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Math Lesson Plan
6th Grade Curriculum
Total Activities: 288

Chapter -"Number Theory and Systems"-Understand numeration, number theory, and number systems.		
Lesson Code	Lesson Title and Description	LA Number
1	Read & Write Numbers-Use numeric digits and words to read and write numbers including the trillions. Using the signs $<$, $>$, and $=$, order and compare numbers including the trillions.	6632 6633 6634
2	Round Numbers-Round to the nearest thousand; nearest ten thousand; nearest hundred thousand; nearest million.	6635 6636
3	Divisibility Rules-Applly the divisibility rules of 2, 3, 4, 5, 6, 8, 9, and 10 to various numbers.	67113
4	Prime Factorization-Use prime factorization to determine the prime factors of a number.	67114
5	Greatest Common Factor-Find the greatest common factor among 2 or more numbers.	67115 67156
14	Square Numbers-Identify square numbers.	6B003

6	Powers of 10-Identify powers of 10 through the 6th power.	6643 6644 67258 6B005
7	Scientific Notation-Write numbers in scientific notation. Convert scientific notation to standard form.	6645 6646 67116
8	Compare Scientific Notation-Using the signs $<$, $>$, and $=$ compare rational numbers in scientific notation.	67121 67158
15	Negative Numbers-Understand the concept of negative numbers using number line representations.	6B004
9	Number Line-Identify and represent integers and rational numbers on a number line.	6710 6711 67147
10	Inequality Symbols-Using the symbols $<$, $>$, and $=$, compare integers.	6714 6715 67148
11	Absolute Value-Define absolute value and its opposite.	67149 67157
16	Pi-An introduction to pi.	6B014
12	Skills & Strategies-Analyze and solve problems using number-sense skills and strategies.	6647 6648
13	Everyday Math-Identify mathematical concepts and apply them to everyday experiences.	6649 6650
Chapter - "Meanings of Operations"-Understand the meanings of operations and how they relate to one another.		
Lesson Code	Lesson Title and Description	LA Number
1	Properties-Describe and apply the Commutative, Associative, and Distributive Properties.	6651 67122
2	Exponential Expressions-Evaluate	6637

	exponential expressions. Explore relationships of exponents and roots.	6638 6639 6640 67123
3	Order of Operations-Applied the order of operations including exponents and roots.	67124 67194
4	Add & Subtract Numbers-Add and subtract using five-digit numbers, including subtracting across zeros.	6652
5	Estimate Sums & Differences-Estimate sums and differences.	6653
6	Whole Numbers (\times and \div)-Multiply and divide whole numbers.	6654 6655 67153
12	Inverse Operations-Understand that addition and subtraction are inverse operations. Understand that multiplication and division are inverse operations.	6B001 6B002
7	Estimate Products & Quotients-Estimate products and quotients using a variety of estimating techniques including front-end, compatible numbers, and rounding.	6656 6657 67154
8	Mental Math-Demonstrate mental computation strategies for multiplication and division by powers of 10.	6658 6659
9	Division & Decimal Remainders-Solve division problems by writing the remainders as a decimal.	67155 67195
10	Use a Calculator-Using a calculator, add, subtract, multiply, and divide up to five-digit numbers.	6662 6663
11	Strategies to Add & Subtract-Use a variety of problem-solving strategies to analyze and solve problems involving addition and subtraction.	6660 6661 6664 6665

Chapter - "Fractions and Decimals"-Understand relationships among numbers and ways of representing fractional and decimal numbers.

Lesson Code	Lesson Title and Description	LA Number
1	Least Common Multiple-Find the least common multiple of 2 or more numbers.	67117
2	Least Common Denominator-Determine the least common denominator of fractions with unlike denominators.	67118
15	Locating Fractions on a Number Line-Locate proper and improper fractions and mixed numbers on a number line.	6B006
3	Add and Subtract Mixed Numbers-Convert between mixed numbers and improper fractions. Add and subtract mixed numbers and fractions having like and unlike denominators with regrouping.	67119 67120
4	Fraction Inequalities-Using the signs $<$, $>$, and $=$, compare mixed numbers and fractions having like and unlike denominators.	6666 6667
5	Add & Subtract Fractions-Add and subtract mixed numbers and fractions having like and unlike denominators.	6668 6669
16	Add and Subtract Fractions and Whole Numbers-Add and subtract mixed numbers, whole numbers, proper and improper fractions having like and unlike denominators.	6B007
6	Multiply Mixed Numbers-Multiply mixed numbers by whole numbers and fractions.	6670 6671 67150
7	Divide Fractions-Divide whole numbers by fractions. Divide fractions by fractions. Divide mixed numbers by whole numbers and fractions.	6672 6673 6674 6675

