

Math Lesson Plan
6th Grade Curriculum
Total Activities: 302

Chapter -"Whole Numbers"-Students will work with roman numerals and numbers using the base-ten system and perform basic operations.		
Lesson Code	Lesson Title and Description	LA Number
1	Roman Numerals-Students will use roman numerals to solve problems.	MA6111 MA6112
2	Generate Equivalent Forms of Whole Numbers-Students will find equivalent forms for whole numbers.	MA6121 MA6122
3	Comparing and Ordering Whole Numbers-Students will compare and order whole numbers up to one trillion.	MA6131 MA6132
4	Rounding Whole Numbers-Students will round whole numbers up to one trillion.	MA6141 MA6142
5	Estimating Whole Numbers-Students will estimate whole numbers when solving problems.	MA6151 MA6152
6	Adding and Subtracting Whole Numbers-Students will add and subtract whole numbers up to one trillion.	MA6161 MA6162
7	Multiplying and Dividing Whole	67153

	Numbers-Students will multiply and divide whole numbers up to four digits.	MA6172
8	Dividing Whole Numbers-Students will divide whole numbers with the dividend being no larger than five digits and the divisor being no more than three digits.	MA6181 MA6182
9	Problem Solving Strategies-Students will apply strategies in order to solve real-life problems.	MA6191 MA6192 MA6193 MA6194 MA6195 MA6196
Chapter -"Operations with Whole Numbers"-Students will use addition, subtraction, multiplication and division strategies in order to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Exponents and Square Roots-Students will evaluate expressions using exponents and square roots.	67258 MA6212 67116 MA6214 MA6215 MA6216 67123 MA6218
2	Order of Operations (GEMDAS)-Students will apply the order of operations in order to solve problems.	MA6221 MA6222
3	Variables and Expressions-Students will use variables in order to simplify expressions.	MA6231 MA6232 MA6233 MA6234
4	Properties of Addition and Multiplication-Students will apply properties of addition and multiplication when solving problems.	MA6241 MA6242 MA6243 MA6244
5	Patterns and Sequences-Students will identify patterns, arithmetic and geometric sequences.	67200 MA6252 MA6253 MA6254

6	One-Step Equations with Whole Numbers-Students will solve one-step equations using only whole numbers.	MA6261 MA6262 MA6263 MA6264
7	Perimeter-Students will find the perimeter of given shapes.	MA6271 MA6272
8	Area-Students will identify the area of a given shape.	67208 MA6282
9	Problem Solving-Students will use choose the method for computation and use models and concrete objects to solve real-life problems.	MA6291 MA6292
Chapter Decimals -""-Students will work with decimals and perform all four operations in order to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Generate Equivalent Forms of Decimals-Students will identify decimal place value and write the number in standard, written and expanded form.	MA6311 MA6312 67188 MA6314
2	Comparing and Ordering Decimals-Students will compare and order decimals including using a number line.	MA6321 MA6322
3	Estimating and Rounding Decimals-Students will round and estimate decimals in performing all four operations.	MA6331 MA6332
4	Adding and Subtracting Decimals-Students will add and subtract decimals using money.	MA6341 MA6342
5	Multiplying Decimals-Students will multiply and round decimals.	67174 MA6352
6	Dividing Decimals-Students will divide by whole numbers and decimals.	67175 MA6362
7	Scientific Notation-Students will compare	67121

	rational numbers using scientific notation.	MA6372
8	One-Step Equations with Decimals-Students will solve one-step equations with decimals using addition, subtraction, multiplication and division.	MA6381 MA6382
9	Problem Solving-Students will use the guess and check and reasonableness strategies in order to solve real-life problems.	MA6391 MA6392
Chapter -"Fractions"- Students will apply concepts about fractions and perform operations with addition, subtraction, multiplication and division.		
Lesson Code	Lesson Title and Description	LA Number
1	Introduction to Fractions-Students will identify pictorial and numerical representations of fractions and mixed numbers.	MA6411 MA6412
2	Lowest Common Multiple-Students will find the lowest common multiple of more than two numbers.	67117 MA6422
3	Least Common Denominator-Students will find the least common denominator for two or more fractions.	67118 MA6432
4	Divisibility Patterns-Students will divisibility rules for 2, 3, 4, 5, 6, 9 and 10 for sets of numbers.	MA6441 MA6442
5	Introduction to Prime and Composite Numbers-Students will solve problems using prime factorization.	67114 MA6452
6	Factors and GCF-Students will find the factors of whole numbers by listing factors and using prime factorization.	MA6461 MA6462
7	Simplify Fractions-Students will simplify fractions with prime factorization and greatest common factor. Students will also show division remainders as simplified fractions.	MA6471 MA6742

