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**Math Lesson Plan  
7th Grade Curriculum  
Total Activities: 168**

Chapter - "Number Systems"-This chapter addresses expressing numbers using exponents and scientific notation.		
Lesson Code	Lesson Title and Description	LA Number
1	Exponents-Express whole numbers using exponents.	M7001 M7002 M7003
2	Scientific Notation-Express numbers greater than one using scientific notation and vice versa.	M7007 M7008 M7009
Chapter - "Rational Operations"-This chapter addresses order of operations, fractions, decimals, percents and estimation.		
Lesson Code	Lesson Title and Description	LA Number
3	Fractions, Decimals, and Percents-Knows relationships and can convert between fractions, decimals, and percents.	M7027 M7028 M7029
Chapter - "Number Theory"-This chapter addresses prime and composite, prime factorization, greatest common factor and least common multiple.		
Lesson Code	Lesson Title and Description	LA Number
2	Prime Factorization-Find the prime factorization of whole numbers.	M7037 M7038

		M7039
3	GCF and LCM-Find the greatest common factor and least common multiple of two numbers.	M7043 M7044 M7045
Chapter - "Ratio, Proportion and Percent"-This chapter addresses scale, rates, ratios, proportions and percents.		
Lesson Code	Lesson Title and Description	LA Number
2	Proportional Relationships-Recognize relationships between ratios, proportions, and percents.	M7051 M7052 M7053
5	Percents-Solve real world problems involving discounts and mark ups.	M7061 M7062 M7063
6	Simple Interest-Solve real world problems involving simple interest.	M7067 M7068 M7069
7	Scale-Identify proportional relationships in scale drawings.	M7073 M7074 M7075
Chapter - "Rational Numbers"-This chapter addresses arithmetic operations on rational numbers, additive inverses and multiplicative inverses.		
Lesson Code	Lesson Title and Description	LA Number
1	Additive and Multiplicative Inverses-Identify pairs of additive and multiplicative inverses.	M7079 M7080 M7081
2	Addition and Subtraction-Add and subtract with positive and negative rational numbers.	M7085 M7086 M7087
3	Multiplication and Division-Multiply and divide with positive and negative rational numbers.	M7091 M7092 M7093
4	Operations-Solve real world problems with fractions, decimals, and integers.	M7097 M7098

		M7099
Chapter - "Expressions and Equations"-This chapter addresses simplification of expressions, properties of real numbers, translation, substitution and solving linear equations (one- and two-step).		
Lesson Code	Lesson Title and Description	LA Number
3	Expressions and Equations-Translate simple one variable word expressions and equations into corresponding symbolic expressions and equations.	M7107 M7108 M7109
5	Simplify Algebraic Expressions-Simplify algebraic expressions with one variable by combining like terms.	M7115 M7116 M7117
Chapter - "Triangles"-This chapter addresses the classification of angles and triangles and the calculation of unknown angles and side lengths in triangles.		
Lesson Code	Lesson Title and Description	LA Number
3	Angle Measurement-Solve angle measurement problems for triangles.	M7127 M7128 M7129
5	Pythagorean Theorem-Given two sides of a right triangle, find the length of a third side.	M7135 M7136 M7137
Chapter - "Plane Geometry"-This chapter addresses the properties of lines and angles and the calculation of perimeter, circumference and area.		
Lesson Code	Lesson Title and Description	LA Number
3	Geometric Properties of Lines-Identify and use symbolic notation to denote lines (intersecting, skew, parallel, perpendicular).	M7145 M7146 M7147
4	Angle Measure -Find the measure of an angle using a protractor or angle	M7151 M7152

	relationship.	M7153
9	Congruent and Similar Polygons-Identify attributes of a figure congruent or similar to a given figure.	M7165 M7166 M7167
Chapter -"Measurement"-This chapter addresses the measurement of rate, distance, time, mass, capacity and estimation and conversion.		
Lesson Code	Lesson Title and Description	LA Number
4	Rate, Time and Distance-Develop and apply $d=rt$ to solve problems for rate, time, and distance.	M7201 M7202 M7203
Chapter -"Graphing"-This chapter addresses plotting points, identifying characteristics of points, the relationship between tables and graphs.		
Lesson Code	Lesson Title and Description	LA Number
1	Ordered Pairs-Identify and plot ordered pairs in four quadrants and along the axes.	M7225 M7226 M7227
Chapter -"Linear Relationships"-This chapter addresses interpreting graphs of linear equations.		
Lesson Code	Lesson Title and Description	LA Number
2	Interpreting Real World Linear Graphs-Identify points on graphs of linear functions to answer questions about real world situations.	M7245 M7246 M7247
Chapter -"Probability"-This chapter addresses odds, theoretical and experimental probabilities, and the probabilities of independent and dependent events.		
Lesson Code	Lesson Title and Description	LA Number
3	Odds-Compute odds of simple events.	M7259 M7260 M7261

