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| Grade | Topic | Skill | Understanding |
| K | Count to tell “how many” | * 1 to 1 correspondence
* Subitize (recognize spot and other visualizations to 10)
* Compare the number of objects in one group to another
 | * Our numbers can be used to tell “how many.”
* Our numbers can be shown in many different ways.
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| K | Number Sense | * Orally count to 100 by ones and tens
* Place value recognition (tens and ones) for the teen numbers
* Compare numbers using various representations (models, hundreds chart, etc.)
* Write numbers to 20
 | * Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
* Our numbers can be shown in many different ways.
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| K | Addition and Subtraction  | * Add and subtract within 5
* Recognize when to add and when to subtract in word problems
 | * Our numbers can be shown in many different ways.
* Only things that are alike can be added or subtracted.
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| 1 | Number Sense | * Give ten more and ten less than any number given without counting
* Build understanding of place value and connect to place value notation
 | * Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
 |
| 1 | Addition and Subtraction | * Fluently add and subtract within 20
* Develop multiple mental strategies for adding numbers, such as “counting on” and “making ten.”
* Determine an unknown value in any position in an addition and subtraction equation
* Add two 2-digit numbers including regrouping within 100
* Explore properties of addition and subtraction (commutative and associative) by concept but not by name
 | * Our numbers can be shown in many different ways.
* Only things that are alike can be added or subtracted.
* Addition and subtraction relate to each other and allow us to make fact families.
 |
| 1 | Measurement | * Compare lengths to develop a sense of size
* Tell time to the hour and half hour
* Compose shapes to make a new shape
 | * Measurement lets us describe and compare objects.
* Time is a unit of measurement that helps us describe and schedule a day.
* Shapes are defined, categorized and classified by their characteristics.
* 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.
* Use place value understanding to add and subtract two 3-digit numbers within 1000
* Mentally add or subtract 10 or 100 to any number based on place value
* Connect dollars, dimes and pennies to place value
 | * Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
 |
| 2 | Addition and Subtraction | * Know all single digit sums by heart
* Fluently add and subtract within 100 using strategies
* 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.
* Only things that are alike can be added or subtracted.
* Addition and subtraction relate to each other and allow us to make fact families.
* 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
* Use a number line to connect numbers, lengths and units. Connect number lines to rulers and bar graph scales
 | * Measurement lets us describe and compare objects.
* What we measure determines the units used to measure, and the units of measure describe the attribute being measured.
* The same representation of our numbers can be used in multiple situations.
 |
| 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.
* Our numbers are based on groups of ten.
 |
| 3 | Operations | * Add and subtract fluently within 1000
* Build foundations of multiplication and division including area models
* 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.
* Only things that are alike can be added or subtracted.
* Addition and subtraction relate to each other and allow us to make fact families.
* Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area.
* Division can represent repeated subtraction, putting a total number of items into equal groups, and the partitioning (division) of area.
* Multiplication and division relate to each other and allow us to make fact families.
 |
| 3 | Foundations of Fractions | * Divide models to model fractions
* Develop fractions as number
* Equivalent fractions
 | * A fraction shows the relationship between parts and a whole.
* Fractions are a way to represent division.
* Our numbers follow a pattern that remains the same.
* Our numbers can be shown in many different ways.
* 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
* Develop concept of area, connecting to multiplication
* 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.
* What we measure determines the units used to measure, and the units of measure describe the attribute being measured.
* Number operations are often used to determine the measured attributes of a shape, such as area and perimeter.
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| 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.
* Our numbers are based on groups of ten.
 |
| 4 | Operations | * Use standard algorithm for addition and subtraction
* Extend whole number addition and subtraction to fractions
* Multiply and divide whole number multi-digit numbers using multiple strategies.
* Extend whole number multiplication to multiplication of a whole number and a fraction
 | * 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.
* Only things that are alike can be added and subtracted, and in fractions the denominator determines what is alike.
* 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
* Use decimal notation to represent fractions
 | * Fractions are a way to represent division.
* Equivalent fractions are found by multiplying by 1.
* Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
* 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
* Extend place value understanding to decimal numbers
 | * Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
* Our numbers can be represented in many equivalent forms.
 |
| 5 | Operations | * Multi-digit multiplication with standard algorithm.
* Division with two-digit divisors
* Multiplication of multi-digit whole numbers and decimals to the hundredths place
* Multiplication of fractions
* Divide unit fractions by whole numbers and whole numbers by unit 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.
* Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area.
* Division can 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.
* What we measure determines the units used to measure, and the units of measure describe the attribute being measured.
* Number operations are often used to determine the measured attributes of a shape.
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| 6 | Number Sense | * Order and place rational numbers on number line
* Analyze proportional relationships
* Introduction to Integers
 | * Our numbers follow a pattern that remains the same.
* Our numbers are based on groups of ten.
* A negative sign in math means opposite.
* The sign of a number represents different contexts in our world.
* Our numbers can be represented in many equivalent forms.
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| 6 | Operations | * Fluently divide multi-digit numbers using the standard algorithm
* Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
* Interpret and compute quotients of fractions and solve word problems involving division of fractions by 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.
* The meaning of an operation determines which operation to use in a given situation.
* Multiplication can represent repeated addition, a number of groups with equal elements, and the creation of area.
* 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
* Write, read and evaluate algebraic expressions
* Write and solve one-variable equations and inequalities
* Graph points in four quadrants
 | * Algebra is sophisticated arithmetic.
* A variable can represent an unknown value, or a range of unknown values.
* The same quantity or expression can be represented in many equivalent ways.
* We use algebra to model the real world.
* Operations used with algebraic symbols follow the same patterns and meanings as using the operation in any number system.
* Our operations come in inverse pairs, which allow us to solve algebraic equations.
* A negative sign in math means opposite.
* Number lines can be used to represent and graph regions or space.
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| 6 | Geometry | * Area, Volume and Surface Area
* Apply Algebra to Geometry including graphing in coordinate plane and solving volume formulas
 | * Measurement lets us describe and compare objects according to their attributes and properties.
* What we measure determines the units used to measure, and the units of measure describe the attribute being measured.
* We use algebra to model the real world.
* Number operations are often used to determine the measured attributes of a shape.
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