

*Lakeview Public Schools*  
Mathematics Curriculum  
*By Course, Standard, Benchmark*  
**6th Grade Mathematics**

**MA01 Understands and applies a variety of strategies in the problem-solving process**

- 0460 01 Knows how to change multi step problems into simpler parts
- 0462 02 Given several problem solving strategies; chooses, uses and supports their choice
- 0466 03 Uses proportional thinking (e.g., rates, scaling, similarity) to solve problems

**MA02 Understands and applies properties of the concept of numbers**

- 5009 01 Expresses numerical comparisons as ratios and rates
- 5841 02 Knows how to order numbers presented in nonroutine forms
- 2579 03 Knows how to order numbers presented in non routine forms (e.g., 1/2, .51, 47%)
- 0467 04 Understands when one form of a number might be more useful than another (fractions, decimals, percents, integers)

**MA03 Understands and applies procedures while performing the process of computation**

- 2575 01 Adds and subtracts common fractions and mixed numbers with unlike denominators
- 5025 02 Divides decimals and fractions
- 6460 03 Uses "base times rate equals part" to solve percentage problems

**MA05 Understands and applies properties of the concepts of geometry**

- 0513 01 Construct familiar shapes using coordinates, appropriate tools (including technology)
- 5829 02 Sketching and drawing two and three dimensional shapes
- 0508 03 Understands the basic characteristics of the concepts of symmetry, similarity, and congruence
- 2792 04 Uses transformations to investigate concepts of symmetry, similarity, and congruence
- 3207 05 Constructs the image of a geometric figure under a given transformation and determines the relationship of the areas and perimeters of the two figures
- 3213 06 Classifies figures based on congruence and similarity

**MA06 Understands and applies concepts of statistics and data analysis**

- 3220 01 Present data using a variety of appropriate representations, and explain why one representation is preferred over another or how a particular representation may bias the presentation

**MA08 Understands and applies properties of functions and algebra**

- 5828 01 Uses proportions and percents to find solutions
- 7380 02 Knows how to solve simple algebraic equations

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**6th Grade Math Challenge**

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**7th Grade Mathematics**

**MA01 Understands and applies a variety of strategies in the problem-solving process**

- 3184 01 Uses an equation to represent a story problem situation and solves the equation
- 3182 02 Uses geometric models to solve real world problems

**MA02 Understands and applies properties of the concept of numbers**

- 0472 01 Understands and uses scientific notation
- 3190 02 Understands the meaning of exponents
- 3194 03 Knows various classifications of numbers (e. g., whole, integers, real)
- 5012 04 Understands properties such as additive identity, multiplication identity, distributive property, associative property, and commutative property

**MA03 Understands and applies procedures while performing the process of computation**

- 2568 01 Add, subtracts, multiplies, and divides integers
- 5015 02 Uses order of operation in algebraic expressions

**MA04 Understands and applies properties of the concept of measurement**

- 3806 01 Applies given measurement formulas for perimeter, circumference, area, volume, and surface area in problem situations
- 5016 02 Determines ratios of measures in similar figures or scale drawings using properties of similarity

**MA05 Understands and applies properties of the concepts of geometry**

- 0446 01 Approximates the area of irregular shapes using squares, rectangles, and triangles
- 3215 02 Uses coordinates to represent geometric figures
- 3211 03 Understands and solves problems involving the Pythagorean relationship

**MA06 Understands and applies concepts of statistics and data analysis**

- 3356 01 Understands the basic features of outliers and procedures to deal with them
- 3358 02 Uses investigations, mathematical models, and simulations to make inferences and predictions to answer questions and solve problems

**MA07 Understands and applies concepts of probability**

- 3222 01 Understands probabilities using counting procedures, tables, trees, area models, formulas, and the law of large numbers
- 0523 02 Understands that probabilities are ratios that can be expressed as fractions and percentages
- 3653 03 Uses estimation of the probability of events in familiar situations using appropriate data from the past or by making rough calculations
- 0749 04 Uses simulation to estimate the probability for a given event
- 0755 05 Understands that events can be described in terms of being more or less likely, impossible, or certain

3371 06 Understands the difference between theoretical and experimental probabilities

**MA08 Understands and applies properties of functions and algebra**

- 0530 01 Understands how to solve simple linear equations and inequalities
- 3228 02 Understands how to use algebraic properties to simplify algebraic expressions
- 3233 03 Knows how to estimate solutions of linear equations

***Lakeview Public Schools***  
**Mathematics Curriculum**  
***By Course, Standard, Benchmark***  
**8th Grade Algebra**

**MA01 Understands and applies a variety of strategies in the problem-solving process**

- 3187 01 Uses patterns and their generalizations to make and justify inferences and predictions to solve real world problems

**MA02 Understands and applies properties of the concept of numbers**

- 3189 01 Understands and uses the characteristics of square roots
- 3402 02 Understands the real number system and its subsystems
- 5749 03 Uses appropriate number systems to model and solve applied problems

**MA03 Understands and applies procedures while performing the process of computation**

- 3765 01 Solves problems involving roots and integral exponents
- 3766 02 Determines decimal representations of rational and irrational numbers

**MA05 Understands and applies properties of the concepts of geometry**

- 0737 01 Understands the basic characteristics of slope
- 3208 02 Uses geometric models, diagrams, and graphs to solve problems
- 3216 03 Uses properties of lines (e.g., distance, mid point, slope, parallelism, perpendicularity) to describe figures

**MA06 Understands and applies concepts of statistics and data analysis**

- 6481 01 Determines the range of the set and prepares a frequency distribution table and stem and leaf plot from a data set
- 3364 02 Uses predictions and decisions based on data, including interpolations and extrapolations

**MA07 Understands and applies concepts of probability**

- 3369 01 Understands the concept of independent and dependent events
- 3223 02 Understands the similarities and differences between joint and conditional probability

**MA08 Understands and applies properties of functions and algebra**

- 3780 01 Understands a graph represents all the values that satisfy an equation
- 3788 02 Understands that the points at which two graphs intersect represents the values that will satisfy the two equations represented by the graphs

- 3792 03 Understands the graphic representations of linear and nonlinear equations
- 3789 04 Uses appropriate terminology and notation to define functions and their properties, including domain and range
- 3791 05 Solves systems of equations and inequalities by graphing and algebraic methods
- 3793 06 Uses graphical and algebraic methods to solve quadratic equations with real roots
- 3794 07 Understands independent and dependent variables and the relationship between them (e. g., rate of change)