PACE ACADEMY
MATHEMATICS 5
CURRICULUM GUIDE
SY 2020-2021

Most Essential Learning Competencies	Math Lessons
First Quarter	
Learn how to perform and solve word problems the basic operations in Mathematics involving large numbers.	Lesson 1.1: Addition and Subtraction of Whole Numbers
	Lesson 1.2: Multiplication and Division of Whole Numbers
Understand and explain the rules for the Order of Operations, including explaining the acronym, PEMDAS	Lesson 1.3: Order of Operations
Understand the term average, what it represents, and how to calculate it.	Lesson 1.4: Average
Evaluate expressions containing exponent	Lesson 1.5: Powers and Exponent
Understand the difference between factors and multiples. Learn how to find factors and multiples of a number.	Lesson 1.6: Multiples and Factors
Determine in a fast rate if a number is divisible by 2,3,4,5,..12.	Lesson 1.7: Divisibility Rules
Identify prime and composite numbers Find the prime factors of a number.	Lesson 1.8: Prime Factorization of a Number.
Find the Greatest Common Factor and Least Common Multiple of a Number using different methods	Lesson 1.9: Greatest Common Factor
	Lesson 1.10: Least Common Multiple
Second Quarter	
Identify the basic concepts of fraction	Lesson 2.1: Concepts of Fraction
Determine if the two fractions are equivalent or not.	Lesson 2.2: Equivalent Fraction
Learn how to compare and order fractions.	Lesson 2.3: Comparing and Ordering Fractions
Learn how to perform and solve word problems using the basic operations in fraction.	Lesson 2.4: Addition and Subtraction of Fractions
	Lesson 2.5: Multiplication of Fractions
	Lesson 2.6: Division of Fractions
Recognize the importance of knowing the place value of a decimal	Lesson 2.7: Place value of decimals
Learn how to compare and order decimals.	Lesson 2.8: Comparison and order of decimals
Round off decimals according to the given place value.	Lesson 2.9: Rounding off decimals

Learn how to perform and solve word problems using the basic operations in decimal.	Lesson 2.10: Addition and Subtraction of Decimals
	Lesson 2.11: Multiplication of Decimals
	Lesson 2.12: Division of Decimals
Third Quarter	
Describe the difference between ratio and proportion Identify the ratio and proportion of a given problem.	Lesson 3.1: Ratio and Proportion
Identify rate as two proportions Solve word problems involving proportion	Lesson 3.2: Rate and Proportion
Identify the difference between direct and inverse proportion. Determine the relationship of two ratios whether they are direct or inverse proportion.	Lesson 3.3: Direct Proportion
	Lesson 3.4: Inverse Proportion
Convert percents into fractions, into decimals and vice versa.	Lesson 3.5: Introduction to Percents
	Lesson 3.6: More on Fractions, decimals, and percents
Learn how to find the percentage, percent, and base of a number Solve word problem involving percentage, base, and rate.	Lesson 3.7: Finding the percentage of a number
	Lesson 3.8: Finding percent
	Lesson 3.9: Finding base
Identify some geometric figures and their properties. Classify kinds of angles and lines. Determine parts of a circle.	Lesson 3.10: Angle Measure and Special Angles.
Determine the properties of some angle relationships.	Lesson 3.11: Some angle relationships
Tell the parts of a triangle Classify kinds of triangle according to their sides and angle Solve the sum of the angles in a triangle.	Lesson 3. 12: Triangles
Name the different types of quadrilateral and their properties Find the sum of angles of a quadrilateral.	Lesson 3.14: Quadrilateral and Polygons
Identify similar and congruent figures. Determine the conditions of congruent triangles.	Lesson 3.15: Congruence and Similarity
Name different kinds of solid figures. Identify solids which can be formed by a net.	Lesson 3.16: Solid Figures and Their Net

Fourth Quarter	
Familiarize with different metric units for length, mass, and volume.	Lesson 4.1: Metric Everyone? Si!
Write the temperature reading shown	Lesson 4.2: Measuring Temperature

in thermometer	
Find the perimeter of plane geometric figures Find the circumference of a circle.	Lesson 4.3: Perimeter and Circumference
Find the area of plane geometric figures.	Lesson 4.4: Area of Plane Geometric Figures
Find the volume of geometric solids	Lesson 4.5: Volume of Solids
Differentiate and find the mode, mean, and median of a set of numbers	Lesson 4.6 Mode, Mean, and Median.
Read and interpret bar, line, and circle graph.	Lesson 4.7: Bar Graph
	Lesson 4.8: Line Graph
	Lesson 4.9: Circle Graph
Describe experimental probability. Solve and create non-routine problems involving experimental probability	Lesson 4.10: Exploring Experimental Probability
Identify the different strategies in solving for the unknown in simple equations involving one or more operations on whole numbers and fractions.	Lesson 4.11: Pattern and Sequence
Represent numbers using symbols or letters. Identify algebraic expressions	Lesson 4.12: Algebraic Expressions
Simplify and evaluate simple algebraic expressions	Lesson 4.13: Simplification and Evaluation of Algebraic Expressions
Solve an algebraic expression by using the different properties of equality of addition, subtraction, multiplication, and division	Lesson 4.14: Solving Addition and Subtraction of Algebraic Expressions
	Lesson 4.15: Solving Multiplication and Division of Algebraic Expressions

Reference:

Soaring 21st Century Mathematics 5 (2017). Phoenix Publishing House,, Inc.

Time Allotment: Four (4) synchronous sessions (40 minutes per session); Five (5) asynchronous sessions (40 minutes per session)

Promotion/Retention:

- Assessments will be categorized as the following with the corresponding weight:
  - Short Quizzes (20%)
  - Written Outputs (35%)
  - Product and Performance Tasks (45%)
- **Short Quizzes**. These include summative assessments after every lesson, group of related lessons, or chapter.
- **Written Outputs**. These include data recording and analyses, geometric and statistical analyses, graphs, charts, or maps, problem sets, and surveys.

- **Product and Performance Tasks**. TThese include diagrams, mathematical investigatory projects, models or making models of geometric figures, number representations, constructing graphs from survey conducted, multimedia presentation, outdoor math, probability experiments, problem-posing, reasoning and proof through recitation, using manipulatives to show math concepts or solve problems, and using measuring tools and devices.