Our Lady of the Lake Roman Catholic School
Yearly Course Outline
Math
Fourth Grade
2024–2025

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Course Description

In 4th Grade, our study of mathematics will include place value to the millions, base 10 operations, algebra, units of measurement, line plots, area and perimeter, and geometry. Lessons will also focus on the addition, subtraction, multiplication, and division of whole numbers, and the addition and subtraction of fractions, and decimals. Students will use a variety of manipulatives and adaptive software to solve both academic and real word problems.

Instructional Materials

enVision Mathematics, Grade 4 (Pearson/Saavas)

Methods of Assessment and Distribution

All test, quiz, and homework grades will be posted on PowerSchool (www.ollpowerschool.org). Please check for postings frequently. Each quarter, four tests and four quiz assessments will be administered.

Assessment Weighting

60% Tests
30% Quizzes
10% Homework

Grading Scale

A: 100-94
B: 93-86
C: 85-78
D: 77-70
U: 69 and below

Tentative Course Calendar

***** Dates and course content are subject to change at discretion of teacher or administration. *****

Aug 8 – First day of school 4th - 7th

Week	Standards	Objectives (The learner will . . .)	Instructional Materials	Assessments
1st Quarter				
Week 1 ***Aug. 12-16***	4.NBT.2	read and write numbers to 100,000 identify place and value in numbers to 100,000 write numbers in expanded form	Consumable textbook and Manipulatives Supplementary materials Lesson 1-1 and supplemental lesson	
Week 2 ***Aug. 19-23***	4.NBT.2 4.NBT.1	read and write number to millions place identify place and value to 100,000,000 use place value to compare multi-digit whole numbers	Consumable textbook, manipulatives, and supplementary materials Lesson 1-3 and supplemental lesson	Quiz #1 Place and value, reading and writing numbers to 100 thousand
Week 3 ***Aug. 26-30***	4.NBT.2 4.NBT.1 4.NBT.3	recognize the relationship between adjacent digits in a multi-digit number (10 times the value) use place value understanding to round multi-digit numbers less than one million to any place	Consumable textbook, manipulatives, and supplementary materials Lesson 1-2 and supplemental lesson	Test #1 Lessons 1-1 through 1-3 Place and value to the millions
Week 4 ***Sept. 3-6*** 9/2 Labor Day No School	4.NBT.3 4 MP 2	use place value understanding to round multi-digit numbers less than one million to any place construct an argument to solve a word problem round numbers to whole numbers to estimate sums and differences	Consumable textbook, manipulatives, and supplementary materials Lesson 1-4; 1-5 and supplemental lesson Lesson 2-2 estimation	Quiz #2 Lesson 1-4 rounding
Week 5 ***Sept. 9-13***	4 MP 2 4.NBT.3 4.NBT.4 4.NBT.4	round numbers to whole numbers to estimate sums and differences use the properties of addition to add whole numbers fluently	Consumable textbook, manipulatives, and	Test #2 Lesson 1-4; 2-1 rounding and estimation

	4.OA.3	*(4.NBT.4)* add and subtract whole numbers mentally using a variety of methods	supplementary materials Lesson 2-2; and supplemental lesson	
Week 6 ***Sept. 16-20***	4.NBT.3 4.NBT.4 4.OA.3	round greater whole numbers to estimate sums and differences add and subtract whole numbers mentally using a variety of methods	Consumable textbook, manipulatives, and supplementary materials Lesson 2-1 properties of addition; 2-2, 2-3, 2-4 adding whole numbers; 2-1 adding whole numbers mentally;	Quiz #3 Lessons 2-1 through 2-4 addition and estimation
Week 7 ***Sept. 23-27*** Spirit Week 9/27 Fun Run Kickoff	4.NBT.3 4.NBT.4 4.OA.3 4.NBT.4 4.OA.3 4.OA.2	round greater whole numbers to estimate sums and differences add and subtract whole numbers mentally using a variety of methods solve word problems by using expressions with a symbol for the unknown number	Consumable textbook, manipulatives, and supplementary materials 2-5 and 2-6 subtraction Lesson 2-7 subtraction across zeros supplemental lessons on writing expressions with a variable; stepping out expressions	Test #3 Unit 2- addition, subtraction and estimation
Week 8 ***Sept. 30- Oct. 3*** *10/3 Living Rosary* *10/4 – No School*	4.NBT.4 4.OA.3 4.OA.2	solve word problems by using expressions with a symbol for the unknown number Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself find a specific number in the pattern by writing an expression	Consumable textbook, manipulatives, and supplementary materials supplemental lessons on writing expressions with a variable; stepping out expressions Lesson 14-1	Quiz # 4 expressions