Chapter - "Whole Numbers"-The learner will investigate whole numbers.		
Lesson Code	Lesson Title and Description	LA Number
1	Add Whole Numbers -Add whole numbers to 100,000s with and without regrouping. Use columnar addition. Solve addition word problems.	76227
2	Subtract Whole Numbers-Subtract whole numbers to 100,000s with and without regrouping. Solve subtraction word problems.	76228
3	Multiply Whole Numbers -Multiply whole numbers with and without regrouping. Solve multiplication word problems. Decide what information needs to be found in word problems.	76229
4	Divide Whole Numbers-Divide whole numbers with and without remainders. Solve division word problems. Find averages.	76230
6	Prime/Composite/Factor -Learn to recognize prime and composite numbers. Make factor trees. Identify prime factors. Simplify using exponents.	76233 76234 76376
Chapter - "Real Numbers"-The learner will investigate real numbers.		
Lesson Code	Lesson Title and Description	LA Number
1	Real Number Properties-Learn to classify numbers by properties.	76237
2	Add Integers-Review positive and negative values and number lines. Learn the rules and operations for adding integers. Add positive and negative integers.	76238 76239 76384
3	Subtract Integers-Review positive and	76240

	negative values. Convert subtraction problems by using opposite signs. Subtract integers.	
4	Multiply/Divide Integers-Learn the rules for positive and negative signs. Multiply and divide integers.	76241
5	Order of Operations-Learn the order of operations. Evaluate expressions. Apply the order of operations rules from left to right.	76242 76243 76374
Chapter -"Decimals"-The learner will investigate decimal number relationships and computation.		
Lesson Code	Lesson Title and Description	LA Number
1	Compare/Order Decimals-Learn to align decimal numbers at the decimal point to compare. Compare numbers by aligning decimal points (tenths, hundredths, thousandths). Use greater than and less than to compare decimals. Order decimal numbers from least to greatest and from greatest to least.	76244
2	Multiply Decimal Numbers -Multiply decimal numbers. Place the decimal point in a product. Add zeros to decimal products.	76245 76370
3	Divide Decimal Numbers-Divide decimal numbers. Find averages. Shift the decimal point in the divisor and the dividend. Place the decimal point in a quotient.	76246 76247 76371
Chapter -"Fractions and Mixed Numbers"-The learner will investigate fraction and mixed number computation.		
Lesson Code	Lesson Title and Description	LA Number
1	Estimate Fractions-Estimate sums and differences of mixed numbers and fractions. Round mixed numbers and fractions. Compare fractions.	76248 76249 76372

2	Add/Subtract Fractions-Learn steps for adding and subtracting fractions. Find the least common denominator (LCD). Add and subtract fractions. Simplify answers.	76250
3	Add/Subtract Mixed Numbers-Learn steps to add and subtract mixed numbers. Convert mixed numbers to improper fractions. Regroup fractions to subtract. Simplify answers.	76251
4	Multiply Mixed Numbers-Multiply mixed numbers and fractions. Make improper fractions before multiplying. Learn crossing out shortcut. Find the greatest common factor (GCF) in mixed numbers and fractions.	76252
5	Divide Whole Numbers Fractions-Divide whole numbers by fractions. Find the reciprocals of divisors. Rewrite fraction division problems as multiplication by using the reciprocals of the divisors. Multiply by reciprocals.	76253 76254 76373
6	Divide by Fractions-Divide by fractions. Find the reciprocals of divisors. Rewrite fraction division problems as multiplication by using the reciprocals of the divisors. Multiply by reciprocals.	76255
Chapter -"Equations and Inequalities"-The learner will investigate equations and inequalities.		
Lesson Code	Lesson Title and Description	LA Number
1	Solve Using Add/Subtract-Isolate the unknown in equations. Solve by using addition and subtraction. Check by substitution.	76260 76375
2	Solve 2-Step Equations-Learn the order of operations for two-step equations. Solve equations. Check by substitution.	76261
3	Graph Sentences-Review the number line. Solve inequalities. Learn to graph	76262 76264

