Grade 7		
CONTENT DOMAIN	**CONTENT STANDARDS** *The learners should have knowledge and understanding of ...*	**LEARNING COMPETENCIES** *The learners ...*
Quarter 1		
Measurement and Geometry (MG)	1. regular and irregular polygons and their features/properties. 2. determination of measures of angles and number of sides of polygons.	1. draw and describe regular and irregular polygons with 5, 6, 8, or 10 sides, based on measurements of sides and angles, using a ruler and protractor. 2. draw triangles, quadrilaterals, and regular polygons (5, 6, 8, or 10 sides) with given angle measures. 3. describe and explain the relationships between angle pairs based on their measures. 4. classify polygons according to the number of sides, whether they are regular or irregular, and whether they are convex or non-convex. 5. deduce the relationship between the exterior angle and adjacent interior angle of a polygon. 6. determine the measures of angles and the number of sides of polygons.
Number and Algebra (NA)	3. application of percentages. 4. use of rates. 5. rational numbers.	7. solve problems involving: a. percentage increase, and b. percentage decrease. 8. solve money problems involving percentages (e. g., discount, commission, sales tax, simple interest). 9. create a financial plan. 10. identify and explain the uses of rates. 11. solve problems involving rates (e.g., speed). 12. describe given rational numbers as fractions, decimals, or percentages. 13. order rational numbers on a number line. 14. perform operations on rational numbers.

Performance Standards

By the end of the quarter, the learners are able to ...

- draw, and describe the features/properties of, regular and irregular polygons. (MG)
- use percentages in different contexts. (NA)
- identify and use rates. (NA)
- create a financial plan. (NA)
- describe, order, and perform operations on, rational numbers. (NA)

Grade 7		
Quarter 2		
Number and Algebra (NA)	1. square roots of perfect squares, cube roots of perfect cubes, and irrational numbers.	1. determine the square roots of perfect squares and the cube roots of perfect cubes. 2. identify irrational numbers involving square roots and cube roots, and their locations on the number line.
Measurement and Geometry (MG)	2. conversion of units of measure. 3. volume of square and rectangular pyramids, and cylinders.	3. convert units of measure within the International System of Units (SI) and across different systems of measure. 4. explain inductively the volume of a cylinder using the area of a circle, leading to the identification of the formula. 5. find the volume of a cylinder. 6. solve problems involving the volumes of cylinders. 7. explore inductively the volume of square and rectangular pyramids using rectangular prisms, leading to the identification of the formula. 8. estimate volumes of square and rectangular pyramids. 9. solve problems involving volumes of square or rectangular pyramids.
Number and Algebra (NA)	4. sets and subsets, and the union and intersection of sets using Venn diagrams 5. subset of real numbers.	10. describe sets and their subsets, the union of sets, and the intersection of sets 11. illustrate sets and their subsets, the union of sets, and the intersection of sets, through the use of Venn diagrams. 12. illustrate the different subsets of real numbers.

Performance Standards

By the end of the quarter, the learners are able to …

- determine square roots of perfect squares and cube roots of perfect cubes, and identify irrational numbers. (NA)
- convert units of measure from different systems of measure. (MG)
- find the volume of square and rectangular pyramids, and the volume of cylinders. (MG)
- describe sets and their subsets, and the union and intersection of sets. (NA)
- illustrates sets and subsets, and union and intersection of sets, using Venn diagrams. (NA)

Grade 7		
Quarter 3		
Data and Probability (DP)	1. data collection and sampling techniques, and the presentation of data in appropriate tables and graphs. 2. interpretation of statistical graphs.	1. investigate different data collection and sampling techniques. 2. organize statistical data in a frequency distribution table. 3. use appropriate graphs to represent organized data: pie graph, bar graph, line graph, and stem-and-leaf plot. 4. interpret statistical graphs.
Number and Algebra (NA)	3. the set of integers, and comparing and ordering integers. 4. the four operations with integers. 5. simplification of numerical expressions involving integers. 6. absolute value of an integer.	5. describe the set of integers. 6. use positive and negative numbers to describe directions or opposites in real-life situations. 7. locate integers on the number line. 8. compare and order integers. 9. add and subtract integers; using concrete models (e.g., counters, integer chips), pictorial models (e.g., bar models, number lines), and with integers written as numerals. 10. multiply and divide integers. 11. simplify numerical expressions involving integers using number properties and the order of operations (GEMDAS). 12. identify the absolute value of an integer, and its meaning on the number line.

Performance Standards

By the end of the quarter, the learners are able to …

- collect data, and organize data in a frequency distribution table. (DP)
- represent and interpret data in different types of graphs. (DP)
- compare and order integers, including through the use of the number line. (NA)
- perform the four operations with integers. (NA)
- simplify numerical expressions involving integers. (NA)
- identify the absolute value of an integer. (NA)

Grade 7		
Quarter 4		
Number and Algebra (NA)	1. the solution of simple equations. 2. the evaluation of algebraic expressions following substitution. 3. the rearrangement of a formula to make a different variable the subject of the formula.	1. solve simple equations represented by bar models to find unknowns. 2. distinguish a variable from a constant in an algebraic expression. 3. evaluate algebraic expressions given the value/s of the variable/s. 4. translate verbal phrases into algebraic expressions. 5. illustrate the properties of equality. 6. solve one variable in terms of the other variables in a formula. 7. write equations in algebraic form. 8. find the value of an unknown in an equation where the unknown is non-negative. 9. solve problems involving algebraic expressions and formulas
Data and Probability (DP)	4. outcomes from experiments.	10. collect data from experiments (e.g., number of heads obtained when tossing a coin, a number of times, number of prime numbers obtained when rolling a die a number of times). 11. express outcomes in words and/or symbols, and represents outcomes in tables and/or graphs. 12. solve problems using the outcomes of experiments.
Number and Algebra (NA)	5. operations using scientific notation.	11. write numbers in scientific notation to represent very large or very small numbers, and vice versa. 12. perform operations on numbers expressed in scientific notation.

Performance Standards

By the end of the quarter, the learners are able to …

- solve simple equations. (NA)
- substitute into an algebraic expression to evaluate the expression. (NA)
- rearrange a formula to make a different variable the subject of the formula. (NA)
- gather data from experiments and represent the data in different forms. (DP)
- write numbers in scientific notation and perform operations on numbers written in scientific notation. (NA)