

**KUTZTOWN UNIVERSITY
ELEMENTARY EDUCATION DEPARTMENT
PROFESSIONAL SEMESTER PROGRAM
LESSON PLAN FORMAT**

Teacher Candidate: <u>Molly Cermanski</u>	Date: <u>9/26/13</u>
Cooperating Teacher: <u>Michele White</u>	Coop. Initials: <u>M.W.</u>
Group Size: <u>15-20 students</u> Allotted Time: <u>2 hours (2 days); 1 hour per day</u>	Grade Level: <u>2</u>
Subject or Topic: <u>Geometry and identifying shapes</u>	Section: <u>933</u>

STANDARD: (PA Common Core):

CC.2.3.2.A.1

Analyze and draw two and three-dimensional shapes having specified attributes.

National Common Core:

CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.¹ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

I. Performance Objectives (Learning Outcomes):

- A. The students will be able to identify trapezoids, parallelograms and hexagons by creating a shape monster
- B. The students will be able to describe trapezoids, parallelograms and hexagons by orally naming the characteristics of each shape

II. Instructional Materials:

A. Books:

1. *Shape Up! Fun With Triangles And Other Polygons*. By, David A. Adler
 2. *Pete The Cat and His Four Groovy Buttons*. By, Eric Litwin and created and illustrated by James Dean
 3. *Ship Shapes*. By, Stella Blackstone
 4. *Shapes, Shapes, Shapes*. By, Tana Hoban
 5. *The Metropolitan Museum of Art Shapes*. By, The Metropolitan Museum of Art
 6. *Go Away Big Green Monster*. By, Ed Emberley
- B. Mathematic manipulatives: Different polygons (trapezoid, hexagons, rectangles, triangles) (one or two containers)
 - C. Computer access
 - D. Power point of shape images
 - E. Brain pop video: Polygon video
<http://www.brainpop.com/math/geometryandmeasurement/polygons/>
 - F. Individual white boards and markers (one per student)
 - G. Construction paper (different colors, one package)
 - H. Pre – cute shapes in baggies for all students’ to use for their “shape monster”
 - I. Markers (4 packs; one per table)
 - J. Glue (two glue sticks per take)
 - K. Plastic eyes (upon request)
 - L. Pom – pom balls (upon request)

- M. Glitter (upon request)
- N. String for hair (upon request)
- O. My personal model of “shape monster”
- P. My example of journal piece

III. Subject Matter/ Content (prerequisite skills, key vocabulary, big idea):

- A. Prerequisite skills:
 - a. Identifying and naming basic shapes (circles, squares, rectangles, triangles)
 - b. Characteristics of basic shapes

- B. Key Vocabulary (new knowledge):
 - a. **Trapezoid** (4 sides, 4 angles, 1 set of parallel sides, closed figure)
 - b. **Parallelogram** (flat shape with opposite sides and examples are squares, rhombus and rectangle, closed figures)
 - c. **Hexagon** (6 sides, 6 angles) and 3 sets of parallel lines, closed figure)

- C. Big Ideas:
 - a. Any given polygon has special characteristics

IV. Implementation:

A. Introduction –

1. Have essential question written on board: **“How do I name and describe different shapes in my environment?”**
2. *Pete the Cat and His Four Groovy Buttons* will be up on the computer and ready to start! Students’ will be standing up, at their tables, next to their chairs ready to sing along and create movements throughout the story.
3. Once the song and book is finished, ask the students’ to sit back down in their seats so we can begin today’s lesson. Have students sit down as I begin lesson.
4. Ask the students:
 - **“Boys and girls, last week we learned about shapes and what they look like. As we look through, *Pete the Cat*, what shapes can you pick out from this story?”**
 - Expected answers:
 - (triangles, circles, squares, etc...)
5. **Model** and show students example of how to pick out the shape from the story. Then we will complete together using some other pages from *Pete The Cat*.
6. After, distribute the other books that I have about shapes to each table, (one per table)
7. “I want you all, with your table groups to look through the book you have and talk about the different shapes that you see. Make a list on one of your white boards as a group.”
8. Ask students to share with the class what they saw by having one person point to the picture from the book and have one other person say the shape that is written down on their white board.)
- 9 “Boys and girls, now as a table look around the room and pick out some other shapes! I will ask one person from your table to be the recorder and write down those shapes. Now lets share what we came up with!”
10. Look at white board, and read **essential question** to students and let them know that they will be able to answer this question by the end of class. **“Boys and girls how do I name and**

describe different shapes in my environment? (let's find out!)

B. Development –

1. Read the story, *Shape Up! Fun with Triangles And Other Polygons*, read only from polygons on...) *This will introduce the term polygons and what they look like

*Have students follow story and draw a polygon on their white boards!

