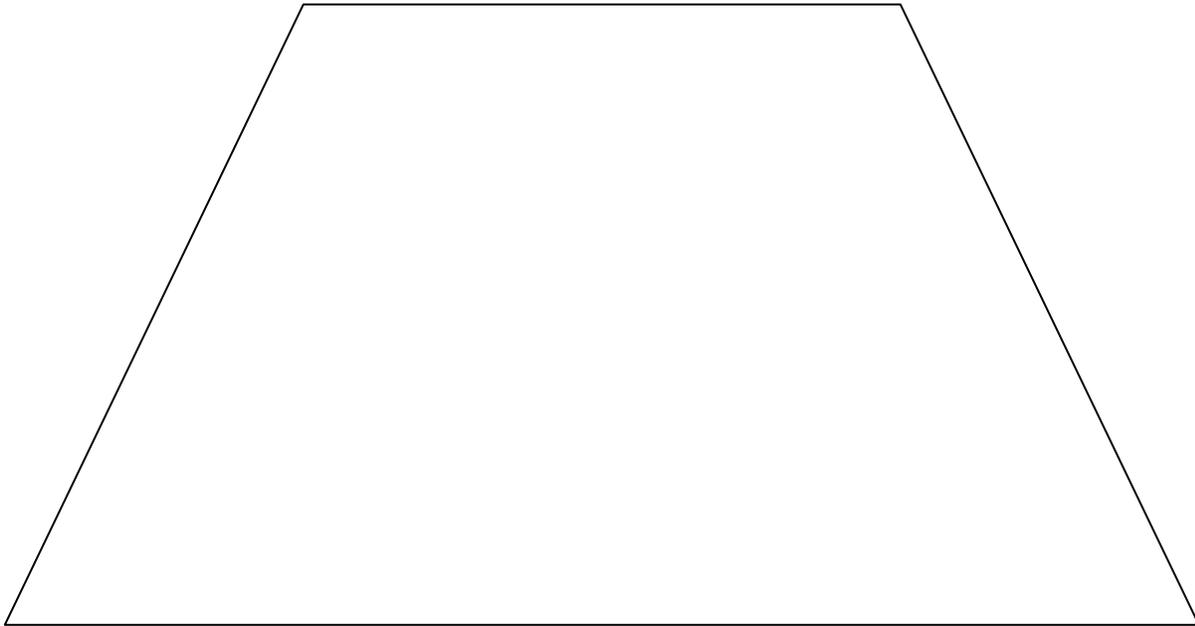
Sing and dance the “Hokey Pokey” with the shapes, having the child pick up the shape and then dance with it. Call the shape out before each verse.



