Sadlier Math[™]

Correlation to the Archdiocese of Hartford Mathematics Standards-based Curriculum





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Grade 2 Standards

Sadlier Math, Grade 2

 NOA 2.1 Understand and apply place value, ways of representing numbers, properties of operations, and the relationship between addition and subtraction To represent the result of counting, combining and separating sets of objects using number sentences (NOA 2.1, 2.2) Model real-life situations that involve addition and subtraction of whole numbers, using objects, pictures and open sentences Write related fact families for addition and subtraction Relate the inverse relationship of addition and subtraction facts to 20 Memorize addition and related subtraction facts to 20 Solve problems and apply addition and subtraction facts to real world situations To identify functional number relationships in real-world situations (NOA 2.1) To represent the result of counting, combining 	 Chapter 1: 1-1 through 1-10 1-1 Addition Concepts-pp. 3-6 1-2 Put Together-pp. 7-10 1-3 Related Addition Facts-pp. 11-14 1-4 Count On to Add-pp. 15-18 1-5 Doubles and Near Doubles-pp. 19-22 1-6 Make 10 to Add-pp. 23-26 1-7 Three Addends-pp. 29-32 1-8 Problem Solving: Make and Use a Plan-pp. 33-38 1-9 Solve for Unknown Addends-pp. 39-42 1-10 Patterns in Addition-pp. 43-46 Chapter 2: 2-1 through 2-12 2-1 Subtraction Concepts-pp. 53-56 2-2 Take Apart-pp. 57-60 2-3 Subtract to Compare-pp. 61-64 2-4 Count On to Subtract-pp. 69-72 2-6 Relate Addition and Subtraction-pp. 73-76 2-7 Fact Families-pp. 77-80 2-8 Think Addition to Subtract-pp. 83-86 2-9 Use Addition to Check-pp. 91-94 2-11 Make 10 to Subtract-pp. 95-98 2-12 Problem Solving: Work Backward-pp. 99-104
and separating sets of objects using number sentences (NOA 2.1)	
 To use prior understanding of addition and subtraction to develop strategies for multidigit addition and subtraction (NOA 2.1, 2.2) To develop, discuss, and use efficient, accurate, and various methods to add and subtract multi-digit whole numbers (NOA 2.1, 2.2) Use estimation strategies that result in reasonable answers to a problem Build fluency with addition and subtraction by applying standard algorithms to real world applications To develops fluency with efficient procedures for adding and subtracting whole numbers, understand why the procedures work, and use them to solve problems (NOA 2.1, 2.2, 2.3) 	 Chapter 4: 4-1 through 4-10 4-1 Use Models: Add Tens and Ones—pp. 145-148 4-2 Add Tens and Ones—pp. 149-152 4-3 Regroup Ones as Tens—pp. 155-158 4-4 Use Models: Two-Digit Addition with Regrouping—pp. 159-162 4-5 Two-Digit Addition with Regrouping—pp. 163-166 4-6 Rewrite Two-Digit Addition—pp. 167-170 4-7 Break Apart to Add—pp. 171-174 4-8 Three Addends—pp. 179-182 4-10 Problem Solving: Read and Understand—pp. 183-188 Chapter 5: 5-1 through 5-9 5-1 Use Models: Two-Digit Subtract Tens and Ones—pp. 195-198 5-2 Subtract Tens and Ones—pp. 202 5-3 Regroup Tens as Ones—pp. 205-208 5-4 Use Models: Two-Digit Subtraction with Regrouping—pp. 213-216 5-6 Rewrite Two-Digit Subtract—pp. 221-224 5-8 Add to Check—pp. 225-228 5-9 Problem Solving: Write and Solve an Equation—pp. 229-234



