	MATATAG	**School:**	**DepEdClub.com**	**Grade Level:**	**4**
	K to 10 Curriculum	**Teacher:**		**Learning Area:**	**MATHEMATICS**
	Weekly Lesson Log	**Teaching Dates and Time:**	**AUGUST 5 - 9, 2024 (WEEK 2)**	**Quarter:**	**1**

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES

A. Content Standards	The learners should have knowledge and understanding of the priorities of triangles and quadrilaterals.
B. Performance Standards	By the end of the quarter, the learners are able to… ● Classify triangles and quadrilaterals, and differentiate quadrilaterals, by applying their properties.
C. Learning Competencies and Objectives	By the end of the quarter, the learners are able to… 1. Draw and state the properties of triangles and quadrilaterals. 2. Classify triangles and quadrilaterals according to sides and angles.
D. Content	1. Exploring the properties of triangles 2. Classifying triangles by sides and by angles 3. Discovering the properties of quadrilaterals 4. Classifying Quadrilaterals
E. Integration	Triangles and Quadrilateral in the designs of objects and structures

II. LEARNING RESOURCES

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l.(n.d.). What Are Some Real-Life Examples of Cong

ruent Triangles? [Webpage]. https://www.byjusf

e-examples-of-congruent-triangles/

K5 Learning. (n.d.). Grade 3 Geometry: Classify Triangles & Angles [PDF document]. https://www.k5learning.com/worksheets/math/grade-3-geometry-classify

[-triangles-angles.pdf](#)

LiveWorksheets. (n.d.). Geometry Worksheet [W

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https://www.liveworksheets.com/w/en

Classifying Triangles: Sides with Numerals [PDF d

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https://www.mathworksheets4kids.com/triangles/classifying/customary/sides-numerals-1.pdf

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	**DAY 1** **1. Short Review** Look around you or inside our classroom and identify things or objects with the shape of a triangle. Can you name the "triangular" structures given below?	**DAY 1** List down things that they see inside the classroom in the shape of a triangle.

We see triangles around us and all over the world! Can you think of some "triangular" structures that you can find in the Philippines?

DAY 2

Name the sides of the triangle below. What is the classification of this triangle based on its side?
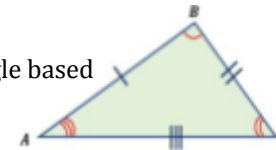
DAY 3

1. What is a triangle? How many sides and angles does a triangle have?
2. Can you name and describe different types of triangles based on their side lengths and angles?
3. Image you have a triangle with one angle measuring 90 degrees. What is this type of triangle called?

DAY 4

1. What is a quadrilateral? How does it differ from a triangle in terms of the number of sides and angles?
2. Review what was learned in the previous lesson. How will you differentiate parallelogram, square, and rectangle? Can you draw it on the board?
3. Can you identify a quadrilateral with all sides of equal length and all angles at 90 degrees? What is this type of quadrilateral called?

DAY 5

Ask learners to recall what they know about triangles and quadrilaterals. Triangles:

1. How many sides does a triangle have?
2. If a triangle has one angle that measures 90 degrees, what type of triangle is it called?
3. Can a triangle have two sides of the same length? What is this type of triangle called?

Quadrilaterals:

1. What is a quadrilateral?
2. If a quadrilateral has all sides of equal length, what do we call it?
3. Draw a square and label its sides and angles.

Sample answers:
A local version of the Eiffel Tower is located in Pampanga and at Summit Resort Canaman, Camarines Sur, and Transfiguration Church (Malaybalay, Bukidnon).
The teacher may ask questions to process the activity.
Example: Focus on one face of each structure. How many sides are there in each triangular face?

DAY 2

Answers:
sides: AB, BC, CA
The triangle is scalene. It has three different sides.

