MATHEMATICS VIII
GRADE LEVEL 8

#	Lesson	Lesson Content
1	Number Concepts Review	Place value. Rounding, Estimation, Compatible numbers.
2	Properties	Commutative property of addition, associative property of addition, commutative property of multiplication, associative property of multiplication. Identity properties. Distributive property.
3	Problem Solving 1	Five step thinking plan. Problem solving strategies.
4	Basic Operations 1	Positive and negative rational numbers. Equivalent fractions. Cross products. Absolute value. Order of operations. Fractions to decimals. Comparing and ordering.
5	Basic Operations 2	Addition, subtraction, multiplication, division.
6	Review Test 1	Number Concepts, Properties, and Basic Operations.
7	Ratio & Proportion	Ratios, rates. Equivalent ratios. Proportion.
8	Problem Solving 2	Practical problems dealing with ratio, proportion, unit rates, rates, and scale.
9	Percent 1	Percent to decimals. Percent to fractions. Finding percents.
10	Percent 2	Percent of increase or decrease. Scales. Taxes and discounts.
11	Probability	Probability. Finding samples. Randomly occurring events. Compound events. Independent events. Dependent events. Making predictions. Capture and recapture. Method tree diagrams. Counting principle factorials. Venn diagrams.
12	Review Test 2	Ratio, Percent, and Probability.
13	Algebra 1	Numerical expressions. Variables. Variable expressions. Order of operations. Equations. Solutions.
14	Algebra 2	Simplifying numerical and variable expressions. Coefficients. Constants. Evaluating algebraic expressions.
15	Algebra 3	Properties of equality. Inverse operations. Inequality. Solving inequalities.
16	Algebra 4	Guides for practice in solving multi-step equations and inequalities.
17	Algebra 5	Translating data into equations and inequalities. Using equations and inequalities to solve practical problems.
18	Review Test 3	Algebra.
19	Geometric Concepts	Point, line, ray. Line relationships. Angles. Angle relationships. Angle measurement and classifications. Bisecting line segments and angles.
20	Plane Figures	Regular polygons. Triangles. Quadrilaterals. Congruent figures. Circles.
21	Space Figures	Polyhedrons. Prisms. Pyramids. Cylinders, cones, and spheres.
22	Geometric Measurement	Perimeter and circumference. Formulas for area of plane figures, surface area of polyhedrons, and volume of space figures.
23	Square Roots & Triangles	Square roots. Principal square roots. Perfect squares. Irrational numbers and real numbers. Pythagorean Theorem. Similar triangles. Special right triangles. Trigonometry.
24	Review Test 4	Geometry
25	Statistics 1	Samples. Mean, median, mode, and range. Binomial data. Line plots. Bar graphs. Line graphs. Double bar and double line graphs. Circle graphs. Frequency distribution.
26	Statistics 2	Stem and leaf plots. Box and whiskers plots. Histograms. Line plots.
27	Review Test 5	Statistics.
28	Integer Concepts	Positive and negative numbers. Zero. Opposites. Absolute values.
29	Integer Operations	Additions, subtraction, multiplication, and division of integers.
30	Problem Solving 3	Translating word phrases into algebraic expressions with integers. Problem solving strategies.
31	Review Test 6	Integers.

32	Coordinate Graphing 1	Coordinate planes. Ordered pairs. Solutions. Graphing equations. Linear equations. Slope. Slope formula.
33	Coordinate Graphing 2	Using coordinate graphing to solve problems. Solving and graphing equations and inequalities. Quadrants.
34	Polynomials 1	Monomials. Binomials. Trinomials. Operations with polynomials.
35	Polynomials 2	Using the distributive property. FOIL method of multiplying binomials. Square binomials.
36	Solving Equations Systems	Matrics. Determinants. Cramer's rule.
37	Review Test 7	Coordinate Graphing, Polynomial, Solving Equations.
38	Comprehensive Test	