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Grade 2 Standards

Sadlier Math, Grade 2

 Add and subtract 2 digit numbers with regrouping Add 1 and 2 digit numbers with 3 addends - column addition Choose addition or subtraction to complete functions tables Identify missing addends with 2 digit numbers Choose & justify the correct operation in a word problem (+, -) Check subtraction with addition Round numbers to the nearest 10 Round to estimate sums of two digit numbers Use estimation strategies that result in reasonable answers to a problem Build fluency with addition and subtraction by applying standard algorithms to real world applications 	 Chapter 8: 8-1 through 8-8 8-1 Mental Math: Add 1, 10, or 100-pp. 341-344 8-2 Add Hundreds, Tens, and Ones-pp. 345-348 8-3 Add: Regroup Ones as Tens-pp. 349-352 8-4 Regroup Tens as Hundreds Using Models-pp. 353-356 8-5 Add: Regroup Twice-pp. 363-366 8-7 Problem Solving: Make an Organized List-pp. 367-372 8-8 Use Properties to Add-pp. 373-376 Chapter 9: 9-1 through 9-9 9-1 Mental Math: Subtract 1, 10, or 100-pp. 383-386 9-2 Subtract Hundreds, Tens, and Ones-pp. 397-390 9-3 Subtract: Regroup Tens as Ones-pp. 391-394 9-4 Regroup Hundreds as Tens Using Models-pp. 395-398 9-5 Subtract: Regroup Twice-pp. 405-408 9-7 Subtract: Regroup With Zeros-pp. 409-412 9-8 Problem Solving: Represent the Situation-pp. 413-418 9-9 Use Addition to Check Subtraction: Three-Digit Numbers-pp. 419-422 See also Grade 3 Chapter 1: 1-4 & 15 1-4 Round Numbers to the Nearest Ten-pp. 10-11 1-5 Round Numbers to the Nearest Ten-pp. 10-11 1-5 Round Numbers to the Nearest Hundred-pp. 12-13 Chapter 3: 3-1 2-3 Estimate Sums-pp. 26-27 Chapter 3: 3-4 - 3-1 Estimate Differences-pp. 46-47
 To represent three digit numbers as groups of hundreds, tens, and ones in the base ten number system (NOA 2.1) Demonstrate place values using models Write expanded numerals in standard form Expand numerals by identifying the value of each digit in its place Count, order, compare, and expand numerals to 999 Identify and name place values to the thousands place 	 Chapter 3: 3-1 through 3-5 3-1 Tens and Ones—pp. 111-114 3-2 Expanded Form—pp. 115-118 3-3 Compare Numbers—pp. 119-122 3-4 Order Numbers Within 100—pp. 125-128 3-5 Counting Patterns by 2s, 5s, and 10s—pp. 129-132 Chapter 7: 7-1 through 7-8 7-1 Hundreds—pp. 299-302 7-2 Hundreds, Tens, and Ones—pp. 303-306 7-3 Place Value in Three-Digit Numbers—pp. 307-310 7-4 Expanded Form with Hundreds, Tens, and Ones—pp. 311-314 7-5 Skip Count Within 1000—pp. 317-320 7-6 Compare Numbers Within 1000—pp. 321-324 7-7 Order Numbers Within 1000—pp. 325-328 7-8 Problem Solving: Use a Table—pp. 329-334



Grade 2 Standards

Sadlier Math, Grade 2

 To describe the relationship between multiplication and division (NOA 2.1) Relate skip counting and repeated addition to multiplication. Draw arrays to model multiplication Explore products to 25 Use models to demonstrate division (Make equal groups and use repeated subtraction.) Illustrate repeated addition and subtraction on a number line Use arrays to relate multiplication and division 	 Chapter 3: 3-5 3-5 Counting Patterns by 2s, 5s, and 10s-pp. 129-132 Chapter 7: 7-5 7-5 Skip Count Within 1000-pp. 317-320 Chapter 10: 10-1 through 10-4 10-1 Odd and Even Numbers-pp. 429-432 10-2 Represent Even Numbers-pp. 433-436 10-3 Arrays: Repeated Addition-pp. 439-442 10-4 Arrays: Show the Same Number-pp. 443-446 See also Grade 3 Chapter 4: 4-1 through 4-6 4-1 Represent Multiplication as Repeated Addition-pp. 68-69 4-3 Represent Multiplication as Arrays-pp. 70-71 4-4 Multiply with the Commutative Property-pp. 74-75 4-5 Represent Division by Sharing-pp. 76-77 4-6 Represent Division by Repeated Subtraction-pp. 78-79
NOA 2.2 Represent and solve problems involving addition and subtraction.To represent the result of counting, combining	 Chapter 1: 1-1 through 1-10 1-1 Addition Concepts—pp. 3-6 1-2 Put Together—pp. 7-10 1-3 Related Addition Facts—pp. 11-14
and separating sets of objects using number sentences (NOA 2.1, 2.2)	 1-4 Count On to Add—pp. 15-18 1-5 Doubles and Near Doubles—pp. 19-22 1-6 Make 10 to Add—pp. 23-26 1-7 Three Addende—pp. 29-32
 To use prior understanding of addition and subtraction to develop strategies for multi- digit addition and subtraction (NOA 2.1, 2.2) 	 1-8 Problem Solving: Make and Use a Plan—pp. 33-38 1-9 Solve for Unknown Addends—pp. 39-42 1-10 Patterns in Addition—pp. 43-46
 To develop, discuss, and use efficient, accurate, and various methods to add and subtract multi-digit whole numbers (NOA 2.1, 2.2) 	 2-1 Subtraction Concepts—pp. 53–56 2-2 Take Apart—pp. 57–60 2-3 Subtract to Compare—pp. 61–64 2-4 Count On to Subtract—pp. 65–68 2-5 Related Subtraction Facts—pp. 69–72 2-6 Relate Addition and Subtraction—pp. 73–76
 To develops fluency with efficient procedures for adding and subtracting whole numbers, understand why the procedures work, and use them to solve problems (NOA 2.1, 2.2, 2.3) 	 2-7 Fact Families—pp. 77-80 2-8 Think Addition to Subtract—pp. 83-86 2-9 Use Addition to Check—pp. 87-90 2-10 Solve for Unknowns—pp. 91-94 2-11 Make 10 to Subtract—pp. 95-98 2-12 Problem Solving: Work Backward—pp. 99-104
	 Chapter 4: 4-1 through 4-10 4-1 Use Models: Add Tens and Ones—pp. 145-148 4-2 Add Tens and Ones—pp. 149-152 4-3 Regroup Ones as Tens—pp. 155-158 4-4 Use Models: Two-Digit Addition with Regrouping—pp. 159-162 4-5 Two-Digit Addition with Regrouping—pp. 163-166 4-6 Rewrite Two-Digit Addition—pp. 167-170 4-7 Break Apart to Add—pp. 171-174 continued