	sentences. Check work by substituting answers for the unknown.	76385
4	Graph Equations-Understand coordinate graphs. Find x- and y-values. Write ordered pairs. Graph equations.	76263 76265 76386
Chapter - "Polygons"-The learner will investigate characteristics of two-dimensional figures.		
Lesson Code	Lesson Title and Description	LA Number
1	Measure Angles-Learn to recognize types of angles. Use a protractor to measure angles. Calculate complementary and supplementary angles.	76266
2	Lines and Angles-Learn angle relationships. Calculate angle measurements.	76267
3	Polygons-Learn to recognize types of polygons. Recognize regular and irregular polygons. Learn the types of quadrilaterals. Find the number of triangles in a polygon and the sum of interior angles.	76268
Chapter - "Perimeter and Area"-The learner will investigate perimeter, area, and surface area.		
Lesson Code	Lesson Title and Description	LA Number
1	Perimeter and Area-Learn the formulas for perimeter. Simplify the formulas for perimeter. Learn the formulas for area. Calculate perimeter and area.	76272
2	Circumference and Area-Learn the formulas for circumference and area. Calculate circumference and area.	76273
3	Surface Area-Explore surface area. Calculate the surface area of cubes, pyramids, cylinders, and prisms.	76274 76275 76380

Chapter - "Data Representations"-The learner will investigate graphical data representations.		
Lesson Code	Lesson Title and Description	LA Number
1	Misleading Statistics-Learn to examine misleading and incomplete graphs.	76280
2	Read and Make Bar Graphs-Create bar graphs from given data. Interpret information in bar graphs.	76281
3	Broken-Line Graphs-Create broken-line graphs from given data. Label horizontal and vertical axes. Interpret information in broken-line graphs.	76282
4	Read and Make Circle Graphs-Create circle graphs from given data. Interpret information in circle graphs.	76283
5	Stem-and-Leaf Plots-Learn to create stem-and-leaf plots. Interpret plots. Find mode and median.	76284
6	Box-and-Whisker Plots-Identify extremes, quartiles, median, and range of ordered sets. Graph box-and-whisker plots. Interpret box-and-whisker plots.	76285
Chapter - "Custom Curriculum"-Custom Curriculum		
Lesson Code	Lesson Title and Description	LA Number
10	Custom Standard-Custom Standard	
Chapter - "Probability"-The learner will investigate basic concepts of probability.		
Lesson Code	Lesson Title and Description	LA Number
2	Dependent Events-Understand dependent events. Change data without replacement for dependent events. Learn to calculate the probability of dependent events. Use shortcuts to solve equations.	76288 76289 76383

3	Permutations-Understand permutations. Learn factorial notation and P notation. Calculate the number of permutations.	76290
Chapter -"Problem Solving"-The learner will investigate problem solving strategies.		
Lesson Code	Lesson Title and Description	LA Number
1	Number Combinations-Review strategies to solve a problem. Solve a problem using all possibilities, a table, and patterns.	76291
2	Number Expansion-Review strategies to solve a problem. Solve a problem using a simpler problem, drawings, a table, and patterns.	76292
3	Number Sequences-Review strategies to solve a problem. Solve a problem by finding a pattern and guessing.	76293
4	Area-Review strategies to solve a problem. Solve a problem by using a table, drawings, and guessing.	76294
5	Probability-Solve a problem using a table.	76295
Chapter -"Practice"-This chapter contains additional practice activities.		
Lesson Code	Lesson Title and Description	LA Number
3	Solve Proportions-Learn to set up and label proportions. Solve proportions by using cross products. Restate solutions. Solve word problems using proportions.	76256 76257 76378
7	Customary Units-Understand customary units conversion charts. Learn to convert customary measurements. Add and subtract customary measurements. Regroup and simplify customary measurement amounts.	76276
8	Word Problems: Customary-Use a 5-step	76277

	strategy to solve customary measurement word problems. Convert units of customary measurements.	
4	Sales Tax and Discount -Convert problems to proportions. Learn to calculate discount, sales tax, increase, and decrease. Restate solutions.	76258 76259 76379
9	Metric Units-Learn metric units of length, capacity, and weight. Learn to relate metric units. Convert metric measurements.	76278
10	Word Problems: Metric -Use a 5-step strategy to solve metric measurement word problems. Convert units of metric measurement.	76279
6	Congruent/Similar Figures-Understand congruence and similarity. Identify corresponding vertices, sides, and angles. Find missing measures for congruent and similar figures.	76269
5	Pythagorean Theorem-Learn the Pythagorean theorem. Calculate the length of the hypotenuse or the legs. Determine whether given measurements form a right triangle.	76270 76271 76381
1	Estimate Whole Numbers -Estimate sums, differences, and products by rounding numbers to specified place values. Use compatible numbers to estimate quotients.	76231 76232
2	Greatest Common Factor-Review prime factorization. Find the greatest common factor (GCF).	76235 76236 76377

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