THIRD GRADE CURRICULUM MAP

MATHEMATICS

OFFICE OF CURRICULUM AND INSTRUCTION

RED CLAY · CONSOLIDATED · SCHOOL · DISTRICT

1981

To: Third Grade Teachers

From: Jodi Albers

Date: July 19, 2017

***Re*:** Third Grade Math Expressions Curriculum Map

Dear Teachers,
This is a draft of the Math Expressions curriculum map that correlates the Common Core State Standards in Mathematics. Please note: this is a draft. Your suggestions and feedback should be given to your Math Expressions Lead Teacher so appropriate changes can be made.
This document is divided into the following sections:

- Instructional Focus
- Mathematical Practices
- Scope and Sequence
- Curriculum Map

Instructional Focus

This summary provides a brief description of the critical areas of focus, required fluency for the grade level, major emphasis clusters, and examples of major within-grade dependencies.
The Common Core State Standards for Mathematics begin each grade level from kindergarten through eighth grade with a narrative explaining the Critical Areas for that grade level. The Critical Areas are designed to bring focus to the standards by outlining the essential mathematical ideas for each grade level.

Mathematical Practices

The Common Core State Standards for Mathematics define what students should understand and be able to do in their study of mathematics. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. The Standards for Mathematical Practice are included first in this document because of their importance and influence in teaching practice.

Scope and Sequence

This table provides the unit sequence and pacing for Math Expressions.

Curriculum Map – By Unit

The curriculum map provides the alignment of the grade level Math Expressions units with state-adopted standards as well as unit specific key elements such as learning progressions, essential questions learning targets, and formative assessments.

A special thank you to the Third Grade Math Expressions Lead Teachers who created these documents for the Red Clay Consolidated School District.

Sincerely,
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Instructional Focus

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

1. Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.
2. Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole. For example, 1/2 of the paint in a small bucket could be less paint than 1/3 of the paint in a larger bucket, but 1/3 of a ribbon is longer than 1/5 of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.
3. Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area to multiplication, and justify using multiplication to determine the area of a rectangle.
4. Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

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

Required Fluency:
3.OA .7 Multiply and divide within 100.
3.NBT.2 Add and subtract within 1000.

Major Emphasis Clusters:
Operations and Algebraic Thinking
- Represent and solve problems involving multiplication and division.
- Understand the properties of multiplication and the relationship between multiplication and division.
- Multiply and divide within 100.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Number and Operations – Fractions
- Develop understanding of fractions as numbers.

Measurement and Data
- Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects.
- Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

Examples of Major Within-Grade Dependencies:
Students must begin work with multiplication and division (**3.OA**) at or near the very start of the year to allow time for understanding and fluency to develop. Note that area models for products are an important part of this process (**3.MD.7**). Hence, work on concepts of area (**3.MD.5.6**) should likely begin at or near the start of the year as well.

Standards for Mathematical Practices

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2. Reason abstractly and quantitatively

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4. Model with mathematics

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5. Use appropriate tools strategically

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7. Look for and make use of structure

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 – 3(x – y)2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8. Look for and express regularity in repeated reasoning

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y – 2)/(x – 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x – 1)(x + 1)$, $(x – 1)(x2 + x + 1)$, and $(x – 1)(x3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Scope and Sequence

Unit Progression - 1, 2, 3, 4, 7, 6, 5
Units must be taught in the above progression