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NUMBER THEORY, OPERATIONS, ALGEBRAIC THINKING (NOA)

Grade 2 Standards	Sadlier Math, Grade 2
Grade 2 Standards	 4-8 Three Addends-pp. 175-178 4-9 Four Addends-pp. 179-182 4-10 Problem Solving: Read and Understand-pp. 183-188 Chapter 5: 5-1 through 5-9 5-1 Use Models: Subtract Tens and Ones-pp. 195-198 5-2 Subtract Tens and Ones-pp. 199-202 5-3 Regroup Tens as Ones-pp. 205-208 5-4 Use Models: Two-Digit Subtraction with Regrouping-pp. 209-212 5-5 Two-Digit Subtraction with Regrouping-pp. 213-216 5-6 Rewrite Two-Digit Subtraction-pp. 217-220 5-7 Break Apart to Subtract-pp. 221-224 5-8 Add to Check-pp. 225-228 5-9 Problem Solving: Write and Solve an Equation-pp. 229-234 Chapter 8: 8-1 through 8-8 8-1 Mental Math: Add 1, 10, or 100-pp. 341-344 8-2 Add Hundreds, Tens, and Ones-pp. 345-348 8-3 Add: Regroup Ones as Tens-pp. 349-352 8-4 Regroup Tens as Hundreds Using Models-pp. 357-360 8-6 Add: Regroup Twice-pp. 363-366 8-7 Problem Solving: Make an Organized List-pp. 367-372 8-8 Use Properties to Add-pp. 373-376 Chapter 9: 9-1 through 9-9 9-1 Mental Math: Subtract 1, 10, or 100-pp. 383-386 9-2 Subtract: Regroup Tens as Ones-pp. 395-398
	 9-5 Subtract: Regroup Hundreds as Tens—pp. 399-402 9-6 Subtract: Regroup Twice—pp. 405-408 9-7 Subtract: Regroup with Zeros—pp. 409-412 9-8 Problem Solving: Represent the Situation—pp. 413-418 9-9 Use Addition to Check Subtraction: Three-Digit Numbers—pp. 419-422
 NOA 2.3 Add and subtract fluently within 20 To develop fact families using inverse relationships (NOA 2.8, 2.3, 2.4) To build on previous understanding of addition and subtraction to develop quick recall of basic addition and subtraction facts (NOA 2.3) To develops fluency with efficient procedures for adding and subtracting whole numbers, understand why the procedures work, and use them to solve problems (NOA 2.1, 2.2, 2.3) 	Chapter 1: 1-1 through 1-10 • 1-1 Addition Concepts-pp. 3-6 • 1-2 Put Together-pp. 7-10 • 1-3 Related Addition Facts-pp. 11-14 • 1-4 Count On to Add-pp. 15-18 • 1-5 Doubles and Near Doubles-pp. 19-22 • 1-6 Make 10 to Add-pp. 23-26 • 1-7 Three Addends-pp. 29-32 • 1-8 Problem Solving: Make and Use a Plan-pp. 33-38 • 1-9 Solve for Unknown Addends-pp. 39-42 • 1-10 Patterns in Addition-pp. 43-46 Chapter 2: 2-1 through 2-12 • 2-1 Subtraction Concepts-pp. 53-56 • 2-2 Take Apart-pp. 57-60 • 2-3 Subtract to Compare-pp. 61-64 • 2-4 Count On to Subtract-pp. 65-68
	continued



