

# Hayley Flynn

## Tiered Lesson Plan: "Polygon Scavenger Hunt"

Subject: Math

Grade: 2

**Students:** 6 students in the resource class setting with special education considerations including specific learning disabilities, intellectual disabilities, and Autism

### Essential Question:

- Where do we see polygons in our everyday environment?

**Comment:** This essential question is engaging, and relevant. Additionally, students will look at their environment in a different way.

### Students will know:

- The definition of a polygon
- The number of sides associated with the basic polygons: triangle, quadrilateral, pentagon, hexagon, and octagon

**Comment:** These 'knows' are concrete based on the needs of the students and their strengths.

### Student will understand:

- Our environment is made up of many different shapes.

**Comment:** Broad understanding that can be used in cross-curricular units.

### Students will be able to:

- All: Name basic polygons.
- Most: Identify polygons in a given space.
- Few: Analyze the types of polygons in a given space.

**Comment:** Tiered goals based on concrete/abstract and single facet/multiple facet.

### Lesson Plan

- Focus and Review:
  - Class will participate in a think-pair-share: "What shapes are in our classroom?"
  - Guiding questions:
    - "What shapes do you see in the reading center?"
    - "What about the bulletin board?"
    - "How are they the same?"
    - "How are they different?"
- Teacher Input
  - Read the story [The Greedy Triangle](#)
  - During the reading of the book, the class will create a graphic organizer in which they:
    - Identify different polygons
    - Identify the number of sides for each polygon
  - The term 'polygon' will be introduced
  - The title 'Polygons' will be added to the class created graphic organizer

**Comment:** Guiding questions help differentiate based on dependence/independence. Some students will be able to answer without prompting, others will need help narrowing down the question.

**Comment:** This activity is completed as a whole class so that all students get the same content. This aligns directly with KUDs. The content area of language arts is integrated to increase engagement (pictures) and to help students see that shapes are everywhere (relating back to essential question).

- Tiered Activity

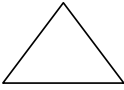

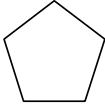
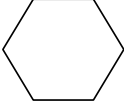
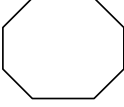
- All students will go on a hunt for polygons around the school.
- All students will be given a graphic organizer.
- All students will complete the assigned graphic organizer, making sure that at least one example of each polygon (triangle, quadrilateral, pentagon, hexagon, and octagon) is included.

**Comment:** All students get the same materials and complete the same scavenger hunt activity. In this way, classroom management is easier as well as students do not discriminate between ability level.

- Tier 1

Students will be given a graphic organizer with the 5 polygons listed (with a picture) and the number of shapes. Students will find one example of each on their scavenger hunt.

**Comment:** The structure of a graphic organizer is needed by all of the students in the class. However, students who are struggling get the visual reinforcement in order to compare what they learned to their outside environment. By having the students find examples, they are applying their understanding in different ways (not just drill and practice) but they do have reinforcement.

Polygon	Number of Sides	Example
Triangle 	3	
Quadrilateral 	4	
Pentagon 	5	
Hexagon 	6	
Octagon 	8	

- Tier 2

Students will be given a graphic organizer with the name of the polygon listed. Students will identify the number of sides each polygon has as well as an example around the school.

Polygon	Number of Sides	Example
Triangle		
Quadrilateral		
Pentagon		
Hexagon		
Octagon		

**Comment:** Reinforcement is still evident along with needed structure. However, students will have to refer back to their knowledge about different shapes in order to complete the task.

- Tier 3

Students will be given a graphic organizer and list the names of the 5 polygons, the number of sides and several examples of each polygon.

Polygon	Number of Sides	Examples

**Comment:** This incorporates student's recall of knowledge as they fill out the graph but also has them apply their knowledge. By finding more than one shape, students are challenged to see numerous shapes, in different ways that simply 'the computer screen is a quadrilateral'.

- Tier 4

Students will complete the graphic organizer, listing the names of the 5 polygons, number of sides and multiple examples of each polygon. They will complete a graph indicating how many of each type of polygon was found.

Polygon	Number of Sides	Examples

**Comment:** Recall and application are both evident. In addition, students take what they learned and found and begin to 'digest it'. This leads to discussion of how shapes are used and why. This information can be used as a discussion at the end of class or at the beginning of next class. Students can take on the role of the teacher as they tell their classmates what they found. However, all students benefit from the information gathered.

5					
4					
3					
2					
1					
	Triangle	Quadrilateral	Pentagon	Hexagon	Octagon

- Anchor Activity

- Students will participate in assigned computer activities on polygons on the National Library of Virtual Manipulatives website.

**Comment:** This activity is something that can be differentiated based on interest and readiness. Additionally students have choices on this website- all of the teacher provided options are relevant to the KUDs.

- Assessment

- Pre-Assessment: Class Discussion

- During the Focus and Review class discussion on shapes, informal assessment will occur as the teacher evaluates the level of which students understand the shapes around them. Students that readily identify shapes without prompting will work on the upper tiers of the lesson. Students that need much prompting to 'see shapes' will work in the lower tiers. This informal assessment will be coupled with prior knowledge of student readiness.

**Comment:** Incorporates flexibility in which prior knowledge of the student is used with input from the student on the day of the lesson.

- Post-Assessment: Exit Slip

- Students will complete a tiered exit slip
      - Tier 1
        - Draw and name two polygons.
      - Tier 2
        - Draw and name four polygons.
      - Tier 3
        - Name four polygons and an example of each.

**Comment:** Stays true to KUDs while varying based on concrete/abstract.