Date	Unit	Days
August 29	**Pre – Test Assessment**	
August 29 – October 16	**Unit 1**	32
	Big Idea 1: Meanings of Multiplication and Division: 5s and 2s (Lessons 1-6)	10
September 18	**Quick Quiz 1**	
	Big Idea 2: Patterns and Strategies: 9s and 10s (Lessons 7-9)	4
	Big Idea 3: Patterns and Strategies: 9s and 10s (Lessons 7-9)	5
	Big Idea 4: Multiply with 1 and 0 (Lessons 15-19)	9
	Unit Review	2
October 15	**Unit 1 Test**	2
October 17 – November 17	**Unit 2**	22
	Big Idea 1: The Remaining Multiplications (Lesson 1-8)	9
October 28	**Quick Quiz 1**	
	Big Idea 2: Problem Solving and Multiples of 10 (Lessons 9-15)	9
	Unit Review	2
November 16	**Unit 2 Test**	2
November 27 – January 16	**Unit 3**	28
	Big Idea 1: Length, Capacity, Weight, and Mass (Lessons 1-5)	8
	Big Idea 2: Time and Date (Lessons 6-10)	8
December 19	**Quick Quiz 2**	
	Big Idea 3: Pictographs, Bar Graphs, and Line Plots (Lessons11-15)	8
	Unit Review	2
January 15	**Unit 3 Test**	2
January 17 – February 28	**Unit 4**	28
	Big Idea 1: Understand Place Value and Rounding (Lessons 1-6)	8
	Big Idea 2: Addition and Subtraction Strategies (Lessons 7-10)	6
February 6	**Quick Quiz 2**	
	Big Idea 3: Ungroup to Subtract (Lessons 11-18)	10
	Unit Review	2
February 27	**Unit 4 Test**	2
March 1 – March 29	**Unit 7**	21
	Big Idea 1: Fraction Concepts (Lessons 1-5)	10
March 14	**Quick Quiz 1**	
	Big Idea 2: Equivalent Fractions (Lessons 6-9)	8
	Unit Review	1
March 28	**Unit 7 Test**	2
April 9 – May 4	**Unit 6**	19
	Big Idea 1: Analyzing Triangles and Quadrilaterals (Lessons 1-4)	6

	Big Idea 2: Area and Perimeter (Lessons 5-11)	9
April 30	**Quick Quiz 2**	
	Unit Review	2
May 3	**Unit 6 Test**	2
May 7 – May 30	**Unit 5**	17
	Big Idea 1: Types of Word Problems (Lessons 1-6)	7
	Big Idea 2: Solve Two Step Word Problems (Lessons 7-11)	6
	Unit Review	2
May 29	**Unit 5 Test**	2
May 30	**End of the Year Inventory/Assessment**	
	Total Days	**167**

Unit 1: Multiplication and Division with 0 – 5, 9, and 10

August 29 – October 16

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• mastered all of the problem solutions using addition and subtraction within 20. • reached fluency with finding sums of two digit numbers. • solved simple two-step addition problems with single-digit addends.	• use properties of multiplication and division and patterns to multiply and divide within 100. • reach fluency with finding products of single digit numbers and their related quotients. • solve two-step word problems involving the four operations using a letter for the unknown quantity.	• interpret a multiplication equation as a comparison and solve multiplicative comparison problems. • extend number decomposition to factors, multiples, and prime and composite numbers. • generate and analyze patterns. • solve multistep word problems.

Unit 1: Common Core State Standards
Content
CC.OA.1- Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.
CC.OA.2- Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
CC.OA.3- Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]
CC.OA.4- Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CC.OA.6- Understand division as an unknown-factor problem.
CC.OA.7- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CC.OA.9- Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
CC.MD.5a- A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
CC.MD.5b- A plane figure, which can be covered without gaps or overlaps by *n* unit squares, is

said to have an area of *n* square units.

CC.MD.6- Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

CC.MD.7a- Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

CC.MD.7b- Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

CC.MD.7c-Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

CC.MD.7d-Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Practices

MP.1- Make sense of problems and persevere in solving them.
MP.2- Reason abstractly and quantitatively.
MP.3- Construct viable arguments and critique the reasoning of others.
MP.4- Model with mathematics.
MP.5- Use appropriate tools strategically.
MP.6- Attend to precision.
MP.7- Look for and make use of structure.
MP.8- Look for and express regularity in repeated reasoning.

Pre-Test (August 29)

Unit 1: Big Idea 1: Meanings of Multiplication and Division: 5s and 2s (Lessons 1-6)
Number of days: 10

Quick Practice: Student Leader, Class Multiplication Table Poster

Vocabulary: count-by, equation, multiplication, factor, product, multiplier, multiples, equal groups, in each, in every, per, Equal Shares drawing, function table, array, row, column, Commutative Property of Multiplication, division, dividend, divisor, quotient, multiplier, situation equation, solution equation, pictograph, even number, odd number, column, row, factor, product

Essential Questions:

- What are the ways I can solve a multiplication problem?
- What are multiplication patterns?
- What are the properties of multiplication?

Learning Targets:

- identify and use patterns to multiply with 5.
- study my count-bys, multiplications, and divisions on my own or with a partner.
- use multiplication and drawings to represent equal groups situations.
- use multiplication and drawings to represent array situations.
- use multiplication and drawings to represent the Commutative Property.
- relate division to multiplication with an unknown factor.

