| Grade | Topic | Skill | Understanding |
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| K | Count to tell "how many" | - 1 to 1 correspondence <br> - Subitize (recognize spot and other visualizations to 10) <br> - Compare the number of objects in one group to another | - Our numbers can be used to tell "how many." <br> - Our numbers can be shown in many different ways. |
| K | Number Sense | - Orally count to 100 by ones and tens <br> - Place value recognition (tens and ones) for the teen numbers <br> - Compare numbers using various representations (models, hundreds chart, etc.) <br> - Write numbers to 20 | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. <br> - Our numbers can be shown in many different ways. |
| K | Addition and Subtraction | - Add and subtract within 5 <br> - Recognize when to add and when to subtract in word problems | - Our numbers can be shown in many different ways. <br> - Only things that are alike can be added or subtracted. |
| 1 | Number Sense | - Give ten more and ten less than any number given without counting <br> - Build understanding of place value and connect to place value notation | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. |
| 1 | Addition and Subtraction | - Fluently add and subtract within 20 | - Our numbers can be shown in many |


|  |  | - Develop multiple mental strategies for adding numbers, such as "counting on" and "making ten." <br> - Determine an unknown value in any position in an addition and subtraction equation <br> - Add two 2-digit numbers including regrouping within 100 <br> - Explore properties of addition and subtraction (commutative and associative) by concept but not by name | different ways. <br> - Only things that are alike can be added or subtracted. <br> - Addition and subtraction relate to each other and allow us to make fact families. |
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| 1 | Measurement | - Compare lengths to develop a sense of size <br> - Tell time to the hour and half hour <br> - Compose shapes to make a new shape | - Measurement lets us describe and compare objects. <br> - Time is a unit of measurement that helps us describe and schedule a day. <br> - Shapes are defined, categorized and classified by their characteristics. <br> - Putting together or taking apart shapes can make new shapes. |
| 2 | Number Sense | - Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. |


|  |  | - Use place value understanding to add and subtract two 3-digit numbers within 1000 <br> - Mentally add or subtract 10 or 100 to any number based on place value <br> - Connect dollars, dimes and pennies to place value |  |
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| 2 | Addition and Subtraction | - Know all single digit sums by heart <br> - Fluently add and subtract within 100 using strategies <br> - Add and subtract in real-world contexts within 1000, with both one- and two-step problems. | - Our numbers can be shown in many different ways. <br> - Only things that are alike can be added or subtracted. <br> - Addition and subtraction relate to each other and allow us to make fact families. <br> - There are many different strategies that can be used to add and subtract numbers such as drawings, mental strategies, using number lines and objects and equations with symbols. |
| 2 | Measurement | - Use standard units of measure and standard measurement tools <br> - Use a number line to connect numbers, lengths and units. Connect number | - Measurement lets us describe and compare objects. <br> - What we measure determines the units used to measure, and the units of measure describe the attribute being measured. <br> - The same |


|  |  | lines to rulers and bar graph scales | representation of our numbers can be used in multiple situations. |
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| 3 | Number Sense | - Use place value and properties of operations to reason about number and operations | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. |
| 3 | Operations | - Add and subtract fluently within 1000 <br> - Build foundations of multiplication and division including area models <br> - Multiply and divide within 100 | - There are many strategies that can be used to perform any operation, including mental strategies and paper and pencil strategies. <br> - Only things that are alike can be added or subtracted. <br> - Addition and subtraction relate to each other and allow us to make fact families. <br> - Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area. <br> - Division can represent repeated subtraction, putting a total number of items into equal groups, and the partitioning (division) of area. <br> - Multiplication and division relate to each other and allow us to make fact families. |
| 3 | Foundations of Fractions | - Divide models to model fractions <br> - Develop fractions as number <br> - Equivalent | - A fraction shows the relationship between parts and a whole. <br> - Fractions are a way to represent division. |


