Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

Grade 3 Curriculum
Instructional Plans for Math
Revised by Robert J Buss
July 2021

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

	Content Type	Objectives	Standards	Assessment	Materials
AUGUST & SEPTEMBER	• 24 Lessons 1-22	• SWBAT Numbers • Place value: 1–100,000; money • Place value: to 100,000,000 Writing numbers: • From dictation to 100,000s place \ • From number words Roman numerals: • Value of I, V, X, L, C, D, M *f* • Reading and building numerals 1–30 • Basic rules: More complex rules for forming Roman numerals • V may not be repeated or subtracted • I cannot be placed in front of L, C, D, M >, <, = Number sentences: • With unknowns • Greater/less than • Addition families 1–18: mixed order • Timed mastery • Terms: addend, sum • Missing number/ Missing sign Word problems: • Clue words: in all, altogether, how many (much) more (in a statement) • Problem set up • Money: o Adding: o Dimes and pennies o Nickels and pennies Dimes, nickels, pennies o Any combination of half dollars, quarters, dimes, nickels, and/or pennies by converting to cents o $1, $5, $10, $20 bills • Order of operations (parentheses)	• **M.3.NBT.A.1 Use place value understanding to generate estimates for problems in real-world situations, with whole numbers within 1,000, using strategies such as mental math, benchmark numbers, compatible numbers, and rounding. Assess the reasonableness of their estimates (e.g., Is my estimate too low or too high? What degree of precision do I need for this situation?).** • M.3.NBT.A.2 Flexibly and efficiently add and subtract within 1,000 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	Daily speed tests (probably not during math instruction time) Classwork and student work #1-22	Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

		• Number sequences identify place values to thousands • Understand commutative properties of addition • Solve 2 digit subtraction • Round number to nearest 10 • Interpret clocks to read time to nearest minute • Multiply with 2 as a factor • Multiply with 3 as factor • Relate value to quarters and half-dollars • Solve addition/subtraction problems with carrying/borrowing • Solve multiplication with 2 digit factors • Relate value to different bill amounts			
OCTOBER	• 20 Lessons 23-42	• SWBAT • Addition Properties: o Commutative & Associative o Inverse operation • Mental arithmetic: problems combining addition, subtraction, multiplication, and division up to 6 numbers • Carrying to any place value • Checking by addition • Addends: column addition • Averaging • Solve multiplication with carrying Determine start/end times using elapsed time. • Determine value of coins/bills • Determine perimeter by applying formula of measuring/adding sides of geometric shapes • Divide with 3 as a divisor • Use commutative property to check accuracy of addition problems	• M.3.OA.D.7 [WI.2010. 3.OA.B.8] Solve two-step word problems, posed with whole numbers and having whole number answers, using the four operations. Represent these problems using one or two equations with a letter standing for the unknown quantity. If one equation is used, grouping symbols (i.e. parentheses) may be needed. Assess the reasonableness of answers using mental computation and estimation strategies. • M.3.OA.D.8 [WI.2010. 3.OA.B.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.	Daily speed tests (probably not during math instruction time) Classwork and student work #23-42	Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

		• Apply concept of place value to round numbers to nearest 10 • Divide with 4 as a divisor Apply steps of division to long division • Gather and record data in pictograph •			

	Content Type	Objectives	Standards	Assessment	Materials
NOVEMBER	• 19 Lessons 43-61	• SWBAT • Subtraction o Families 1–18: mixed order o Timed mastery o Missing number o Missing sign o Mental arithmetic: problems combining subtraction, addition, multiplication, and division up to 6 numbers o Subtracting with any number of digits, money • Word problems-- o Clue words: how many (much) more, have left, less, fewer, how much change o Terms: minuend, subtrahend, difference • Borrowing: o From any whole number in any position o With any number of zeros in the minuend o Checking by addition • Fractions • Measures • Number sentences: o With unknowns o With greater/less than • Order of operations (parentheses)	• M.3.OA.D.7 [WI.2010. 3.OA.B.8] Solve two-step word problems, posed with whole numbers and having whole number answers, using the four operations. Represent these problems using one or two equations with a letter standing for the unknown quantity. If one equation is used, grouping symbols (i.e. parentheses) may be needed. Assess the reasonableness of answers using mental computation and estimation strategies. • M.3.OA.D.8 [WI.2010. 3.OA.B.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.	Daily speed tests (probably not during math instruction time) Classwork and student work #43-61	Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