- identify patterns in 2s count-bys and multiplications.
- relate multiplication and division.
- build fluency with 2s and 5s multiplications and divisions.

Assessments: After lesson 6, give **Quick Quiz 1 (September 14)**.

Unit 1: Big Idea 2: Patterns and Strategies: 9s and 10s (Lessons 7-9)
Number of days: 4

Quick Practice: Class Multiplication Table Poster, Student Leader

Vocabulary: equation, variable, Quick 9s, multiplier finger, Fast Array drawing

Essential Questions:
- What are the ways I can solve a multiplication problem?
- What are multiplication patterns?
- How can multiplication help me to divide?

Learning Targets:
- explore patterns in 10s count-bys, multiplications, and divisions and represent.
- solve problems involving multiplication and division with 10.
- identify patterns in 9s multiplications and divisions and learn a strategy for quickly multiplying and dividing with 9s.
- build fluency with 2s, 5s, 9s, and 10s multiplications and divisions.

Assessments: After lesson 9, give Quick Quiz 2.

Unit 1: Big Idea 3: Patterns and Strategies: 9s and 10s (Lessons 10 - 14)
Number of days: 5

Quick Practice: Class Multiplication Table Poster, Student Leader

Vocabulary: product, multiplier, commutative, divisor, area, array, Distributive Property, repeated addition, multiplication, Equal Shares drawing, product, multiplier, count-bys, Fast Array, 5s shortcut

Essential Questions:
- What are the ways I can solve a multiplication problem?
- What are multiplication patterns?
- How can multiplication help me to divide?

Learning Targets:
- look for patterns in and practice 3s count-bys, multiplications, and divisions.
- learn a new strategy for finding products for multipliers greater than 5.
- use the area model for multiplications
- look for patterns in 4s multiplications and count-bys, and learn a strategy for finding 4s count-bys, and solve problems involving 4s.
- develop multiplication and division strategies and use them to solve problems.
- fluently multiply and divide with 2s, 3s, 4s, 5s, 9s, and 10s.

Assessments: After lesson 14, give Quick Quiz 3.

Unit 1: Big Idea 4: Multiply with 1 and 0 (Lessons 15-19)
Number of days: 9

Quick Practice: Class Multiplication Table Poster, Student Leader

Vocabulary: Commutative Property of Multiplication, Associative Property of Multiplication,

Identity Property of Multiplication, Zero Property of Multiplication, equal groups, array, multiples, quotient, divisor
Essential Questions: • What are the ways I can solve a multiplication problem? • What are multiplication patterns? • What are the properties of multiplication? • How can multiplication help me to divide?
Learning Targets: • use multiplication properties and division rules as strategies to multiply and divide with 1 and 0. • identify, solve, and create multiplication and division word problems. • practice with 2s, 3s, 4s, 5s, 9s, and 10s multiplications and divisions. • practice multiplications and divisions and solve word problems for 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s.
Assessments: After lesson 19, give Quick Quiz 4 and Unit 1 Test. **Unit 1 Assessment (October15)**

Unit 2: Multiplication and Division with 6s, 7s, 8s and Multiply with Multiples of 10

October 17 – November 17

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• Mastered all of the problem situations using addition and subtraction within 20. • Reached fluency with finding sums of 2 digit numbers. • Solved simple two step addition problems with single digit addends.	• Use properties of multiplication and division and patterns to multiply and divide within 100. • Reach fluency with finding products of single digit numbers and their related quotients. • Solve two-step word problems involving the four operations using a letter for the unknown quantity.	• Interpret a multiplicative equation as a comparison and solve multiplicative comparison problems • Extend number decomposition to factors, multiples, and prime and composite numbers. • Generate and analyze patterns. • Solve multi-step word problems

Unit 2: Common Core State Standards
Content
CC.OA.A.1 - Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*
CC.OA.A.2 - Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
CC.OA.A.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1
CC.OA.A.4 - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = _ ÷ 3, 6 × 6 = ?* Understand properties of multiplication and the relationship between multiplication and division.
CC.OA.B.5 - Apply properties of operations as strategies to multiply and divide.2 *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*

