

CURRICULUM MAP – Middle School MATHEMATICS
INSTRUCTIONAL SERVICES, KENOSHA UNIFIED SCHOOL DISTRICT NO. 1

Teacher: _____ **Grade 8 Pre-algebra** School: _____

| TIME PER WEEK 300 MINUTES | QUARTER 1- 45 days |
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| STANDARDS AND BENCHMARKS/SKILLS | <p>A-1.8 I can use reasoning and logic to create questions, write problems, and explain answers.</p> <p>A-2.8 I can explain the answers to problems using correct math vocabulary, symbols, pictures, charts, tables, diagrams, graphs, and models.</p> <p>A-3.8 I can determine the reasonableness of answers.</p> <p>A-4.8 I can read and interpret mathematical text and other mathematical representations in real-world context (e.g., numbers, symbols, diagrams, and models).</p> <p>A-5.8 I can use a computer or a calculator as a problem-solving tool.</p> <p>B-5.8 I can multiply and divide real numbers.</p> <p>B-8.8 I can perform operations on real numbers (e.g., absolute value, reciprocals, and exponents).</p> <p>C-9.8 I can graph on the coordinate plane (e.g., using ordered pairs, table of values, and equations).</p> <p>F-1.8 I can extend a pattern or numerical sequence to the nth term.</p> <p>F-2.8 I can use a function table to create a graph on the coordinate grid.</p> <p>F-5.8 I can translate a mathematical equation or inequality from words into numbers and symbols.</p> <p>F-9.8 I can solve a multi-step linear equation with variables on both sides.</p> <p>F-10.8 I can solve single variable linear inequalities.</p> |
| ASSESSMENT | KUSD quarterly common assessment; Quizzes; Unit Assessments |
| CONTENT TOPIC/THEME/UNIT | <p>Chapter 1.1-1.9 Principles of Algebra: expressions, integers, equations, inequalities</p> <p>Chapter 2.1-2.6 Rational Numbers: add, subtract, multiply, divide (Pre-assess and review)</p> <p>Chapter 3.1-3.6 Graphs, Functions, and Sequences: tables, graphs, functions, sequences</p> <p>Chapter 12.2 Slope: Find the slope of a line and use slope to understand and draw graphs</p> |
| INSTRUCTIONAL MATERIAL | Bennett, Burger, et al., Middle School Mathematics Course 3, Holt, 2007 ISBN #0030385423 |
| TECHNOLOGY | <p>Online book and resources: my.hrw.com (user name and password required)</p> <p>Online resources: go.hrw.com (no registration required)</p> |

