4th Grade Mathematics Curriculum Map

#Days	Unit Title/ Due Dates / Essential Questions	Core Content & CC Standards	Resources/Materials/ Assessments
10	Topic 3: Place Value Test: Sept. 6th How can you read and write 3- and 4- digit numbers? How are the digits in a multi-digit number related to each other? How do you compare numbers? How do you compare more than two numbers? How can you round numbers?	Core Content: Representing numbers, place value relationships, comparing numbers, comparing greater numbers, rounding whole numbers, problem solving make an organized list. CC 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.	Resources:place value blocks/pictures/smartboard, dice, cards, books, binders, worksheets, Fact Practice, Daily Dojo <u>Assessment:</u> Test Sept.8th, participation points, stations, group work, self assessments, homework
10	Topic 4: Addition and subtraction Test: Sept. 20th How can you use mental math to add and subtract? How can you estimate sums and differences of whole numbers? How do you add whole numbers? How do	Core Content:using mental math to add and subtract, estimating sums and differences of whole numbers, adding	Resources:Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Math Binders, Fact Practice, Daily Dojo

	you subtract numbers? How do you subtract across zeros?	whole numbers, subtracting whole numbers, subtracting across zeros, problem solving: draw a picture and write an equation CC Standards: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.	Assessment: Test Sept.22nd, quiz, participation points, stations, group work, self assessments, homework
10	Topic 1: Multiplication and Division Meaning and facts Test: Oct. 4th How can multiplication be used when equal groups are combined? What are the patterns for multiples of 2, 5, and 9? How can properties help you multiply? How can you break apart facts? How can you interpret a multiplication equation as comparison? When do you divide? How can you multiply or divide to solve a word problem involving multiplication as comparison? How can you divide with 1 and 0? How does multiplication help you divide?	Core Content:meanings of multiplication, patterns or facts, multiplication properties, 3, 4, 6, 7, and 8 as factors, multiplication as Comparison, meanings of division, multiplication and division comparison problems, special quotients, using multiplication facts to find division facts.	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment:Test Oct.4th , quiz, participation points, stations, group work, self assessments, homework

		CC Standards: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.	
15	Topic 5 and 6: Multiplying by 1- Digit #s Test Oct. 28th How can you multiply by 10 and 100? What is the rule when you multiply by multiples of 10 and 100? How can you use breaking apart to multiply with greater numbers? What are some ways to multiply mentally? How can you use rounding to estimate when you multiply? How can you record multiplication? What is a common way to record multiplication? How do you multiply larger numbers? What are the steps to record multiplication?	Core Content:Arrays and multiplying by 10 and 100, multiplying by multiples of 10 and 100, breaking apart to multiply, using mental math to multiply, using rounding to estimate, problem solving: reasonableness; arrays and using an expanded algorithm, connecting the expanded and standard algorithm, multiplying 2 by 1 digit numbers, multiplying 3 and 4 digit by 1 digit numbers, multiplying by 1 digit numbers CC Standards CC.2.1.4.B.2	Resources: Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Oct. 28th , quiz, participation points, stations, group work, self assessments, homework :

		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.	
20	Topic 7 and 8: Multiplying by 2-Digit #s by 2 digit, and 3-digit numbers Test Nov. 26th How can you use a model to multiply? How can you multiply by multiples of ten? How can you use rounding to estimate? How can you use compatible numbers to estimate? How can you multiply using an array? How can you record multiplication? How can you find the product? What is a common way to record multiplication?	Core Content:Lesson 7: Multiplication: arrays and multiplying 2 digit numbers by multiples of ten; multiplication: using mental math to multiply 2 digit numbers; Using rounding to estimate; using compatible numbers to estimate. Lesson 8: Multiplication: Arrays and multiplying 2-digit numbers; arrays and an expanded algorithm; multiplying 2-digit numbers by multiples of 10; multiplying 2-digit by 2-digit numbers; problem solving CC Standards: CC.2.1.4.B.2	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Nov.26th, quiz, participation points, stations, group work, self assessments , homework

		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.	
14	Topic 9 and 10: Dividing by 1-Digit #s Test Dec. 19th How can you use patterns to help you divide mentally? When and how do you estimate quotients to solve problems? How do you estimate quotients using place value? What happens when some are leftover? When should you multiply or divide? How can you record division using repeated subtraction? How can place value help you divide? What is a common way to record division? How can you divide numbers in the hundreds? What do you do when there aren't enough hundreds to divide? How can you estimate larger quotients?	Core Content:using mental math to divide; estimating quotients; estimating quotients for greater dividends; dividing with remainders; multiplication and division stories; problem solving: draw a picture; write an equation. Division as repeated subtraction; using objects to Divide:Division as sharing; dividing 2-digit by 1-digit numbers; dividing 3-digit by 1-digit numbers; deciding where to start dividing; dividing 4-digit by 1 digit numbers.	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Dec.19th quiz, participation points, stations, group work, self assessments, homework

		CC Standards: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.	

