## Grade 4

Key Areas of Focus for Grades 3-5: Multiplication and division of whole numbers and fractions-concepts, skills and problem solving

| Expected Fluency: Add and subtract within 1,000,000 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Module | M1: <br> Place Value, <br> Rounding, <br> Fluency with <br> Addition and <br> Subtraction <br> Algorithms of Whole <br> Numbers | M2: <br> Unit <br> Conversions: <br> Addition and <br> Subtraction of <br> Length, <br> Weight and Capacity | M3: <br> Multiplication and Division of up to a 4-Digit Number by up to a 1-Digit Number Using Place Value | M4: Addition and Subtraction of Angle Measurements of Planar Figures | M5: <br> Order and Operations with Fractions | M6: Decimal Fractions | M7: <br> Exploring Multiplication |
| Duration | Quarter 1 | Quarter 1 | Quarter 1\&2 | Quarter 2 | Quarter 3 | Quarter 4 | Quarter 4 |
| Standards | $\begin{aligned} & \text { 4.OA.3 * } \\ & \text { 4.NBT.1 * } \\ & \text { 4.NBT.2 * } \\ & \text { 4.NBT.3 * } \\ & \text { 4.NBT.4 * } \end{aligned}$ | 4.MD. 1 4.MD. 2 | 4.OA. 1 <br> 4.OA. 2 <br> 4.OA. 3 * <br> 4.OA. 4 <br> 4.OA. 5 <br> 4.NBT. 5 <br> 4.NBT. 6 <br> 4.MD. 3 | $\begin{aligned} & \text { 4.MD. } 5 \\ & \text { 4.MD.6 } \\ & \text { 4.MD. } 7 \\ & \text { 4.G.1 } \\ & \text { 4.G.2 } \\ & \text { 4.G.3 } \end{aligned}$ | 4.NF. 1 * <br> 4.NF. 2 * <br> 4.NF. 3 * <br> 4.NF. 4 <br> 4.MD. 2 <br> 4.MD. 4 | 4.NF. 5 4.NF. 6 * 4.NF. 7 * $\text { 4.MD. } 2$ | $\begin{aligned} & \text { 4.OA. } 1 \\ & \text { 4.O. } 2 \\ & \text { 4.OA.3 * } \\ & \text { 4.NBT. } 5 \\ & \text { 4.MD. } 11 \\ & \text { 4.MD. } 2 \end{aligned}$ |
| Instructional Strategies | Use the math workshop model and centers. Each module should be approached from by understanding the students' baseline first and then developing and selecting, engaging and hand-on activities to build deep understanding at developmentally appropriate levels. Where possible, provide models and visuals for students. Communicate with students using student friendly iCan statements developed and or adopted by the grade-level team. Include kinesthetic activities to deepen understanding while adding movement and play into the learning. |  |  |  |  |  |  |
| Assessment Formative | Daily, ongoing formative assessment strategies included in each module (ex. Activities, exit tickets, Practice, online learning, etc.) |  |  |  |  |  |  |
| Assessment Interim | A Mid-Module assessment Task is provided for each module to address the first half of the student outcomes for each module <br> An End of the Module Assessment Task is provided to address the student outcomes for the module as a whole |  |  |  |  |  |  |
| Assessment Summative | Cross-Modular Assessment Tasks are provided periodically after multiple modules to address standards from several modules and to ensure that students are making important connections across major topics within this grade. |  |  |  |  |  |  |

Color Key

| GEOMETRY | NUMBER | NUMBER AND GEOMETRY, <br> MEASUREMENT | FRACTIONS |
| :--- | :--- | :--- | :--- |

Major Clusters are denoted with *
(Areas of intense focus, where students need fluent understanding and application of core concepts)

## Module 1

## Essential Questions

What strategies can be used to compare multi-digit whole numbers?
How do patterns in our number system help in understanding mathematics?
How can strategies be used to solve multistep word problems?
How can the reasonableness of a solution be determined?

## Enduring Understandings

Students develop and understanding of why numbers have the values they represent and patterns in our number system.

Students begin to interpret remainders and assess the reasonableness of their answers. Students use mental strategies and estimation strategies. Students also use variables to stand for unknown quantities building early foundations for algebra. Emphasis is placed on applying problem solving strategies.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

I Can Use the Four Operations (+, -, x, ?) to Help Me Understand Math

- I can use what I know about addition, subtraction, multiplication and division to solve multi-step word problems involving whole numbers.
- I can represent word problems by using equations with a letter standing for the unknown number.
- I can determine how reasonable my answers to word problems are by using estimation, mental math and rounding.