8	Equivalent Fractions-Students will find equivalent fractions by finding the missing variable and applying concepts used to find equivalent fractions for improper fractions and mixed numbers.	MA6481 MA6482
9	Fractions and Decimals-Students will find equivalent forms for decimals and fraction including repeating decimals.	MA6491 MA6492
10	Comparing and Ordering Fractions-Students will compare and order fractions including using a number line.	MA64101 MA64102
11	Estimating and Rounding Fractions-Students will round fractions to the nearest half number and estimate sums, differences, products and quotients.	MA64111 MA64112
12	Add and Subtract Fractions, Like Denominators-Students will add and subtract fractions with like denominators.	MA64121 MA64122
13	Adding Fractions with Unlike Denominators-Students will add fractions and mixed numbers with unlike denominators.	MA64131 MA64132
14	Subtract Fractions with Unlike Denominators-Students will subtract fractions and mixed numbers with unlike denominators.	MA64141 MA64142
15	Multiplying Fractions-Students will multiply fractions and mixed numbers.	MA64151 MA64152
16	Dividing Fractions-Students will divide fractions and mixed numbers.	MA64161 MA64162
17	One-Step Equations with Fractions-Students will solve one-step equations using fractions and all four operations.	MA64171 MA64172
Chapter -"Integers"-Students will apply knowledge of integers as they solve problems that require all four operations.		
Lesson Code	Lesson Title and Description	LA Number

1	Integers in the Real World-Students will use integers to describe real-life situations and show them on a number line.	MA6511 MA6512
2	Comparing and Ordering Integers-Students will compare integers and rational numbers.	MA6521 MA6522
3	Adding and Subtracting Integers-Students will add and subtract using integers.	67149 MA6532 67203 MA6534
4	Multiplying and Dividing Integers-Students will multiply and divide using integers.	MA6541 MA6542
5	One-Step Equations-Students will solve one step equations with integers including fractions and decimals.	MA6551 MA6552
6	Problem Solving-Students will use deductive or inductive reasoning, process of elimination or work backwards to solve real-life problems.	MA6561 MA6562
Chapter -"Graphing"-Students will analyze, interpret and create graphs. Students will use the information within the organizers to answer questions.		
Lesson Code	Lesson Title and Description	LA Number
1	Introduction to Graphs-Students will select appropriate representation and present data while justifying their choice.	MA6611 MA6612
2	Frequency Tables and Line Plots-Students will use frequency tables and identify appropriate intervals.	MA6621 MA6622
3	Pictographs and Venn Diagrams-Students will use Venn Diagrams, stem-and-leaf plots and line plots.	67234 MA6632
4	Bar Graphs-Students will use bar graphs and histograms to answer questions.	MA6641 MA6642 MA6643 MA6644

5	Line Graphs and Line Plots-Students will read and interpret line graphs, double line graphs and line plots.	MA6651 MA6652
6	Double Bar Graphs and Double Line Graphs-Students will create double bar and line graphs.	MA67233 MA6662
7	Coordinate Graphing (Quad. I)-Students will locate and plot points on a coordinate graph using ordered pairs.	MA6671 MA6672
8	Measures of Central Tendency-Students will identify outliers, range, mean, median and mode.	67229 MA6682 MA6683 MA6684
9	Misleading Graphs and Statistics-Students will work with fair surveys.	67228 MA6692
10	Stem and Leaf Plots-Students will read and interpret stem and leaf plots.	MA66101 MA66102
11	Box and Whisker Graphs-Students will read, interpret and create box and whisker graphs.	MA66111 MA66112
12	Problem Solving-Students will make a table, an organized list, draw a picture or use logic to solve problems.	MA66121 MA66122 MA66123 MA66124
Chapter -"Measurement"-Students will convert between different standards of measurement in order to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Metric System-Students will identify the property tool and perform conversions using the metric system.	67177 MA6712 67178 MA6714 67176 MA6716
2	Customary System-Students will use correct tools and perform conversions using the customary system of	67172 MA6722 67173