CC.OA.B.6 - Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by*
finding the number that makes 32 when multiplied by 8. Multiply and divide within 100.
CC.OA.C.7 - Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CC.OA.D.8 - Solve two-step word problems using the four operations. 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.
CC.OA.D.9 - Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*
CC.NBT.A.3 - Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
CC.MD.C.5.A - A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
CC.MD.C.5.B - A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
CC.MD.C.7.A - Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
CC.MD.C.7.B - Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
Practices:
MP.1- Make sense of problems and persevere in solving them. MP.2- Reason abstractly and quantitatively. **MP.3- Construct viable arguments and critique the reasoning of others.** MP.4- Model with mathematics. **MP.5- Use appropriate tools strategically.** **MP.6- Attend to precision.** MP.7- Look for and make use of structure. MP.8- Look for and express regularity in repeated reasoning.
Unit 2: Big Idea 1: The Remaining Multiplications (Lesson 1-8) Number of days: 9 days
Quick Practice: Class multiplication table poster
Vocabulary: length, width, area, fast area drawing, fast array drawing, array problem, equal groups problem, area problem, square number
Essential Question: • What are the ways you can solve a multiplication problem?
Learning Targets: • Explore patterns in 6s count bys, multiplication and divisions

- Solve multiplication problems
- Develop strategies for solving real-world area problems
- explore patterns in 8s count-bys, multiplications, and divisions.
- solve multiplication problems
- write multiplication and division word problems of various types.
- explore patterns in 7s count-bys, multiplications, and divisions.
- solve word problems.
- identify patterns in 2s count-bys and multiplications.
- relate multiplication and division.
- practice 6s, 7s, and 8s multiplications and divisions
- build fluency with 0s, 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, and 10s multiplications and divisions.

Assessments: After lesson 8, give **Quick Quiz 1 (October 28)**

Unit 2: Big Idea 2: Problem Solving and Multiples of 10 (Lessons 9-15)

Number of days: 9

Quick Practice: Class multiplication poster

Vocabulary: expression, evaluate, multiple

Essential Question:

- How can multiplication help me to divide?

Learning Targets:

- represent and solve word problems using the four operations.
- develop strategies for solving two step word problems.
- use place value and properties to multiply one digit numbers by multiples of 10.
- use strategies to fluently multiply and divide within 100.
- build fluency with 0s, 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, and 10s multiplications and divisions.

Assessments: After lesson 15, give Quick Quiz 2 and Unit 2 Test.

Unit 2 Assessment (November 16)

Unit 3: Measurement, Time, and Graphs

November 27 – January 16

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• drew a picture graph and a bar graph with single-unit scales. • used drawings and equations to solve problems involving length. • used number lines to represent whole numbers. • used rulers to measure lengths of objects. • used analog and digital clocks to tell time.	• draw scaled picture graphs and bar graphs. • use number lines to represent time intervals. • use drawings to represent a problem involving liquid volume and mass. • make a line plot to record data.	• use number lines to represent a measurement scale. • use a two-column table to record measurement equivalents.

Unit 3: Common Core State Standards
Content
CC.3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
CC.3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
CC.3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).[1] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
CC.3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.
CC.3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Practices
MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics.
MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
Unit 3: Big Idea 1: Length, Capacity, Weight, and Mass (Lessons 1-5) Number of days: 8
Quick Practice: Practice with Product Cards
Vocabulary: inch (in), foot (ft), ruler, line segment, cup (c), fluid ounce (fl oz), pint (pt), quart (qt), gallon (gal), liquid volume, liter (L), milliliter (mL), liquid volume, weight, pound (lb), ounce (oz), mass, gram (g), kilogram (kg)
Essential Questions: • What are effective practices for measurement? • What are efficient strategies for solving word problems involving measurement?
Learning Targets: • measure length in inches, half inches, and quarter inches with a ruler • use customary units of liquid volume • use metric units of liquid volume • measure and estimate weight and mass • solve word problems involving liquid volumes or masses using addition, subtraction, multiplication, and division.
Assessments: After lesson 5, give Quick Quiz 1 and Fluency Check 1.
Unit 3: Big Idea 2: Time and Date (Lessons 6-10) Number of days: 8
Quick Practice: Practice with Product Cards
Vocabulary: A.M., P.M., elapsed time
Essential Questions: • How do you tell time? • What are efficient strategies for solving word problems involving elapsed time?
Learning Targets: • tell and write time to the minute, quarter hour, half hour, and hour • tell and write the time before and after the hour to the nearest minute • find elapsed time • solve word problems involving addition and subtraction of time intervals in minutes • solve word problems involving addition and subtraction of intervals of time
Assessments: After lesson 10, give **Quick Quiz 2 (December 19)** and Fluency Check 2.

