SECOND TERM
WEEKLY LESSON NOTES
WEEK 4

Week Ending: 28-04-2023	DAY:		Subject: Mathematics
Duration: 60MINS			Strand: Number
Class: B8	Class Size:		Sub Strand: Algebraic Expressions
Content Standard: B8.2.1.1 Demonstrate the ability to draw table of values for a linear relation	Indicator: B8.2.2.1.1 Use the distributive property to remove brackets and solve multiplication of binomial expression		Lesson: 1 of 2
Performance Indicator: Learners can use the distributive property to remove brackets and solve multiplication of binomial expression		Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 115-116			

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**	Guide learners to explain Expanding expression. *Expanding expression is a way of removing brackets or parenthesis from an expression.* To expand a given expression; Multiply every term inside the brackets by the term outside the brackets. Change the operators accordingly and combine the terms. Write this question on the board and task learners to solve in pairs. Expand -5x (3x + 4) Solution -5x(3x + 4) = -5x(3x) - 5x(4) = -15x^2 - 20x So the expanded form of -5x (3x + 4) is -15x^2 - 20x. Let learners solve the following a) 3(x + 4) − 2(x - 5) b) 2(6-5x) − 3(2+2x) Solution To simplify 3(x + 4) - 2(x - 5), we first distribute the 3 and -2 across the terms inside the parentheses: 3(x + 4) - 2(x - 5) = 3x + 12 - 2x + 10 Next, we can combine like terms:	Counters, bundle and loose straws base ten cut square, Bundle of sticks

	$3x - 2x + 12 + 10 = x + 22$ Therefore, the simplified form of $3(x + 4) - 2(x - 5)$ is $x + 22$. Guide learners to multiply binomial expressions. To multiply two binomial expressions, you can use the FOIL method, which stands for First, Outer, Inner, Last. *1. Multiply the first term of each binomial together.* *2. Multiply the outer terms of each binomial together.* *3. Multiply the inner terms of each binomial together.* *4. Multiply the last term of each binomial together.* *5. Add the results of steps 1-4 to obtain the final product.* Write this example on the board and let learners solve in pairs: $(3x + 2)(2x - 5)$ Using the FOIL method, we get: First: $(3x)(2x) = 6x^2$ Outer: $(3x)(-5) = -15x$ Inner: $(2)(2x) = 4x$ Last: $(2)(-5) = -10$ Adding the results of steps 1-4, we get: $6x^2 - 15x + 4x - 10$ Simplifying, we get: $6x^2 - 11x - 10$ Therefore, the product of $(3x + 2)(2x - 5)$ is $6x^2 - 11x - 10$. Learners work in groups to solve the following. a) $(y+3) (y+7)$ b) $(k-4) (k+10)$ c) $(2x+5) (3x-1)$ d) $(x-5) (6x+12)$ e) $(2t+3) (3t-1)$	
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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	<u>Solution</u> To solve the expression (y+3)(y+7), we can use the FOIL method: First: $y * y = y^2$ Outer: $y * 7 = 7y$ Inner: $3 * y = 3y$ Last: $3 * 7 = 21$ Putting all of the results together, we get: y2 + 7y + 3y + 21 Simplifying, we get: $y^2 + 10y + 21$ Therefore, (y+3)(y+7) simplifies to $y^2 + 10y + 21$. To solve the expression (2x+5)(3x-1), we can use the FOIL method: First: $2x * 3x = 6x^2$ Outer: $2x * (-1) = -2x$ Inner: $5 * 3x = 15x$ Last: $5 * (-1) = -5$ Putting all of the results together, we get: $6x^2 - 2x + 15x - 5$ Simplifying, we get: $6x^2 + 13x - 5$ Therefore, (2x+5) (3x-1) simplifies to $6x^2 + 13x - 5$. <u>Assessment</u> Expand and simplify the following a) $(k + 2m)^2$ b) $(2n + 3)^2$ c) $(4x + 5)^2$ d) (x - 6)(x - 6) e) (h+8)(h-8)	
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