MATHEMATICS

Grade 4

Three-Term Budget Of Work (BOW)
for Learning Competencies

GENERAL MATHEMATICS
Grade 4

Three-Term Budget Of Work
For Learning Competencies

First Term	
Content Standard	The learners should have knowledge and understanding of… • measures of angles • properties of triangles and quadrilaterals • perimeter of quadrilaterals, and composite figures composed of triangles and quadrilaterals • whole numbers up to 1 000 000 • addition of numbers with sums up to 1 000 000 and subtraction of numbers where both numbers are less than 1 000 000 • multiplication of whole numbers with products-up to 1 000 000, division of up to 4-digit numbers by up to 2-digit numbers
Performance Standard	By the end of the term, the learners are able to… • illustrate and measure different angles. • classify triangles and quadrilaterals, and differentiate quadrilaterals, by applying their properties. • find the perimeter of quadrilaterals and composite figures composed of triangles and quadrilaterals. • read, write, and compare whole numbers up to 1 000 000. • performs addition of numbers with sums up to 1 000 000 and subtraction of numbers where both numbers are less than 1 000 000. • perform multiplication of whole numbers with products up to 1 000 000. • perform division of up to 4-digit numbers by up to 2-digit numbers.
Week	**Learning Competency**

1	**Measurement and Geometry** • Illustrate different angles (right, acute, and obtuse) using models. • Measure and draw angles using a protractor.
2	**Measurement and Geometry** • Draw and state the properties of triangles and quadrilaterals.
3	**Measurement and Geometry** • Classify triangles and quadrilaterals according to sides and angles. • Differentiate different quadrilaterals.
4	**Measurement and Geometry** • Find the perimeter of quadrilaterals that are not squares or rectangles. • Find the perimeter of composite figures composed of triangles and quadrilaterals.
5	**Number and Algebra** • Read and write numbers up to 1 000 000 in numerals and in words. • Determine: a. the place value of a digit in a 6-digit number b. the value of a digit c. the digit of number, given its place value
6	**Number and Algebra** • Compare numbers up to 1 000 000 using =, < and >. • Round numbers to the nearest hundred thousand. • Estimate the sum and difference of two 5- to 6-digit numbers by rounding the addends to the nearest large place value of the numbers.
7 to 8	**Number and Algebra** • Add numbers with sums up to 1 000 000 and subtracts numbers where both numbers are less than

	1 000 000, with and without regrouping. • Multiply two numbers with and without regrouping: a. 3- to 4-digit numbers by a 1-digit number b. 2- to 3-digit numbers by 2-digit numbers, with products up to 1 000 000." • Estimate the result of multiplying two numbers where the product is less than 1 000 000.
9 to 10	**Number and Algebra** • Solve multi-step problems involving one or more of the four operations with results of calculations up to 1 000 000, including problems involving money. • Divide two numbers with and without regrouping: a. 3- to 4-digit numbers by 1-digit numbers b. 2- to 3-digit numbers by 2-digit numbers" • Estimate the quotient when dividing 3- to 4-digit dividends by 1- to 2-digit divisors, by first estimating the dividends and divisors using multiples of 10.

Second Term	
Content Standard	The learners should have knowledge and understanding of… • the MDAS rules • conversion of units of length, mass, capacity, and time • addition and subtraction of similar fractions, including mixed numbers • dissimilar and equivalent fractions • factors and multiples of numbers up to 100
Performance Standard	By the end of the term, the learners are able to… • perform different operations by applying the MDAS rules. • convert units of length, mass, capacity, and time. • perform addition and subtraction of similar fractions, including mixed numbers. • represent, compare, and order dissimilar fractions. • find factors and multiples of numbers up to 100.