DAY 3

Answers:

1. A triangle is a 3-sided figure.
2. Types of triangles according to sides: (a)isosceles, (b) scalene, (c) equilateral Types of triangles according to angles: (a) right, (b) acute, (c) obtuse
3. Right Triangle

DAY 4

Answers:

1. Quadrilateral is a 4-sided figure. It has 4 angles, while a triangle has 3 sides and 3 angles.

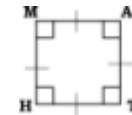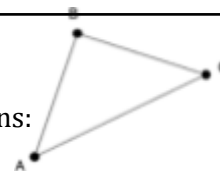|		
	2. Feedback (Optional)	2. **Parallelogram** is a quadrilateral with 2 pairs of parallel sides. **Rectangle** is a parallelogram with 4 right angles. **Square** is a rectangle with equal sides. 3. Square **DAY 5** **Answers: (Triangles)** 1. 3 2. Right triangle 3. Yes; Isosceles Triangle **Answers: (Quadrilaterals)** 1. Quadrilateral is a 4-sided polygon. 2. Rhombus 3.

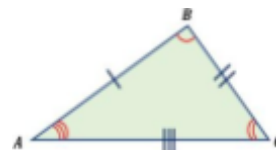| B. Establishing Lesson Purpose | **DAY 1**
 1. Lesson Purpose
  Think and Share. Observe the triangle and answer the following questions:
   1. How many points (vertices) are there in the triangle? What are those points?
   2. What are the sides that connect the points?
 DAY 2
  This time observe carefully the angles in the triangle.
   1. How many angles are there?
   2. What are those angles?
   3. Do you think the angles have the same measure or different measure? | **DAY 1**
 The processing question on the given triangle will trigger learners' curiosity about the parts of the triangle. This will serve as a good springboard for teachers to present the properties and classification of triangles.
 Expected answers:
   1. 3 points, namely Points A, B, and C
   2. Sides AB, BC, and AC |

Find, Observe, and Share! Look around. Observe the different objects you see. Find objects that have four sides. Share your findings with the class. For today you will learn about quadrilaterals and their characteristics. A Quadrilateral is a four-sided figure with broad, several types, and unique properties. Today, we will focus our discussion on the following: parallelogram, rectangle, and square.

DAY 4
Today, we will continue with the rest of the kinds of quadrilaterals. Looking at the diagram, which ones have we not discussed yet? They are general quadrilateral, rhombus, and trapezoid.

DAY 5
For today, you are going to apply all that you have learned through the arts. This will be your Performance task.


DAY 1
2. **Unlocking Content Vocabulary**
   1. The prefix **"tri"** in triangle means three.
   2. A **triangle** is a three-sided polygon.
   3. A **polygon** is a closed plane figure whose sides are segments.
   4. A **vertex** is a corner point. It is the **intersection point** of two sides of a polygon. It is a point where two sides meet.
   5. The symbol Δ is read as "triangle".
   6. **Equilateral triangle** - all sides of equal length
   7. **Isosceles triangle** - with two sides of equal length
      ● The congruent or equal sides are called legs.
      ● The third side is called the base.
      ● The angles opposite the legs are called base angles.
      ● The angle opposite the base is called the vertex angle.
   8. **Scalene triangle** - all sides of different lengths

DAY 2
   1. An **acute** triangle has all angles less than 90 degrees.
   2. An **obtuse** triangle has one angle greater than 90 degrees.
   3. A **right** triangle has one angle that is exactly 90 degrees.
      ● The longest side is called the **hypotenuse**. It is opposite the right angle.
      ● The two shorter sides are called **legs**.
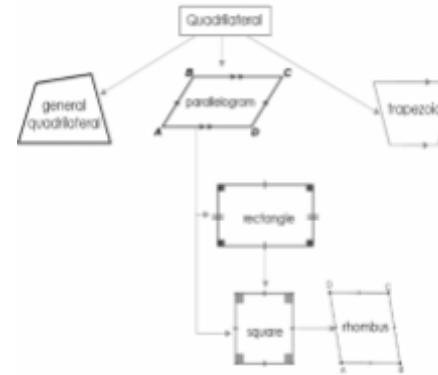
DAY 2
The purpose of the lesson is established by carefully observing the given question and asking the learners their observations about the angles in the given triangle.

DAY 3
Let the learners observe their surroundings and prompt them to look for objects with four sides. This will lead you to introduce learners to a four- sided figure called a quadrilateral. Explain that they will learn about different types of quadrilaterals and their properties.

DAY 4
Display visual representations of different types of quadrilaterals and their labels. Create clear and visually appealing images or diagrams of each type of quadrilateral (square, rectangle, rhombus, parallelogram, trapezoid) along with their labels. *(These can be hand-drawn or created using graphic design software.)*

- The angles opposite the legs are **acute** angles.
4. An **equiangular triangle** has three equal angles.