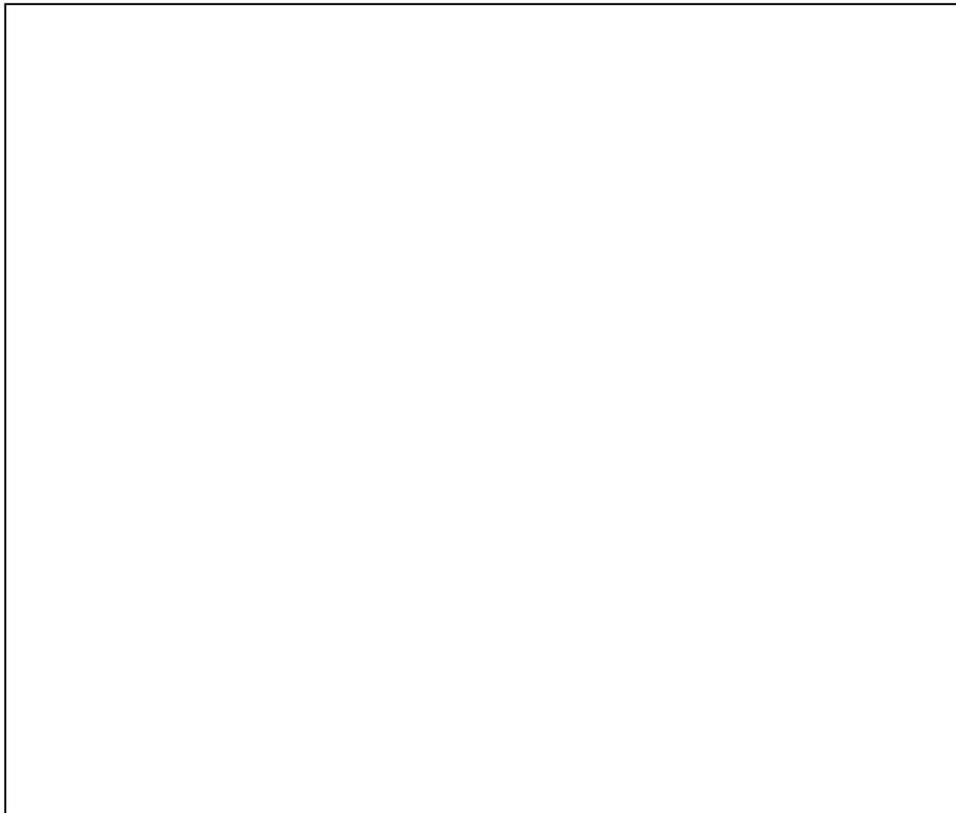
Example

- Adult says: “Triangle!”
- Child(ren) pick(s) up triangle
- All sing: “You put your triangle in, you put your triangle out. You put your triangle in and you shake it all about. You do the Hokey Pokey, and you turn yourself around. That’s what it’s all about!”
- Adult says: “Pentagon!”