2. Let's take a look at some other polygons! (Go through power point while students are sitting at their desks...)

3. The second slide in the power point has a brain pop video that the students will be watching. The video introduces what a polygon is and the different types of polygons. Ask boys and girls after video, **“What new mathematic terms did you learn from this video? What types of shapes were discussed? How are these shapes different from other shapes we have discussed in class?”**

- **Expected answer: We learned about what a polygon is and some of the shapes that are classified as polygons. Trapezoids, hexagons and other closed figures are polygons. They are different because they are closed figures and have more than three sides. Also, all of their sides and angles are equal to each other.**

4. The third slide and fourth slide discuss the basics of what sides and angles are.

5. *As we go through the rest of the power point... (There will be a manipulative shape box at teach table.) As we look at each shape, have the students pick out that shape from the manipulative box and have them draw a picture of that shape they have on their white boards

1. Talk about each shape and then **Model** how to pick the shape out of the box and draw it on board (**I do**)

2. The students will complete the drawing of the shape with me on their white boards (**we do.**)

3. The students will draw the shape on **their own** without my assistance, (**you do.**)

- **Example: (I do, we do, you do)**

- “Lets take a look at what a trapezoid is. Here is the slide, so lets take a look at the pictures we have here. A trapezoid has 4 sides and 4 angles. Ok, so here is my trapezoid and I will draw the shape. Now, lets try to find a trapezoid in our manipulative shape box together at our tables. Everyone try to find a trapezoid and try on your white board to draw it. When you are ready, cover your boards. Now, show me your boards... excellent job, boys and girls!”

- **“Boys and girls, how do we know this shape is a trapezoid? Talk with your shoulder partner and discuss why this shape is a trapezoid. In one minute I will ask you all to turn back to me and we will discuss as a class.”**

- **Expected answer: A trapezoid has 4 sides, and 4 angles. It is also a closed figure**

6. Continue to repeat throughout each slide, until lesson on new shapes is complete

7. Announce to the students “it is time to clean your area because we are going to start our new project.”

8. Use the “name song,” and call each student to the carpet

9. Review shapes that we have learned (show model of shapes that I have cut out)
 - a. Ask students the **essential question: “How do I name and describe different shapes in my environment?”**
 - b. Expected answer: (by looking at what the shape looks like and describing how many sides and angles it has. For example, this is a hexagon and it has 6 sides and 6 angles and is a closed figure and here is one that I found in our classroom!) – also review other mathematical shapes)

10.
 - a. Ask students: **“Boys and girls, do remember earlier today for our read aloud we looked at, *Go Away Big Green Monster* by, Ed Emberley? What do you remember about the story?**
 - b. Expected answer: (Monsters and facial expressions). Ask students to share their other thoughts about the story.
11. Explain to the class that they are going to create their own... “SHAPE MONSTERS.”
 - Explain to the students what they will be doing. (Hand out directions handout on “shape monster activity and read a loud.) Show students my model of “Lizzie (my shape monster.) For example, I used a circle for my face, a triangle and a heart in the middle for my stomach. Also, I used two trapezoids to be my arms.”
12. Have students begin shape monster activity! “BE CREATIVE”
13. Monitor students for understanding of shapes
14. Once shape monster is complete, have a class discussion and have students share their shape monsters with each other.

C. Closure -

1. After sharing of shape monsters, ask students to write in their journals about their shape monster and identify what shapes they used and why. Ask students to come up with a short story about their shape monsters. “BE CREATIVE”
2. Share what learning the students will be engaged in tomorrow.

D. Accommodations / Differentiation -

1. Individual picture of shapes for struggling students
2. Be mindful and considerate of table and partner selections
3. Follow IEP’s
4. Use audio books for learners if needed

E. Assessment/Evaluation plan -

1. Formative:

Students will be evaluated through informal observation and interviewing during table work time. Student learning will be checked by asking students to share their “shape monster” to the class and what shapes they used. The students will be asked to classify and identify which shapes they have chosen and will have to explain the characteristics of each shape.

4. Summative: none for this lesson

V. Reflective Response:

A. Report of Students' Performance in Terms of States Objectives (Reflection on students performance written after lesson is taught, includes remediation for students who failed to meet acceptable level of achievement)

B. Personal Reflection (Questions written before lesson is taught. Reflective answers to questions recorded after lesson is taught.)

VI. Resources (in APA format):

Adler, D. A., & Tobin, N. (1998). *Shape up!: fun with triangles and other polygons*. New York: Holiday House.

Blackstone, S., & Bell, S. (2006). *Ship shapes*. Cambridge, MA: Barefoot Books.

BrainPOP | Math | Learn about Polygons. (n.d.). *BrainPOP - Animated Educational Site for Kids - Science, Social Studies, English, Math, Arts*. Retrieved September 14, 2013, from

<http://www.brainpop.com/math/geometryandmeasurement/polygons/>

Charles, R. I. (2005). *Scott Foresman - Addison Wesley mathematics*. Glenview, Ill.: Scott Foresman.

Emberley, E. (1992). *Go away, big green monster!*. Boston: Little, Brown.

Hoban, T. (1986). *Shapes, shapes, shapes*. New York: Greenwillow Books.

Litwin, E., & Dean, J. (2012). *Pete the cat and his four groovy buttons*. New York, NY: Harper.

Math is Fun - Maths Resources. (n.d.). *Math is Fun - Maths Resources*. Retrieved September 14, 2013, from <http://www.mathsisfun.com>

Standards - View Standards by Subject Area and Grade Level or Course. (n.d.). SAS - *Pennsylvania Department of Education Standards Aligned System*.

Retrieved September 14, 2013, from

<http://www.pdesas.org/Standard/Views>

York, N. (2005). *Museum shapes*. New York: Little, Brown, and Co..