1. **Quadrilateral** is a 4-sided figure.
2. **Parallelogram** is a quadrilateral with 2 pairs of parallel sides.
3. **Rectangle** is a parallelogram with 4 right angles.
4. **Square** is a rectangle with equal sides.

1. **Trapezoid** is a quadrilateral with exactly 1 pair of parallel sides.
2. **Rhombus** is a parallelogram with 4 equal sides.
3. **General Quadrilateral** has no parallel sides.
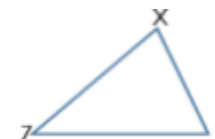
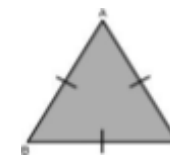| C. Developing and Deepening Understanding	**DAY 1**	**DAY 1**
	SUB-TOPIC 1: Exploring the Properties of Triangles	Let the learners observe the given 3 triangular objects. Process their observations by asking them the following:
	1. Explicitation	
	The prefix "tri" in triangle means three. A triangle is a three-sided figure with three (3) vertices, three (3) sides, and three (3) angles. Triangles are named using its vertices (plural for vertex) in a clockwise or counterclockwise order. In naming triangles, you may start from any vertex. A vertex is a corner point. It is the intersection point of two sides of a polygon. It is a point where two sides meet.	1. What are the names of the objects presented? 2. How are these objects similar or different from one another? 3. Do you think the sides of the given triangular objects are the same (equal) or different (not equal)? If yes, which object(s) have the same sides? different sides? How many sides have the same/different dimensions in terms of their lengths?
	Example: The vertices of the triangle are points X, Y, and Z. It can be named as ΔXYZ or ΔYZX or ΔZXY or ΔXZY or ΔZYX or ΔYXZ. The symbol Δ is read as "triangle."	
	Look at the images of triangles below.	
	Equilateral Isosceles Scalene	After this, the teacher may now present one by one the classifications of triangles according to sides. Note: Emphasize that the marks or ticks (/) found on the sides of the triangle tell us
	How would you classify each triangle based on the length of its sides?	
	Equilateral triangle – it is a triangle where all sides are of equal length. This means that side AB = side BC = side CA.	

Isosceles triangle – this is a triangle with two sides of equal length. This means that the 2 equal sides of the given triangle are side DO and side CO. The congruent or equal are called **legs.** These are sides DO and CO. The third side is called the **base.** Side DC is the base. The angles opposite the legs are called **base angles.** The base angles are Angles D and C. The angle opposite the base is called the **vertex angle.** The vertex angle is O.
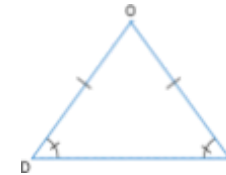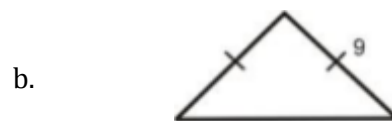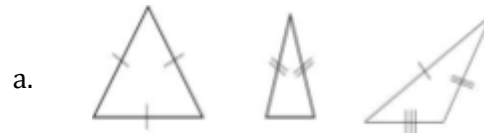
Scalene triangle – this triangle has all sides of different lengths. This means that sides AB ≠ BC ≠ CA.
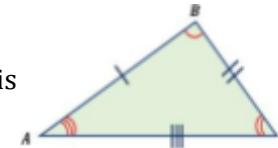
2. Worked Example
Classify each triangle using the side length you've learned. Write down the name that describes each triangle best considering its sides.

a.

b.
What kind of triangle is shown?
What must be the length of the third

side?

c.
What kind of triangle is shown?
What must be the length of $\overline{AC}$ and $\overline{BC}$?

3. Lesson Activity
See Worksheet Activity No. 1

DAY 2
SUB-TOPIC 2: Kinds of Triangles According to Angles
1. Explicitation
Study each angle.

Right
with a right angle

Obtuse
with an obtuse angle

Acute
all angles are acute

which sides have equal measurements.

