

Grade: 4th	Unit 1: Place Value, Rounding, Fluency with Addition and Subtraction Algorithms of Whole Numbers	Duration: 20 days/4 weeks
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. How can numbers be expressed, ordered, and compared? 2. How does the position of a digit in a number affect its value? 3. In what ways can numbers be composed and decomposed? 4. How are place value patterns repeated in numbers? 5. How can place value properties aid computation? 6. What are strategies to make a reasonable estimate? 7. What are different models for addition and subtraction? 8. What questions can be answered using addition and subtraction? 		<p>Real World Problems/Applications:</p> <ul style="list-style-type: none"> ● everyday shopping trips ● paying bills ● going out to eat ● field trip ● fall fundraiser <p>Real World Jobs: Relate to students' interest.</p>
<p>Standards/Eligible Content (Skills):</p> <p><u>Standards:</u></p> <ul style="list-style-type: none"> ● C.C.2.1.4.B.1 - Apply place-value concepts to show and understanding of multi-digit whole numbers. ● C.C.2.1.4.B.2 - Use place-value understanding and properties of operations to perform multi-digit arithmetic. <p><u>Eligible Content:</u></p> <p>M04.A-T.1.1.1 Demonstrate an understanding that in a multi-digit whole number (through 1,000,000), a digit in one place represents ten times what it represents in the place to its right. Example: Recognize that in the number 770, the 7 in the hundreds place is ten times the 7 in the tens place. M04.A-T.1.1.2 Read and write whole numbers in expanded, standard, and word form through 1,000,000. M04.A-T.1.1.3 Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols</p> <p>M04.A-T.1.1.4 Round multi-digit whole numbers (through 1,000,000) to any place.</p>		<p>Standards Reinforced:</p> <p><u>Standards:</u></p> <ul style="list-style-type: none"> ● CC.2.1.3.B.1 Apply place value understanding and properties of operations to perform multi-digit arithmetic. ● CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.

M04.A-T.2.1.1 Add and subtract multi digit whole numbers (limit sums and subtrahends up to and including 1,000,000)
M04.A-T.2.1.4 Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits x 1 digit, excluding powers of 10)

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning.

Reading/Writing/Listening/Speaking Skills:

- Discuss and explain reasoning to your group verbally.
- Explain your reason using complete sentences.
- Read story problems fluently.
- Demonstrate comprehension.
- Inferencing
- Compare/Contrast
- Math journals - students answer essential questions and provide examples
- Think-alouds, paraphrasing, imagery, making predictions, analogies
- Literature Resources: Sir Cumference and All the King's Tens; Penny Pot

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe)

Vocabulary:

- estimate
- round
- expanded form
- period

- standard form
- word form
- difference
- sum
- compare
- equal sign
- greater than sign
- less than sign
- digit
- place value
- regroup
- addend

Technology/Manipulatives/Resources:

-Mastering Math Facts -White Boards -Base Ten Blocks/Discs -Number Lines -
Place Value Charts/Cards/Discs

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -https://embarc.online

Authentic Performance Assessments:

- Bank Day
- Budget for a store

Measuring Up: <http://www.insidemathematics.org/assets/problems-of-the-month/measuring%20up.pdf>

Grade: 4	Unit 2: Metric Unit Conversions: Addition and Subtraction of Length, Weight, and Capacity	Duration: 4 weeks (Paired with Unit 7)
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. What types of problems are solved with measurement? 2. What are tools of measurement and how are they used? 3. How do units within a system relate to each other? 		<p>Real World Problems/Applications:</p> <ul style="list-style-type: none"> • Quilting • Sewing • Building objects • Weighing objects <p>Real World Jobs: Identify jobs with students' interest. Examples:</p> <ul style="list-style-type: none"> • Construction • Carpenter • Seamstress/Clothing Designer • Interior Designer • Architect
<p>Standards/Eligible Content (Skills):</p> <p>Standards: C.C.2.4.4.A.1 - Solve problems involving measurement and conversions from a larger unit to a smaller unit. CC.2.4.4.A.2 Translate information from one type of data display to another.</p> <p>Eligible Content: M04.D-M.1.1.1 -Know relative sizes of measurement units within one system of units including standard units (in., ft., yd., mi; oz. Lb.; and c, pt, qt, gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr, day, wk, mo, and yr). -Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. M04.D-M.1.1.2</p>		<p>Standards Reinforced:</p> <ul style="list-style-type: none"> • C.C.2.1.4.B.1 - Apply place-value concepts to show and understanding of multi-digit whole numbers. • C.C.2.1.4.B.2 - Use place-value understanding and properties of operations to perform multi-digit arithmetic.

-Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; 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.

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning.

Reading/Writing/Listening/Speaking Skills:

- Discuss and explain reasoning to your group verbally.
- Explain your reason using complete sentences.
- Read story problems fluently.
- Demonstrate comprehension.
- Inferencing
- Compare/Contrast
- Math journals - students answer essential questions and provide examples
- Think-alouds, paraphrasing, imagery, making predictions, analogies

Fluency:

- Daily Multiplication/Division Math Fact Practice (with a weekly probe)
- Multiplying and dividing by 10

Vocabulary:

- Metric System
- Benchmark
- Meter
- Liter
- Gram
- Kilo-
- Deci-
- Milli-
- Centi-
- Convert

Technology/Manipulatives/Resources:

Manipulatives:

- Balance Scale/Weights
- Centimeter Ruler
- Meter Stick
- Liter containers with millimeter scale
- Number line
- **King (Kilo-) Henry (Hecto-) Died (Deka-) By (Base) Drinking (Deci-) Chocolate (Centi-) Milk (Milli-)**

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -<https://embarc.online>

Authentic Performance Assessments:

- Building Project -Measuring Lengths
- Science Experiment

Grade: 4	Unit 3: Multiplication and Division of up to a four-digit number by a one-digit number using place value	Duration: days/ 11 weeks
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. How can place value properties aid computation? 2. What questions can be answered using multiplication and division? 3. How do the four operations relate to one another? 4. What strategies can be used to solve for unknowns? 5. What are properties of whole numbers and how are numbers alike and different? 		<p>Real World Problems/Applications:</p> <ul style="list-style-type: none"> -budgeting -building -traveling -shopping <p>Real World Jobs: Identify jobs with students' interest. Examples:</p> <ul style="list-style-type: none"> -Baker/Chef -Party Planner -Store Owner/Cashier -Domestic Engineers -Banker -Computer Programmer
<p>Standards/Eligible Content (Skills):</p> <p>Standards: CC.2.1.4.B.1 Apply place value concepts to show an understanding of multi-digit whole numbers. CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic. CC.2.2.4.A.1 Represent and solve problems involving the four operations.</p> <p>Eligible Content: M04.A-T.2.1.2 -Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers. M04.A-T2.1.3</p>		<p>Standards Reinforced:</p> <ul style="list-style-type: none"> ● C.C.2.1.4.B.1 - Apply place-value concepts to show and understanding of multi-digit whole numbers. ● C.C.2.1.4.B.2 - Use place-value understanding and properties of operations to perform multi-digit arithmetic.

-Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders.

M04.D-M.1.1.3

-Apply the area and perimeter formula for rectangles in real-world and mathematical problems (may include finding a missing side length). Whole numbers only.

M04.B-O.1.1.1

-Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

M04.B-O.1.1.2

-Multiply or divide to solve word problems involving multiplication comparison, distinguishing multiplicative comparison and additive comparison.

M04.B-O.1.1.3

-Solve multi-step word problems posed with whole numbers using the four operations.

M04.B-O.1.1.4

-Identify the missing symbol (+, -, \times , \div , =, <, >) that makes a number sentence true (single-digit divisor only).

M04.B-O.2.1.1

-Find all factor pairs for a whole number in the interval 1 through 100.

