MATHEMATICS VII
GRADE LEVEL 7

#	Lesson	Lesson Content
1	Decimal Number Concepts	Place value, exponents, powers of ten, expanded notation, scientific notation.
2	Number Operations	Commutative, associative, zero, one, and distributive properties. Inverse operations, order of operations.
3	Decimal Number Operations	Expanding skills in addition, subtraction, multiplication, and division.
4	Problem Solving 1	Solving practical problems that deal with decimal numbers.
5	Review Test 1	Decimals.
6	Number Theory	Inverse operations. Prime and composite numbers. Divisibility rules, factors, greatest common factor. Multiples, least common multiple. Square numbers, square roots.
7	Problem Solving 2	Practical application of number theory in problem solving.
8	Review Test 2	Number Theory.
9	Fraction Concepts	Simplest form, equivalent fractions. Comparing and ordering fractions. Improper fractions. Mixed numbers, relating fractions to decimals.
10	Fraction Operations	Expanding in addition, subtraction, multiplication, and division with fractions and mixed numbers.
11	Problem Solving 3	Practical situations dealing with fractions in problem solving.
12	Review Test 3	Fractions.
13	Ratio & Proportion	Ratios, equivalent ratios, cross products, rates, proportions, and solving proportions.
14	Problem Solving 4	Problem solving with ratios, rates, proportions, scale drawings.
15	Probability	Properties of probability. Making predictions. Outcomes and permutations.
16	Review Test 4	Ratio, Proportion, and Probability.
17	Percent Concepts	Percent, decimals, fractions, finding percents of a whole. Finding parts of a whole, finding the whole.
18	Problem Solving 5	Problem solving with percents. Percent of increase or decrease. Discounts, markups, commissions, interest, and sales tax.
19	Review Test 5	Percent.
20	Algebra Concepts	Numerical expressions, variables, equations, algebraic expressions, inequalities, inverse operations.
21	Expressions & Equations	Replacing variables to evaluate expressions. Steps to solving equations.
22	Problem Solving 6	Writing equations to solve word problems. Solving multi-step equations.
23	Review Test 6	Algebra
24	Measurement	Measurement of length, capacity, mass/weight, and time dealing with both metric and customary units.
25	Problem Solving 7	Problem solving applications of measurement.
26	Review Test 7	Measurement.
27	Geometric Concepts	Definitions and examples of points, lines, planes, and angles. Bisecting lines and angles. Relationships if lines. Relationships of angles.
28	Plane Figures	Study of polygons and circles. Classifications of triangles and quadrilaterals. Calculation of perimeter, circumference and area.
29	Motion Geometry	Similar and congruent figures. Rotation, translation, and reflection.
30	Space Figures	Review and expansion of ideas about prisms, pyramids, cones, and cylinders.

31	Geometric Measurement	Length, area, volume, surface area of geometric figures.
32	Review Test 8	Geometry.
33	Statistics	Data collection. Mean, median, mode, and range.
34	Graphing	Bar, circle, and line graphs. Stem and leaf plots, box and whisker plots.
35	Review Test 9	Statistics and Graphing.
36	Integers	Negative and positive numbers, comparing and ordering integers. Using a number line. Absolute value.
37	Addition & Subtraction	Finding sums and differences with integers. Additional properties of integers.
38	Multiplication & Division	Finding products and quotients with integers. Using multiplication properties with integers.
39	Coordinate Graphing	Graphing ordered pairs on a coordinate axis.
40	Review Test 10	Integer Operations and Ordered Pairs.
41	Comprehensive Test	