Grade 2 Standards

Sadlier Math, Grade 2

	 2-5 Related Subtraction Facts—pp. 69-72 2-6 Relate Addition and Subtraction—pp. 73-76 2-7 Fact Families—pp. 77-80 2-8 Think Addition to Subtract—pp. 83-86 2-9 Use Addition to Check—pp. 87-90 2-10 Solve for Unknowns—pp. 91-94 2-11 Make 10 to Subtract—pp. 95-98 2-12 Problem Solving: Work Backward—pp. 99-104
• To create portions of equal size to illustrate fractions (NOA 2.3)	Chapter 14: 14-1 through 14-5 • 14-1 Partition Rectangles into Rows and Columns—pp. 585-588 • 14-2 Halves—pp. 589-592 • 14-3 Thirds—pp. 595-598 • 14-4 Fourths—pp. 599-602 • 14-5 Problem Solving: Compare Models—pp. 603-608
 To use concepts based on patterns and place values to add and subtract (NOA 2.3, 2.5, 2.7) Read, write and identify halves, thirds and fourths Identify more than one equal part of a region, area, or object Describe the significance of a numerator and denominator Compare parts of whole object and describe them as closer to zero, one half, or one whole Identify fractions on a number line (halves, thirds and fourths) Read, write and identify all fractions Compare unit fractions Compare fractions with like denominators Use visual models to identify and compare fractions Identify and model fractional parts of a set 	 Chapter 14: 14-1 through 14-5 14-1 Partition Rectangles into Rows and Columns—pp. 585-588 14-2 Halves—pp. 589-592 14-3 Thirds—pp. 595-598 14-4 Fourths—pp. 599-602 14-5 Problem Solving: Compare Models—pp. 603-608 See also Grade 3 Chapter 9: 9-1 through 9-6 9 Fraction Concepts—pp. Concepts-186 9-1 Understand Equal Parts—pp. 188-189 9-2 Name Unit Fractions of a Whole—pp. 190-191 9-3 Find Unit Fractions of a Whole—pp. 192-193 9-4 Name Fractions of a Whole—pp. 196-197 9-5 Find Fraction to Find the Whole—pp. 200-201 Chapter 10: 10-1 through 10-5 10-2 Find Equivalent Fractions on a Number Line—pp. 214-215 10-4 Compare Fractions with the Same Denominator—pp. 218-219 10-5 Compare Fractions with the Same Numerator—pp. 220-221
 To use concepts based on patterns and place values to add and subtract (NOA 2.3, 2.5, 2.7) Add and subtract 3 digit numbers without regrouping Add and subtract 3 digit numbers with regrouping Round numbers to the nearest hundred Subtract 3 digit numbers with regrouping through zeroes Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/ or the relationship between addition and subtraction 	Chapter 1: 1-10 • 1-10 Patterns in Addition—pp. 43-46 Chapter 3: 3-5 • 3-5 Counting Patterns by 2s, 5s, and 10s—pp. 129-132 Chapter 4: 4-1 through 4-9 • 4-1 Use Models: Add Tens and Ones—pp. 145-148 • 4-2 Add Tens and Ones—pp. 149-152 • 4-3 Regroup Ones as Tens—pp. 155-158 • 4-4 Use Models: Two-Digit Addition with Regrouping—pp. 159-162 • 4-5 Two-Digit Addition with Regrouping—pp. 163-166 • 4-6 Rewrite Two-Digit Addition—pp. 167-170 • 4-7 Break Apart to Add—pp. 171-174 • 4-8 Three Addends—pp. 175-178 • 4-9 Four Addends—pp. 179-182 continued

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NUMBER THEORY, OPERATIONS, ALGEBRAIC THINKING (NOA)

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	 Chapter 5: 5-1 through 5-8 5-1 Use Models: Subtract Tens and Ones—pp. 195-198 5-2 Subtract Tens and Ones—pp. 199-202 5-3 Regroup Tens as Ones—pp. 205-208 5-4 Use Models: Two-Digit Subtraction with Regrouping—pp. 209-212 5-5 Two-Digit Subtraction with Regrouping—pp. 213-216 5-6 Rewrite Two-Digit Subtraction—pp. 217-220 5-7 Break Apart to Subtract—pp. 221-224 5-8 Add to Check—pp. 225-228 Chapter 7: 7-5 7-5 Skip Count Within 1000—pp. 317-320 Chapter 15: 15-3 15-3 Time Patterns—pp. 573-576
	 See also Grade 3 Chapter 1: 1-1 through 1-6 1-4 Round Numbers to the Nearest Ten—pp. 10-11 1-5 Round Numbers to the Nearest Hundred—pp. 12-13
 NOA 2.4 Use fractions to draw conclusions about the fairness and equity of resources To develop fact families using inverse relationships (NOA 2.8, 2.3, 2.4) 	Chapter 2: 2-6 through 2-10 • 2-6 Relate Addition and Subtraction—pp. 73-76 • 2-7 Fact Families—pp. 77-80 • 2-8 Think Addition to Subtract—pp. 83-86 • 2-9 Use Addition to Check—pp. 87-90 • 2-10 Solve for Unknowns—pp. 91-94
	 See also Grade 3 Chapter 9: 9-1 through 9-6 9-1 Understand Equal Parts—pp. 188-189 9-2 Name Unit Fractions of a Whole—pp. 190-191 9-3 Find Unit Fractions on a Number Line—pp. 192-193 9-4 Name Fractions of a Whole—pp. 196-197 9-5 Find Fractions on a Number Line—pp. 198-199 9-6 Use a Fraction to Find the Whole—pp. 200-201
	 Chapter 10: 10-2 through 10-5 10-2 Find Equivalent Fractions—pp. 212–213 10-3 Find Equivalent Fractions on a Number Line—pp. 214–215 10-4 Compare Fractions with the Same Denominator—pp. 218–219 10-5 Compare Fractions with the Same Numerator—pp. 220–221