-Recognize that a whole number is a multiple of each of its factors.

-Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one digit number.

-Determine whether a given whole number in the interval 1 through 100 is prime or composite.

*M04.B-.3.1.2 (see unit 7 for materials)

-Determine the missing elements in a function table.

*M04.B-O.3.1.3 (see unit 7 for materials)

-Determine the rule for a function given a table (limit to +, -, or x and to whole numbers).

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning

Reading/Writing/Listening/Speaking Skills:

-Discuss and explain reasoning to your group verbally.

-Explain your reason using complete sentences.

-Read story problems fluently.

-Demonstrate comprehension.

-Inferencing

-Compare/Contrast

-Math journals - students answer essential questions and provide examples

-Think-alouds, paraphrasing, imagery, making predictions, analogies

-Literature Resources-Spaghetti and Meatball for All; The Doorbell Rang; One Hundred Hungry Ants; Multiplying Menace: The Revenge of Rumpstilskin ; Sir Cumference and Isle of Immeter

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe)

Vocabulary:

- Multiply
- Multiplication Property of One
- Multiplication Property of Zero
- Commutative Property of Multiplication
- Associative Property of Multiplication
- Distributive Property of Multiplication
- Array
- Factor
- Product
- Partial Product
- Regroup
- Multiple
- Divide
- Dividend
- Divisor
- Quotient
- Divisible
- Remainder
- Common Factor
- Common Multiple
- Prime
- Composite
- Pattern
- Term
- Area
- Perimeter
- Formula
- Square Unit

Technology/Manipulatives/Resources:

- Grid Paper
- Counters/Disks
- 2-Digit by 2-Digit Multiplication Strategies
 - Turtlehead Method
 - Box Method
- Long Division Strategies:
 - Does (Divide) McDonald's (Multiply) Sell (Subtract) Cheese (Check) burgers (Bring Down)?
 - Dad, Mom, Sister, Cousin, Brother
- Fact Families
- Formula Poster

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -
<https://embarc.online/>

Authentic Performance Assessments:

-Stocking Supplies for a Store/Inventory
-Party Planning

-AREA and PERIMETER- <https://www.teacherspayteachers.com/Product/Build-A-Tiny-House-Project-Based-Learning-Activity-A-PBL-2801364>

Grade: 4	Unit 4: Addition and Subtraction of Angle Measurements of Planar Figures	Duration: 20 days/4 weeks
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. How can you identify and draw lines of symmetry in shapes? 2. How are geometric properties used to solve problems in everyday life? 3. How can plane and solid shapes be measured and described? 4. How can you classify two-dimensional figures by their lines and angles? 5. How can you identify and draw points, line segments, lines, rays, perpendicular and parallel lines? 		<p>Real World Problems/Applications: -design landscaping /building</p> <p>Real World Jobs: Identify jobs with students' interest. Examples:</p> <ul style="list-style-type: none"> -Architect -Artist -Construction Worker -Astronaut -Pilot -Professional Athlete -Inventor
<p>Standards/Eligible Content (Skills):</p> <p>CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures.</p> <p>CC.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles.</p> <p>CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry.</p> <p>Eligible Content:</p> <p>MO4.C-G.1.1.1 -Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two dimensional figures.</p> <p>M)4.C-G.1.1.2 -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.</p>		<p>Standards Reinforced:</p> <p>CC.2.3.3.A.1 Identify, compare, and classify shapes and their attributes.</p> <p>CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.</p>

-Recognize right triangles as a category and identify right triangles.
M04.C-G.1.1.3
-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 mirroring parts.
-Identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry).
M04.D-M.3.1.1
-Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of specified measure.
M04.D-M.3.1.2
-Solve addition and subtraction problems to find unknown angles on a diagram in real-world mathematical problems. (Angles must be adjacent and non-overlapping.)