- Child(ren) pick(s) up pentagon
- All sing: “You put your pentagon in, you put your pentagon out. You put your pentagon in and you shake it all about. You do the Hokey Pokey, and you turn yourself around. That’s what it’s all about!”

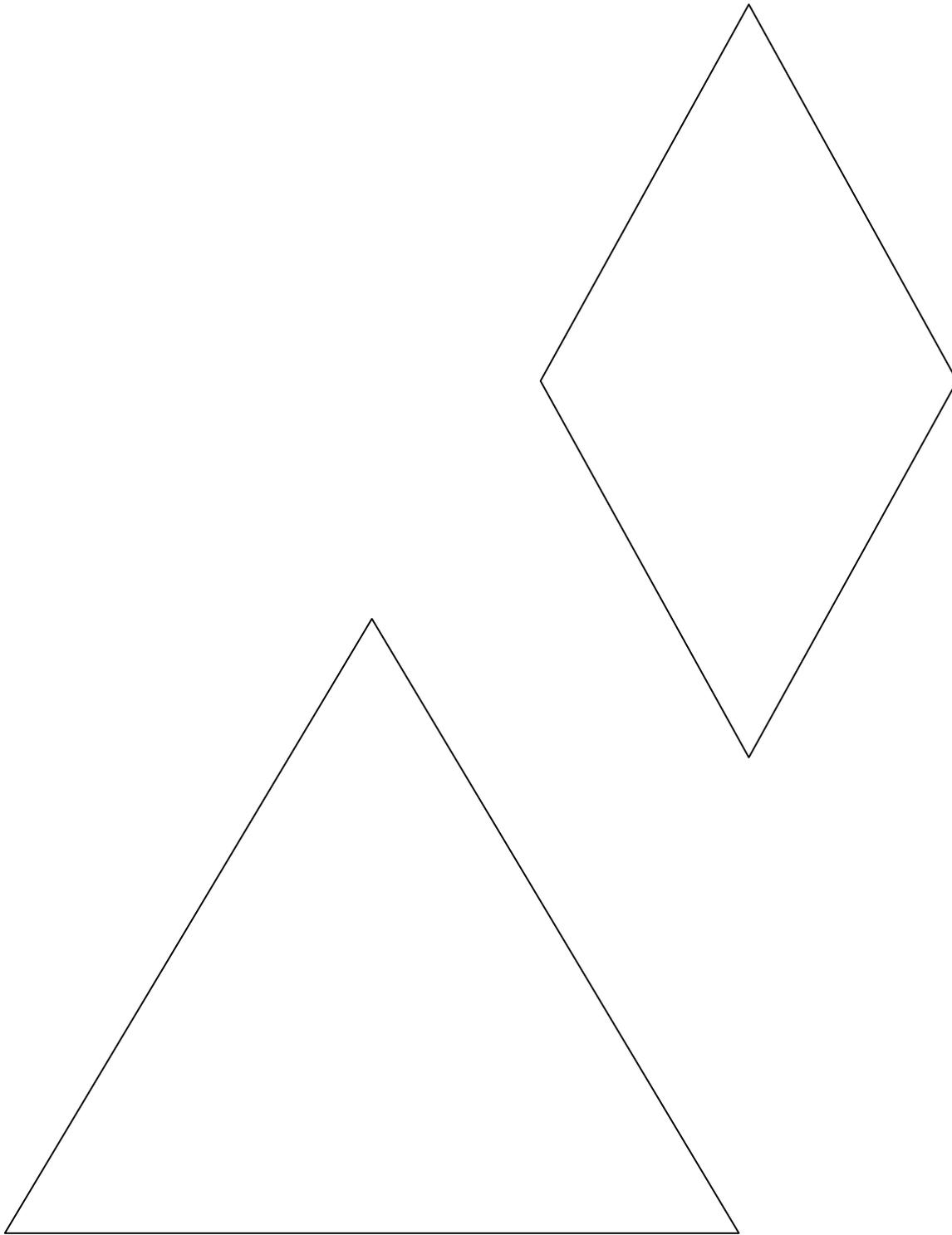
You may also allow the children to take turns calling the shapes.