Grade 2 Standards

Sadlier Math, Grade 2

 NOA 2.5 Understand patterns; represent and analyze mathematical problems using algebraic properties of addition and subtraction To identify, describe, create, and extend a number of patterns (NOA 2.5, 2.7) Students will analyze change in quantity and quality using patterns. (NOA 2.5) Determine whether a number is even or odd using manipulatives Skip count by 3, 4, and 100 Identify numbers as odd or even To use concepts based on patterns and place values to add and subtract (NOA 2.5) To develop, discuss, and use efficient, accurate, and various methods to add and subtract multi-digit whole numbers (NOA 2.1, 2.2) To use concepts based on patterns and place values to add and subtract (NOA 2.3, 2.5, 2.7) 	 Chapter 1: 1-10 1-10 Patterns in Addition—pp. 43-46 Chapter 3: 3-5 3-5 Counting Patterns by 2s, 5s, and 10s—pp. 129-132 Chapter 4: 4-1 through 4-7 4-1 Use Models: Add Tens and Ones—pp. 145-148 4-2 Add Tens and Ones—pp. 149-152 4-3 Regroup Ones as Tens—pp. 155-158 4-4 Use Models: Two-Digit Addition with Regrouping—pp. 159-162 4-5 Two-Digit Addition with Regrouping—pp. 163-166 4-6 Rewrite Two-Digit Addition—pp. 167-170 4-7 Break Apart to Add—pp. 171-174 Chapter 5: 5-1 through 5-9 5-1 Use Models: Subtract Tens and Ones—pp. 195-198 5-2 Subtract Tens and Ones—pp. 205-208 5-4 Use Models: Two-Digit Subtraction with Regrouping—pp. 213-216 5-6 Rewrite Two-Digit Subtraction—pp. 217-220 5-7 Break Apart to Subtract—pp. 221-224 5-8 Add to Check—pp. 225-228 5-9 Problem Solving: Write and Solve an Equation—pp. 229-234 Chapter 7: 7-5 7-5 Skip Count Within 1000—pp. 317-320 Chapter 15: 15-3 15-3 Time Patterns—pp. 573-576
 To use concepts based on patterns and place values to add and subtract (NOA 2.3, 2.5, 2.7) Add and subtract 3 digit numbers without regrouping Add and subtract 3 digit numbers with regrouping Round numbers to the nearest hundred Subtract 3 digit numbers with regrouping through zeroes Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/ or the relationship between addition and subtraction 	Chapter 8: 8-1 through 8-8 • 8-1 Mental Math: Add 1, 10, or 100-pp. 341-344 • 8-2 Add Hundreds, Tens, and Ones-pp. 345-348 • 8-3 Add: Regroup Ones as Tens-pp. 349-352 • 8-4 Regroup Tens as Hundreds Using Models-pp. 353-356 • 8-5 Add: Regroup Tens as Hundreds-pp. 357-360 • 8-6 Add: Regroup Tens as Hundreds-pp. 357-360 • 8-6 Add: Regroup Twice-pp. 363-366 • 8-7 Problem Solving: Make an Organized List-pp. 367-372 • 8-8 Use Properties to Add-pp. 373-376 Chapter 9: 9-1, 9-2 & 9-6 • 9-1 Mental Math: Subtract 1, 10, or 100-pp. 383-386 • 9-2 Subtract Hundreds, Tens, and Ones-pp. 387-390 • 9-3 Subtract: Regroup Tens as Ones-pp. 391-394 • 9-4 Regroup Hundreds as Tens Using Models-pp. 395-398 • 9-5 Subtract: Regroup Hundreds as Tens-pp. 399-402 • 9-6 Subtract: Regroup Twice-pp. 405-408 • 9-7 Subtract: Regroup with Zeros-pp. 409-412 • 9-8 Problem Solving: Represent the Situation-pp. 413-418 • 9-9 Use Addition to Check Subtraction: Three-Digit Numbers-pp. 419-422 <i>continued</i>



