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TEACHING & LEARNING

Department of Teaching & Learning

4th Grade Math Scope and Sequence 2020 – 2021

TEKS Distribution among Units

Process Standards

	4.1A	4.1B	4.1C	4.1D	4.1E	4.1F	4.1G
Unit 1	X	X	X	X	X	X	X
Unit 2	X	X	X	X	X	X	X
Unit 3	X	X	X	X	X	X	X
Unit 4	X	X	X	X	X	X	X
Unit 5	X	X	X	X	X	X	X
Unit 6	X	X	X	X	X	X	X
Unit 7	X	X	X	X	X	X	X
Unit 8	X	X	X	X	X	X	X
Unit 9	X	X	X	X	X	X	X

Content Standards

	4.2A		4.2B	4.2C	4.2D	4.2F	4.2F	**4.2G***	4.2H	4.3A	4.3B	4.3C	**4.3D***	**4.3F***	4.3F	4.3G	**3.4G**	**4.4A***	4.4B	4.4C	**4.4D***	4.4F	**4.4F***	4.4G	**4.4H***	**4.5A***	**4.5B***	4.5C	**4.5D***	4.6A	4.6B	4.6C	**4.6D***	**3.7C**	4.7A	4.7B	**4.7C***	4.7D	4.7E	4.8A	4.8B	**4.8C***	**4.9A***	4.9B	4.10A	4.10B	4.10C	4.10D	4.10E
Unit 1	X		X	X	X													X	X					X		X																			X			
Unit 2	X																X		X	X	X	X	X	X	X	X																X				X			
Unit 3										X	X	X	X	X	X	X																																		
Unit 4	X		X			X	X	X	X							X		X																									X							
Unit 5																											X															X	X						
Unit 6																														X	X	X	X		X	X	X	X	X										
Unit 7																				X					X	X		X	X					X						X		X							
Unit 8														X		X		X																										X	X	X		X	X	X
Unit 9										X	X	X	X			X																																		

4th Grade Math
Scope and Sequence 2020 – 2021

Process Standards:

4.1A apply mathematics to problems arising in everyday life, society, and the workplace

4.1B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution

4.1C select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems

4.1D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

4.1E create and use representations to organize, record, and communicate mathematical ideas

4.1F analyze mathematical relationships to connect and communicate mathematical ideas

4.1G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Note: Includes 2 days for 2020 – 2021 School Year Orientation

Unit 1: Whole Numbers - Numeration, Addition and Subtraction

Estimated Date Range: 8/17/20-9/09/20
Estimated Time Frame: 17 days
Note: Includes 2 days for Re-engagement and Assessment

Concepts within the Unit	TEKS
Concept #1: Launching Mathematical Mindsets Suggested Days: 3	In this concept we are Launching Mathematical Mindsets using You Cubed resources along with supports for setting up Math Workshop in the classroom. The focus is on students getting used to classroom routines while engaging in math related activities that promote sense making, perseverance, and teamwork.
Concept #2: Compare and Order Whole Numbers Suggested Days: 6	<u>Integrated Standards</u> 4.2A interpret the value of each place-value position as 10 times the position to the right and ~~as one-tenth of the value of the place to its left~~ 4.2B represent the value of the digit in whole numbers through 1,000,000,000 ~~and decimals to the hundredths~~ using expanded notation and numerals 4.2C compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or = 4.2D round whole numbers to a given place value through the hundred thousands place 4.4B determine products of a number and 10 or 100 using properties of operations and place value understandings

Concept #3: Adding and Subtracting Whole Numbers Suggested Days: 5	**Priority Standards** **4.4A Add and subtract whole numbers ~~and decimals to the hundredths~~ place using the standard algorithm.** **4.5A Represent multi-step problems involving the four operations with whole number using strip diagrams and equations with a letter standing for the unknown quantity** Integrated Standards 4.4G round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers 4.10B calculate profit in a given situation
Unit 2: Understanding Multi-Digit Multiplication & Division Estimated Date Range: 9/10/20 – 10/16/20 Estimated Time Frame: 27 days Note: Includes 2 days for Re-engagement and Assessment	
Concepts within the Unit	**TEKS**
Concept #1: Multi-Digit Multiplication Suggested Days: 9	**Priority Standards** **4.4D Use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.** Integrated Standards 4.4B determine products of a number and 10 or 100 using properties of operations and place value understandings 4.4C represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15 4.4G round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers 3.4G- use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.