	measurement.	MA6724 67171 MA6726
3	Measurement-Students will find the approximate measurement to the nearest unit and use reasonableness to determine the best unit for measurement.	MA6731 MA6732
4	Time and Temperature-Students will estimate and find measures of time and elapsed time as well as customary and metric temperature.	MA6741 MA6742
5	Area and Perimeter-Students will find area and perimeter of quadrilaterals.	MA6751 MA6752
6	Problem Solving-Students will communicate the process for solving problems, describe the steps and solve a simpler problem in real-life problems.	MA6761 MA6762
Chapter -"Ratios, Proportions, Percents"-Students will use ratios, proportions and percents in order to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Ratios and Proportions-Students will solve proportions and ratios as decimals and percents.	67182 MA6812 67183 MA6814
2	Solving Proportions and Unit Rates-Students will set up proportions and solve unit rates and problems using geometric pictures.	MA6821 MA6822
3	Rate-Students will solve problems with rates and simple interest.	67166 MA6832 67192 MA6834
4	Scale and Indirect Measurement-Students will use grids to make scale drawings and use maps to find actual distance.	67241 MA6842 67242 MA6844

5	Percents-Students will show equivalent forms of percents in fractions and decimals and solve problems that are greater than 100%.	67164 MA6852 MA6853 MA6854
6	Circle Graphs-Students will read and interpret circle graphs and identify appropriate graphs given percent values.	MA6861 MA6862
7	Solving Percent Problems-Students will find the percent of a number, the whole or the percent.	MA6871 MA6872
8	Percent and Real-Life-Students will find price using sales tax and discounts.	67165 MA6882
9	Problem Solving-Students will make predictions from data and solve multi-step problems.	MA6891 MA6892
Chapter -"Geometry"-Students will use geometric concepts in order to solve problems.		
Lesson Code	Lesson Title and Description	LA Number
1	Basic Geometry Definitions-Students will identify points, rays, lines, line segments and planes.	6911 6912
2	Angles-Students will measure and classify angles, solve problems involving unknown angles, find the sum of angles in polygons and identify special angles.	67216 MA6922 MA6923 MA6924 67253 MA6926 MA6927 MA6928 67218 MA69210
3	Classify Lines-Students will classify lines as parallel, perpendicular or skew.	MA6931 MA6932
4	Classify Triangles-Students will identify similar triangles with proportions and classify by side or angle.	MA6941 MA6942

5	Triangles-Students will find the missing measures using the Pythagorean Theorem.	67252 MA6952
6	Classify Polygons-Students will identify name of shape by sides.	MA6961 MA6962
7	3-Dimensional Figures-Students will identify characteristics of three-dimensional figures using faces, edges and vertices and identify different views.	MA6971 MA6972 MA6973 MA6974
8	Classify Quadrilaterals-Students will classify quadrilaterals and find cross sections.	MA6981 MA6982
9	Geometric Patterns-Students will find the missing term in a geometric pattern and use tessellations.	MA6991 MA6992
10	Similar, Congruent Figures, Lines of Symmetry-Students will apply concepts of congruency, similarity and symmetry.	67249 MA69102 67251 MA69104
11	Transformations-Students will identify translations, rotations and reflections on a coordinate grid.	MA69111 MA69112
12	Area-Students will estimate and find area of regular and irregular figures. Students will also compare diameter and radius.	61760 MA69122 MA691223 MA691224
13	Circumference-Students will find area and circumference of a circle.	67224 MA69132
14	Proportional Change-Students will find missing sides with similar triangles.	67254 MA69142
15	Surface Area-Students will find the surface area.	67225 MA69152 67237 MA69154
16	Volume-Students will find volume of prisms, cubes and cylinders.	67226 MA69162
17	Problem Solving-Students will use a	MA69171

	formula to solve a problem and relate math ideas to other content areas in real-life problems.	MA69172
Chapter -"Functions and Probability"-Students will identify and use functions and probability concepts.		
Lesson Code	Lesson Title and Description	LA Number
1	Functions-Students will identify function relationships and solve and interpret on graphs.	67202 MA61012 MA61013 MA61014
2	Coordinate Graphing-Students will find the distance between two points and plot points on 4 quadrants.	67245 MA61022 67255 MA61024
3	Problem Solving-Students will draw conclusions from data and justify why an answer is reasonable.	MA61031 MA61032
4	Introduction to Probability-Students will determine possible outcomes and represent probability with ratios.	67167 MA61042 67169 MA61044
5	Experimental and Theoretical Probability-Students will find the probability of an event.	67168 MA61052
6	Compound Events-Students will compare events, compliments and list outcomes using theoretical probability.	MA61061 MA61062
7	Dependent and Independent Events-Students will identify different between dependent and independent events.	MA61071 MA61072
8	Combinations and Permutations-Students will find combinations and permutations.	MA61081 MA61082
9	Problem Solving-Students will solve problems by writing and equation and simplifying algebraic expressions.	MA61091 MA61092

