SECOND TERM
WEEKLY LESSON NOTES
WEEK 6

Week Ending: 12-05-2023	**DAY:**	**Subject:** Mathematics
Duration: 60MINS		**Strand:** Geometry & Measurement
Class: B8	**Class Size:**	**Sub Strand:** Alternate And Corresponding Angles

Content Standard: B8.3.1.1 Demonstrate understanding and use of the relationship between parallel lines and alternate and corresponding angles and use the sum of angles in a triangle to deduce the angle sum in any polygon	**Indicator:** B8.3.1.1.1 Draw and determine the values of alternate and corresponding angles.	**Lesson:** 1 of 2
Performance Indicator: Learners can draw and determine the values of alternate and corresponding angles	**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 123		

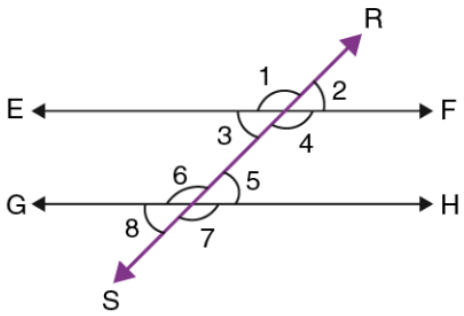
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share performance indicators with learners and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners on how angles are formed. *An angle is a measure of the space between two intersecting lines or surfaces, often measured in degrees or radians. It is formed when two lines or surfaces meet at a common point, called the vertex of the angle.* Revise with learners on the types of angles. *1. Acute Angle: An acute angle is an angle whose measure is between 0 and 90 degrees.* *2. Right Angle: A right angle is an angle whose measure is exactly 90 degrees. It is often represented by a small square placed at the vertex of the angle.* *3. Obtuse Angle: An obtuse angle is an angle whose measure is between 90 and 180 degrees.* *4. Straight Angle: A straight angle is an angle whose measure is exactly 180 degrees. It is essentially a straight line.* *5. Reflex Angle: A reflex angle is an angle whose measure is between 180 and 360 degrees.* *6. Complementary Angles: Two angles are complementary if their measures add up to 90 degrees.* *7. Supplementary Angles: Two angles are supplementary if their measures add up to 180 degrees.* *8. Congruent Angles: Two angles are congruent if they have the same measure.*	Counters, bundle and loose straws base ten cut square, Bundle of sticks

9. Adjacent Angles: Two angles are adjacent if they share a common vertex and a common side, but do not overlap.

10. Vertical Angles: Vertical angles are two non-adjacent angles formed by the intersection of two lines. They are equal in measure.

Introduce learners to alternate and corresponding angles. Using pictures have them identify alternate and corresponding angles.

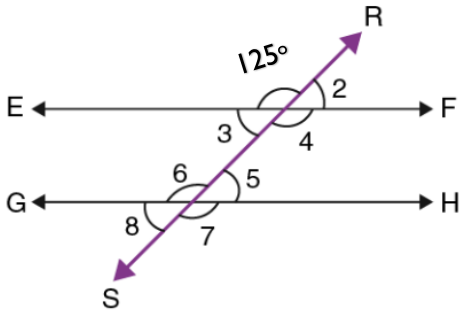
- *Alternate angles: Alternate angles are pairs of angles that are formed on opposite sides of the transversal and on different lines.*
- *Corresponding angles: Corresponding angles are pairs of angles that are formed by a transversal and two lines that are not parallel.*



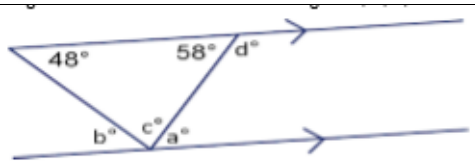
From the above diagram, EF and GH are the two parallel lines.
RS is the transversal line that cuts EF at L and GH at M.
If the two parallel lines are cut by a transversal, then the alternate angles are equal.
Therefore <3 = <5 and <4 = <6
<1 = <7 and <2 = <8

On the other hand, the corresponding angles are;
1&6, 2&5, 3&8 and 4&7

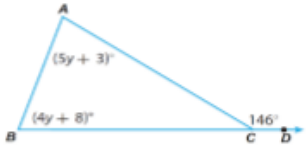
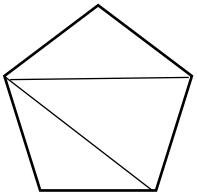
<u>Assessment</u>
Learners in pairs draw the diagram and calculate the values of the angles marked 1, 3,4,5,6,7,8

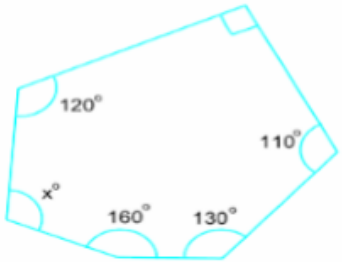


Calculate the value of the angles a, b, c, and d

		
PHASE 3: **REFLECTION**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	

Week Ending: 12-05-2023	**DAY:**	**Subject:** Mathematics	
Duration: 60MINS		**Strand:** Geometry & Measurement	
Class: B8	**Class Size:**	**Sub Strand:** Sum Of Interior Angles	
Content Standard: B8.3.1.1 Demonstrate understanding and use of the relationship between parallel lines and alternate and corresponding angles and use the sum of angles in a triangle to deduce the angle sum in any polygon	**Indicator:** B8.3.1.1.2 Determine the values of angles in a triangle using knowledge of the sum of interior angles in a triangle and other properties.	**Lesson:** 2 of 2	
Performance Indicator: Learners can determine the values of angles in a triangle using knowledge of the sum of interior angles in a triangle and other properties.		**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 124			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share performance indicators with learners and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners on polygons and the types of polygons. Guide learners to calculate the values of y and the angles in the triangle.  Learners in pairs deduce the formula for the sum of interior angles in a polygon and determine the value of an angle in a regular hexagon. *To derive the formula for the sum of interior angles in a polygon, we can start by dividing the polygon into triangles. Any polygon can be divided into triangles by drawing all the possible diagonals from one vertex. The number of triangles that result from this division is always two less than the number of sides in the polygon.* *For example, a pentagon can be divided into three triangles, as shown below:* 	Counters, bundle and loose straws base ten cut square, Bundle of sticks

	From this diagram, we can see that the sum of the interior angles of the pentagon is equal to the sum of the interior angles of the three triangles. *Each triangle has two interior angles that are shared with the other triangles and one angle that is unique to that triangle. Therefore, the sum of the interior angles of each triangle is 180 degrees, and the sum of the interior angles of the polygon is:* *Sum of interior angles = (number of triangles) x 180 degrees* *The number of triangles in the polygon is two less than the number of sides or vertices, so we can substitute (n - 2) for the number of triangles:* *Sum of interior angles = (n - 2) x 180 degrees* *where n is the number of sides or vertices in the polygon.* *Therefore, we have derived the formula for the sum of interior angles in a polygon, which is:* *Sum of interior angles = (n - 2) x 180 degrees.* Learners to use the formula for finding the sum of interior angles in a polygon (n-2)180 to determine the value of x in the hexagon. 	
PHASE 3: **REFLECTION**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	