MATATAG
Bansang Makabata Batang Makabansa
BAGONG PILIPINAS

School Logo

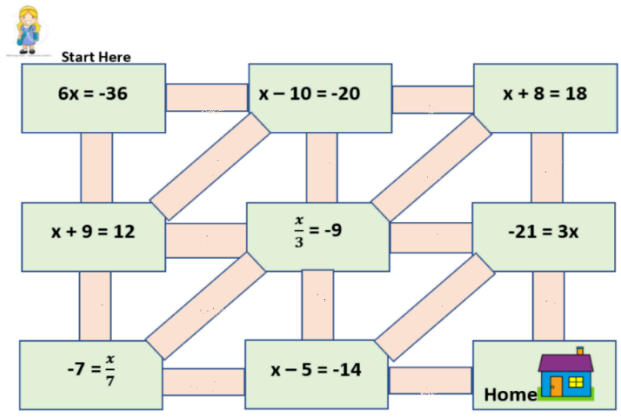
Name of School:		***Quarter:***	***4th Quarter***
Grade Level & Section:	***Grade 7***	***Week:***	***Week 4 Day 2***
Subject:	***MATHEMATICS***	***Date and Time:***	
Topic:		***Teacher:***	

I. CONTENT, STANDARDS AND LEARNING COMPETENCIES		***ANNOTATIONS***
A. CONTENT STANDARDS	The learners should have knowledge and understanding of the solution of simple equations.	
B. PERFORMANCE STANDARDS	By the end of the quarter, the learners are able to solve simple equations.	
C. LEARNING COMPETENCIES AND OBJECTIVES	Learning Competency The learners... 2. Solve problems involving algebraic expressions and formulas.	
I. CONTENT		
Algebraic Equation (Week 4) 2.2 Solving Equations by Applying Properties of Equality		
II. LEARNING RESOURCES		
A. REFERENCES	Department of Education. (2020). Mathematics quarter 2 – module 4: algebraic expressions. (1). k-to-12-grade-7-learning-material-in- mathematics-quarter-3.pdf - Google Drive	

	CK-12 Foundation. (2024, January 11). Evaluating algebraic expressions and equations. https://flexbooks.ck12.org/cbook/ck-12-algebra-ii- with-trigonometry-concepts/section/1.4/primary/lesson/evaluating-algebraic-expressions-and-equations-alg-ii/CueMath. (2024, January 15). Properties of equality. Cuemath. https://www.cuemath.com/algebra/properties-of-equality/ National Repository of Online Courses (2023, December 17). Solving one-step equations using properties of equality. LibreTexts Mathematics. https://math.libretexts.org/Bookshelves/Applied_Mathematics/Developmental_Math_(NROC)/10%3A_Solving_Equations_and_Inequaliti es/10.01%3A_Solving_Equations/10.1.01%3A_Solving_One-Step_Equations_Using_Properties_of_Equality
B. OTHER LEARNING RESOURCES	

III. TEACHING AND LEARNING PROCEDURE

BEFORE/PRE-LESSON PROPER

ACTIVATING PRIOR KNOWLEDGE	**Short Review:** Help Me! Let us help Shaina find her easy way home. The other way she was using was closed due to the pavement of the road, so she needed to find another way to go home. To help Shaina, let us solve the following equations and find the correct route going to their home  	**Lesson Activity Answer:** B. 6x = -36; x = -6 x -10 = -20; x = -10 x +9 = 12; x = 3 -7 = x/7; x = -49 x - 5 = -14; x = -9 -21 = 3x; x = -7

LESSON PURPOSE/INTENTION	**Essential Question:** How do you justify your process for solving an equation?	
LESSON LANGUAGE PRACTICE	**Unlock Vocabulary Content:** **Equation** - a statement that two expressions are equal **Linear equation in one variable** - an equation that can be written in the form ax + b = 0, where a and b are constants and a does not equal zero **Solution** - a value that makes an equation true **Inverse operations** - two operations that undo each other **Equivalent equations** - equations that have the same solutions	
DURING/LESSON PROPER		
READING THE KEY IDEA/STEM	The student will watch s short video about Justify using Properties of Equality. https://www.youtube.com/watch?v=H8wr6UOpmjc	By watching the video, students who did not understand the lesson yesterday will be able to grasp the concepts better.
DEVELOP NG and DEEPENING UNDERSTANDING OF THE KEY IDEA/STEM	**Real-Life Equation Scavenger Hunt** 👉 **Instructions:** Divide the class into small groups (3-5 students per team). 👉 **Scavenger Hunt Setup:** Place task cards around the room with different real-life scenarios requiring students to set up and solve equations. Each team starts at a different station. 👉 **Solving Equations:** Teams read the scenario, write an equation, and solve it using Properties of Equality.	

	Once they solve it, they write their answer on a sheet and move to the next station. 👉 **Checking Answers:** After all teams finish, the class reviews the solutions together. The team with the most correct answers wins! **Real-Life Equation Scenarios:** **1.** *"Maria is saving money for a new phone. She already saved Php1500 and needs a total of Php2000. If she saves the same amount each week for 6 weeks, how much does she need to save per week?"* *2.* A jacket costs Php600 after a Php15 discount. What was the original price?" 3. A cake recipe calls for 3 cups of flour to make 12 servings. How much flour is needed for 20 servings?" 4. *A car travels at 60 km per hour. How long will it take to travel 240 km?"/-+*	**ANSWER W/ SOLUTION:** **1. Equation:** 1500 + 6 x = 2000 **Solution:** 1500 + 6 x – 1500 = 2000 – 50 6 x = 1500 $\frac{6x}{6} = \frac{1500}{6}$ **X = 250** **2. Equation:** x – 15 = 600 **Solution:** x – 15 + 15 = 600 + 15 **x = 615** **3. Equation:** $\frac{3}{12} = \frac{x}{20}$ **Solution:** Cross multiply 60 = 12 x $\frac{60}{12} = \frac{12x}{12}$ **x = 5** **4. Solution** 60t = 240 $\frac{60t}{60} = \frac{240}{60}$

		t = 4 (The trip will take 4 hrs)
AFTER AFTER/POST-LESSON		
MAKING GENERALIZATIONS AND ABSTRACTIONS	**Final Review & Reflection Questions:** How did we use Properties of Equality in solving these problems? ✅ We used Addition and Multiplication Properties to keep the equations balanced and find the unknown value. Why is it important to check our solutions? ✅ Checking ensures the solution satisfies the equation, making it valid. How can we apply equations in our daily lives? ✅ Budgeting, shopping, cooking, traveling, and other decision-making scenarios require solving for unknowns.	
EVALUATING LEARNING	Answer the real-life problem solving on a ¼ sheet of paper. Please provide the equation and solution to the answer. 1. Carlos works part-time and earns Php120 per hour. Last week, he earned a total of Php1800. How many hours did he work?	**Answer:** **Equation:** 12x=1800 $\frac{120x}{120} \quad \frac{1800}{120}$ X = 15
ADDITIONAL ACTIVITIES FOR APPLICATION OR REMEDIATION (IF APPLICABLE)		
REMARKS		
REFLECTION		

Prepared by:

Reviewed by:

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Subject Teacher
Teacher

Master Teacher/Head