10	Topic 2: Generalize and analyze patterns Test: Jan. 14th How can you continue a repeating pattern? What is the pattern? What pairs of numbers fit a pattern? What is a math rule? How can you describe block towers?	Core Content:Patterns: repeating patterns, number sequences, extending tables, writing rules for situations, geometric patterns, problem solving: act it out and use reasoning CC Standards CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples. CC.2.2.4.A.1	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Jan. 14th quiz, participation points, stations, group work, self assessment, homework

		Represent and solve problems involving the four operations. CC.2.2.4.A.4 Generate and analyze patterns using one rule	
12	Topic 11: Fraction equivalence and ordering Test: Jan. 31st How can you use multiplication to find all the factors of a number? What is a prime number vs. a composite number? How can you find multiples of a number? How can you find two ways to name the same part of the whole? How can you find equivalent fractions on a number line? How can you compare fractions? How can you order fractions ?	Core Content:Factors, prime and composite numbers, multiples, equivalent fractions, number lines and equivalent fractions, comparing fractions, ordering fractions, problem solving: writing to explain CC Standards: CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Feb. 2nd quiz, participation points, stations, group work, self assessments, homework
15	Topic 12: Adding and subtracting Fractions/ Mixed Numbers with like denominators. Test: Feb. 24th How can you use fraction strips to add fractions? How can you add fractions with like denominators? How can you use fraction strips to subtract fractions? How do you subtract fractions when the	Core Content: Modeling addition of fractions, adding fractions with like denominators, modeling subtraction of fractions, subtracting	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson.

	denominators are the same? How do you use a number line to solve fraction problems? How can you name an amount in two different ways? How can you model addition of mixed numbers? How can you add mixed numbers? How can you subtract mixed numbers? How can you use addition to represent a fraction in a variety of ways?	fractions with like denominators, adding and subtracting fractions on the number line, improper fractions and mixed numbers, modeling addition and subtraction of mixed numbers, adding mixed numbers, subtracting mixed numbers, decomposing and composing fractions CC Standards CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples.	Assessment: Test Feb. 24th quiz, participation points, stations, group work, self assessments, homework
10	Topic 13: Extending Fraction Concepts Test: Mar. 9th How can you describe a fraction using a unit fraction? How can you find the product of a fraction multiplied by a whole number? When can you use the product of a fraction and a whole number to solve a problem? How can you write a fraction as a decimal and a decimal as a fraction? How can you locate points on a number line? How can you use equivalent fractions to change a fraction to a decimal? What are some ways to represent decimals? How do you compare decimals? How are decimals related to money?	Core Content:Fractions: fractions as multiples of unit fractions: using models, multiplying a fraction by a whole number using models, multiplying a fraction by a whole number using symbols, fractions and decimals, fractions and decimals on the number line, equivalent fractions and decimals, decimal place value, comparing decimals, using money to	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Mar. 9th quiz, participation points, stations, group work, self assessments, homework

		understand decimals, and problem solving: drawing a picture. CC Standards: CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g, 19/100).	
12	Topic 14: Measurement Conversions and Solving Measurement Problems Test: April 1st How do you estimate and measure length? How do you measure capacity in customary units? How do you measure weight? How do you change customary units? How do you estimate and measure length? How do you measure capacity in metric units? What are metric units of mass? How do you change metric units? How do you compare units of time?	Core Content:Measurement: using customary units of length, customary units of capacity, units of weight, changing customary units, problem solving: writing to explain, using metric units of length, metric units of capacity, units of mass, changing metric units, units of	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Apr. 1st quiz, participation points, stations, group work, self assessments, homework

		time, problem solving: working backwards. CC Standards: CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.	
10	Topic 15: Measurement and data problems Test: April 16th How do line plots show data you have collected? How can you use line plots to solve problems? How can you use perimeter and area to solve problems? How can you use diagrams to solve measurement problems? How can you use counting up to make change?	Core Content:Data: making Line Plots, data: solving problems involving line plots, measurement: solving perimeter and area problems, measurement: solving measurement problems, solving measurement problems involving money; Problem solving: solve a simpler problem and make a table. CC Standards CC.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	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Test Apr. 16th, quiz, participation points, stations, group work, self assessments, homework

		Translate information from one type of data display to another. CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.	
15	Topic 16: Lines, Angles, and Shapes Test: May 7th What are some important geometric terms? What geometric terms are used to describe parts of lines and types of angles? What is the unit used to measure angles? How are angles measured? How do you measure and draw angles? How can you add and subtract to find unknown angle measures? How do you identify polygons? How do you classify triangles? How do you classify quadrilaterals? What is a line of symmetry?	Core Content:Geometry: points, lines, and planes, line segments, rays, angles, understanding angles and unit angles, measuring with unit angles, measuring angles, adding and subtracting angle measures, polygons, triangles, quadrilaterals, line symmetry. CC Standards:CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures. CC.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles.	Resources:Math Binders, Fact Practice, Daily Dojo, Math Workbook, Smartboard, Teacher Books, pearsonrealize.com, Math Manipulatives (money, cards, dice, marbles, dominoes), Center activity 1 and 2 per lesson. Assessment: Geometry test May 7th, quiz, participation points, stations, group work, self assessments, homework.

		CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry. CC.2.4.4.A.6 Measure angles and use properties of adjacent angles to solve problems.	