Worked Example Answers:
a. equilateral; isosceles; scalene
b. isosceles; 9 units
c. equilateral; 6cm
Lesson Activity Answers:
1. equilateral
2. scalene
3. isosceles
4. isosceles
5. equilateral
6. scalene

DAY 2
The teacher may provide trivia in this part. For example, the pictures shown are example of equiangular triangle. It has three equal angles.

Worked Example Answers:
a. right
b. acute
c. obtuse
d. acute
e. acute/equiangular; 60 degrees; 60 degrees

Let learners share other objects that they think are classified as equiangular triangles.

Today we will focus on the kinds of triangles according to angles. These are the kinds of triangles according to angles: (1) Acute Triangle, (2) Obtuse Triangle; (3) Right Triangle.

Right Triangle – this is a triangle with a right angle. In a right triangle, take note of the following:
- The longest side is called the **hypotenuse.** It is opposite the right angle.
- The hypotenuse is side AC.
- The two shorter sides are called **legs.** The legs are sides AB & BC.
- The angles opposite the legs are **acute** angles.
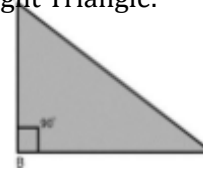
Acute Triangle – this is a triangle with all three interior angles measuring less than 90 degrees. The acute angles in triangle ABC are angles A, B, and C.
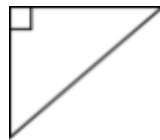
Obtuse Triangle – this is a triangle with an obtuse angle. The obtuse angle in Triangle ABC is angle B.
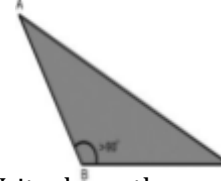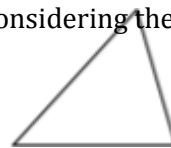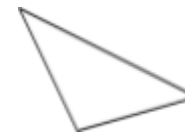
2. **Worked Example**
Classify each triangle using the angle classifications that you've learned. Write down the name that describes each triangle best considering the angles.
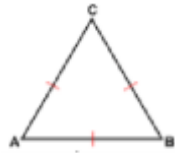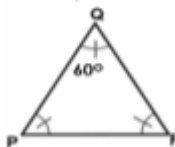
a.   b.   c.
d.   The given triangle is equilateral. Classify it according to angles.

e.   What kind of triangle is shown?
What must be the measure of ∠P? _____of ∠R?
Note: The sum of all the angles in a triangle is 180°?

Acknowledge their responses by checking the classification of the triangular object.

Lesson Activity Answers:
1. right
2. acute
3. obtuse

To deepen understanding, the teacher may also ask the pupils how else they can classify the triangles.
Expected Answers:
1)It can also be classified as an isosceles, therefore we can call it an "isosceles right triangle".
2)Isosceles acute
3)Isosceles obtuse

DAY 3
Begin by introducing the concept of quadrilaterals as four-sided figures. Explain that quadrilaterals are a broad category, and there are several types with unique properties.
Explain the properties of squares, rectangles, parallelograms, rhombus, and trapezoids. Discuss opposite sides and angles. Use visual aids such as diagrams and pictures to show examples of various quadrilaterals. Display shapes like rectangles, squares, parallelograms, trapezoids, and

3. Lesson Activity
   See Worksheet Activity No. 2

DAY 3
 SUB-TOPIC 3: Quadrilaterals (Parallelograms, Rectangle, and Square)
1. Explicitation
   What do you notice about the pictures below?

A **quadrilateral** is a four-sided polygon. It has 4 vertices and 4 angles. It can be named using its vertices in a clockwise or counterclockwise direction starting from any vertex.

   ∠H and ∠A are opposite angles.   HM and TA are opposite sides.
   ∠T and ∠M are opposite angles.   MA and HT are opposite sides.