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| TIME PER WEEK 300 MINUTES | QUARTER 2- 45 days |
| STANDARDS AND BENCHMARKS/SKILLS | <p>A-1.8 I can use reasoning and logic to create questions, write problems, and explain answers.</p> <p>A-2.8 I can explain the answers to problems using correct math vocabulary, symbols, pictures, charts, tables, diagrams, graphs, and models.</p> <p>A-3.8 I can determine the reasonableness of answers.</p> <p>A-4.8 I can read and interpret mathematical text and other mathematical representations in real-world context (e.g., numbers, symbols, diagrams, and models).</p> <p>A-5.8 I can use a computer or a calculator as a problem-solving tool.</p> <p>B-1.8 I can write fractions, decimals, and percents in equivalent forms.</p> <p>B-2.8 I can find the missing value in a percent problem and find percent increase and decrease.</p> <p>B-3.8 I can set up ratios and proportions to solve problems (e.g., dimensional analysis and comparisons).</p> <p>B-4.8 I can compare and order a variety of fractions, mixed numbers, decimals, and percents.</p> <p>B-6.8 I can select and use appropriate computational methods in problem solving (e.g., commission, interest, and percents).</p> <p>B-7.8 I can estimate square roots to the nearest tenth and hundredth.</p> <p>B-8.8 I can perform operations on real numbers (e.g., absolute value, reciprocals, and exponents).</p> <p>C-2.8 I can draw and/or describe a similar figure when given a polygon.</p> <p>C-3.8 I can sketch three-dimensional figures to help in problem solving.</p> <p>C-4.8 I can use proportions to solve problems involving similar figures.</p> <p>C-6.8 I can use symmetry to solve problems.</p> <p>D-1.8 I can solve problems involving speed, acceleration, and density.</p> <p>D-3.8 I can use dimensional analysis in conversions.</p> <p>D-10.8 I can use the Pythagorean Theorem to find the missing side of a right triangle.</p> |
| ASSESSMENT | KUSD quarterly common assessment; Quizzes; Unit Assessments |
| CONTENT TOPIC/THEME/UNIT | <p>Chapter 4.1-4.8 Exponents and Roots: exponents, scientific notation, roots, right triangles</p> <p>Chapter 5.1-5.5, 5.7 Ratios, Proportions, Similarity: ratios, proportions, unit rates, dimensional analysis</p> <p>Chapter 6.1-6.7 Proportions and Percents: decimals, fractions, percents, estimation, percent increase & decrease, simple interest, compound interest</p> |
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| TIME PER WEEK 300 MINUTES | QUARTER 3- 45 days |
| STANDARDS AND BENCHMARKS/SKILLS | <p>A-1.8 I can use reasoning and logic to create questions, write problems, and explain answers.</p> <p>A-2.8 I can explain the answers to problems using correct math vocabulary, symbols, pictures, charts, tables, diagrams, graphs, and models.</p> <p>A-3.8 I can determine the reasonableness of answers.</p> <p>A-4.8 I can read and interpret mathematical text and other mathematical representations in real-world context (e.g., numbers, symbols, diagrams, and models).</p> <p>A-5.8 I can use a computer or a calculator as a problem-solving tool.</p> <p>C-1.8 I can draw, identify, and describe two- and three- dimensional shapes and compare their properties (e.g., parallel, perpendicular, and congruent sides, types of angles).</p> <p>C-5.8 I can determine the sum of the angles of a polygon using diagonals drawn from one vertex.</p> <p>C-6.8 I can use symmetry to solve problems.</p> <p>C-7.8 I can solve problems using supplementary and complementary angles.</p> <p>C-8.8 I can translate, rotate, and reflect a shape to find new vertices.</p> <p>C-9.8 I can graph on the coordinate plane (e.g., using ordered pairs, table of values, and equations).</p> <p>C-10.8 I can use the rectangular coordinate plane (e.g., using ordered pairs, table of values, and equations).</p> <p>D-4.8 I can find the perimeter of all two-dimensional figures.</p> <p>D-5.8 I can find the area of two-dimensional figures.</p> <p>D-6.8 I can find the area and circumference of a circle in problem solving.</p> <p>D-7.8 I can find the surface area of three-dimensional figures.</p> <p>D-8.8 I can find the volume of three-dimensional figures.</p> <p>D-9.8 I can use formulas in applications (e.g., volume and surface area).</p> |
| ASSESSMENT | KUSD quarterly common assessment; Quizzes; Unit Assessments |
| CONTENT TOPIC/THEME/UNIT | Chapter 7.1-7.8 Foundations of Geometry: points, lines, planes, angles, parallel, perpendicular, polygons, coordinate geometry, transformations, symmetry Chapter 8.1-8.9 Perimeter, Area, Volume: perimeter, area, volume, sketching three-dimensional figures, surface area |
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| STANDARDS AND BENCHMARKS/SKILLS | <p>A-1.8 I can use reasoning and logic to create questions, write problems, and explain answers.</p> <p>A-2.8 I can explain the answers to problems using correct math vocabulary, symbols, pictures, charts, tables, diagrams, graphs, and models.</p> <p>A-3.8 I can determine the reasonableness of answers.</p> <p>A-4.8 I can read and interpret mathematical text and other mathematical representations in real-world context (e.g., numbers, symbols, diagrams, and models).</p> <p>A-5.8 I can use a computer or a calculator as a problem-solving tool.</p> <p>E-1.8 I can read, interpret, and draw conclusions from displayed data (e.g., line of best fit, range, measure of central tendency: mean, median, mode).</p> <p>E-2.8 I can choose the best representation of data to display and analyze the data.</p> <p>E-3.8 I can identify misleading graphs and biased samples.</p> <p>E-4.8 I can explain the appropriate use of the mean and median in analyzing a set of data.</p> <p>E-5.8 I can explain the use of appropriate measures of central tendency and decide which measure of central tendency best describes a set of data.</p> <p>E-6.8 I can use appropriate vocabulary to describe the probability of chance events.</p> <p>E-7.8 I can find the probability of an event using experimental or theoretical methods.</p> <p>E-8.8 I can find basic permutations and combinations.</p> <p>E-9.8 I can find the number of possible outcomes using the Fundamental Counting Principle.</p> <p>F-9.8 I can solve a multi-step linear equation with variables on both sides.</p> <p>F-10.8 I can solve single variable linear inequalities.</p> <p>F-11.8 I can use the distributive property to simplify and evaluate an expression using rational numbers.</p> <p>F-12.8 I can use the associative property to simplify an algebraic expression (e.g., $2x + 10 + 6x = 8x + 10$)</p> |
| ASSESSMENT | KUSD quarterly common assessment; Quizzes; Unit Assessments |
| CONTENT TOPIC/THEME/UNIT | <p>Chapter 9.1-9.3,9.5-9.8 Data and Statistics: samples, surveys, data, measures of central tendency, displaying data, graphs of data</p> <p>Chapter 10.1-10.2, 10.4-10.9 Probability: experimental & theoretical probability, counting principle, permutations, combinations</p> <p>Chapter 11.1-11.4 Multi-step Equations and Inequalities</p> |
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