Concept #2: Multi-Digit Division Suggested Days: 7	**<u>Priority Standards</u>** **4.4F Use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor** <u>Integrated Standards</u> 4.4E represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations 4.4G round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers
Concept #3: Multi-Step Problems Involving Multiplication and Division Suggested Days: 9 District Learning Assessment (Fall) 10/7/20 – 10/13/20 Reporting Due Date 10/20/20	**<u>Priority Standards</u>** **4.4H Solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders** **4.5A Represent multi-step problems involving the four operations with whole number using strip diagrams and equations with a letter standing for the unknown quantity** <u>Important Standards</u> 4.4D Use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties 4.4F Use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor 4.8C solve problems that deal with ~~measurements of length, intervals of time, liquid volumes, mass, and~~ money using addition, subtraction, multiplication, or division as appropriate <u>Integrated Standards</u> 4.4G round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers 4.10B calculate profit in a given situation

Grading Period 2

Unit 3: Fractions & Fraction Operations

Estimated Date Range: 10/19/20-11/13/20
Estimated Time Frame: 21 days
Note: Includes 2 days for Re-engagement and Assessment

Concepts within the Unit	TEKS
Concept #1: Equivalent Forms of Fractions Suggested Days: 7	**Priority Standards** **4.3B decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations** Integrated Standards 4.3A represent a fraction a/b as a sum of fractions 1/b, where a and b are whole numbers and b > 0, including when a > b 4.3C determine if two given fractions are equivalent using a variety of methods 4.3G represent fractions ~~and decimals~~ ~~to the tenths or hundredths~~ as distances from zero on a number line
Concept #2: Working with Fractions Suggested Days: 12	**Priority Standards:** **4.3D compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <** Important Standard: 4.3B decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations Integrated Standards 4.3C determine if two given fractions are equivalent using a variety of methods 4.3E represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations 4.3G represent fractions and decimals to the tenths or hundredths as distances from zero on a number line 4.3F evaluate the reasonableness of sums and differences of fractions using benchmark fractions 0, 1/4, 1/2, 3/4, and 1, referring to the same whole

Unit 4: Decimals & Decimal Operations Estimated Date Range: 11/18/20-12/18/20 Estimated Time Frame: 32 Days (GP2-18 Days and GP3-12 Days) Note: Includes 2 days for Re-engagement and Assessment	
Concepts within the Unit	**TEKS**
Concept #1: Relating Decimals to Fractions Suggested Days: 6	**Priority Standards** **4.2G relate decimals to fractions that name tenths and hundredths** Integrated Standards 4.2A interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left; 4.2E represent decimals, including tenths and hundredths, using concrete and visual models and money; 4.2H determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line. 4.3G represent fractions and decimals to the tenths or hundredths as distances from zero on a number line.
Concept #2: Decimals and Place Value Suggested Days: 5	Integrated Standards 4.2A interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left 4.2B represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals 4.2E represent decimals, including tenths and hundredths, using concrete and visual models and money 4.2H determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line
Concept #3: Compare and Order Decimals Suggested Days: 7	Integrated Standards 4.2E represent decimals, including tenths and hundredths, using concrete and visual models and money 4.2F compare and order decimals using concrete and visual models to the hundredths 4.2H determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line

Grading Period 3	
Unit 4: Decimals & Decimal Operations (continued) Estimated Date Range: 1/06/20-1/22/20 Estimated Time Frame: 34 Days (GP2-22 Days and GP3-12 Days) Note: Includes 2 days for Re-engagement and Assessment	
Concept #4: Adding and Subtracting Decimals Suggested Days: 10 District Learning Assessment (Spring) 1/13/21 – 1/20/21 Reporting Due Date 1/27/21	**Priority Standards** **4.4A Add and subtract whole numbers and decimals to the hundredths place using the standard algorithm** Important: 4.8C solve problems that deal with ~~measurements of length, intervals of time, liquid volumes, mass~~, and money using addition, subtraction, ~~multiplication, or division as appropriate~~ Integrated Standards 4.2A interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left 4.2E represent decimals, including tenths and hundredths, using concrete and visual models and money 4.3G represent ~~fractions and~~ decimals to the tenths or hundredths as distances from zero on a number line
Unit 5: Input and Output Tables Estimated Date Range: 1/25/21-2/11/21 Estimated Time Frame: 14 days Note: Includes 2 days for Re-engagement and Assessment	
Concepts within the Unit	**TEKS**
Concept #1: Generating Patterns Suggested Days: 6	**Priority Standards** **4.5B represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence.**
Concept #2: Understanding Conversions Suggested Days: 6	Integrated Standards 4.8A identify relative sizes of measurement units within the customary and metric systems 4.8B convert measurements within the same measurement system, customary or metric, from a smaller unit into a larger unit or a larger unit into a smaller unit when given other equivalent measures represented in a table

