## K-2 Math Skills Continuum

| Kindergarten | $1^{\text {st }}$ grade | $2^{\text {nd }}$ grade |
| :---: | :---: | :---: |
| Number Properties |  |  |
| Whole Numbers | Whole Numbers | Whole numbers |
| Count read and model numbers 0-50 | Read, write, count and model whole numbers to 100 | Read, write, count and model whole numbers to (0-1,000) |
| Write numbers 0-20 | Compare (<, >, =) whole numbers to 100 | Order numbers (0-1,000) |
| Count one to one correspondence to 20 | Order numbers to 100 | Compare (<,>,=) whole numbers to 1,000 |
| Order groups by quantity (1-10)(more, less, same/equal) | Identify and describe place value to 100 Skip-count forward by 2s, 5s, 10s to 100 and | Skip count forward by 2's, 5's, 10's to 100 and backwards from 50 Identify numbers that are even and odd |
| Skip count by 2's, to 20, by 10's to 100, by 5's to 50 | backwards from 50 <br> Use drawings and 10 sets to represent place value of | Represent base 10 place value with drawings (thousands, hundreds, tens, ones) |
| Begin to identify odd and even numbers | 10's and ones. | Round number to the nearest 10 |
| Develop and understanding of place value for ones and tens. | Identify and provide examples of odd/even numbers to 50 | Identify and describe place value to 1,000 |
| Estimate quantities | Estimate quantities |  |
| Fractions | Fractions | Fractions |
| Identify half and whole | Recognize, identify and label fractions (1/2, 1/3, 1/4) | Recognize, identify, label and compare fractions ( $1 / 2,1 / 3,1 / 4$ ) as parts of a whole set |
| Operations |  |  |
| Addition <br> Add using whole numbers (0-10) and manipulatives <br> Commutative property (turnaround facts/fact families) of addition to 10 <br> Zero property of addition to 10 | Addition | Addition |
|  | Add whole numbers with single digits using physi objects and concrete materials <br> Know addition facts to 10 <br> Estimate to check reasonableness of answer <br> Use addition properties: <br> - Zero Property of Addition <br> - Commutative property (turnaround facts/fact families) of addition to 10 | Identify the correct operation, add whole numbers with 3 digits or less Identify and use different mental math strategies to solve problems |
|  |  | Add numbers to 20 <br> Identify the relationship between addition and subtraction |
|  |  | Analyze the problem to identify the correct operation |
|  |  | Use addition properties: <br> Zero Property <br> Commutative Property |
|  |  | Fractions |
|  |  | Add/Subtract fractions with like denominators (1/2+1/2=) |
|  |  | Decimals <br> Add and subtract decimals related to money (dollars and cents) |
| Subtraction | Subtraction | Subtraction |
| Subtract using whole numbers ( $0-10$ ) and manipulatives | Subtract whole numbers 20 and less using physical objects and concrete materials <br> Know subtraction facts to 10 <br> Apply math strategies to solve addition and subtraction problems <br> Estimate to check reasonableness of answer | Subtract numbers with 2 digits or less with regrouping Analyze the problem to identify the correct operation |