		67151 67152
8	Read & Write Decimals-Read, write, and order decimals to the nearest hundred thousandth.	6676 6677
9	Decimals in Expanded Form-Write decimals (up to the hundred thousandths) in expanded form.	6678 6679
10	Calculating Decimals-Round decimals to the nearest hundredth; to the nearest thousandth; to the nearest ten thousandth. Estimate decimal sums and differences through the nearest hundred thousandth. Add and subtract decimals through the hundred thousandths.	6680 6681 6682 6683 6684
11	Multiply Decimals-Multiply decimals. Round decimals to the nearest hundredth, thousandth, and ten thousandth.	6686 6687 67174
12	Divide Decimals-Divide decimals by whole numbers. Divide decimals by other decimals.	6688 6689 6690 6691 67175 67181
17	Estimate Products and Quotients of Decimals-Estimate products and quotients of decimals.	6B009 6B010 6B011
13	Fractions and Decimals-Convert between fractions and decimals.	6692 6693 67187
14	Repeating Decimals-Define and identify terminating and repeating decimals.	67188 67189 6B008
Chapter - "Percents and Ratios"-Understand relationships among numbers and ways of representing percents and ratios.		
Lesson Code	Lesson Title and Description	LA Number

1	Convert between Numbers-Convert between fractions, decimals, and percentages.	6694 6695 67162
2	Calculate the Percent -Calculate the percent of a number. (What is 25% of 100?)	6696 6697 67163
3	Use Percent to Find a Number-Find an unknown number when a percentage of the number is known.	6698 6699
4	Percents Greater than 100-Solve problems involving percentages greater than 100. (match with diagrams)	6702 6703 67164
5	Percent Increase & Decrease-Solve problems involving percent increase and decrease such as sales tax and discounts.	6700 6701 67165
12	Estimate Percent-Estimate percents.	6B012
6	Simple Interest-Solve problems using simple interest.	67166 67191
7	Ratios-Define and write ratios and express decimals and percents as ratios.	67182
8	Compare Variables & Ratios-Compare two values or variables as ratios, using appropriate notations such as a/b , a to b , and $a:b$.	6704
9	Proportions-Solve proportions including problems involving proportions with one unknown through cross products.	6706 6707 67183
10	Rates-Solve problems involving rates.	67192 67196
11	Skills & Strategies-Analyze and solve word problems using fraction, decimal, ratio, and percentage skills and strategies.	6708 6709
Chapter - "Patterns-Relations-Functions"-The learner will understand patterns, relations, and functions.		
Lesson	Lesson Title and Description	LA

Code		Number
1	Identify Pattern Rules-Identify and apply pattern rules using diagrams, charts, lists, and tables. Identify and extend figurate number patterns. (triangular, square, etc.)	6801 6802 67200
2	Function Rules-Express function rules using algebraic symbols. (e.g. add 2 expressed as $n + 2$)	6803 6804 67201
3	Function Tables-Identify functional relationships and complete function tables. Identify algebraically the rule used to generate a group of ordered pairs.	6805 67202 67207
4	Using Patterns & Functions-Solve problems and model real-world situations using patterns and functions.	6806 6807
Chapter - "Algebra"-The learner will represent and analyze mathematical situations and structures using algebraic symbols.		
Lesson Code	Lesson Title and Description	LA Number
1	Add & Subtract Integers-Add and subtract integers. Define the Additive Inverse, Identity Element of Addition, and the Equality Property.	6716 6717 67203
2	Multiply & Divide Integers-Multiply and divide integers. Define the Multiplicative Inverse, Zero Property, Identity Element of Multiplication, and the Equality Property.	67204
3	Integers Everyday-Use integers in real-life situations.	6718 6719
4	Simplify Expressions-Simplify algebraic expressions.	6809 6810 67205 67211