Week 9 ***Oct. 7-11*** 10/11 - ½ day (Fun Run)	4.NBT.4 4.OA.3 4.OA.2	solve word problems by using equations with a symbol for the unknown number Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself	Consumable textbook, manipulatives, and supplementary materials supplemental lessons on writing equations with a variable; stepping out equations Lesson 14-3 repeating patterns; add equations to repeating patterns	Test #4 Unit 14 repeating patterns and number sequences 14-1; 14-3 and writing and solving expressions and equations
2nd Quarter				
Week 10 ***Oct. 14-18***	4.MD.3	Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. Find the unknown length or width of a rectangle using the known area or perimeter	Consumable textbook, manipulatives, and supplementary materials Lesson 13-6 and supplemental lesson Use equations to find missing information	Quiz # 1 Lesson 13-6 Finding area and perimeter using a formula Finding the unknown information of area or perimeter
Week 11 ***Oct. 21-25*** 10/25 Fun Run Reward Day	4.MD.8 4.NBT.3 4.NBT.5	Recognize the area as additive. Find areas of rectangular 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. -Properties of multiplication -Multiplying patterns over increasing place values	Consumable textbook, manipulatives, and supplementary materials Supplemental lesson on area of irregular shapes Lesson 3-1 multiplying units of 10	Test #1 Lessons 13-6 and 3-1 -irregular area -vocabulary -multiplying units of 10 over increasing place values
Week 12 ***Oct. 28-31*** 11/2-OLL Festival	4.NBT.3 4.NBT.5 4 MP 4	Estimating products multiply and estimate a whole number of up to 4 digits by 1 digit. Illustrate and explain using equations and /or arrays Students experiment with representing problem situations in multiple ways, including	Consumable textbook, manipulatives, and supplementary materials Lesson 3-3 multiply using arrays Lesson 3-4 and 3-5 multiply using	

	4 MP 6	numbers, words (mathematical language), drawing pictures, using objects, making a chart, list, or graph, creating equations, etc. Attend to precision and develop mathematical communication skills to use clear and precise language in their discussions with others and in their own reasoning	distributive property (area model method) Lesson 3-6 compensation Lesson 3-7 Traditional method Lesson 3- 8 and 6-3 multistep word problems to introduce students on talking out the steps to formulate a solution.	
Week 13 ***Nov. 4-8*** 11/6 - 11/7 Saints Alive	4.NBT.3	Estimating products Multiply and estimate two two-digit numbers using strategies based on place and value and the properties of operations. Illustrate and explain the calculations using equations, area models and /or arrays	Lesson 4-1 multiplying ten based numbers Lesson 4-3 estimation	Test #2 Lessons 3-3, 3-4, 3-5, 3-7 -multiplying 1 digit by up to 4 digits -estimation -multiply using one of the alternative methods
Week 14 ***Nov. 11-15***	4.NBT.3 4.NBT.5 4 MP 4 4.G.1	Estimating products Multiply and estimate two two-digit numbers using strategies based on place and value and the properties of operations. Illustrate and explain the calculations using equations, area models and /or arrays Students experiment with representing problem situations in multiple ways, including numbers, words (mathematical language), drawing pictures, using objects, making a chart, list, or graph, creating equations, etc. Draw and identify particular 2-dimensional geometric figures	Lesson 4-1 multiplying ten based numbers Lesson 4-3 estimation Lesson 4-4 and 4-5 multiplication using area models Lesson 4-3 multiplication using traditional methods 4-7 multistep word problems Lesson 6-4 and 6-5 multistep word problems for "Math Talk"	Quiz #2 Lessons 4-1 through 4-6 Multiplying 2 x 2 using traditional and alternative methods
Week 15 ***Nov. 18-22***	4.G.1	Draw and identify particular 2-dimensional geometric figures	Consumable textbook,	Quiz # 3

	4.G.2 4.MD.5	Classify 2 dimensional figures based on the types of lines and angles Recognize angles as geometric shapes formed from 2 rays sharing a common vertex and understand concepts of angle measurement	manipulatives, and supplementary materials Lesson 15-1 types of lines, point, ray, segments, types of angles	Lesson 15-1, definitions of geo terms, identify types of angles by degree and shape
Thanksgiving Holidays ***Nov. 25-29***				
Week 16 ***Dec. 2-6***	4.MD.6 4.G.2 4.MD.7 4.MD.5a 4.MD.5b 4.MD.5c	Measuring angles in whole degrees using a protractor and sketch angles of specified measure. Classify 2-dimensional figures based on the types of lines and angles Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems, e.g., by using an equation with a letter for the unknown angle measure. Find the measure of an angle that turns a fraction of a circle	Consumable textbook, manipulatives, and supplementary materials Lesson 15-2 – 15-4 measuring with unit angles, measuring with a protractor, drawing an angle, and finding the missing angle degree	Test # 3 Ch. 15 lessons 3, 4, and 5 Unit angles, measuring with unit angles, measuring and drawing angles with a protractor, finding the missing angle measurement
Week 17 **Dec. 9-13**	4.G.1 4.G.2	Draw and identify particular 2-dimensional geometric figures Classify 2 dimensional figures based on the types of lines and angles	Consumable textbook, manipulatives, and supplementary materials Lesson 16-1 16-3	Quiz 4 - Basic skill review Vocab puzzle Geo. Scavenger Hunt slides or poster

