| Concepts | Competencies | Grade Level Vocabulary |
| :---: | :---: | :---: |
| Place Value Properties of Operations | Demonstrate an understanding of multidigit whole numbers <br> Compare and round multi-digit numbers <br> Perform multi-digit arithmetic <br> (CC.2.1.4.B. 1 \& CC.2.1.4.B.2) | Use the four operations with whole numbers to solve problems. multiplication/multiply, division/divide, dividend, divisor, addition/add, subtraction/subtract, equations, unknown, remainders, reasonableness, mental computation, estimation, rounding Gain familiarity with factors and multiples. |
| Fractions Decimals | Demonstrate an understanding of fraction equivalence <br> Compare and order fractions <br> Solve problems involving fractions and mixed numbers <br> Use decimal notation for decimal fractions <br> Compare decimal fractions <br> Compare decimals <br> (CC.2.1.4.C.1, CC.2.1.4.C. 2 \& CC.2.1.4.C.3) | multiplication/multiply, division/divide, factor pairs, factor, multiple, prime, composite <br> Generate and analyze patterns. pattern (number or shape), pattern rule Generalize place value understanding for multi-digit whole numbers. <br> place value, greater than, less than, equal to, «, , , =, comparisons/compare, round, inequality, expression Use place Value understanding and properties of operations to perform multi-digit arithmetic. <br> add, addend, sum, subtract, difference, equation, strategies, (properties)-rules about how numbers work, rectangular arrays, area model, multiply, divide, factor, |
| Represent and Solve Problems Number Theory Patterns | Represent and solve problems verbally as equations <br> Use factors to represent numbers in various ways <br> Recognize that a whole number is a multiple of each of its factors <br> Generate and analyze patterns that follow a single rule <br> (CC.2.2.4.A.1, CC.2.2.4.A. 2 \& CC.2.2.4.A.4) | product, quotient, reasonableness <br> Extend understanding of fraction equivalence and ordering. <br> partition(ed), fraction, unit fraction, equivalent, expression, multiple, reason, denominator, numerator, <br> comparison/compare, «, », =, benchmark fraction <br> Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers. <br> operations, addition/joining, subtraction/separating, fraction, unit fraction, equivalent, multiple, reason, denominator, numerator, decomposing, mixed number,(properties)-rules about how numbers work, multiply, multiple |

Grade 4- Mathematics

| Concepts | Competencies | Grade Level Vocabulary |
| :---: | :---: | :---: |
| Geometric Shapes and Figures | Draw and identify lines and angles <br> Classify shapes by properties of their lines and angles <br> Recognize symmetric shapes and draw lines of symmetry <br> (CC.2.3.4.A.1, CC.2.3.4.A. 2 \& CC.2.3.4.A.3) | Understand decimal notation for fractions, and compare decimal fractions. fraction, numerator, denominator, equivalent, reasoning, decimals, tenths, hundreds, multiplication, comparisons/compare, $\langle$, , , =, Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. |
| Measurement Data Displays | Solve problems involving measurements Convert larger unit to smaller unit Translate one type of data display to another <br> Represent and interpret data involving fractions <br> Measure and draw angles <br> Apply area and perimeter formulas <br> (CC.2.4.4.A.1, CC.2.4.4.A.2, CC.2.4.4.A. 4 \& CC.2.4.4.A.6) | measure, metric, customary, convert/conversion, relative size, liquid volume, mass, length, distance, kilometer (km), meter (m), centimeter (cm), kilogram (kg), gram (g), liter (L), milliliter (mL), inch (in), foot (ft), yard (yd), mile (mi), ounce (oz), pound (lb), cup (c), pint (pt), quart (qt), gallon (gal), time, a.m., p.m., clockwise, counter clockwise, hour, minute, second, equivalent, operations, add, subtract, multiply, divide, fractions, decimals, area, perimeter Represent and interpret data. data, line plot, length, fractions, Geometric measurement: understand concepts of angle and measure angles. measure, point, end point, geometric shapes, ray, angle, circle, fraction, intersect, one-degree angle, protractor, decomposed, addition, subtraction, unknown, obtuse, acute <br> Draw and identify lines and angles, and classify shapes by properties of their lines and angles. <br> classify shapes/figures, properties (attributes, features), defining characteristics and non-defining characteristic, point, line, line segment, ray, angle, vertex/vertices, right angle, acute, obtuse, perpendicular, parallel, right triangle, isosceles triangle, equilateral triangle, scalene triangle, line of symmetry, symmetric figures, two dimensional, regular and irregular <br> From previous grades: polygon, rhombus/rhombi, rectangle, square, triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half/quarter circle, circle, cone, cylinder, sphere |

