## **Math 6 Course Overview**

Unit	Major Concepts	Skills	Summative Assessments
Number Sense	Following Math Rules: *Order of Operations *Properties of Real Numbers	Evaluate according to the order of operations  Find prime factorization of a number/interpret results  Evaluate algebraic expression according to order of operation  Substitute in for expressions	Mini activity stations: LCM, GCF partner switch Properties matching box Factors and Divisibility secret message
Integers	To compute arithmetic operations with integers, rules based on the signs of the numbers must be followed  Absolute value represents the distance to zero on the number line.	Order, add, subtract, multiply and divide positive and negative whole numbers.  Identify the absolute value of a number	Flow Chart: Operations on Integers with illustrative examples
Fractions	Fractions represent a comparison of parts to whole.  How do we add, subtract, multiply, divide and order fractions.	Represent, compare, add, subtract, multiply and divide fractions.	Fractions posters: Describing operations on fractions in a presentation quality format.
Fractions, Decimals and Percentages	Percentages allow us to quickly convey information about parts relative to a whole.  Understand the importance of place value when representing decimals (relating to a base 10 number system)	Find the percentage of a number  Convert between fractions, decimals and percentages  Compare, add, subtract, multiply and divide decimals	Hexagonal equivalent expression matching puzzles
Ratio, Proportion and Percent	A ratio describes a relationship between two numbers and is based in multiplication (not addition and subtraction)  Proportions describe equality between ratios	Solve proportions  Identify and compute equivalent ratios	Wildlife biologist for a day - determine the population of a species based on a known tagged sample.
Solving Linear Equations	Equations represent equivalent expressions, and to solve them we need to perform identical inverse operations on both expressions.	Identify and perform inverse operations Solve 2-step equations	Screencast: Explain how to solve and formulate an equation and how to model it with algebra tiles

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Geometry/ Measurement	Geometric figures are defined based on the inclusion of specific properties.  Deductive reasoning can be used to find missing measurements.	Formulate an equation based on a word problem/real-world scenario  Calculate area and perimeter  Convert units  Identify and calculate complementary and supplementary angles  Break down a complex problem into smaller parts.	Creating paper furniture from directions which require fluency with geometric properties
Probability	Probability means the likelihood of something happening  Probability is the ratio of possible successful outcomes to total possible outcomes.	Apply fundamental counting principle to determine number of possible outcomes to an event  Compute the theoretical probability  Determine the empirical probability based on data	Create and present a slideshow unveiling the mystery behind a counter-intuitive question.
Statistics	Statistics is representing and interpreting data in a graphical format.	Collect and organize data  Represent data in an appropriate graph with appropriate unit labels  Read and interpret graphs	Using real life graphical representations of data with blank spots, determine the meaning and describe its implications on the world you live in.