5	Solve One-Step Equations -Solve one-step algebraic equations with a variable and express the solution on a number line.	67212
6	Solve Two-Step Equations-Solve two-step algebraic equations with a variable and express the solution on a number line.	6811 6812 67213
7	Simple Linear Word Problems-Write and solve simple linear equations for word problems, and explain reasoning orally or in writing.	6813 6814
8	Inequalities-Solve algebraic inequalities with a variable. Graph the solution set of an algebraic inequality on a number line.	67214 67215
Chapter -"Geometry"-Analyze characteristics and properties of two- and three-dimensional shapes.		
Lesson Code	Lesson Title and Description	LA Number
1	Points-Segments-Rays-Lines-Identify and draw points, line segments, angles, rays, planes, parts of a circle, and horizontal, vertical, perpendicular, parallel, and intersecting lines.	6720 6721 66948 67257
12	Open and Closed Figures-Identify whether figures are open or closed.	6B013
2	Geometric Shapes-Classify, describe, and compare two-dimensional geometric figures. Define and identify attributes of three-dimensional figures.	6722 6723 6728 6729 67159
3	Construct Parallelograms-Using a ruler and compass, construct parallelograms.	6730 6731
4	Circles-Investigate and determine the relationship between the diameter and circumference of a circle and the value of pi.	67160 67161

5	Angle Measures-Using a protractor, measure and classify acute, right, obtuse, and straight angles.	6734 6735 6736 6737 67216
6	Bisectors-Define and identify altitudes, midpoints, diagonals, angle bisectors, and perpendicular bisectors.	6732 6733 6738 6739 67217
7	Angle Relationships-Define and identify adjacent, vertical, interior, exterior, complementary, and supplementary angles. Define and identify alternate interior, alternate exterior, corresponding, and vertical angles.	67218 67219
8	Construct Triangles-Use a compass and straightedge to construct equilateral, right, and isosceles triangles.	6740 6741
9	Right Triangles-Use the Pythagorean theorem to find the hypotenuse of a right triangle.	67252
10	Properties of Triangles-Find the measure of the third angle of triangles when given the measure of two angles.	6742 6743 67253
11	Similar Triangles-Use proportions to find the length of a missing side when given the length of two sides of similar triangles.	6744 6745 67254
Chapter -"Coordinate Geometry"-The learner will specify locations and descibe spatial relationships using coordinate geometry		
Lesson Code	Lesson Title and Description	LA Number
1	Plotting Points-Plot points on a four quadrant coordinate plane by determining and using ordered pairs of positive and negative whole numbers.	6724 6725 67255

2	Distance-Find the distance between two points on a vertical or horizontal line.	67245
3	Transformations -Locate, give the coordinates of, and graph plane figures which are the results of translations or reflections in the first quadrant.	67256
Chapter -"Custom Curriculum"-Custom Curriculum		
Lesson Code	Lesson Title and Description	LA Number
9	Custom Standard-Custom Standard	
Chapter -"Transformational Geometry"-The learner will apply transformations and use symmetry to analyze mathematical situations.		
Lesson Code	Lesson Title and Description	LA Number
1	Congruence & Similarity-Explore congruence and similarity of objects using transformations.	67249
2	Symmetry-Explore line and rotational symmetry of objects using transformations.	67250
3	Similar, Congruent & Symmetric-Identify and distinguish among similar, congruent, and symmetric figures. Name corresponding parts.	67251
Chapter -"Spatial Reasoning"-The learner will use visualization, spatial reasoning, and geometric modeling to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Cross Sections-Identify and classify cross sections of three-dimensional figures.	67236
2	Surface Area-Explore surface area of three-dimensional figures.	67237

3	Geometric Models-Use geometric models to solve problems using two-dimensional attributes of three-dimensional figures.	67238
4	Scale Drawings-Use grids to make scale drawings to relate scale to ratio.	67241
5	Distances on Maps-Use proportional reasoning to determine distances on a map.	6795 6796 67242
6	Geometry Everyday-Identify and use geometric concepts in areas other than mathematics, such as science, architecture, art, and everyday life.	6758
Chapter - "Time"-The learner will understand the attributes of time and apply appropriate techniques, tools, and formulas to determine measurements.		
Lesson Code	Lesson Title and Description	LA Number
1	Units of Time-Identify varied units of time including seconds, minutes, hours, days, weeks, months, years, decades, centuries, and milleniums. Relate time by using fractions of an hour or a year.	6791 6792 67197
2	Elapsed Time-Use schedules, calendars, and elapsed time to solve real-world problems. Interpret and create time schedules. Solve problems involving time zones.	6793 6794 67198
3	Rates-Solve problems involving rates, average speed, distance, and time.	67199 67206
Chapter - "Measurement Systems"-The learner will understand the attributes of length and weight and apply appropriate techniques, tools, and formulas to determine measurements.		
Lesson Code	Lesson Title and Description	LA Number
1	Estimate Measurements-Estimate the	6785