NUMBER THEORY, OPERATIONS, ALGEBRAIC THINKING (NOA) Grade 2 Standards Sadlier Math, Grade 2 See also Grade 3 Chapter 1: 1-1 through 1-6 • 1-4 Round Numbers to the Nearest Ten-pp. 10-11 • 1-5 Round Numbers to the Nearest Hundred—pp. 12-13 NOA 2.6 Use mathematical models to represent Chapter 1: 1-10 • 1-10 Patterns in Addition-pp. 43-46 and understand quantitative relationships Chapter 3: 3-5 To analyze how both repeating and growing • 3-5 Counting Patterns by 2s, 5s, and 10s-pp. 129-132 patterns are generated (NOA 2.6) Chapter 4: 4-1 & 4-4 • 4-1 Use Models: Add Tens and Ones-pp. 145-148 Describe attributes and relationships of objects • 4-4 Use Models: Two-Digit Addition with Regrouping-pp. 159-162 0 Sort, classify, and order objects and numbers based Chapter 5: 5-1 & 5-4 on one and two attributes and describe the rule used • 5-1 Use Models: Subtract Tens and Ones-pp. 195-198 \bigcirc Translate the same pattern from one representation • 5-4 Use Models: Two-Digit Subtraction with Regrouping-pp. (such as color) to another representation (such as 209-212 shape) Chapter 7: 7-5 Describe counting and number patterns • 7-5 Skip Count Within 1000-pp. 317-320 O Explore and solve problems involving simple number Chapter 15: 15-3 patterns. • 15-3 Time Patterns—pp. 573-576 O Identify objects with common or different attributes O Identify missing objects in a pattern To recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another (NOA 2.6) To develop, discuss, and use efficient, Chapter 4: 4-1 through 4-7 • 4-1 Use Models: Add Tens and Ones-pp. 145-148 accurate, and various methods to add and • 4-2 Add Tens and Ones-pp. 149-152 subtract multi-digit whole numbers (NOA 2.1, • 4-3 Regroup Ones as Tens-pp. 155-158 • 4-4 Use Models: Two-Digit Addition with Regrouping-pp. 159-162 2.2) • 4-5 Two-Digit Addition with Regrouping-pp. 163-166 • 4-6 Rewrite Two-Digit Addition-pp. 167-170 4-7 Break Apart to Add—pp. 171-174 Chapter 5: 5-1 through 5-9 • 5-1 Use Models: Subtract Tens and Ones-pp. 195-198 • 5-2 Subtract Tens and Ones-pp. 199-202 • 5-3 Regroup Tens as Ones-pp. 205-208 • 5-4 Use Models: Two-Digit Subtraction with Regrouping-pp. 209-212 • 5-5 Two-Digit Subtraction with Regrouping-pp. 213-216 5-6 Rewrite Two-Digit Subtraction—pp. 217-220 • 5-7 Break Apart to Subtract-pp. 221-224 • 5-8 Add to Check-pp. 225-228 • 5-9 Problem Solving: Write and Solve an Equation-pp. 229-234 continued