I Can Use Number Sense and Place Value to Help Me Understand Math

- I can recognize that in multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
- I can read and write larger whole numbers using numerals, words and in expanded form.
- I can compare two large numbers using symbols to show the comparison.
- I can round large whole numbers to any place.
- I can add and subtract large numbers.


## Module 1: Place Value, Rounding, Fluency with Addition and Subtraction Algorithms of Whole Numbers

## Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems.*
4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

## Number and Operations in Base 10

## Generalize place value understanding for multi-digit whole numbers. *

4.NBT. 1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
4.NBT. 2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
4.NBT. 3 Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic. *
4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.

## Module 2

## Essential Questions

How does measurement data represented in tables illustrate units by size?
Why is it important to understand relative size?
What strategies help to efficiently and accurately solve word problems?

## Enduring Understandings

Students deepen their understanding of measurement and data charts. They build their understanding of size comparison and problem solving across a wide array of units of measure and across the four basic operations (+, -, / and x)

## I Can Statements (Adapted from www.thecurriculumcorner.com)

## Can Use Measurement and Data to Help Me Understand Math

- I can show that I know the relative size of measurement units within a single system
- I can show the measurements of a larger unit in terms of smaller units and record these in a table.
- I can use the four operations (+, -, x, ?) to solve word problems involving measurement; including simple fractions and decimals.

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Module 2: Unit Conversions: Addition and Subtraction of Length, Weight and Capacity
Measurement and Data
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Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
4.MD. 1 Know relative sizes of measurement units within one system of units including $\mathrm{km}, \mathrm{m}, \mathrm{cm} ; \mathrm{kg}, \mathrm{g} ; \mathrm{lb}, \mathrm{oz}$; $\mathrm{l}, \mathrm{ml}$; hr , min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
4.MD. 2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

## Module 3

## Essential Questions

What strategies can be used to compare multi-digit whole numbers?
How do patterns in our number system help in understanding mathematics?
How can strategies be used to solve multistep word problems?
How can the reasonableness of a solution be determined?

## Enduring Understandings

Students develop and understanding of why numbers have the values they represent and patterns in our number system.

Students begin to interpret remainders and assess the reasonableness of their answers. Students use mental strategies and estimation strategies. Students also use variables to stand for unknown quantities building early foundations for algebra. Emphasis is placed on applying problem solving strategies.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

## I Can Use the Four Operations (+, -, x, ?) to Help Me Understand Math

- I can understand that multiplication fact problems can be seen as comparisons of groups (e.g., $24=4 \times 6$ can be thought of as 4 groups of 6 or 6 groups of 4).
- I can multiply or divide to solve word problems by using drawings or writing equations and solving for a missing number.
- I can use what I know about addition, subtraction, multiplication and division to solve multi-step word problems involving whole numbers.
- I can represent word problems by using equations with a letter standing for the unknown number.
- I can determine how reasonable my answers to word problems are by using estimation, mental math and rounding.
- I can find all factor pairs for a number from 1 to 100.
- I can determine whether a given whole number up to 100 is a prime or composite number.


## I Can Use Number Sense and Place Value to Help Me Understand Math

- I can add and subtract large numbers.
- I can multiply a whole number up to four digits by a one-digit whole number.
- I can multiply two two-digit numbers.
- I can find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors.


## Measurement and Data to Help Me Understand Math

- I can use what I know about area and perimeter to solve real world problems involving rectangles.


## Module 3: Multiplication and Division of up to a 4-Digit number by up to a 1-Digit Number Using Place Value

## Operations and Algebraic Thinking

## Use the four operations with whole numbers to solve problems.

4.OA. 1 Interpret a multiplication equation as a comparison, e.g., interpret $35=5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5 . Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA. 2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

## Gain familiarity with factors and multiplies.

4.OA.4 Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range $1-100$ is a multiple of a given one-digit number. Determine whether a given whole number in the range $1-100$ is prime or composite.

## Generate and analyze patterns.

4.OA. 5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

## Number and Operations in Base 10

Use place value understanding and properties of operations to perform multi-digit arithmetic.
4.NBT. 5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NBT. 6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

## Measurement and Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

## Module 4

## Essential Questions

What strategies and tools can help determine the measurement of unknown angles?
What important information can be determined from the attributes present in two-dimensional figures?