Unit 3: Big Idea 3: Pictographs, Bar Graphs, and Line Plots (Lessons 11-15) Number of days: 8
Quick Practice: Practice with Product Cards
Vocabulary: vertical axis, horizontal axis, vertical bar graph, horizontal bar graph, pictograph, axes, scale, key, bar graph
Essential Question: • What are effective ways to record and analyze data?
Learning Targets: • draw scaled pictographs and bar graphs and solve comparison problems using data in pictographs and bar graphs • analyze data to create horizontal and vertical bar graphs • construct and analyze frequency tables and line plots • solve word problems using data in line plots and scaled bar graphs
Assessments: After lesson 15, give Quick Quiz 3, Fluency Check 3 and Unit Test. **Unit 3 Assessment (January 15)**

Unit 4: Multidigit Addition and Subtraction

January 17 – February 28

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• used place value drawings to represent numbers • skip counted by 5s. 10s. and 100s • used place value drawings to add and subtract whole numbers • used strategies based on place value, properties and the relationship between addition and subtraction	• used place value drawings to represent numbers • used place value drawings to add and subtract whole numbers • explore different methods to add and subtract whole numbers • use strategies based on place value, properties, and the relationship between addition and subtraction	• use place value drawings to help them conceptualize numbers and understand the relative sizes of place values • use different methods to add and subtract whole numbers • used strategies based on place value, properties and the relationship between addition and subtraction

Unit 4: Common Core State Standards
Content
CC.OA.D.8 - Solve two-step word problems using the four operations. 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.
CC.OA.D.9 - Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*
CC.NBT.A.1 - Use place value understanding to round whole numbers to the nearest 10 or 100.
CC.NBT.A.2 - Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
Practices
MP.1- Make sense of problems and persevere in solving them. MP.2- Reason abstractly and quantitatively. MP.3- Construct viable arguments and critique the reasoning of others. MP.4- Model with mathematics. **MP.5- Use appropriate tools strategically.** **MP.6- Attend to precision.** MP.7- Look for and make use of structure. MP.8- Look for and express regularity in repeated reasoning.

Unit 4: Big Idea 1: Understand Place Value and Rounding (Lessons 1-6) Number of days: 8
Quick Practice: Product Cards
Vocabulary: place value, place value drawing, tens stick, hundreds box, thousand bar, digit, expanded form, standard form, secret code cards, Counting On strategy, Make a Ten strategy, hundreds, tens, ones, estimate, round,
Essential Question: • How can I use place value to help me with rounding?
Learning Targets: • make and interpret place value drawings. • identify the value of a digit. • use an understanding of place value to group and ungroup multi-digit numbers and solve word problems. • solve word problems. • round numbers to the nearest hundred to estimate sums and differences.
Assessments: After lesson 6, give Quick Quiz 1 and Fluency Check 4.
Unit 4: Big Idea 2: Addition and Subtraction Strategies (Lessons 7-10) Number of days: 6
Quick Practice: Product Cards
Vocabulary: proof drawing, Show All Totals method, New Groups Below method, New Groups Above method, expression, grouping
Essential Question: • What are efficient methods for finding sums and differences?
Learning Targets: • discuss and apply multi-digit addition methods • apply and discuss multi-digit addition methods with place value alignment. • decide when and how to group in multi-digit addition. • identify and explain errors in addition. • solve word problems.
Assessments: After lesson 10, give **Quick Quiz 2 (February 6)** and Fluency Check 5.
Unit 4: Big Idea 3: Ungroup to Subtract (Lessons 11-18) Number of days: 10
Quick Practice: Product Cards
Vocabulary: ungrouping, subtract, Math Mountains, grouping, addend, total, Associative Property of Addition, Commutative Property of Addition, Identify Property of Addition
Essential Question: • In what ways can a number be ungrouped (composed and decomposed) in order to solve a subtraction problem?
Assessments: After lesson 18, give Quick Quiz 3 and Fluency Check 6, and Unit Test. **Unit 4 Assessment (February 27)**

Unit 7: Explore Fractions

March 1 – March 29

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• Partitioned circles and rectangles into two, three, or four equal shares. • Used the words halves, thirds, half of, a third of, and described the whole as two halves, three thirds, and four fourths. • Recognized that equal shares of identical wholes need not have the same shape.	• Understand the meaning of fractions and see that fractions must be equal parts of the same whole. • Build non-unit fractions from unit fractions. • Represent fractions in various ways, including fraction bars, number lines, and fraction strips. • Compare unit fractions and compare fractions with either the same numerator or the same denominator. • Find equivalent fractions.	• Compare fractions with different numerators and different denominators. • Recognize and generate equivalent fractions. • Add and subtract fractions and mixed numbers. • Multiply a fraction by whole number. • Express a fraction as a decimal. • Compare decimal fractions.