		• Properties–inverse operationApply concept of division to uneven division • Interpret thermometer to read temperature Use line graph • Apply concept of multiplication to multi-digit factors with carrying • Apply concept of place value to determine digit values in large numbers • Use greater/less than/equal to • Apply inverse properties to solve for unknown numbers in equations • Solve multiplication problems with money			
DECEMBER	• 15 Lessons 62-76	• Solve long division problems with remainders • Mastery Multiplication tables: 0, 1, 2, 3, 5, 10 h 4, 6–9, 11–12 • Word problems: o Clue words: twice, times as many, per o Properties Commutative & Associative • Terms: factor, product, partial product • Missing number • Missing sign • Mental arithmetic: problems combining multiplication, division, addition, and subtraction up to 5 numbers	• M.3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5 x 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 x 7. • Use multiplicative thinking to multiply and divide within 100. a. Use the meanings of multiplication and division, the relationship between the operations (e.g., knowing that 8 x 5 = 40, one could reason that 40 ÷ 5 = 8), and properties of operations (e.g., the distributive property) to develop and understand strategies to multiply and divide within 100. b. Flexibly and efficiently use strategies, the relationship between the operations, and properties of operations to find products and quotients with multiples of 0, 1, 2, 5, & 10 within 100.	Daily speed tests (probably not during math instruction time) Classwork and student work #62-76	Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

	Content Type	Objectives	Standards	Assessment	Materials

JANUARY	• 21
	
	Lessons 77-97
		• Multiplication Continued:
		  ○ Relating multiplication facts to the corresponding addition and division facts
		• Properties :
		  ○ Commutative
		  ○ Associative
		  ○ Inverse property
		  ○ Identity property
		• Carrying:
		  ○ To the tens, hundreds, and thousands places
		  ○ In problems with 2-digit multiplier
		  ○ Checking by reversing factors
		• Number sentences:
		  ○ With unknowns
		  ○ With greater/less than
		  ○ Order of operations (parentheses)
		• Division
		  o Recognize symbols: ÷ and /
		  o Inverse property
		  o Identity property
		• Division tables:
		  o 2, 3, 5, 10
		  o 1, 4, 6–9, 11–12
		• Word problems-- Clue words: divided equally, shared equally, per
		  o Steps of division
		  o Terms: dividend, divisor, quotient
		  o Short division
		  o Missing number
		  o Mental arithmetic: problems combining division, multiplication, subtraction, and addition up to 6 numbers
			• 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.
			• M.3.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. See Appendix, Tables 2A and 2B for specific problem situations.
			• **M.3.OA.B.4 [WI.2010. 3.OA.B.5] Apply properties of operations as strategies to multiply and divide. Student use of the formal terms for these properties is not necessary. Examples: If 6 x 4 = 24 is known, then 4 x 6 = 24 is also known. (Commutative property of multiplication.) 3 x 5 x 2 can be found by 3 x 5 = 15, then 15 x 2 = 30, or by 5 x 2 = 10, then 3 x 10 = 30. (Associative property of multiplication.) Knowing that 8 x 5 = 40 and 8 x 2 = 16, one can find 8 x 7 as 8 x (5 + 2) = (8 x 5) + (8 x 2) = 40 + 16 = 56. (Distributive property.)**
			• M.3.OA.B.5 [WI.2010. 3.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.
			• M.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations
				• Daily speed tests (probably not during math instruction time)
				• Classwork and student work #77-97
					Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

		• Divisors: 1 and 2 digits • Dividends: any number of digits, money • Remainders: writing as a fraction • Checking by multiplication • Money:Averaging & Number sentences:			

FEBRUARY	• 18
	
	Lessons 98-115
		• Fractions
		  ○ Parts of a whole:
		  ○ Halves, thirds, fourths
		  ○ Fifths, sixths, sevenths, eighths, ninths, tenths
		• Any fractional part of a group
		• Finding the fractional part of a whole number:
		  ○ With a mixed number as the answer
		  ○ Word problems
		• Timed mastery
		• Reading and writing fractions
		  ○ Types: equivalent, mixed, for a whole number, for zero
		• Reducing to lowest terms
		• Adding Fractions :
		  ○ With a common denominator
		  ○ Mixed numbers with a common denominator
		
		• Subtracting Fractions:
		  ○ With a common denominator
		• Mixed numbers with a common denominator
		• Comparing fractions
			• M.3.NF.A.1 Understand a unit fraction as the quantity formed when a whole is partitioned into equal parts and explain that a unit fraction is one of those parts (e.g., 1/4). Understand fractions are composed of unit fractions. For example, 7/4 is the quantity formed by 7 parts of the size 1/4.
			• M.3.NF.A.2 Understand and represent a fraction as a number on the number line. a. Understand the whole on a number line is defined as the interval from 0 to 1 and the unit fraction is defined by partitioning the interval into equal parts (i.e., equal-sized lengths). b. Represent fractions on a number line by iterating lengths of the unit fraction from 0. Recognize that the resulting interval represents the size of the fraction and that its endpoint locates the fraction as a number on the number line. For example, 5/3 indicates the length of a line segment from 0 by iterating the unit fraction 1/3 five times and its end point locates the fraction 5/3 on the number line.
			• M.3.NF.A.3 Explain equivalence of fractions and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size or name the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3) and explain why the fractions are equivalent by using a visual fraction model (e.g., tape diagram or number line). c. Express whole numbers as fractions (3 = 3/1), and recognize fractions that are equivalent to whole numbers (4/4 = 1). d. 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. Justify the conclusions by using a visual fraction model (e.g., tape diagram or number line) and describe the result of the comparison using words and symbols (>, =, and <).
			• M.3.G.A.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,
				• Daily speed tests (probably not during math instruction time)
				• Classwork and student work #98-115
					Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