## Enduring Understandings

Students explore both measuring the unknown angle with a protractor and reasoning through the solving of an equation. This connection between the measurement tool and the numerical work lays an important foundation for success with middle school geometry and algebra. Through decomposition and composition activities as well as an exploration of symmetry, students recognize specific attributes present in two-dimensional figures. They further develop their understanding of these attributes as they classify two-dimensional figures based on them.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

I Can Use Geometry to Help Me Understand Math

- I can identify and draw points, lines, line segments, rays, angles and perpendicular \& parallel lines.
- I can classify two-dimensional shapes based on what I know about their geometrical attributes.
- I can recognize and identify right triangles.
- I can recognize and draw lines of symmetry.

Measurement and Data to Help Me Understand Math

- I can recognize angles as geometric shapes where two rays share a common endpoint.
- I can understand that angles are measured with reference to a circle, with its center at the common endpoint of the rays.
- I can use a protractor to measure angles in whole-number degrees.
- I can solve addition and subtraction problems involving angles.


## Module 4: Addition and Subtraction of Angle Measurements of Planar Figures

## Measurement and Data

## Geometric measurement: understand concepts of angle and measure angles.

4.MD. 5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1 / 360$ of a circle is called a "one-degree angle," and can be used to measure angles
b. An angle that turns through $n$ one-degree angles is said to have an angle measure of $n$ degrees.
4.MD. 6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
4.MD. 7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

## Geometry

## Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

4.G. 1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
4.G. 3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

## Module 5

## Essential Questions

Why express quantities, measurements and fraction number relationships in different ways?
How can fraction number relationships be expressed in different ways?

## Enduring Understandings

Students develop an understanding of the relationship of a fraction to the whole and the relationship of equivalent fractions. They also develop the understanding that the whole must be the same in order to compare fractions. In addition, students strengthen their ability to problem solving, expanding to problems that involve fractions.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

I Can Use Fractions to Help Me Understand Math

- I can explain (and show models for) why multiplying a numerator and a denominator by the same number does not change the value of a fraction.
- I can compare two fractions with different numerators and different denominators by creating common denominators or numerators or by comparing them to a benchmark fraction like one-half.
- I can recognize that comparisons of fractions are valid only when the two fractions refer to the same whole.
- I can compare fractions using symbols and justify the comparison by using models.
- I can understand that improper fractions have a greater numerator than denominator.
- I can understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- I can decompose a fraction into a sum of fractions with the same denominator.
- I can add and subtract mixed numbers with like denominators.
- I can solve word problems involving addition and subtraction of fractions with like denominators.
- I can multiply a fraction by a whole number.
- I can solve word problems involving multiplication of a fraction by a whole number.

Measurement and Data to Help Me Understand Math

- I can use the four operations (+, -, $x$, ?) to solve word problems involving measurement; including simple fractions and decimals.
- I can make a line plot to show measurements involving fractions.
- I can solve problems involving addition and subtraction of fractions by using information presented in line plots.


## Module 5: Order and Operations with Fractions

## Number and Operations-Fractions

## Extend understanding of fraction equivalence and ordering. *

4.NF.1 Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
4.NF. 2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1 / 2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>,=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

## Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers. *

4.NF. 3 Understand a fraction $a / b$ with $a>1$ as a sum of fractions $1 / b$.
a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3 / 8=1 / 8+1 / 8+1 / 8 ; 3 / 8=1 / 8+2 / 8 ; 2$ $1 / 8=1+1+1 / 8=8 / 8+8 / 8+1 / 8$.
c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4.NF. 4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
a. Understand a fraction $\mathrm{a} / \mathrm{b}$ as a multiple of $1 / \mathrm{b}$. For example, use a visual fraction model to represent $5 / 4$ as the product $5 \times(1 / 4)$, recording the conclusion by the equation $5 / 4=5 \times(1 / 4)$.
b. Understand a multiple of $\mathrm{a} / \mathrm{b}$ as a multiple of $1 / \mathrm{b}$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times(2 / 5)$ as $6 \times(1 / 5)$, recognizing this product as $6 / 5$. (In general, $\mathrm{n} \times(\mathrm{a} / \mathrm{b})=(\mathrm{n} \times$ a)/b.)
c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3 / 8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?