Unit 7 Common Core State Standards
Content
CC.3.NF.1- Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
CC.3.NF.2a- Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
CC.3.NF.2b- Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
CC.3.NF.3a- Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
CC.3.NF.3b- Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
CC.3.NF.3c- Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.
CC.3.NF.3d- Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and

justify the conclusions, e.g., by using a visual fraction model.

CC.3.G.2- Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.

Practices

MP.1- Make sense of problems and persevere in solving them.
MP.2- Reason abstractly and quantitatively.
MP.3- Construct viable arguments and critique the reasoning of others.
MP.4- Model with mathematics.
MP.5- Use appropriate tools strategically.
MP.6- Attend to precision.
MP.7- Look for and make use of structure.
MP.8- Look for and express regularity in repeated reasoning.

Unit 7: Big Idea 1: Fraction Concepts (Lessons 1-5)
Number of days: 10

Quick Practice: Product Cards

Vocabulary: fraction, numerator, denominator, unit fraction, whole, number line, locate

Essential Questions:
- What are the parts of a fraction?
- How can I compare fractions?
- How I use a number line to develop understanding of fractions?
- What models can I use to develop understanding of fractions?

Learning Targets:
- develop a conceptual understanding of unit fractions and how they are used to build other fractions
- use fraction bars and number lines to represent fractions
- locate fractions on the number line
- use fraction bars and number lines to compare unit fractions
- use fraction circles to develop understanding of comparing fractions with the same denominator or with the same numerator.

Assessments: After lesson 5, give **Quick Quiz 1 (March 14)** and Fluency Check 11

Unit 7: Big Idea 2: Equivalent Fractions (Lessons 6-9)
Number of days: 8

Quick Practice: Comparing Fractions

Vocabulary: equivalent fractions, denominator, numerator, equivalence chain, equivalent

Essential Questions:
- What are the parts of a fraction?
- How can I compare fractions?
- How can I find equivalent fractions?
- How can I show equivalent fractions using different models?

Learning Targets:
- develop understanding of equivalent fractions

• find two or more equivalent fractions using number lines • use fraction concepts to solve real world problems
Assessments: After lesson 9, give Quick Quiz 2, Fluency Check 12 and Unit Test. Give **Unit 7 Test (March 28)**

Unit 6: Polygons, Perimeter, and Area

April 9 – May 4

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• recognized and drew triangles, quadrilaterals, pentagons, hexagons, and cubes. • partitioned a rectangle into rows and columns of same-size squares and counted to find the total.	• recognize attributes of triangles, quadrilaterals, and other polygons. • decompose polygons into triangles and compose polygons from triangles. • recognize perimeter and area as attributes of plane figures and find ways to measure both attributes. • investigate the relationship between perimeter and area. • solve real world problems involving area, perimeter, and unknown side lengths.	• identify and draw points, lines, line segments, rays, angles, and parallel and perpendicular lines. • classify two-dimensional shapes based on lines and angles. • identify and draw lines of symmetry.

Unit 6: Common Core State Standards
Content
CC.3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
CC.3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.
CC.3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.
CC.3.MD.5a A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
CC.3.MD.5b A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
CC.3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
CC.3.MD.7 Relate area to the operations of multiplication and addition.
CC.3.MD.7a Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

