

SCHOOL DISTRICT OF BAYFIELD

6-8 MATHEMATICS CURRICULUM

GRADE	OUTCOMES	BENCHMARKS
6th	<ol style="list-style-type: none"> 1) Number System Fluency 2) Rate, Ratio, and Proportional Reasoning Using Equivalent Fractions 3) Expressions 4) One Step Equations and Inequalities 5) Geometry 6) Statistics 7) Rational Explorations: Numbers and their Opposites 	<ol style="list-style-type: none"> 1) Apply and extend previous understandings of multiplication and division to divide fractions by fractions Compute fluently with multi-digit numbers and find common factors and multiples 2) Understand ratio concepts and use ratio reasoning to solve problems 3) Apply and extend previous understandings of arithmetic to algebraic expressions 4) Reason about and solve one-variable equations and inequalities Represent and analyze quantitative relationships between dependent and independent variables Use ratio concepts and use ratio reasoning to solve problems 5) Solve real-world and mathematical problems involving area, surface area, and volume by graphing, using formulas and manipulating shapes 6) Develop understanding of statistical variability. Summarize and describe distributions 7) Apply and extend previous understanding of numbers to the system of rational numbers
7th	<ol style="list-style-type: none"> 1) Operations with Rational Numbers 2) Expressions and Equations 3) Ratios and Proportional Relationships 4) Statistics 5) Geometry 6) Probability 	<ol style="list-style-type: none"> 1) Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers 2) Use properties of operations to generate equivalent expressions. Solve real life and mathematical problems using numerical and algebraic expressions and equations 3) Analyze proportional relationships and use them to solve real world and mathematical problems in tables, graphs, equations, diagrams, and verbal descriptions 4) Use random sampling to draw inferences about a population. Draw informal comparative inferences about two populations 5) Draw, construct, and describe geometrical figures and describe the relationships between them. Solve real life and mathematical problems involving angle measure, area, surface area, and volume 6) Investigate chance processes and develop, use, and evaluate probability models
8th	<ol style="list-style-type: none"> 1) Transformations, Congruence, and Similarity 2) Exponents 3) Geometric Applications of Exponents 	<ol style="list-style-type: none"> 1) Understand congruence and similarity using physical models, transparencies, or geometry software 2) Work with radicals and integer exponents Know that there are numbers that are not rational, and approximate them by rational numbers 3) Understand and apply the Pythagorean Theorem. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres

	<ul style="list-style-type: none"> 4) Functions 5) Linear Functions 6) Linear Models and Tables 7) Solving Systems of Equations 	<p>Know and apply radicals and integer exponents</p> <ul style="list-style-type: none"> 4) Define, evaluate, and compare functions 5) Understand the connections between proportional relationships, lines, and linear equations Define, evaluate, and compare linear functions 6) Use functions to model relationships between quantities Investigate patterns of association in bivariate data 7) Analyze and solve linear equations and pairs of simultaneous linear equations
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