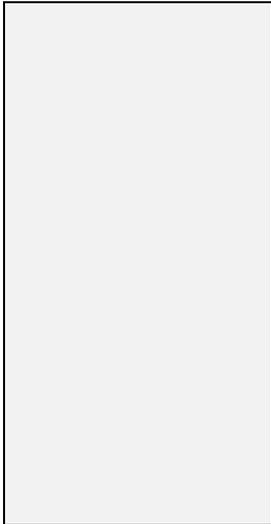


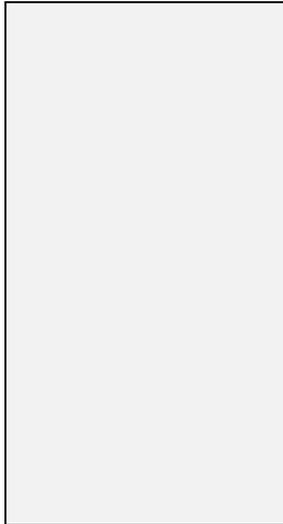
Math Content by Unit

Grade 6	Grade 7	Grade 8	Algebra
<p>Prime Time: Factors and Multiples Number theory, including factors, multiples, primes, composites, prime factorization; order of operations, distributive property.</p>	<p>Shapes and Designs: Two Dimensional Geometry Polygons, measurement of angles, angle sum of polygons, conditions for unique triangle, parallel lines and transversals.</p>	<p>Thinking with Mathematical Models: Linear and Inverse Variations Linear models and equations, inverse variation models and equations, variability of numerical and categorical data.</p>	<p>Thinking with Mathematical Models: Linear and Inverse Variations Linear models and equations, inverse variation models and equations, variability of numerical and categorical data.</p>
<p>Comparing Bits and Pieces: Ratios, Rational Numbers and Equivalence Ratio, unit rate, rate tables, rational numbers, decimals, percents, equivalence, absolute value, number line.</p>	<p>Accentuate the Negative: Integers and Rational Numbers Addition, subtraction, multiplication and division of rational numbers, absolute value, opposites, order of operations, distributive property.</p>	<p>Looking for Pythagoras: The Pythagorean Theorem Use and proof of Pythagorean Theorem and converse, square roots, cube roots, irrational and real numbers, equation of circle.</p>	<p>Looking for Pythagoras: The Pythagorean Theorem Use and proof of Pythagorean Theorem and converse, square roots, cube roots, irrational and real numbers, equation of circle.</p>
<p>Let's be Rational: Understanding Fraction Operations Addition, subtraction, multiplication, division of fractions, fact families.</p>	<p>Stretching and Shrinking: Understanding Similarity Enlarging a figure, effect of scale factors on perimeter and area, coordinate rules, ratios between and within similar figures; using similarity to find measures.</p>	<p>Growing, Growing, Growing: Exponential Functions Representing exponential growth with tables, graphs, equations; rules for exponents, scientific notation; Exponential Decay; growth/decay factors and rates</p>	<p>Growing, Growing, Growing: Exponential Functions Representing exponential growth with tables, graphs, equations; rules for exponents, scientific notation; Exponential Decay; growth/decay factors and rates.</p>
<p>Covering and Surrounding: Two Dimensional Measurement</p>	<p>Comparing and Scaling: Ratios, Rates, Percent, Proportions</p>		<p>Frogs and Fleas and Painted Cubes: Quadratic Functions Representing quadratic functions, factoring</p>

<p>Area and perimeter relationships, area and perimeter of polygons, surface area and volume of rectangular prisms.</p>	<p>Rates, unit rate, rate tables, constant of proportionality, solving proportions, Inc. markups, discounts, commission, measurement, conversion.</p>		<p>quadratic expressions, patterns of change, effect of parameters.</p>
<p>Decimal Ops: Computing with Decimals and Percepts Addition, subtraction, multiplication and division of decimals, estimation; solutions for $a\%$ of $b = c$</p>	<p>Moving Straight Ahead: Linear Relationships Representing linear relationships in graphs, tables, equations; solving linear equations; slope, intercept, writing equation for linear relationship given points.</p>	<p>Say it with Symbols: Making Sense of Symbols Equivalent expressions, solving linear and quadratic equations; identify and represent linear, exponential and quadratic functions.</p>	<p>Say it with Symbols: Making Sense of Symbols Equivalent expressions, solving linear and quadratic equations; identify and represent linear, exponential and quadratic functions.</p>
<p>Variables and Patterns: Focus on Algebra Variables, variable expressions, equations, inequalities; representations of relationships in tables, graphs, equations.</p>	<p>What Do You Expect: Probability and Expected Value Probability models, experimental and theoretical probability, analysis of compound events.</p>	<p>Butterflies, Pinwheels and Wallpaper: Symmetry and Transformations Symmetry, transformations, congruence, similarity, coordinate proofs.</p>	<p>Butterflies, Pinwheels and Wallpaper: Symmetry and Transformations Symmetry, transformations, congruence, similarity, coordinate proofs.</p>
<p>Data About Us: Statistics and Data Analysis Analysis of data distributions, including shape, measures of center (mean, median, mode) and variability (range, inter quartile range, mean absolute deviation).</p>	<p>Filing and Wrapping: Three Dimensional Measurement Area circumference of circle; volume and surface area of rectangular and polygonal prisms, cylinders; volume of pyramids, cones, spheres, plane sections of prism, pyramids; effect of scaling on surface area and volume.</p>	<p>It's in the System: Systems of Linear Equations and Inequalities Solving linear systems graphically and algebraically, systems of functions and inequalities, solving systems of linear inequalities.</p>	<p>It's in the System: Systems of Linear Equations and Inequalities Solving linear systems graphically and algebraically, systems of functions and inequalities, solving systems of linear inequalities.</p>



**Samples and Populations:
Making Comparisons and Predictions**
Sampling plans, effect of sample size, predicting populations statistics, simulations, comparing sample statistics to draw inferences about two populations.



**Function Junction:
Families of Functions**
Function notation, inverses, arithmetic/geometric sequences, transformations on functions; completing the square, quadratic formula, polynomial expressions/functions/equations