"Practice"		
Lesson Code	Lesson Title and Description	LA Number
1	Read and Write Numbers-Students will use numeric digits and words to read and write numbers including the trillions. Students will use the signs $<$, $>$ and $=$ to order and compare numbers including the trillions.	6632 6633 6634
2	Round Numbers-Students round to the nearest thousand, nearest ten thousand, nearest hundred thousand and nearest million. Students develop number sense, identify different ways of representing numbers, and visualize and represent numerical relationships.	6635 6636
3	Divisibility Rules-Students will apply the divisibility rules of 2, 3, 4, 5, 6, 8, 9 and 10 to various numbers. (Divisibility, divide, division, number sense)	67113
4	Greatest Common Factor-Students will find the greatest common factor among 2 or more numbers. (Numeration, factor, GCF, greatest common factor, multiple)	67115 67156
5	Square Numbers-Students will identify square numbers.	6B003
6	Powers of 10-Students will identify powers of 10 through the 6th power.	6B005 6643 6644
7	Scientific Notation-Students will write numbers in scientific notation and convert scientific notation to standard form. (Scientific notation, powers of ten, exponent, base, decimal)	6645 6646
8	Compare Scientific Notation-Students will use the signs $<$, $>$ and $=$ to compare rational numbers in scientific notation. (Scientific notation, powers of ten, exponent, base, decimal, greater than, less	67158

	than, equal, compare)	
9	Negative Numbers-Students will understand the concept of negative numbers using number line representations.	6B004
10	Number Line-Students will identify and represent integers and rational numbers on a number line. (Number lines, integers, rational numbers, intervals, converting fractions, improper fractions, mixed numbers, terminating decimals, repeating decimals)	67147 6710+6711
11	Inequality Symbols-Students will use the symbols $<$, $>$ and $=$ to compare integers. (Comparing integers, inequalities, less than, greater than, number lines)	67148 6714 6715
12	Absolute Value-Students will define absolute value and its opposite. (absolute value, opposites, integers, distance)	67157
13	Skills & Strategies-Students will analyze and solve problems using number-sense skills and strategies. Students will develop number sense, identify different ways of representing numbers, and visualize and represent numerical relationships.	6647 6648
14	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
15	Function Rules-Express function rules using algebraic symbols. (e.g. add 2 expressed as $n + 2$)	6803 6804 67201
16	Function Tables-Identify functional relationships and complete function tables. Identify algebraically the rule used to generate a group of ordered pairs.	6805 67207

17	Using Patterns & Functions-Solve problems and model real-world situations using patterns and functions.	6806 6807
18	Add & Subtract Integers-Add and subtract integers. Define the Additive Inverse, Identity Element of Addition, and the Equality Property.	6716 6717
19	Multiply & Divide Integers-Multiply and divide integers. Define the Multiplicative Inverse, Zero Property, Identity Element of Multiplication, and the Equality Property.	67204
20	Integers Everyday-Use integers in real-life situations.	6718 6719
21	Simplify Expressions-Simplify algebraic expressions.	6809 6810 67205 67211
22	Solve One-Step Equations -Solve one-step algebraic equations with a variable and express the solution on a number line.	67212
23	Solve Two-Step Equations-Solve two-step algebraic equations with a variable and express the solution on a number line.	6811 6812 67213
24	Simple Linear Word Problems-Write and solve simple linear equations for word problems, and explain reasoning orally or in writing.	6813 6814
25	Inequalities-Solve algebraic inequalities with a variable. Graph the solution set of an algebraic inequality on a number line.	67214 67215