Unit 6: Angles and Polygons Estimated Date Range: 2/16/21-3/12/21 Estimated Time Frame: 19 days Note: Includes 2 days for Re-engagement and Assessment	
Concepts within the Unit	**TEKS**
Concept #1: Understanding and Measuring Angles Suggested Days: 11	**Priority Standards** **4.7C determine the approximate measures of angles in degrees to the nearest whole number using a protractor** Integrated Standards 4.6A identify points, lines, line segments, rays, angles~~, and perpendicular and parallel lines~~ 4.7A illustrate the measure of an angle as the part of a circle whose center is at the vertex of the angle that is "cut out" by the rays of the angle. Angle measures are limited to whole numbers 4.7B illustrate degrees as the units used to measure an angle, where 1/360 of any circle is one degree and an angle that "cuts" n/360 out of any circle whose center is at the angle's vertex has a measure of n degrees. Angle measures are limited to whole numbers 4.7D draw an angle with a given measure 4.7E determine the measure of an unknown angle formed by two non-overlapping adjacent angles given one or both angle measures
Concept #2: Classifying Two-Dimensional Figures Suggested Days: 7	**Priority Standards** **4.6D 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** Important Standards 4.7C determine the approximate measures of angles in degrees to the nearest whole number using a protractor Integrated Standards 4.6A identify points, lines, line segments, rays, angles, and perpendicular and parallel lines 4.6B identify and draw one or more lines of symmetry, if they exist, for a two-dimensional figure 4.6C apply knowledge of right angles to identify acute, right, and obtuse triangles

Grading Period 4

Unit 7: Application of Geometry and Measurement

Estimated Date Range: 3/22/21-4/16/21
Estimated Time Frame: 19 days
Note: Includes 2 days for Re-engagement and Assessment

Concepts within the Unit	TEKS
Concept #1: Solving Problems Involving Area and Perimeter Suggested Days: 10	**Priority Standards** **4.5D solve problems related to perimeter and area of rectangles where dimensions are whole numbers** Important: 4.4H Solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders 4.5A Represent multi-step problems involving the four operations with whole number using strip diagrams and equations with a letter standing for the unknown quantity Integrated Standards 4.5C use models to determine the formulas for the perimeter of a rectangle (l + w + l + w or 2l + 2w), including the special form for perimeter of a square (4s) and the area of a rectangle (l x w) 4.4C represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15
Concept #2: Solving Problems Involving Units of Measure Suggested Days: 7	**Priority Standards** **4.8C solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, ~~and money~~ using addition, subtraction, multiplication, or division as appropriate** Important Standards: 4.4H Solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders Integrated Standards 3.7C-determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30 minute event equals 45 minutes. 4.8A identify relative sizes of measurement units within the customary and metric systems

Unit 8: Data Analysis and Personal Financial Literacy Estimated Date Range: 4/20/21-5/14/21 Estimated Time Frame: 19 days Note: Includes 2 days for Re-engagement and Assessment and 2 days for STAAR	
Concepts within the Unit	**TEKS**
Concept #1: Personal Financial Literacy Suggested Days: 4	Integrated Standards 4.10A distinguish between fixed and variable expenses 4.10C compare the advantages and disadvantages of various savings options 4.10D describe how to allocate a weekly allowance among spending; saving, including for college; and sharing 4.10E describe the basic purpose of financial institutions, including keeping money safe, borrowing money, and lending
Concept #2: Data Analysis Suggested Days: 12	**Priority Standards** **4.9A represent data on a frequency table, dot plot, or stem-and-leaf plot marked with whole numbers and fractions** Important Standards 4.4A Add and subtract whole numbers and decimals to the hundredths place using the standard algorithm Integrated Standards 4.9B solve one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot 4.3G represent fractions and decimals to the tenths or hundredths as distances from zero on a number line 4.3E represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations

Unit 9: Essential Understanding of 4th Grade Estimated Date Range: 5/17/21-5/26/21 Estimated Time Frame: 7 days Note: Includes 2 days for Re-engagement and Assessment	
Concepts within the Unit	**TEKS**
Concept #1: Equivalent Fractions and Comparisons Suggested Days: 5	**Priority Standards** **4.3D compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <** Integrated Standards 4.3A represent a fraction a/b as a sum of fractions 1/b, where a and b are whole numbers and b > 0, including when a > b 4.3B decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations 4.3C determine if two given fractions are equivalent using a variety of methods 4.3G represent fractions and decimals to the tenths or hundredths as distances from zero on a number line

Learning Assessments

Semester	Assessment Administration Window	Content	Reporting Due Date
First Semester	10/7/20 - 10/13/20	4.4H & 4.5A	10/20/20
Second Semester	1/13/21 – 1/20/21	4.4A	1/27/21