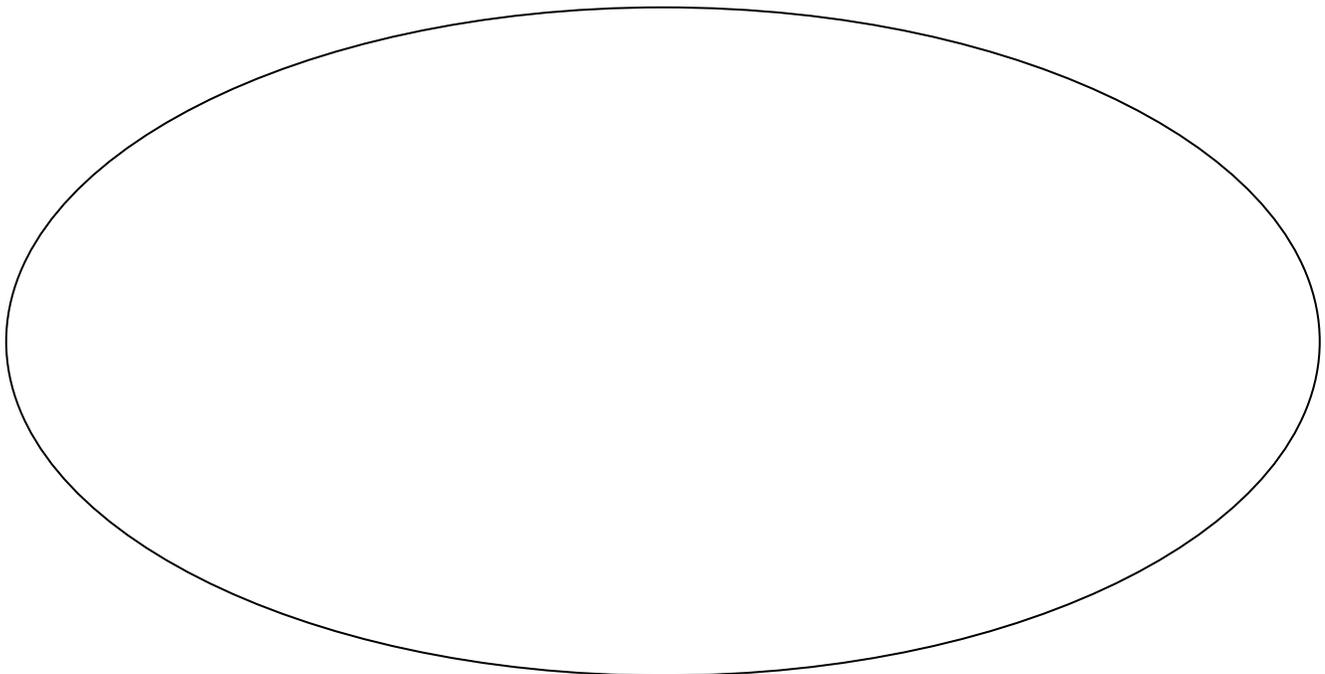
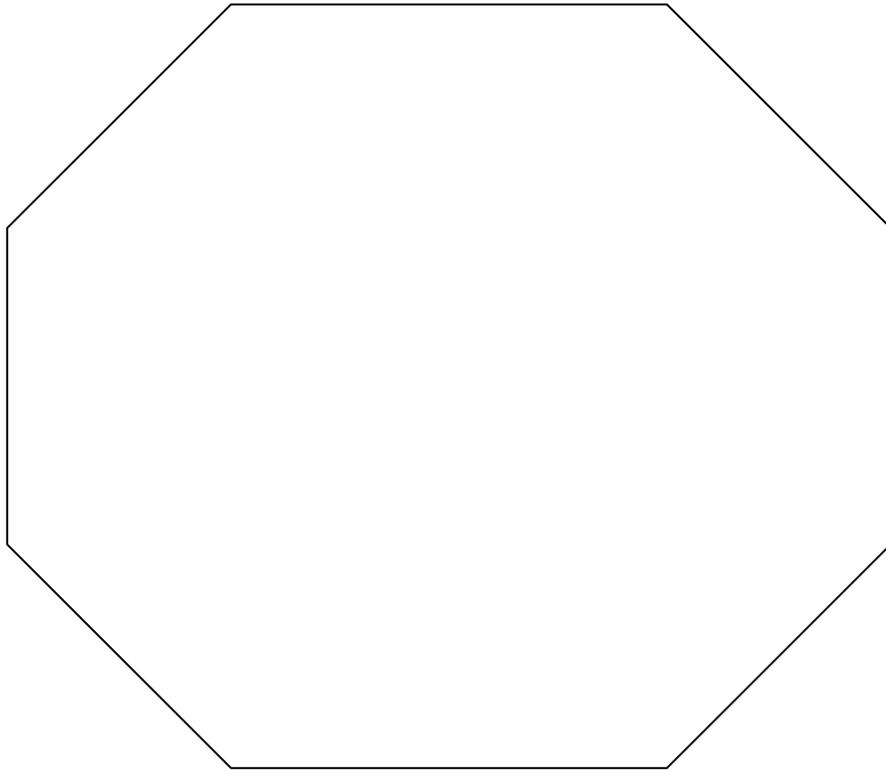
Shapes-3.2