			and describe the area of each part as 1/4 of the area of the shape		

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

	Content Type	Objectives	Standards	Assessment	Materials
MARCH	• 17 Lessons 116-132	Decimals • Money: o Use of dollar sign and decimal point in addition o Use of dollar sign and decimal point in subtraction, multiplication, division o Recognition and value of all coins o Counting and combining all coins o Recognize symbols: $ (dollar sign) and . (decimal point) • Word problems, making change o Addition, Subtraction, multiplication, division; equations • Money equations • Time o Clock: face, hour/minute hands o a.m. and p.m. o Reading and writing time o Table of time: ▪ Seconds, minutes, hours ▪ Days, months ▪ Calendar, year ▪ Leap year o Determining elapsed time	• M.3.OA.D.7 [WI.2010. 3.OA.B.8] Solve two-step word problems, posed with whole numbers and having whole number answers, using the four operations. Represent these problems using one or two equations with a letter standing for the unknown quantity. If one equation is used, grouping symbols (i.e. parentheses) may be needed. Assess the reasonableness of answers using mental computation and estimation strategies. • M.3.OA.D.8 [WI.2010. 3.OA.B.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.	• Daily speed tests (probably not during math instruction time) • Classwork and student work #116-132	Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

APRIL	• 20
	
	Lessons 133-151
		Measures
		• Temperature: Reading and writing
		• Terms: degrees
		• Fahrenheit:
		  ○ Freezing and boiling points of water; normal body temperature
		• Celsius:
		  ○ Freezing and boiling points of water
		• Normal body temperature
		• Length:
		• English system: inch, foot, yard
		• Mile
		• Metric system: centimeter, meter
		• Weight:
		  ○ English system: ounce, pound
		  ○ Ton
		  ○ Metric system: gram, kilogram
		• Capacity:
		  o English liquid measures: cup, pint, quart, gallon
		  o English dry measures: pint, quart, peck, bushel
		  o Metric system: liter
		• Ordering measures least to greatest
		• Converting from one measure to another within same system
		• Adding unlike measures within same system
		• Subtracting unlike measures within same system
			• M.3.MD.A.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.
			• M.3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l), excluding compound units such as cm3 and finding the geometric volume of a container. 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. See Appendix, Table 2B for problem situations. Do not include multiplicative comparison problems.
			• M.3.MD.B.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. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
			• M.3.MD.B.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, fourths.
				• Daily speed tests (probably not during math instruction time)
				• Classwork and student work #133-151
					Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021

	Content Type	Objectives	Standards	Assessment	Materials

MAY	• 24
	
	Lessons 152-170
		Graphing, Statistics, Probability
		• Constructing and interpreting graphs
		• Pictographs
		• Bar graphs
		• Line graphs
		Statistics: averaging
		Geometry
		• Plane figures: circle, square, rectangle, trapezoid, hexagon
		• Plane figures: rhombus, kite, pentagon
		• Solid figures: sphere, cube, pyramid, cone, cylinder
		• Solid figures: rectangular prism
		• Terms: vertex, edge, face
		  o Right angle
		  o Parallel lines
		  o Perpendicular lines
		• Quadrilaterals: Recognize and classify by their attributes
		• Perimeter:
		  o Find perimeter of any polygon by adding side lengths
		  o Given the perimeter, find the side length of a square
		• Area:
		  o Find the area of rectilinear figures by counting square units
		• Transformations: Slide, flip, turn
		• Pre-Algebra h Finding the unknown number in an equation
			• M.3.G.A.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.
			• M.3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement. 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. 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
			• **M.3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft., and improvised units).**
			• M.3.MD.C.7 Relate area to the operations of multiplication and addition. 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. 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. c. 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 x b and a x c. Use area models to represent the distributive property in mathematical reasoning. d. 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.
			• M.3.MD.D.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.
				• Daily speed tests (probably not during math instruction time)
				• Classwork and student work #152-170
					Addition flash cards, blank paper, speed drills, money chips, counters, combination dot cards (look at lessons for specific numbers), thermometer, yellow clocks (and teacher clock)

Grade Curriculum Map
Instructional Plan for Math 3
Hope Loersch
St. Paul's Lutheran School
Revised: July 2021
Note: This map does not yet contain the new WI Model Academic Standards for Math from Jan 2021