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|  | **K** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **Numbers** | * Number concepts to 10 * Ways to make 5 | * Number concepts to 20 * Ways to make 10 | * Number concepts to 100 * Benchmarks of 25, 50, and 100 and personal referents *(ie: thumb = 1 inch)* | * Number concepts to 1000 * Fraction concepts | * Number concepts to 10 000 * Decimals to hundredths * Ordering and comparing fractions | * Number concepts to 1 000 000 * Decimals to thousandths * Equivalent fractions * Whole-number, fraction, and decimal benchmarks | * Small to large numbers (thousandths to billions) * Improper fractions and mixed numbers * Introduction to ratios * Whole number percents and percentage discounts | * Relationship between decimals, fractions, and percents | * Perfect squares and cubes * Square and cube roots * Percents less than 1 and greater than 100 (decimal and fractional percents) * Pythagorean Theorem * Numerical proportional reasoning (rates, ratio, proportions, and percent) | * Exponent and exponent laws with whole-number exponents |
| **Developing Computational Fluency** | * Decomposition of numbers to 10 * Change in quantity to 10 using concrete materials | * Addition and subtraction to 20 (understanding of operation and process) * Change in quantity to 20, concretely and verbally | * Addition and subtraction facts to 20 (introduction of computational strategies) * Addition and subtraction to 100 * Change in quantity using pictorial and symbolic representation | * Addition and subtraction to 1000 * Addition and subtraction facts to 20 (emerging computational fluency) * Multiplication and division concepts | * Addition and subtraction to 10 000 * Multiplication and division of two-or-three-digit numbers by one-digit numbers * Addition and subtraction of decimals to hundredths * Addition and subtraction facts to 20 (developing computational fluency) * Multiplication and division facts to 100 (introductory computational strategies) | * Addition and subtraction of whole numbers to 1 000 000 * Multiplication and division to three-digits including division with remainders * Addition and subtraction of decimals to thousandths * Addition and subtraction facts to 20 (extending computational fluency) * Multiplication and division facts to 100 (emerging computational strategies) | * Order of operations with whole numbers * Factors and multiples, greatest common factor and least common multiple * Multiplication and division of decimals * Multiplication and division facts to 100 (developing computational fluency) | * Operations with integers (addition, subtraction, multiplication, division, and order of operations) * Operations with decimals (addition, subtraction, multiplication, division, and order of operations) * Multiplication and division facts to 100 (extending computational fluency) | * Operations with fractions (addition, subtraction, multiplication, division, and order of operations) * Numerical proportional reasoning | * Operations with rational numbers (addition, subtraction, multiplication, division and order of operations) * Operations with polynomials, of degree less than or equal to two |
| * Financial literacy: attributes of coins and financial role-play | * Financial literacy: values of coins and monetary exchanges | * Financial literacy: coin combinations to 100 cents, and spending and saving | * Financial literacy: fluency with coins and bills to 100 dollars, and earning and payment | * Financial literacy: monetary calculations, including making change with amounts to 100 dollars and making simple financial decisions | * Financial literacy: monetary calculations, including making change with amounts to 1000 dollars and developing simple financial plans | * Financial literacy: simple budgeting and consumer math | * Financial Literacy: financial percentage | * Financial Literacy: best buys | * Financial Literacy: simple budgets and transactions |
| **Spatial Sense** | * Direct comparative measurement (ie: Linear, mass, capacity) * Single attributes of 2D shapes and 3D objects | * Direct measurement with non-standard units (non-uniform and uniform) * Comparison of 2D shapes and 3D objects | * Direct linear measurement, introducing standard metric units * Multiple attributes of 2D shapes and 3D objects | * Measurement using standard units (linear, mass, and capacity) * Time concepts * Construction of 3D shapes | * How to tell time with analog and digital clocks, using 12-and-24-hour clocks * Regular and irregular polygons * Perimeter of regular and irregular shapes * Line symmetry | * Duration, using measurement of time * Area measurement of squares and rectangles * Relationships between area and perimeter * Classification of prisms and pyramids * Single transformations | * Perimeter of complex shapes * Area of triangles, parallelograms and trapezoids * Angle measurement and classification * Volume and capacity * Triangles * Combinations of transformations | * Circumference and area of circles * Volume of rectangular prisms and cylinders * Combinations of transformations | * Surface area and volume of regular solids including triangular and other right prisms and cylinders * Construction, views and nets of 3D objects | * Spatial proportional reasoning |
| **Patterns and Relations** | * Repeating patterns with two or three elements * Equality as a balance and inequality as an imbalance | * Repeating patterns multiple elements and attributes * Meaning of equality and inequality | * Repeating and increasing patterns * Symbolic representation of equality and inequality | * Increasing and decreasing patterns * Pattern rules using words and numbers based on concrete experiences * One-step addition and subtraction equations with an unknown number | * Increasing and decreasing patterns, using tables and charts * Algebraic relationships among quantities * One-step equations with an unknown number using all operations | * Increasing and decreasing patterns with words, numbers, symbols, and variables * One-step equations with variables | * Increasing and decreasing patterns, using expressions, tables and graphs as functional relationships * One-step equations with whole-number coefficients and solutions | * Two-step equations with whole number coefficients, constants and solutions | * Expressions – writing an evaluating using substitution * Two-step equations with integer coefficients, constants and solutions | * Multi-step one-variable linear equations * Two-variable linear relations, using graphing, interpolation, and extrapolation |
| **Statistics and Probability** | * Concrete or pictorial graphs as a visual tool for the class | * Concrete graphs using one-to-one correspondence | * Pictorial representation of concrete graphs using one-to-one correspondence | * One-to-one correspondence with bar graphs, pictographs, charts and tables | * One-to-one correspondence and many-to-one correspondence, using bar graphs and pictographs | * One-to-one correspondence and many-to-one correspondence, using double bar graphs | * Line graphs | * Discrete linear relations, using expressions, tables, and graphs * Cartesian coordinates and graphing * Circle graphs | * Discrete linear relations (extended to larger numbers, limited to integers) |  |
| * Likelihood of familiar life events | Likelihood of familiar life events using, comparative language | * Likelihood of familiar life events, using comparative language | * Likelihood of simulated events using comparative language | * Probability experiments | * Probability experiments, single events, or outcomes | * Single-outcome probability, both theoretical and experimental | * Experimental probability with two independent events | * Theoretical probability with two independent events * Central tendency | * Statistics in society |

**MATH K-9 CONTINUUM OF CONTENT (KNOW)**