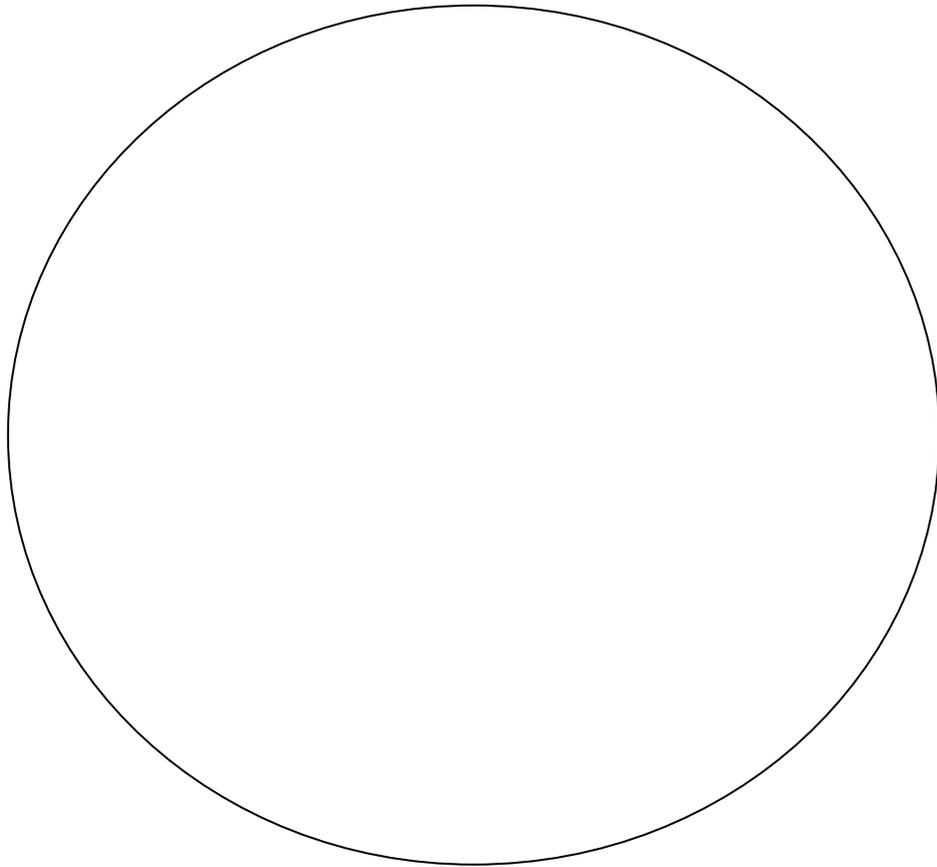
Shapes-3.3



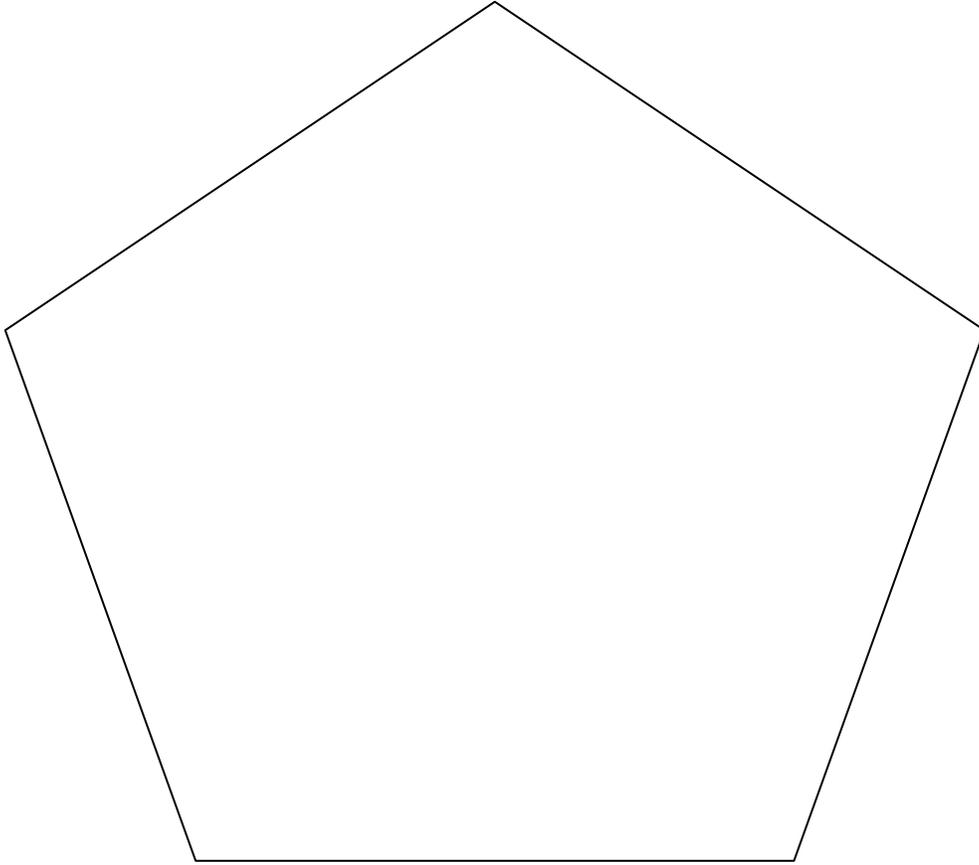
Shapes-3.4



Shapes-3.5



Shapes-3.6



Shapes-3.7

Lesson 4. Drawing and Coloring with Shapes

Materials

- Examples of Kandinsky paintings
- Crayons, markers, or watercolors
- Shapes used for the Hokey Pokey
- Large sheet of drawing paper