A **diagonal** is a segment joining two opposite vertices of a polygon. It divides a quadrilateral into two triangles.
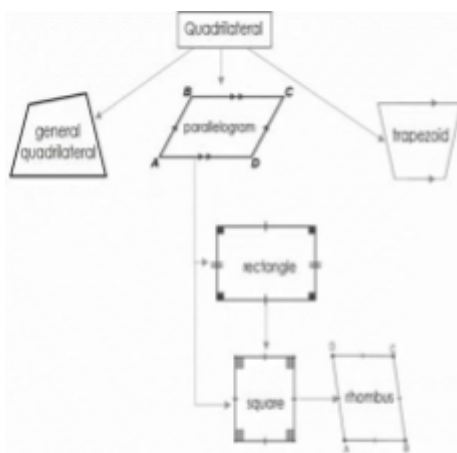   We learned that the sum of all the angles in a triangle is 180 degrees. Each
triangle formed by the diagonal has a total angle measurement of 180 degrees. Therefore, the sum of all the angles in a quadrilateral is **360 degrees.**
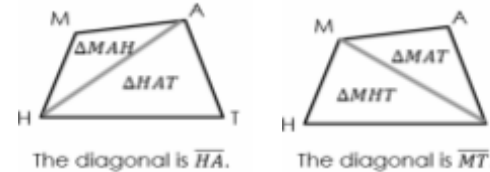
The diagonal is $\overline{HA}$.   The diagonal is $\overline{MT}$.

These are the classifications of quadrilaterals:

   Focus on the **parallelogram**. Name the vertices, sides, and angles. Identify the two pairs of opposite sides and the two pairs of opposite angles. Describe the parallelogram.
a.   It has two pairs of opposite sides that are parallel to each other.
   BA || *CD* and *BC* || *AD*
b. Each pair of opposite sides are equal.
   BA = *CD* and *BC* = *AD*
c. Each pair of opposite angles are equal.
   ∠*A* = ∠*C* and ∠*B* = ∠*D*

rhombuses. Visuals will help learners grasp the differences in their shapes.

read as "quadrilateral"
↓
☐MATH or ☐ATHM or ☐THMA or ☐HMAT or ☐MHTA or ☐HTAM or ☐TAMH or ☐AMHT
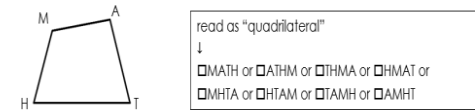
Alternative Activities:
Group Discussion: Divide the class into small groups. In their groups, students should discuss their observations and collaborate to identify the type of each quadrilateral example. Encourage them to share their initial thoughts.

Everyday Quadrilaterals: Think about objects you encounter daily. Choose one object and describe which type
of quadrilateral it resembles the most. Explain why you think it's a good match for that specific type.

Drawing Quadrilaterals:
Draw a picture of your dream house. Make sure to include at least two different types of quadrilaterals in your drawing. Label the shapes you've used and explain why you chose each shape for a particular part of the house.

Note the marks on the sides of the parallelogram. The opposite sides have the same arrowhead marks, which means that they are parallel. A parallelogram is a quadrilateral with two pairs of parallel sides.

This time focus on the **rectangle** below. Name the vertices, sides, and angles.

Vertex: M,N,Q,P   Sides: MN,NP,QP,MQ   Angles: M,N,Q,P

Identify the two pairs of opposite sides and the two pairs of opposite angles.
Opposite Sides: MN & QP; MQ and NP Opposite
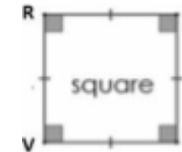Angles: Angles Q & N; Angles M & P Describe the
rectangle.
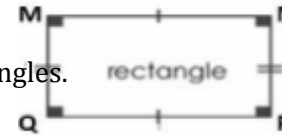
a) Are both pairs of opposite sides parallel? - Yes
b) Are both pairs of opposite sides equal? - Yes
c) Are both pairs of opposite angles equal? - Yes
d) Is a rectangle a parallelogram? - Yes
e) How would you classify the angles of a rectangle? – Right Angle A

rectangle is a parallelogram with four right angles.

Now look at the **square**. Name the vertices, sides, and angles.

Vertex: R, S, T, V   Sides: RS, ST, TV, RV   Angles: R, S, T, V Identify
the two pairs of opposite sides and the two pairs of opposite angles.
Opposite Sides: RS & VT; RV & ST Opposite
Angles: Angles R & T; S & V Describe the square.

a) Are both pairs of opposite sides parallel? - Yes
b) Is a square a parallelogram? - Yes
c) How would you classify the angles of a square? – Right Angle
d) Is a square a rectangle? - Yes
e) What can you say about the sides of a square? – All are equal. A square is

a rectangle with equal sides.