## Measurement and Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
4.MD. 2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

## Represent and interpret data.

4.MD. 4 Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4,1 / 8$ ). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

## Module 6

## Essential Questions

How can place value be used to create equivalent fractions?
How can place value be used to help add fractions?
Why express quantities, measurements, and number relationships in different ways?
How can place value be used to help compare and order decimals?

## Enduring Understandings

Students use their knowledge of fractional numbers to extend to decimals. Students gain an understanding of how to convert fractions into decimal notation and compare and order decimal numbers preparing them for more complex problem solving and real-world applications.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

Measurement and Data to Help Me Understand Math

- I can use the four operations (+, -, x, ?) to solve word problems involving measurement; including simple fractions and decimals.

I Can Use Fractions to Help Me Understand Math

- I can show a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 in order to add the two fractions
- I can use decimals to show fractions with denominators of 10 and 100.
- I can compare two decimals to hundredths by reasoning about their size.


## Module 6: Decimal Fractions

## Number and Operations-Fractions

## Understand decimal notations for fractions, and compare decimal fractions. *

4.NF. 5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 . For example, express $3 / 10$ as $30 / 100$, and add $3 / 10+4 / 100=34 / 100$.
4.NF. 6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62 / 100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
4.NF. 7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.

## Measurement and Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
4.MD. 2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

## Module 7

## Essential Questions

What strategies can be used to compare multi-digit whole numbers?
How do patterns in our number system help with an understanding mathematics?
How can we apply strategies to solve multistep word problems?
How can we assess the reasonableness of a solution?

## Enduring Understandings

Students deepen their understanding of why numbers have the values they represent and patterns in our number system.

Students continue to interpret remainders and assess the reasonableness of their answers. Students use mental strategies and estimation strategies. Students also use variables to stand for unknown quantities building early foundations for algebra. Emphasis is placed on applying problem solving strategies.

## I Can Statements (Adapted from www.thecurriculumcorner.com)

I Can Use the Four Operations (+, -, $x$, ?) to Help Me Understand Math

- I can understand that multiplication fact problems can be seen as comparisons of groups (e.g., $24=4 \times 6$ can be thought of as 4 groups of 6 or 6 groups of 4).
- I can multiply or divide to solve word problems by using drawings or writing equations and solving for a missing number.
- I can use what I know about addition, subtraction, multiplication and division to solve multi-step word problems involving whole numbers.
- I can represent word problems by using equations with a letter standing for the unknown number.
- I can determine how reasonable my answers to word problems are by using estimation, mental math and rounding.

Measurement and Data to Help Me Understand Math

- I can show that I know the relative size of measurement units within a single system.
- I can show the measurements of a larger unit in terms of smaller units and record these in a table.
- I can use the four operations (+, -, x, ?) to solve word problems involving measurement; including simple fractions and decimals.

I Can Use Number Sense and Place Value to Help Me Understand Math

- I can multiply a whole number up to four digits by a one-digit whole number.
- I can multiply two two-digit numbers.


## Module 7: Exploring Multiplication

## Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems. *
4.OA. 1 Interpret a multiplication equation as a comparison, e.g., interpret $35=5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5 . Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

## Number and Operations in Base 10

## Use place value understanding and properties of operations to perform multi-digit arithmetic. *

4.NBT. 5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

## Measurement and Data

## Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

4.MD. 1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
4.MD. 2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given
in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Major Clusters are denoted with *
(Areas of intense focus, where students need fluent understanding and application of core concepts)

## Primary Resources

1. Eureka Math Program
2. Context for Learning
3. Math Workshop Model
4. Do the Math
5. TenMarks

## Essential Questions Defined:

Essential questions are broad concepts asked in question form. They help guide the teacher in teaching the unit and designing their lesson plan. We use the following five essential questions with all of our units, in all of our grades, across all of our subjects (Adapted from Rick DuFour)

1. What do students need to know and be able to do?
2. How will we teach them?
3. How will we know if they know and are able to do?
4. What will we do if they don't?
5. What will we do if they already know and are able to do prior to a lesson or unit beginning?

## Enduring Understandings Defined:

Enduring understandings are statements that capture the important ideas that can be transferred to learning and doing beyond the classroom (Adapted from Grant Wiggins and Jay McTighe, Understanding by Design).