Week	Learning Competency
1 to 2	**Number and Algebra** • Represent situations involving one or more of the four operations using a number sentence. • Perform two or more different operations by applying the MDAS rules.
3	**Measurement and Geometry** • Convert common units of measure from larger to smaller units, and vice versa: a. meter and centimeter b. kilometer and meter c. kilogram and gram d. gram and milligram e. liter and milliliter

	• Convert time measures from smaller to larger units, and vice versa: a. seconds to minutes b. minutes to hours c. hours to days d. days to weeks e. weeks to months f. months to years
4	**Measurement and Geometry** • Solve problems involving conversion of units of length, mass, capacity, and time, including problems involving elapsed time in hours and minutes.
5	**Number and Algebra** • Identify proper fractions, improper fractions, and mixed numbers. • Rewrite improper fractions into mixed numbers, and vice versa. • Plot fraction (proper fractions, improper fractions, and mixed numbers) with denominators 2, 4, 5, and 10 on the number line.
6	**Number and Algebra** • Add and subtract similar fractions: a. two proper fractions b. two mixed numbers c. a mixed number and a proper fraction d. a whole number and a proper fraction e. a whole number and a mixed number
7	**Number and Algebra** • Represent dissimilar fractions, with denominators up to 10, using models. • Compare dissimilar fractions using the symbols =, >, and <.

8	**Number and Algebra** • Order dissimilar fractions from smallest to largest, and vice versa. • Generate equivalent fractions using models.
9 to 10	**Number and Algebra** • Determine equivalent fractions. • Identify the multiples of given numbers up to 100. • Find all the factors of a given number up to 100. • Reduce fractions to simplest form.

Third Term	
Content Standard	The learners should have knowledge and understanding of… • addition and subtraction of dissimilar fractions • symmetric figures with respect to a line • resulting images after applying reflection with respect to a line • presentation and interpretation of data in tabular form and in single line graph • simple patterns • number sentences • decimal numbers and their relationship to fractions
Performance Standard	By the end of the term, the learners are able to… • perform addition and subtraction of dissimilar fractions, including mixed numbers. • identify symmetry with respect to a line, and create figures that have line symmetry. • perform reflection with respect to a line, including glide reflection, to obtain images of shapes. • present and interpret data in tabular form and in a single line graph. • generate a simple pattern and describe the rule used. • complete number sentences to represent number properties and number facts. • represent, compare, order, and round decimal numbers. • convert decimal numbers to fractions and fractions (with denominators 10 or 100) to decimals.

Week	Learning Competency
1	**Number and Algebra** • Add and subtract dissimilar fractions using models.
2	**Number and Algebra**

	• Add and subtract dissimilar fractions: a. two proper fractions b. two mixed numbers c. a mixed number and a proper fraction d. a whole number and a proper fraction e. a whole number and a mixed number
3	**Number and Algebra** • Solve multi-step problems involving addition and/or subtraction of fractions.
4	**Measurement and Geometry** • Identify symmetry with respect to a line. • Complete a figure that is symmetric with respect to a line. • Draws the image of an object after applying reflection with respect to a line, including glide reflection.
5	**Data and Probability** • Collect data with time element using appropriate sources. • Present data in a tabular form, or in a single line graph.
6	**Data and Probability** • Interpret data presented in a tabular form, or in a single line graph. • Solve problems using data for at most two variables in a tabular form, or in a single line graph.
7 to 8	**Number and Algebra** • Describe the rule used to generate a given simple pattern. • Complete a number sentence: a. to represent a property of operations (e.g., 4 + 3 = 3 +) (commutative property of addition) b. to represent equivalent number facts (e.g., 4 + = 6 + 3) • Represent decimal numbers using models and manipulatives to show the relationship to fractions.

	• Read and write decimal numbers with decimal parts to hundredths.
9 to 10	**Number and Algebra** • Determine: a. the place value to hundredths of a digit in a given decimal number b. the value of a digit c. the digit of number, given its place value. • Convert decimal numbers to fractions, and fractions with denominators 10 or 100 to decimals. • Plot decimal numbers with tenth decimal part on the number line. • Compare and order decimal numbers with decimal parts to hundredths. • Round decimal numbers to the nearest whole number and to the nearest tenth.