- Critical Thinking/Reasoning Skills:
- Make sense of problems and persevere in solving them.
 - Reason abstractly and quantitatively.
 - Construct viable arguments and critique the reasoning of others.
 - Model with mathematics.
 - Use appropriate tools strategically.
 - Attend to precision.
 - Look for and make use of structure.
 - Look for and express regularity and repeated reasoning

Reading/Writing/Listening/Speaking Skills:
-Discuss and explain reasoning to your group verbally.
-Explain your reason using complete sentences.

-Read story problems fluently.

-Demonstrate comprehension.

-Inferencing

-Compare/Contrast

-Math journals - students answer essential questions and provide examples

Think-alouds, paraphrasing, imagery, making predictions, analogies

-Literature Resources: Sir Circumference the Great Knight of Angleland

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe

Vocabulary:

- Point
- Line
- Line Segment
- Diagonal
- Horizontal
- Vertical
- Intersecting Lines
- Perpendicular Lines
- Parallel Lines
- Ray
- Vertex
- Angle
- Degree
- Protractor
- Acute Angle
- Obtuse Angle
- Right Angle
- Straight Angle
- Acute Triangle

- Right Triangle
- Obtuse Triangle
- Scalene Triangle
- Equilateral Triangle
- Isosceles Triangle
- Symmetry
- Symmetric
- Line of Symmetry
- Polygon
- Regular Polygon
- Irregular Polygon
- Quadrilateral
- Parallelogram
- Rhombus
- Square
- Rectangle
- Trapezoid
- Supplementary Angles
- Complimentary Angles
- Arc

Technology/Manipulatives/Resources:

- folded paper models
- pattern blocks
- protractors
- rectangular and triangular grid paper
- right angle template
- set square
- ruler

Technology:

- Eureka Math
- Study Island
- Prodigygame.com
- Khan Academy
- mathantics.com
- First In Math
- <https://embarc.online>

Authentic Performance Assessments:

Geometry Map Project: <https://www.teacherspayteachers.com/Product/Geometry-Map-Project-2530612>

Draw That Spaceship: <https://www.teacherspayteachers.com/Product/Draw-that-Spaceship-Constructing-Angles-Using-a-Protractor-Activity-1171570>

Geometry Detective Scavenger Hunt:

- <https://www.teacherspayteachers.com/FreeDownload/Geometry-In-Nature-Scavenger-Hunt-3204915>
- <https://www.teacherspayteachers.com/Product/Angles-and-Shapes-Scavenger-Hunt-3038769>
- <https://www.teacherspayteachers.com/Product/Angle-Scavenger-Hunt-3777295>

Grade: 4	Unit 5: Order and Operations with Fractions	Duration: 6 weeks/30 days
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. What are the steps to finding equivalent fractions? 2. How are equivalent fractions the same size even though the number and size of the parts are different? 3. How can you compare two fractions with the same numerator and different denominators or with the same denominators and different numerators? 4. How can you add and subtract fractions with like denominators? 5. How can you compare unit fractions? 	<p>Real World Problems/Applications:</p> <ul style="list-style-type: none"> • Making trail mix/Food • Baking <p>Real World Jobs:</p> <ul style="list-style-type: none"> -Cooking/Chef -Deli/Restaurant 	
<p>Standards/Eligible Content (Skills):</p> <p>CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.</p> <p>CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>CC.2.2.4.A.4 Generate and analyze patterns using one rule.</p> <p>CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.</p> <p>Eligible Content:</p> <p>M04.A-F.1.1.1 -Recognize and generate equivalent fractions.</p> <p>M04.A-F.1.1.2</p>	<p>Standards Reinforced:</p> <p>CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.</p> <p>CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p>	

-Compare two fractions with different numerators and different denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100) using symbols $>$, $=$, or $<$ and justify the conclusions.

M04.A-F.2.1.1

-Add and subtract fractions with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; answers do not need to be simplified; and no improper fractions as the final answer).