Week 18 ***Dec. 16-20*** 12/20 - ½ day	4.G.1 4.G.2	Recognize a line of symmetry for a 2-dimensional figure; identify line symmetric figures and draw lines of symmetry Draw and identify particular 2-dimensional geometric figures Classify 2 dimensional figures based on the types of lines and angles Intro to long division	Lesson 16-4 16-5 Supplemental material to introduce long division	Test # 4 Chapter 16 Identify polygons by their sides, angles and types of lines; measuring and drawing angles; basic skill review
Christmas Holidays ***Dec. 21 – Jan. 5***				
3rd Quarter				
Week 19 ***Jan. 6-10***	4.NBT.6	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Consumable textbook, manipulatives, and supplementary materials Supplemental material to introduce long division. Lesson 5-4 word problems- identify operation needed to find solution	Quiz # 1 Long division (single step with and without remainders; multiply to check; Word problems to identify the correct equation/operation needed, writing a division word problem.
Week 20 **Jan. 13-17**	4.OA.3 4.NBT.6	Solve division problems and interpret the remainders. Finding compatible numbers to estimate Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations,	Consumable textbook, manipulatives, and supplementary materials Lesson 5-2, 5-6, 5-8, 5-9 5-10	

		rectangular arrays, and/or area models		
Week 21 ***Jan. 21-24*** 1/20 - No School	4.OA.3 4.OA.5 4.OA.4	Test is for material covered on Week 20	Supplemental material for rules of divisibility for 2,5, 10, 3 and 9	Test #1 Chapter 5 – long division, estimation, word problems, and pattern division
Week 22 ***Jan. 27-31*** Catholic Schools Week 1/31 - Pep Rally	4.OA.4 4.OA.4a 4.OA.4b 4.OA.4c 4.OA.4d	Generate a number pattern that follows a given rule and identify features of the pattern that are not explicit in the rule itself Determine whether a given whole number is a multiple of a given one- digit number. Using whole numbers in the range 1–100, a. Find all factor pairs for a given whole number. b. Recognize that a given whole number is a multiple of each of its factors. c. Determine whether a given whole number is a multiple of a given one- digit number. d. Determine whether a given whole number is prime or composite.	Consumable textbook, manipulatives, and supplementary materials rules of divisibility for 2,5, 10, 3 and 9 Lesson 7-5 multiples of a number	Quiz #2 Application of divisibility rules for 2,3,5,9, and 10.
Week 23 ***Feb. 3-7***	4.OA.4 4.OA.4a 4.OA.4b 4.OA.4c 4.OA.4d 4.NF.2	Test is for material covered on Week 22. Understand a fraction as a number on the number line; represent fractions on a number line diagram.	Consumable textbook, manipulatives, and supplementary materials Lesson 8-5 compare using benchmark fractions	Test #2 Lessons 7-1 through 7-5 Divisibility, factors, multiples, prime and composite numbers
Week 24 ***Feb. 10-14***	4.NF.1	Explain why a fraction *a*/*b* is equivalent to a fraction (n x a)/(n x b) by using visual fraction models, with attention to how the number and size of the parts	Consumable textbook, manipulatives, and	Quiz #3 Ch 8 – Benchmark fractions and comparing fractions

		differ even though the two fractions themselves are the same size. Use division to find equivalent fractions	supplementary materials Lessons 8-1 8-2 8-3 8-4	
Week 25 ***Feb. 17-21*** *2/21 - Eve Parade*	4.NF.1	Explain why a fraction *a*/*b* is equivalent to a fraction (n x a)/(n x b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use division to find equivalent fractions	Consumable textbook, manipulatives, and supplementary materials Lessons 8-1 8-2 8-3 8-4	Test #3 Ch 8 – Benchmark fractions, comparing fractions and equivalent fractions
Week 26 ***Feb. 24-28*** 2/28 – ½ Day Grandparents Day	4.NF.3a 4.NF.3b 4.MD.4	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. *Example: 3/4 = 1/4 + 1/4 + 1/4*. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Read and interpret data using line plots Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots.	Consumable textbook, manipulatives, and supplementary materials Lesson 9-1 through 9-6 Ch. 11 lessons 1-3	Test #4 Ch. 9 adding and subtracting fractions; Lesson 9-1 through 9-6 Ch. 11 lessons 1-4 Line plots
Mardi Gras Holiday ***March 3-7***				
Week 27 ***March 10-14*** 3/14 – ½ Day	4.NF.3b	Identify mixed numbers, proper and improper fractions. Change improper fractions to mixed numbers. Change mixed numbers to improper fractions.	Consumable textbook, manipulatives, and supplementary materials	Quiz #4 Identifying mixed numbers, converting mixed numbers and improper fractions