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	Chapter 8: 8-1 through 8-8 • 8-1 Mental Math: Add 1, 10, or 100-pp. 341-344 • 8-2 Add Hundreds, Tens, and Ones-pp. 345-348 • 8-3 Add: Regroup Ones as Tens-pp. 349-352 • 8-4 Regroup Tens as Hundreds Using Models-pp. 353-356 • 8-5 Add: Regroup Tens as Hundreds-pp. 357-360 • 8-6 Add: Regroup Twice-pp. 363-366 • 8-7 Problem Solving: Make an Organized List-pp. 367-372 • 8-8 Use Properties to Add-pp. 373-376
	 Chapter 9: 9-1, 9-2 & 9-6 9-1 Mental Math: Subtract 1, 10, or 100-pp. 383-386 9-2 Subtract Hundreds, Tens, and Ones-pp. 387-390 9-3 Subtract: Regroup Tens as Ones-pp. 391-394 9-4 Regroup Hundreds as Tens Using Models-pp. 395-398 9-5 Subtract: Regroup Hundreds as Tens-pp. 399-402 9-6 Subtract: Regroup Twice-pp. 405-408 9-7 Subtract: Regroup with Zeros-pp. 409-412 9-8 Problem Solving: Represent the Situation-pp. 413-418 9-9 Use Addition to Check Subtraction: Three-Digit Numbers-pp. 419-422
 NOA 2.7 Analyze change of quantity and quality using patterns To identify, describe, create, and extend a number of patterns (NOA 2.5, 2.7) To use number sentences to represent quantitative relationships (NOA 2.7) To use concepts based on patterns and place values to add and subtract (NOA 2.3, 2.5, 2.7) Identify number words to one hundred Identify and name place values: hundreds, tens and ones Add and subtract 3 digit numbers without regrouping Add and subtract 3 digit numbers with regrouping Subtract 3 digit numbers with regrouping through zeroes Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction 	 Chapter 1: 1-10 1-10 Patterns in Addition—pp. 43-46 Chapter 3: 3-5 3-5 Counting Patterns by 2s, 5s, and 10s—pp. 129-132 Chapter 5: 5-9 5-9 Problem Solving: Write and Solve an Equation—pp. 229-234 Chapter 7: 7-5 7-5 Skip Count Within 1000—pp. 317-320 Chapter 8: 8-1 through 8-8 8-1 Mental Math: Add 1, 10, or 100—pp. 341-344 8-2 Add Hundreds, Tens, and Ones—pp. 345-348 8-3 Add: Regroup Ones as Tens—pp. 349-352 8-4 Regroup Tens as Hundreds Using Models—pp. 353-356 8-5 Add: Regroup Tens as Hundreds—pp. 357-360 8-6 Add: Regroup Tens as Hundreds—pp. 357-360 8-7 Problem Solving: Make an Organized List—pp. 367-372 8-8 Use Properties to Add—pp. 373-376 Chapter 9: 9-1, 9-2 & 9-6 9-1 Mental Math: Subtract 1, 10, or 100—pp. 383-386 9-2 Subtract: Regroup Tens as Ones—pp. 391-394 9-4 Regroup Hundreds as Tens Using Models—pp. 395-398 9-5 Subtract: Regroup Hundreds as Tens—pp. 399-402 9-6 Subtract: Regroup WitZeros—pp. 405-408 9-7 Subtract: Regroup WitZeros—pp. 409-412 9-8 Problem Solving: Represent the Situation—pp. 413-418 9-9 Use Addition to Check Subtraction: Three-Digit Numbers—pp. 419-422
	Cnapter 15: 15-3 15-3 Time Patterns—pp. 573-576

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NUMBER THEORY, OPERATIONS, ALGEBRAIC THINKING (NOA)

Grade 2 Standards

Sadlier Math, Grade 2

 NOA 2.8 Use addition and subtraction with commutative and associative properties to determine equivalence and solve To develop fact families using inverse relationships (NOA 2.8, 2.3, 2.4) To identify and represent quantities as equivalent or nonequivalent (NOA 2.8) Read and write number words to one hundred or beyond; read and write numerals to 999 Identify and use symbols of inequality (<, >,) Use concrete, pictorial, and verbal examples to demonstrate an understanding that = is a relationship that indicates equivalence Demonstrate balance or equivalence using models Identify and use symbols of inequality (<, >) Identify and use symbols of inequality (<, >) 	 Chapter 1: 1-3 1-3 Related Addition Facts—pp. 11-14 (equivalence) Chapter 3: 3-3 & 3-4 3-3 Compare Numbers—pp. 119-122 3-4 Order Numbers Within 100—pp. 125-128 Chapter 8: 8-1 through 8-8 8-1 Mental Math: Add 1, 10, or 100—pp. 341-344 8-2 Add Hundreds, Tens, and Ones—pp. 345-348 8-3 Add: Regroup Ones as Tens—pp. 349-352 8-4 Regroup Tens as Hundreds Using Models—pp. 353-356 8-5 Add: Regroup Tens as Hundreds—pp. 357-360 8-6 Add: Regroup Twice—pp. 363-366 8-7 Problem Solving: Make an Organized List—pp. 367-372 8-8 Use Properties to Add—pp. 373-376 Chapter 9: 9-1 through 9-9 9-1 Mental Math: Subtract 1, 10, or 100—pp. 383-386 9-2 Subtract: Regroup Tens as Ones—pp. 391-394 9-4 Regroup Hundreds as Tens Using Models—pp. 395-398 9-5 Subtract: Regroup Twice—pp. 405-408 9-7 Subtract: Regroup Twice—pp. 405-408 9-9 Use Addition to Check Subtraction: Three-Digit Numbers—pp. 419-422
 Students will identify and use equivalent representations of numbers to estimate and compute. (NOA 2.8) Balance simple number sentences by finding the missing numbers Identify missing numbers to 20 in addition and subtraction sentences and justify the answer Determine and justify the missing addition/ subtraction signs in addition and subtraction sentences Identify and justify missing numbers in addition and subtraction sentences 	 Chapter 1: 1-9 & 1-10 1-9 Solve for Unknown Addends—pp. 39-42 1-10 Patterns in Addition—pp. 43-46 Chapter 2: 2-10 2-10 Solve for Unknowns—pp. 91-94 See also Grade 3 Chapter 1: 1-4 & 1-5 1-4 Round Numbers to the Nearest Ten—pp. 10-11 1-5 Round Numbers to the Nearest Hundred—pp. 12-13 Chapter 2: 2-1 2-3 Estimate Sums—pp. 26-27 Chapter 3: 3-1 3-1 Estimate Differences—pp. 46-47
 NOA 2.9 Use fractions to draw conclusions about fairness and equity of resources To apply fractions to draw conclusions about fairness of resources (NOA 2.9) Model equivalent fractions (using manipulatives, pictures, graphics, etc.) Place fractions (halves, thirds, and fourths) on a number line 	 Chapter 14: 14-1 through 14-5 14-1 Partition Rectangles into Rows and Columns—pp. 585-588 14-2 Halves—pp. 589-592 14-3 Thirds—pp. 595-598 14-4 Fourths—pp. 599-602 14-5 Problem Solving: Compare Models—pp. 603-608