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|  | Multiplication <br> Count by 2's, 5's and 10's | Multiplication <br> Count by 2's, 5's and 10's <br> Construct and use arrays to show understanding of the multiplication process <br> Analyze the problem to identify the correct operation |
| :---: | :---: | :---: |
| Measurement |  |  |
| Length <br> Measure length using non-standard units (cubes, yarn) <br> Compare and order lengths <br> Estimate lengths | Length <br> Use standard and non standard units to measure length Use rulers properly to get a true measurement to the nearest $1 / 2$ inch <br> Measure in inches and centimeters <br> Compare objects for length (longer, shorter) <br> Estimate length | Length <br> Use standard and nonstandard to measure length <br> Using a ruler students will measure objects to the nearest $1 / 2$ inch or nearest centimeter <br> Compare, order and describe an object based on the bases of length Estimate length |
| Weight <br> Compare and order objects of weight (heavier than/lighter than) | Weight <br> Compare objects for weight (heavier than, lighter than) | Weight <br> Identify tools to use to measure weight <br> Weigh to the nearest pound <br> Describe, compare, and order objects on the basis of weight <br> Be able to estimate weight |
| Time <br> Tell time to: <br> - hour <br> - half hour <br> Name the days of the week, months of the year, year, seasons | Time <br> Tell time to: <br> -hour, <br> -half hour <br> -quarter hour <br> Recite days of the week, months of the year <br> Identify months in each season <br> Identify am/pm | Time <br> Tell time to: <br> - Hour <br> - Half hour <br> - Quarter hour <br> Five minutes <br> Know the relationship of time <br> Number of minutes in an hour and hours in a day <br> Recite and identify months of the year <br> Identify am/pm |
| Money <br> Identify coins (penny, nickel, dime and quarter) and their value <br> Understand process of "trading up" (5 pennies=1 nickel) | Money <br> Identify coins and their values <br> Exchange Coins ( 2 nickels=1dime, 2 dimes and 1 nickel=1 quarter) | Money Identify and use coins and bills to count money to a dollar Use money symbols for cents and dollars Combine coins to make a given amount |
|  | Temperature <br> Read a thermometer | ```Temperature Estimate and measure then measure temperature (Fahrenheit) and then determine if estimations were reasonable Identify Fahrenheit and Celsius``` |

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| Geometry |  |  |
| :---: | :---: | :---: |
| Geometric Elements <br> Identify: <br> sides <br> corners <br> Describe shapes using sides and corners | Geometric Elements <br> Identify: <br> Sides <br> Edges <br> Faces <br> bases | Geometric Elements <br> Identify <br> - Sides <br> - Edges <br> - Faces <br> - Bases <br> - Corners |
| 2D Shapes <br> Tell spatial relationship of shape (behind, beside, inside etc) <br> Identify and make shapes: <br> - Circle <br> - Square <br> - Rectangle <br> - Triangle <br> - Oval <br> - Diamond <br> Identify shapes in environment <br> Sort objects by size, shape and/or color | 2D Shapes <br> Identify 2-D shapes by name and attributes: <br> - Triangle <br> - Square <br> - Rectangle <br> - Circle <br> - Oval <br> - Rhombus (diamond) <br> Describe shapes using geometric elements | 2D Shapes <br> Recognize and name and give examples of 2-D shapes <br> - Circles <br> - Triangle <br> - Square <br> - Pentagon <br> - Hexagon <br> - Rhombus <br> - Trapezoid <br> Describe shapes using geometric elements Construct using 2-D shapes |
|  | 3D Shapes <br> Compare/sort 2-D and 3-D shapes by common attributes of size, shape, number of sides/ corners <br> Identify plane shape that makes up the face/faces of a 3-D shape | 3D shapes <br> Compare and contrast 3-D figures <br> Describe using geometric elements <br> Identify and give examples of 3-D figures <br> Recognize and identify 3-D shapes <br> Spheres <br> Pyramids <br> Cubes <br> Cylinders <br> Cones <br> Compare, contrast, and classify 3-D shapes by common attributes <br> Identify and describe symmetry in objects |

## K-2 Math Skills Continuum

| Data |  |  |
| :---: | :---: | :---: |
| Organize and display data using pictographs | Read and interpret: <br> - drawings <br> - tables/charts <br> - tally tables <br> - pictographs <br> - bar graphs <br> Collect data <br> Organize data into: <br> - Tally charts <br> - Picotograph <br> - bar graphs | Know how to interpret, explore, read and create <br> - Drawings <br> - Tables/charts <br> - Tally tables <br> - Pictographs <br> - Bar graphs <br> - 2 circle venn diagrams <br> Can pose questions that can be answered by collecting data <br> Create data to display in a: <br> - Pictograph <br> - Bar graph <br> - Table/chart <br> - Venn diagram <br> Introduce parts of the graph <br> Efolio :Electronic Graph whole class, small group, partners or individual group |
| Algebraic Thinking |  |  |
| Recognize and extend 2 and 3 part patterns | Identify and extend 2 and 3 part patterns | Can identify, explore, recognize and create 2 and 3 part patterns repeating patterns |
| Create a simple number sentence from real world situations represented by drawings or orally | Solve math problems with missing addends | Solve simple addition and subtraction function machine tasks <br> Explore functions using a calculator |