CC.3.MD.7b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
CC.3.MD.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths *a* and *b* + *c* is the sum of *a* × *b* and *a* × *c*. Use area models to represent the distributive property in mathematical reasoning.
CC.3.MD.7d Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
CC.3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
Practices
MP.1- Make sense of problems and persevere in solving them. MP.2- Reason abstractly and quantitatively. MP.3- Construct viable arguments and critique the reasoning of others. MP.4- Model with mathematics. MP.5- Use appropriate tools strategically. MP.6- Attend to precision. MP.7- Look for and make use of structure. MP.8- Look for and express regularity in repeated reasoning.
Unit 6: Big Idea 1: Analyzing Triangles and Quadrilaterals (Lessons 1-4) Number of days: 6
Quick Practice: Student Leader – Tell Time to the Minute
Vocabulary: angle, concave, convex, decagon, hexagon, octagon, polygon, pentagon, ray, right angle, opposite, parallelogram, rectangle, rhombus, square, trapezoid, parallel
Essential Question: • What are the defining attributes of shapes?
Learning Targets: • understand the relationship among angles, triangles, and polygons • explore the relationships among parallelograms, rectangles, squares, rhombuses, and trapezoids • draw quadrilaterals • describe the relationships among various types of quadrilaterals and draw quadrilaterals that match a description
Assessments: After lesson 4, give Quick Quiz 1 and Fluency Check 9.
Unit 6: Big Idea 2: Area and Perimeter (Lessons 5-11) Number of days: 9
Quick Practice: Student Leader – Tell Time to the Minute
Vocabulary: area, perimeter, unit square, side length, decompose, rectilinear polygon, dimensions, tangram

Essential Questions: • What is an effective strategy for finding area? • What is an effective strategy for finding perimeter?
Learning Targets: • develop concepts of perimeter and area • use side lengths in area and perimeter calculations and problems • recognize that rectangles with the same perimeter can have different areas • recognize that rectangles with the same area can have different perimeters • find the area of figures by decomposing them into rectangles • use concepts of perimeter and area to solve real world problems • use tangram shapes to find areas of figures.
Assessments: After lesson 11, give **Quick Quiz 2 (April 30)**, Fluency Check 10 and give Unit 6 Test. **Unit 6 Assessment (May 3)**

Unit 5: Write Equations to Solve Word Problems

May 7 – May 30

Learning Progressions:

Last year, my students…	In my class, students will…	Next year, my students will…
• mastered all of the problem situations using addition and subtraction within 20. • solved simple two-step addition problems with single-digits addends.	• use drawings and equations with a symbol for the unknown number to represent the problem. • use information presented in scaled bar graphs to solve comparison problems. • use properties of operations to explain patterns.	• use drawings and equations with a symbol for the unknown number to represent the problem. • represent verbal statements of multiplicative comparisons as multiplication equations. • write equations to represent problems with more than one step.

Unit 5: Common Core State Standards
Content
CC.3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CC.3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CC.3.OA.8 Solve two-step word problems using the four operations. 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.
CC.3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
CC.3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
Practices
MP.1- Make sense of problems and persevere in solving them. MP.2- Reason abstractly and quantitatively. MP.3- Construct viable arguments and critique the reasoning of others. MP.4- Model with mathematics. **MP.5- Use appropriate tools strategically.** **MP.6- Attend to precision.** MP.7- Look for and make use of structure. MP.8- Look for and express regularity in repeated reasoning.

Unit 5: Big Idea 1: Types of Word Problems (Lessons 1-6) Number of days: 7
Quick Practice: Practice with Product Cards
Vocabulary: unknown addend, equation, total, sum, equality, inequality, addend, Add To, Take From, Put Together/Take Apart, expression, unknown start, situation equation, solution equation, compare, equal to, greater than, less than, comparison problem, comparison bars, unknown amount
Essential Question: • What are effective strategies for solving word problems?
Learning Targets: • solve addition and subtraction word problems • represent and solve word problems with unknown addends or unknown factors • solve word problems with unknown starts • write situation and solution equations for word problems • solve comparison word problems • represent and solve comparison word problems with misleading language • represent and solve word problems with extra, hidden, or not enough information
Assessments: After lesson 6, give Quick Quiz 1 and Fluency Check 7.
Unit 5: Big Idea 2: Solve Two Step Word Problems (Lessons 7-11) Number of days: 6
Quick Practice: Practice with Product Cards
Vocabulary: Associative Property of Addition, Commutative Property of Addition, Identity Property of Addition, Associative Property of Multiplication, Commutative Property of Multiplication, Identity Property of Multiplication, Zero Property of Multiplication, Distributive Property of Multiplication
Essential Question: • What are effective strategies for solving multi-step word problems?
Learning Targets: • use addition, subtraction, multiplication, and division to solve two step problems • solve word problems requiring two steps • solve word problems requiring two operations • solve word problems using two step equations and decide if answers are reasonable
Assessments: After lesson 11, give Quick Quiz 2, Fluency Check 8 and give Unit 5 Test. **Unit 5 Assessment (May 29)** Give **End of Year Inventory (May 30)**.