Show the student images of Kandinsky paintings on the Internet. Here are a few examples:

- <http://www.ibiblio.org/wm/paint/auth/kandinsky/kandinsky.comp-8.jpg>
- <http://simplyartonline.net/Wassily-Kandinsky-Bauhaus--Plakat-162895.jpg>
- <http://www.ibiblio.org/wm/paint/auth/kandinsky/kandinsky.yellow-red-blue.jpg>
- http://upload.wikimedia.org/wikipedia/en/1/1c/Kandinsky_1939_Composition-X.png

If possible, print them in color or check out a book of Kandinsky's paintings from the library.

Have the student identify as many shapes as he/she can find in the paintings, creating a tally chart of how many times each shape was used by writing tally marks on the shapes used for the Hokey Pokey.

Have the student lay the shapes out on the floor or a table in order of most used.

Using crayon, marker, or watercolor, have the student create his/her own "Kandinsky" imitation, using at least one of each shape learned.



Lesson 5. Shape Walk

Take the student on a “shape walk” to find shapes in and around the house/classroom/school.

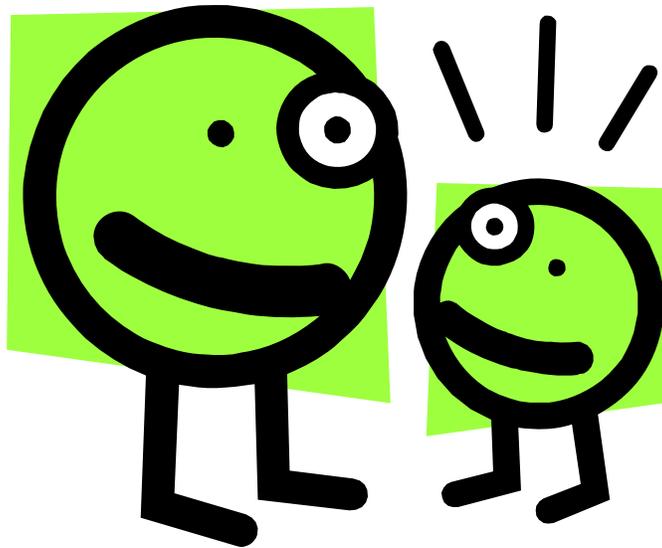
After the shape walk, reflect on the shapes that were easiest to find and those that were hardest to find, using questions such as:

- Are there more circles inside or outside?
- Are there more squares or circles? Why is that?
- How did what was found outside match the tallies from the Kandinsky paintings?

If desired, have the student create a new drawing that reflects the shapes as found on the walk. If lots of circles were found, have lots of circles in the drawing. No trapezoids? Leave those out. Now you both have a visual representation of the shape walk results.

You may want to introduce the Shape Hunt Chant developed by the International Reading Association/National Council of Teachers of English. Find a printable copy of this copyrighted material here (it's OK to reproduce it for educational purposes):

http://www.readwritethink.org/lesson_images/lesson776/chant.pdf



Extension

Picture Yourself with Shapes

- Take pictures of the student with shapes he/she finds, then put the pictures in an inexpensive photo album.
- To make this more interesting, make it a scavenger hunt in which students try to get pictures of themselves with the most interesting shapes. They should not create the shapes, but rather discover them.
- To extend this activity, have the student invite family or friends take pictures of themselves with shapes to send to the student.

More Fun Online

- Sammy Shapes Web site:
<http://www.primarygames.com/storybooks/sammy/start.htm>
- Patterns to make three-dimensional shapes:
<http://mathforum.org/alejandre/workshops/net.html>
- Additional practice on finding shapes:
<http://illuminations.nctm.org/Lessons/Architect/Architect-AS-ShapeSearch.pdf>



Shapes-Extension

Assessment

Since this is a Kindergarten-level activity, this assessment is skills-based, rather than grade-based.

Skill	Mastery	Needs Practice
Identifies the eleven shapes		
Recognizes the shapes in environment		
Creates original art with shapes		