26	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
27	Open and Closed Figures-Identify whether figures are open or closed.	6B013
28	Geometric Shapes-Classify, describe, and compare two-dimensional geometric figures. Define and identify attributes of three-dimensional figures.	6722 6723 6728 6729
29	Construct Parallelograms-Using a ruler and compass, construct parallelograms.	6730 6731
30	Circles-Investigate and determine the relationship between the diameter and circumference of a circle and the value of pi.	67160 67161
31	Angle Measures-Using a protractor, measure and classify acute, right, obtuse, and straight angles.	6734 6735 6736 6737
32	Bisectors-Define and identify altitudes, midpoints, diagonals, angle bisectors, and perpendicular bisectors.	6732 6733 6738 6739 67217
33	Angle Relationships-Define and identify adjacent, vertical, interior, exterior, complementary, and supplementary angles. Define and identify alternate interior, alternate exterior, corresponding, and vertical angles.	67219
34	Construct Triangles-Use a compass and straightedge to construct equilateral, right, and	6740 6741

	isosceles triangles.	
35	Properties of Triangles-Find the measure of the third angle of triangles when given the measure of two angles.	6742 6743 67253
36	Similar Triangles-Use proportions to find the length of a missing side when given the length of two sides of similar triangles.	6744 6745
37	Plotting Points-Plot points on a four quadrant coordinate plane by determining and using ordered pairs of positive and negative whole numbers.	6724 6725
38	Transformations -Locate, give the coordinates of, and graph plane figures which are the results of translations or reflections in the first quadrant.	67256
39	Symmetry-Explore line and rotational symmetry of objects using transformations.	67250
40	Cross Sections-Identify and classify cross sections of three-dimensional figures.	67236
41	Geometric Models-Use geometric models to solve problems using two-dimensional attributes of three-dimensional figures.	67238
42	Distances on Maps-Use proportional reasoning to determine distances on a map.	6795 6796
43	Geometry Everyday-Identify and use geometric concepts in areas other than mathematics, such as science, architecture, art, and everyday life.	6758

44	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
45	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
46	Rates-Solve problems involving rates, average speed, distance, and time.	67199 67206
47	Estimate Measurements-Estimate the length, weight/mass, and capacity/volume of an object, and compare the estimate with an actual measurement.	6785 6786
48	Indirect Customary Measurement-Determine lengths, weights, and capacities using proportional reasoning and indirect measurement.	67173 67180
49	Converting Metric Units-Choose the proper tool/unit for measurement. Convert between units in the metric system.	6787 6788
50	Indirect Metric Measurement-Determine length, mass, and capacity using proportional reasoning and indirect measurement.	67178 67179
51	Add & Subtract Common Units-Use common units of measurement when solving problems involving addition and subtraction of different units.	6789 6790
52	Problems Involving Measurement-Select and	6799 6800

	use appropriate units, tools, and formulas to solve problems involving length, area, time, temperature, capacity, and weight.	
53	Comparing Units-Make comparisons with measurements in metric and customary units. Determine the best unit for measurement.	67184
54	Converting Between Systems-Convert units from one system to another.	67185
55	Indirect Measurement-Determine missing units using proportional reasoning and indirect measurement.	67186 67193
56	Relate Scale to Ratio-Make scale drawings using centimeter grids to relate scale to ratio.	6797 6798
57	Perimeter & Area Formulas-Use formulas to calculate the perimeter and area of triangles and parallelograms. (breaking polygons into components)	6746 6747 67209
58	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
59	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
60	Circumference and Area-Use formulas to calculate the area and circumference of circles.	6750 6751
61	Surface Area-Explore surface area of	67225

	rectangular prisms, cubes, and cylinders.	
62	Rectangle Prism Volume-Using the formula volume = area of base x height ($V = A \times h$), find the volume of rectangular prisms.	6752 6753
63	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
64	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
65	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
66	Graphs that Compare-Based on given data, create and interpret graphs that compare including bar graphs, histograms, and circle graphs.	67230 67231
67	Organizing Population Data-Use a variety of sources to collect, organize, and display data about local, state, national, and world populations.	6766 6768
68	Data in Tables & Graphs-Solve problems requiring interpretation and application of data organized in tables and graphs.	6769 6770
69	Events and Complements-Calculate the probability of an event and its complement.	6777 6778

	(odds for and against, in proportions and percentages)	
70	Probability-Analyze and solve problems using ratio, percentage, and probability skills and strategies. Explore the terms fair and equally likely in game events.	6781 67169 67170
71	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