2. Worked Example
  Identify and describe the type of quadrilateral illustrated by each object.

Worked Example Answers:
a. square - parallelogram; rectangle with all sides equal
b. rectangle - a parallelogram with 4 right angles; opposite sides are equal
c. parallelogram - with 2 pairs of parallel sides

Lesson Activity Answers:
A1) parallelogram
 2) square
 3) rectangl
e B.

properties	parallelogram	rectangle	square
1) is a quadrilateral	/	/	/
2) has two pairs of parallel sides	/	/	/
3) all angles are right		/	/
4) opposite sides are equal	/	/	/
5) all sides are equal			/

DAY 4
Alternative Activities:
Role Play: Divide learners into groups. Assign each group a type of quadrilateral. Have them work together to create sentences or short descriptions using the assigned term. For example, "We are a rhombus, and all our sides are equal."

Interactive Exercises Matching Game: Prepare cards with

a.   b.   c.
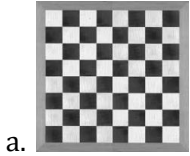
3. Lesson Activity
　See Worksheet Activity No. 3

DAY 4
SUB-TOPIC 4: Quadrilateral (Rhombus and Trapezoid)
1. Explicitation
　What can you say about each picture? What kind of quadrilaterals do they represent?

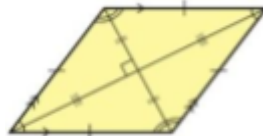| Trapezoid | Rhombus | General Quadrilateral |

　**Trapezoid** is a quadrilateral with exactly 1 pair of parallel side. The **trapezoid** is also called **trapezium.**

　　Rhombus is a parallelogram with 4 equal sides. Is a square a rhombus? A square is a rhombus because it has four equal sides.
　　General Quadrilateral has no parallel sides.
　　One kind of general quadrilateral is the **kite**. You will learn more about the properties of a kite in the future.
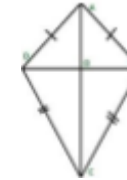
2. Worked Example
　a. Can you identify the type of this quadrilateral?

　b. How do you know this is a trapezoid?
　c. How would you describe the trapezoid?
　d. Can you identify the type of this quadrilateral?
　e. How do you know this is a rhombus?
　f. How would you describe the rhombus?

3. Lesson Activity
　See Worksheet Activity No. 4

illustrations of quadrilaterals on one side and the corresponding terms on the other. Ask learners to match the term with the correct illustration.

Worked Example Answers:
　a. trapezoid
　b. It has only 1 pair of parallel sides
　c. It is an isosceles trapezoid
　d. rhombus
　e. It is a parallelogram with equal sides.
　f. Both pairs of opposite angles are equal.

Lesson Activity Answers:
A.

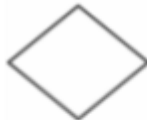| properties	trapezoid	rhombus
with two pairs of parallel sides		/
with exactly 1 pair of parallel sides	/	
with equal sides		/
a parallelogram		/
both pairs of opposite sides are equal		/

B.
　1. parallelogram
　2. rectangle
　3. square
　4. rhombus
　5. trapezoid

SUB-TOPIC 5: Performance Task

1. **Explicitation**

   Look at the chart below. Give actual objects or structures that represent each item.

Type	Properties
Parallelogram	- Opposite sides are equal and parallel. - Opposite angles are equal.
Rectangle	- Opposite sides are equal and parallel. - All angles are right angles (90°).
Square	- Opposite sides are parallel. - All sides are equal. - All angles are right angles (90°).
Rhombus	- Opposite sides are parallel. - All sides are equal. - Opposite angles are equal. - Diagonals bisect each other at right angles (90°).
Trapezoid	One pair of opposite sides are parallel.

2. **Worked Example**

   As performance task, you are going to create a structure like the ones shown.
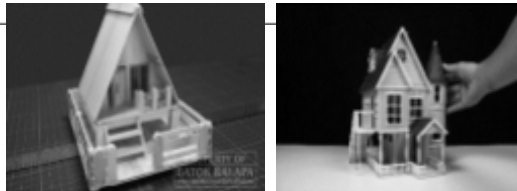
3. **Lesson Activity**

   Imagine that all of you are architects or engineers. You are going to construct a structure with triangles and quadrilaterals using popsicle sticks or the like. Be creative in showing the different triangles and quadrilaterals that you have learned. Please be guided by the rubrics given below.