M04.A-F.2.1.2

-decompose a fraction or a mixed number into a sum of fractions with the same denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100), recording the decomposition by an equation. Justify decompositions (by using a visual fraction model).

M04.A-F.2.1.3

-Add and subtract mixed numbers with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; no regrouping with subtraction; fractions do not need to be simplified; and no improper fractions as the final answers).

M04.A-F.2.1.4

-Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).

M04.A-F.2.1.5

-Multiply a whole number by a unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).

M04.A-F.2.1.6

Multiply a whole number by a non-unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).

M04.A-F.2.1.7

-Solve word problems involved multiplication of a whole number by a fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).

M04.B-O.3.1.1

-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.
M04.D-M.2.1.1
-Make a line plot to display a data set of measurements in fractions of a unit (e.g., intervals of $\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{8}$).
M04.D-M.2.1.2
-Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominators, such as $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$).

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning

Reading/Writing/Listening/Speaking Skills:

- Discuss and explain reasoning to your group verbally.
- Explain your reason using complete sentences.
- Read story problems fluently.
- Demonstrate comprehension.

-Inferencing

-Compare/Contrast

-Math journals - students answer essential questions and provide examples

Think-alouds, paraphrasing, imagery, making predictions, analogies

-Literature Resources:

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe)

Vocabulary:

- Benchmark
- Common Denominator
- Denominator
- Improper Fraction
- Line Plot
- Mixed Number
- Numerator
- Compose
- Decompose
- Equivalent Fraction
- Unit Fraction
- Unit Interval

Technology/Manipulatives/Resources:

- Area Model
- Fraction Strips
- Line Plots
- Number Lines
- Rulers
- Food References

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -https://embarc.online

Authentic Performance Assessments:

-Teacherspayteachers- Fraction Party – A Project Based Learning Experience: <https://www.teacherspayteachers.com/Product/Fraction-Party-A-Project-Based-Learning-Experience-2907805>

-Problem of the Month – Got Your Number Level C - <http://www.insidemathematics.org/assets/problems-of-the-month/got%20your%20number.pdf>

Grade: 4	Unit 6: Decimal Fractions	Duration: 2 weeks/10 days
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. How can you write a fraction as a decimal? (tenths and hundredths) 2. How can you order decimals from least to greatest? 3. When and how can you use a line plot? 4. How can you interpret a line plot that displays measurements in fractions of a unit? 	<p>Real World Problems/Applications:</p> <p>Real World Problems: -Money sense, specific measurement</p> <p>Real World Jobs: -Accountant -Cashier -Banker -Chef</p>	
<p>Standards/Eligible Content (Skills): CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g, 19/100).</p> <p>Eligible Content: M04.A-F.3.1.1 -Add two fractions with respective denominators 10 and 100. M04.A-F.3.1.2 -Use decimal notation for fractions with denominators 10 or 100. M04.A-F.3.1.3 -Compare two decimals to hundredths using the symbols $>$, $=$, or $<$ and justify the conclusions. M04.D-M.1.1.2 -Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; 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.</p>	<p>Standards Reinforced: CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.</p>	

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning

Reading/Writing/Listening/Speaking Skills:

Discuss and explain reasoning to your group verbally.

-Explain your reason using complete sentences.

-Read story problems fluently.

-Demonstrate comprehension.

-Inferencing

-Compare/Contrast

-Math journals - students answer essential questions and provide examples

Think-alouds, paraphrasing, imagery, making predictions, analogies

-Literature Resources:

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe)

Vocabulary:

- Decimal Expanded Form
- Decimal Fraction
- Decimal Number
- Decimal Point
- Fraction Expanded Form
- Hundredths
- Tenths

Technology/Manipulatives/Resources:

- Liter Container with Millimeter Marks
- Area Model
- Centimeter Ruler
- Decimal Place Value Disks
- Digital Scale
- Meterstick
- Number Line
- Place Value Chart with Decimals to Hundredths

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -https://embarc.online

Authentic Performance Assessments:

-cashier

Shopping Spree: <https://www.teacherspayteachers.com/Product/Shopping-Spree-Math-A-Decimal-Activity-2179734>

Grade: 4	Unit 7: Exploring Multiplication	Duration: 4 weeks/20 days (paired with Unit 2)
<p>Essential Questions:</p> <ol style="list-style-type: none"> 1. How does finding patterns in word problems help with computation? 2. What types of problems are solved with measurement? 		<p>Real World Problems/Applications:</p> <ul style="list-style-type: none"> -budgeting -building -traveling -shopping <p>Real World Jobs: Identify jobs with students' interest. Examples:</p> <ul style="list-style-type: none"> -Baker/Chef -Party Planner -Store Owner/Cashier -Domestic Engineers -Banker -Computer Programmer
<p>Standards/Eligible Content (Skills):</p> <p>CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic.</p> <p>CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.</p> <p>CC.2.2.4.A.1 Represent and solve problems involving the four operations.</p> <p>CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.</p> <p>CC.2.1.4.C.2</p>		<p>Standards Reinforced:</p> <ul style="list-style-type: none"> ● C.C.2.1.4.B.1 - Apply place-value concepts to show and understanding of multi-digit whole numbers. ● C.C.2.1.4.B.2 - Use place-value understanding and properties of operations to perform multi-digit arithmetic.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Eligible Content:

M04.B-O.1.1.1

-Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

M04.B-O.1.1.2

-Multiply or divide to solve word problems involving multiplication comparison, distinguishing multiplicative comparison and additive comparison.

M04.B-O.1.1.3

-Solve multi-step word problems posed with whole numbers using the four operations.

M04.D-M.1.1.1

-Know relative sizes of measurement units within one system of units including standard units (in., ft., yd., mi; oz. Lb.; and c, pt, qt, gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr, day, wk, mo, and yr).

-Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.

M04.D-M.1.1.2

-Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; 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.

M04.D-M.1.1.4

-Identify time (analog or digital) as the amount of minutes before or after the hour.

M04.B-O.3.1.2

-Determine the missing elements in a function table.

M04.B-O.3.1.3

-Determine the rule for a function given a table (limit to +, -, or x and to whole numbers).

Critical Thinking/Reasoning Skills:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity and repeated reasoning

Reading/Writing/Listening/Speaking Skills:

Discuss and explain reasoning to your group verbally.

- Explain your reason using complete sentences.
 - Read story problems fluently.
 - Demonstrate comprehension.
 - Inferencing
 - Compare/Contrast
 - Math journals - students answer essential questions and provide examples
- Think-alouds, paraphrasing, imagery, making predictions, analogies
- Literature Resources:

Fluency:

Daily Multiplication/Division Math Fact Practice (with a weekly probe)

- Conversion of measurements (money, units of measurement)

Vocabulary:

- Cup
- Customary System of Measurement
- Customary Unit
- Gallon
- Metric System of Measurement
- Metric Unit
- Ounce
- Pint
- Pound
- Quart
- Capacity
- Convert
- Foot
- Gram
- Hour
- Inch
- Interval
- Length
- Liter
- Meter
- Minute
- Mixed Units
- Second
- Table
- Weight
- Yard

Technology/Manipulatives/Resources:

- Analog Clock
- Balance Scale with Mass Weights
- Beaker
- Composite Figure
- Digital Scale
- Gallon, Quart, Pint, Cup Containers
- Meterstick, Yardstick, 12-inch Ruler, Centimeter Ruler
- Number Line
- Protractor
- Stopwatch
- Two-Column Table

Technology:

-Eureka Math -Study Island -Prodigygame.com -Khan Academy -mathantics.com -First In Math -https://embarc.online

Authentic Performance Assessments:

- Stocking Supplies for a Store/Inventory
- Party Planning

Assessment Task 1-5: <https://hcpss.instructure.com/courses/107/pages/4-dot-md-dot-4-assessment-tasks>