FIRST TERM
WEEKLY LESSON NOTES
WEEK 4

Week Ending: 27-10-2023	**DAY:**	**Subject:** Mathematics	
Duration: 100MINS		**Strand:** Number	
Class: B9	**Class Size:**	**Sub Strand:** Number Operations	
Content Standard: B.9.1.2.1 Apply mental mathematics and properties to determine answers for addition and subtraction of basic facts.	**Indicator:** B9.1.2.1.3 Use the associative property of addition and multiplication		**Lesson:** 1 of 3
Performance Indicator: Learners can apply the associative property of addition and multiplication.		**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 168			
New words: Associative, Addition, Grouping, Equality			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Begin by presenting a simple addition problem on the board with more than two numbers, e.g., 2 + 3 + 4. Ask learners, "Does it matter which numbers we add together first?" Allow a few learners to solve, demonstrating different groupings. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Display the Associative Property of addition on the chart paper or board: a + (b + c) = (a + b) + c or a + (b + c) = (a + c) + b Present multiple problems, letting learners solve in pairs. For each problem, ask learners to solve by grouping the numbers differently. Discuss as a class. For every problem, the result should remain the same regardless of the grouping. Example: 15 + (6 + 9) = (15 + 6) + 9 = 30 Provide learners with number cards or dice. Ask learners to roll or draw three numbers and write down an addition equation. Learners should then rewrite the equation with a different grouping to demonstrate the associative property. Briefly introduce the associative property of multiplication (a × b) × c = a × (b × c), demonstrating with an example, e.g., (12 × 5) × 4 = 12 × (5 × 4) = 240. Ask learners to pair up and come up with their own multiplication examples, testing different groupings.	Number cards or dice for activities

	Share a few examples with the class, confirming the property holds true for multiplication as well. <u>Assessment</u> 1. 4+ (6+2) =? 2. 7+ (5+3) =? 7+ (5+3) =? 3. 3× (2×4) =? 3× (2×4) =? 4. 5× (3×2) =? 5× (3×2) =? 5. 6+ (7+5) =? 6+ (7+5) =?	
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.	

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Duration: 100MINS		**Strand:** Number	
Class: B9	**Class Size:**	**Sub Strand:** Number Operations	
Content Standard: B.9.1.2.1 Apply mental mathematics and properties to determine answers for addition and subtraction of basic facts.	**Indicator:** B9.1.2.1.4 Use the distributive property in solving problems		**Lesson:** 2 of 3
Performance Indicator: Learners can apply the distributive property in arithmetic problems and solve problems using the distributive property and recognize its application in real-world scenarios.		**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 168			
New words: Distribute, Multiply, Addition, Subtraction.			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Present a simple problem on the board, e.g., 5× (2+3). Ask learners, "How might we solve this without directly calculating the numbers inside the parentheses first?" Wait for some responses. Then, demonstrate the distributive property to solve. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Display the Distributive Property on the chart paper or board. Guide learners to recognize that for any three numbers a, b and c; i. $a \times (b + c) = (a \times b) + (a \times c)$ ii. $a \times (b - c) = (a \times b) - (a \times c)$ Use the board to present a few more examples, letting learners solve them in pairs. Discuss the solutions, ensuring everyone understands the process. Divide learners into small groups and provide each group with cards containing problems that require the distributive property to solve. Ask learners to solve each problem as a team, discussing the steps they're taking. Example: $5 \times (10 + 7) = (5 \times 10) + (5 \times 7) = 85$ $5 \times (10 - 7) = (5 \times 10) - (5 \times 7) = 15$ After a set duration, review the solutions as a class. Encourage groups to explain their approaches. Discuss real-world scenarios where the distributive property might be applied. For instance, if a student buys 3 pencils and 2 erasers	Pre-prepared cards with arithmetic problems for group activities

	where each pencil costs ₵a and each eraser costs ₵b, the total cost would be 3a+2b <u>Assessment</u> 1. Solve: 4× (3+6) =? 2. Solve: 7× (5−2) =? 3. If a=2, b=4, and c=3, what is a× (b−c)? 4. Why is the distributive property useful in simplifying arithmetic problems?	
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.	

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Duration: 100MINS		**Strand:** Number
Class: B9	**Class Size:**	**Sub Strand:** Number Operations

Content Standard: B.9.1.2.1 Apply mental mathematics and properties to determine answers for addition and subtraction of basic facts.	**Indicator:** B9.1.2.1.4 Use the distributive property and associative property of addition and multiplication in solving problems	**Lesson:** 3 of 3

Performance Indicator: Learners can apply the distributive property in arithmetic problems and solve problems using the distributive property and recognize its application in real-world scenarios.	**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)

References: Mathematics Curriculum Pg. 168

New words: Distribute, Multiply, Addition, Subtraction.

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Present a simple problem on the board, e.g., 5× (2+3). Ask learners, "How might we solve this without directly calculating the numbers inside the parentheses first?" Wait for some responses. Then, demonstrate the distributive property to solve. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to **u**se the distributive property and associative property of addition and multiplication in solving problems. Let learners do this activity in pairs. Invite pars randomly to share their solutions on the board **1. Problem:** 6×(4+7) **Solution:** Using the distributive property: 6×4+6×7 =24+42 =66 **2. Problem:** 3×(5+9) **Solution:** Using the distributive property: 3×5+3×9 =15+27 =42 **3. Problem:** 4×(8−3)	Pre-prepared cards with arithmetic problems for group activities

Solution:
Using the distributive property:
$4\times8-4\times3$
$=32-12$
$=20$

4. Problem: $7\times(6+2)$

Solution:
Using the distributive property:
$7\times6+7\times2$
$=42+14$
$=56$

5. Problem: $5\times(7-4)$

Solution:
Using the distributive property:
$5\times7-5\times4$
$=35-20$
$=15$

1. Problem: Solve for x where
$x=(3+4)+5$

Solution:
Using the associative property of addition,
$x=3+(4+5)$
$x=3+9$
$x=12$

2. Problem: Solve for y where
$y=2\times(3\times4)$

Solution:
Using the associative property of multiplication,
$y=(2\times3)\times4$
$y=6\times4$
$y=24$

3. Problem:
Evaluate z given
$z=(8+7)+6$

Solution:
Using the associative property of addition,
$z=8+(7+6)$
$z=8+13$
$z=21$

	4. Problem: Determine w where $w=5\times(6\times2)$ **Solution:** Using the associative property of multiplication, $w=(5\times6)\times2$ $w=30\times2$ $w=60$ **5. Problem:** Evaluate p given $p=(10+9)+11$ **Solution:** Using the associative property of addition, $p=10+(9+11)$ $p=10+20$ $p=30$	
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.	