Explicitation Answers:
- parallelogram - roof
- rectangle - table
- square - handkerchief
- rhombus - diamond suit in playing cards
- trapezoid - wings of airplane

D. Making Generalizations	**DAY 1**	Note to teacher: Apply the 2-1 Strategy. Ask as many students as you can and focus on discussing the things they want to ask.
	1. Learners' Takeaways List down 2 things that you learned and one question you want to ask.	
	2. Reflection on Learning 1. What is the relevance of learning about triangle in real life? 2. In particular, in what areas or fields of work can you use it?	
	DAY 2	
	1. Learners' Takeaways Ask learners to summarize the properties of each type of triangle.	
	2. Reflection on Learning What is the importance of learning about triangles?	
	DAY 3	
	1. Learners' Takeaways Have learners share what they have learned about triangles and quadrilaterals.	
	2. Reflection on Learning Which do you often see in your surroundings, triangles or quadrilaterals? Why do you think so?	

Criteria	10	7		
Use of geometric concepts	Used triangles and quadrilaterals	Used triangles only or quadrilaterals only		
	5	**3**	**2**	**1**
Creativity	The output showed utmost creativity; appealing	Output showed less creativity; not so appealing or dull; very common		
Neatness		Neatly done	Not so neatly done; crumpled	
Punctuality			Submitted early or on time	Submitted late

	DAY 4
	1. **Learners' Takeaways**
	   Ask learners to describe the differences between rhombus and trapezoid.
	2. **Reflection on Learning**
	   Doors and chalkboards are normally rectangular in shape. Chess boards are square-shaped. Why do you think objects are shaped the way they are?
	
	DAY 5
	1. **Learners' Takeaways**
	   Ask 1 question about triangles and quadrilaterals which you still have in mind.
	2. **Reflection on Learning**
	   Notice that in constructions, the triangle is widely and commonly used. Why do you think so?	

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION	NOTES TO TEACHERS

A. Evaluating Learning	DAY 1	Alternative Activities: Encourage learners to discuss with their peers while categorizing and labeling.

	1. Formative Assessment
	Distribute a worksheet with triangle images. Learners should classify and label them according to their sides.
	   1. Is an equilateral triangle isosceles?
	   2. Is an isosceles triangle equilateral?
	   3. Draw an object, scene, view, or structure showing the use of triangles. You may color your drawing.
	
	DAY 2
	   1. Can a right triangle have an obtuse angle?
	   2. Can an obtuse triangle have two obtuse angles?
	
	DAY 3
	Illustrate the following:
	   a. parallelogram
	   b. rectangle
	   c. square
		Encourage students to carefully analyze each triangle before making a classification.
		Emphasize that providing clear explanations is essential to demonstrate understanding.
		Encourage learners to create their own drawings of each type of quadrilateral and label the angles.
		
		Notes for the Facilitator: Be prepared to address any questions or doubts learners may have during the assessment. Mill around the

	DAY 4
	Provide a worksheet with quadrilateral images. Learners should classify and label them.
	Illustrate the following:
	   a. rhombus
	   b. right trapezoid
	   c. isosceles trapezoid
	
	2. Homework (Optional)
		class as the learners work on the assessment to ensure they understand the instructions. Work with struggling learners in a small group for remediation to reinforce the concept. Provide encouragement to struggling learners. Offer extension activities for learners who grasp the concept quickly.

B. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	The teacher may take note of some observations related to the effective practices and problems

	strategies explored			encountered after utilizing the different strategies, materials used, learner engagement, and other related stuff.

Teachers may also suggest ways to improve the different activities explored/lesson exemplar. |
	materials used			
	learner engagement/ interaction			
	others			
C. Teacher's Reflection	*Reflection guide or prompt can be on:* ● *principles behind the teaching* *What principles and beliefs informed my lesson? Why did I teach the lesson the way I did?* ● *students* *What roles did my students play in my lesson? What did my students learn? How did they learn?* ● *ways forward* *What could I have done differently? What can I explore in the next lesson?*			Teacher's reflection in every lesson conducted/facilitated is essential and necessary to improve practice. You may also consider this as an input for the LAC/Collab sessions.