|  |  | fractions | - Our numbers follow a pattern that remains the same. <br> - Our numbers can be shown in many different ways. <br> - The same fraction can be represented in many equivalent ways. |
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| 3 | Measurement | - Use continuous measurement (including liquid, volume, mass and time) to model fractions <br> - Develop concept of area, connecting to multiplication <br> - Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. | - Measurement lets us describe and compare objects according to their attributes and properties. <br> - What we measure determines the units used to measure, and the units of measure describe the attribute being measured. <br> - Number operations are often used to determine the measured attributes of a shape, such as area and perimeter. |
| 4 | Number Sense | - Use place value and properties of operations to reason about number and operations | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. |
| 4 | Operations | - Use standard algorithm for addition and subtraction <br> - Extend whole number addition and subtraction to fractions <br> - Multiply and divide whole number multidigit numbers | - There are many strategies that can be used to perform any operation, but it is helpful to have one method that we agree to call standard. <br> - Only things that are alike can be added and subtracted, and in fractions the denominator |


|  |  | using multiple strategies. <br> - Extend whole number multiplication to multiplication of a whole number and a fraction | determines what is alike. <br> - Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area. |
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| 4 | Fractions | - Use unit fractions to reason about equivalence, ordering, and operations <br> - Use decimal notation to represent fractions | - Fractions are a way to represent division. <br> - Equivalent fractions are found by multiplying by 1 . <br> - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. <br> - Our numbers can be represented in many equivalent forms. |
| 5 | Number Sense | - Use place value and properties of operations to reason about number and operations <br> - Extend place value understanding to decimal numbers | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. <br> - Our numbers can be represented in many equivalent forms. |
| 5 | Operations | - Multi-digit multiplication with standard algorithm. <br> - Division with two-digit divisors <br> - Multiplication of multi-digit whole numbers and decimals to the hundredths place <br> - Multiplication of fractions | - There are many strategies that can be used to perform any operation, but it is helpful to have one method that we agree to call standard. <br> - Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area. <br> - Division can |


|  |  | - Divide unit fractions by whole numbers and whole numbers by unit fractions | represent repeated subtraction, putting a total number of items into equal groups, and the partitioning. |
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| 5 | Geometry | - Volume | - Measurement lets us describe and compare objects according to their attributes and properties. <br> - What we measure determines the units used to measure, and the units of measure describe the attribute being measured. <br> - Number operations are often used to determine the measured attributes of a shape. |
| 6 | Number Sense | - Order and place rational numbers on number line <br> - Analyze proportional relationships <br> - Introduction to Integers | - Our numbers follow a pattern that remains the same. <br> - Our numbers are based on groups of ten. <br> - A negative sign in math means opposite. <br> - The sign of a number represents different contexts in our world. <br> - Our numbers can be represented in many equivalent forms. |
| 6 | Operations | - Fluently divide multi-digit numbers using the standard algorithm <br> - Fluently add, subtract, multiply, and divide multidigit decimals using the standard algorithm for each | - There are many strategies that can be used to perform any operation, but it is helpful to have one method that we agree to call standard. <br> - The meaning of an operation determines which operation to |


|  |  | operation <br> - Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions | use in a given situation. <br> - Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area. <br> - Division can represent repeated subtraction, putting a total number of items into equal groups, and the partitioning. |
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| 6 | Algebra | - Develop understanding of variables <br> - Write, read and evaluate algebraic expressions <br> - Write and solve one-variable equations and inequalities <br> - Graph points in four quadrants | - Algebra is sophisticated arithmetic. <br> - A variable can represent an unknown value, or a range of unknown values. <br> - The same quantity or expression can be represented in many equivalent ways. <br> - We use algebra to model the real world. <br> - Operations used with algebraic symbols follow the same patterns and meanings as using the operation in any number system. <br> - Our operations come in inverse pairs, which allow us to solve algebraic equations. <br> - A negative sign in math means opposite. <br> - Number lines can be used to represent and graph regions or space. |
| 6 | Geometry | - Area, Volume | - Measurement lets us |


|  |  | and Surface Area <br> - Apply Algebra to Geometry including graphing in coordinate plane and solving volume formulas |  | describe and compare objects according to their attributes and properties. <br> - What we measure determines the units used to measure, and the units of measure describe the attribute being measured. <br> - We use algebra to model the real world. <br> - Number operations are often used to determine the measured attributes of a shape. |
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