	length, weight/mass, and capacity/volume of an object, and compare the estimate with an actual measurement.	6786
2	Customary System-Estimate and measure length, weight, and capacity in customary units.	67171
3	Converting Customary Units-Choose the proper tool/unit for measurement. Convert between units in the customary system.	67172
4	Indirect Customary Measurement-Determine lengths, weights, and capacities using proportional reasoning and indirect measurement.	67173 67180
5	Metric System-Estimate and measure length, mass, and capacity in metric units.	67176
6	Converting Metric Units-Choose the proper tool/unit for measurement. Convert between units in the metric system.	6787 6788 67177
7	Indirect Metric Measurement-Determine length, mass, and capacity using proportional reasoning and indirect measurement.	67178 67179
8	Add & Subtract Common Units-Use common units of measurement when solving problems involving addition and subtraction of different units.	6789 6790
9	Problems Involving Measurement-Select and use appropriate units, tools, and formulas to solve problems involving length, area, time, temperature, capacity, and weight.	6799 6800
Chapter -"Comparing Measurement Systems"-The learner will understand the attributes of length, weight, and capacity in both systems of measurement.		

Lesson Code	Lesson Title and Description	LA Number
1	Comparing Units-Make comparisons with measurements in metric and customary units. Determine the best unit for measurement.	67184
2	Converting Between Systems-Convert units from one system to another.	67185
3	Indirect Measurement-Determine missing units using proportional reasoning and indirect measurement.	67186 67193
Chapter -"Spatial Relationships"-The learner will understand the attributes of perimeter, area, and volume and apply appropriate techniques, tools, and formulas to determine measurements.		
Lesson Code	Lesson Title and Description	LA Number
1	Relate Scale to Ratio-Make scale drawings using centimeter grids to relate scale to ratio.	6797 6798
2	Area Relationships-Identify the relationship between areas of triangles and rectangles with the same base and height.	67208
3	Perimeter & Area Formulas-Use formulas to calculate the perimeter and area of triangles and parallelograms. (breaking polygons into components)	6746 6747 67209
4	Triangle Area & Perimeter-Using the formulas $A = (1/2)bh$ and $P = s_1 + s_2 + s_3$, find the area and perimeter of triangles.	6748 6749
5	Comparing Perimeter & Area-Compare perimeter and area and understand that two figures can have the same measures on one attribute but not on another.	67210 67220
6	Circumference and Area-Use formulas	6750

	to calculate the area and circumference of circles.	6751 67224
7	Surface Area-Explore surface area of rectangular prisms, cubes, and cylinders.	67225
8	Rectangle Prism Volume-Using the formula volume = area of base x height ($V = A \times h$), find the volume of rectangular prisms.	6752 6753
9	Volume-Use formulas to calculate volume of rectangular prisms, cubes, and cylinders.	67226
10	Use a Calculator-Using a calculator, find the area of triangles and parallelograms, the volume of rectangular prisms, and the circumference of circles.	6754 6755
Chapter -"Data Analysis"-Collect, organize and interpret data using a variety of tools including surveys, tables and graphs.		
Lesson Code	Lesson Title and Description	LA Number
1	Collecting and Organizing Data-Identify steps involved with conducting a survey to generate accurate data. Record and organize data in a clear and concise manner using tally tables and frequency tables.	6762 6763 67228
2	Summarize Data-Summarize data by determining the range, outliers, and measures of central tendency (mean, mode, median) based on given data.	6760 6761 6764 6765 67229
3	Graphs that Compare-Based on given data, create and interpret graphs that compare including bar graphs, histograms, and circle graphs.	67230 67231
4	Graphs that Show Change -Based on given data, create and interpret graphs that show change over time including	67233

	line graphs and double line graphs.	
5	Graphs that Group Data-Based on given data, create and interpret graphs that show how data is grouped including Venn diagrams, line plots and stem-and-leaf plots.	67234
6	Organizing Population Data-Use a variety of sources to collect, organize, and display data about local, state, national, and world populations.	6766 6768
7	Data in Tables & Graphs-Solve problems requiring interpretation and application of data organized in tables and graphs.	6769 6770
Chapter -"Probability"-The learner will apply basic concepts of probability.		
Lesson Code	Lesson Title and Description	LA Number
1	Possible Outcomes-Determine and represent all possible outcomes for a particular situation using charts, lists, or tree diagrams. (sample space and counting principle)	67167
2	Events and Complements-Calculate the probability of an event and its complement. (odds for and against, in proportions and percentages)	6777 6778 67168
3	Probability-Analyze and solve problems using ratio, percentage, and probability skills and strategies. Explore the terms fair and equally likely in game events.	6781 6782 67169 67170
4	Ratios-Determine and express ratios in a variety of ways. Find and use equivalent ratios and express them as decimals and percentages.	6771 6772 6773 6774