			Lesson 9-1 through 9-6 Ch. 11 lessons 1-3 supplemental lesson on mixed numbers and improper fractions	
4th Quarter				
Week 28 ***March 17-21***	4.NF.3b	Identify mixed numbers, proper and improper fractions. Change improper fractions to mixed numbers. Change mixed numbers to improper fractions.	Consumable textbook, manipulatives, and supplementary materials Lesson 9-1 through 9-6 Ch. 11 lessons 1-3 supplemental lesson on mixed numbers and improper fractions	Quiz #4 Identifying mixed numbers, converting mixed numbers and improper fractions
Week 29 ***March 24-28***	4.NF.3c 4.NF.3d 4 MP 4 4.NF.4b 4.NF.4c 4.MD.1	Adding and subtraction fractions Word problems Line plots Multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number. Multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number. Know relative sizes of measurement units within one system of units; **hr, min**, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. (Conversions are limited to one-step conversions.) Convert fractions with denominators of 10 or 100 to decimals.	Consumable textbook, manipulatives, and supplementary materials Lesson 10-1 through 10-4	Test #2 All lessons from Chapter 10 Converting units of time using a table

Week 30 ***March 31 - Apr 4***	4.NF.6 4.NF.7	Use decimal notation for fractions with denominators 10 or 100. Convert fractions with denominators of 10 or 100 to decimals. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.	Consumable textbook, manipulatives, and supplementary materials Lesson 12-1 Reading and writing decimals and fractions Lesson 12-2 decimals on a number line Supplemental lesson on making equivalent decimals;	Quiz #1 writing decimals in word form; writing decimals as fractions and fractions as decimals;
Week 31 ***April 7-11***	4.NF.6 4.NF.7 4.NF.5	Convert fractions with denominators of 10 or 100 to decimals. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.	Lesson 12-3 Comparing decimals Lesson 12-4 adding 10th and 100ths	Test # 3 all skills of Ch. 12 writing decimals in word form; writing decimals as fractions and fractions as decimals; decimals on a NL; comparing decimals; adding and subtracting with decimals
Week 32 ***April 14-17*** 4/17 Passion Play 4/18 Good Friday	4.MD.1	Know relative sizes of measurement units within one system of units including: ft, in; km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.	Consumable textbook, manipulatives, and supplementary materials	

		(Conversions are limited to one-step conversions.)	Linear units-customary Lesson 13-1 Lesson 13-4 metric linear units	
Easter Holiday ***April 21-25***				
Week 33 ***April 28-May 2*** 5/2 - Field Day ½ Day		Quiz is for material covered on Week 32. Know relative sizes of measurement units within one system of units including: ft, in; km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. (Conversions are limited to one-step conversions.)	Consumable textbook, manipulatives, and supplementary materials Lesson 13-2 Units of capacity-customary	Quiz # 2 Converting customary and metric linear units, identify linear units as customary or metric
Week 34 ***May 5-9*** 5/6 May Crowning	4.MD.1	Know relative sizes of measurement units within one system of units including: ft, in; km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. (Conversions are limited to one-step conversions.)	Consumable textbook, manipulatives, and supplementary materials Lesson 13-2 and 13-5 Units of capacity-customary and metric Lesson 13-3, 13-5 - units of mass 13-7 word problems	Quiz #3 Lessons 13-1, 13-2, 13-5 Customary and metric capacity and linear units
Week 35 ***May 12-16***	4.MD.1	Know relative sizes of measurement units within one system of units including: ft, in; km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.	Consumable textbook, manipulatives, and supplementary materials	Test #4 Ch. 13 Identifying and converting customary and metric units of capacity, mass and linear units.

	4 MP 6	(Conversions are limited to one-step conversions.) Attend to precision when solving word problems	Lesson 13-2, 13-5 - units of weight and 13-7 word problems	Quiz #4 basic skill review 5-a-day worksheet
Week 36 ***May 19-22*** 5/22 ½ day				