NUMBER THEORY, OPERATIONS, ALGEBRAIC THINKING (NOA) Grade 2 Standards Sadlier Math, Grade 2 See Grade 3 Enrichment **Chapter 3: Enrichment** To recognize and explore Roman numerals Roman Numerals—online O Identify Roman numerals I, V, and X Read and write Roman numerals to 30 \bigcirc **MEASUREMENT (M) Grade 2 Standards** Sadlier Math, Grade 2 M.2.1 Use appropriate tools to measure and Chapter 6: 6-1 through 6-9 • 6-1 Inches-pp. 241-244 estimate length, volume, and capacity in • 6-2 Feet and Yards-pp. 245-248 standard and nonstandard units. • 6-3 Customary: Choose Tools and Units of Measure-pp. 249-252 Identify cup, pint, quart, liter and gallon and relate to • 6-4 Centimeters-pp. 253-256 0 • 6-5 Meters-pp. 257-260 their use in real life • 6-6 Metric: Choose Tools and Units of Measure-pp. 261-264 Compare and order objects according to capacity \bigcirc • 6-7 Measure Using Different Units-pp. 267-270 and/or weight • 6-8 Compare Lengths-pp. 271-274 O Demonstrate balance or equivalence using models • 6-9 Add and Subtract Lengths-pp. 275-278 O Identify pound as a unit of measure and relate use in See also Grade 3 real life Chapter 11: 11-1, 11-3 Supplemental: Read Fahrenheit and Celsius 0 • 11-1 Measure Length—pp. 232-233 thermometers • 11-2 Estimate and Measure Liquid Volume-pp. 234-235 • 11-3 Operations with Liquid Volume-pp. 236-237 • 11-4 Estimate and Measure Mass-pp. 240-241 • 11-5 Operations with Mass-pp. 242-243 See also Grade 4 Chapter 15: 15-4 • 15-4 Temperature-pp. 330-331 (Fahrenheit and Celsius) M.2.2 Relate addition and subtraction to length, Chapter 6: 6-9 & 6-12 • 6-9 Add and Subtract Lengths-pp. 275-278 time, and/or money • 6-12 Add and Subtract on a Number Line Diagram—pp. 289–292 Chapter 12: 12-6 12-6 Add and Subtract Money—pp. 517-520





MEASUREMENT (M)

Grade 2 Standards

Recognize, name, compare, and sort: cube, cylinder, cone sphere, rectangular prism, and pyramid
 Identify, model/construct geometric solids by the

Describe the relationship between plane and solid

O Describe plane and solid figures by number of sides

Identify corners, sides, and points inside and outside

Identify and create open and closed figures

attributes: face, edge, and vertices

O Classify plane figures by size and shape

0

0

0

figures

and/or faces

of a figure

Sadlier Math, Grade 2

 M.2.3 Solve problems including measurement, time, and/or money To recognize, identify and trade sets of equivalent coins (M 2.3) Count and show money to one dollar Find equivalent sets of coins Use dollar sign Use decimal point in writing money amounts Make change up to \$1.00 To express monetary values in oral and written forms (M 2.3) 	Chapter 12: 12-1 & 12-4 • 12-1 Pennies, Nickels, and Dimes—pp. 497-500 • 12-2 Quarters—pp. 501-504 • 12-3 Equal Amounts—pp. 505-508 • 12-4 Compare Money—pp. 509-512 • 12-5 Make Change—pp. 513-516 • 12-6 Add and Subtract Money—pp. 517-520 • 12-7 One Dollar—pp. 521-524 • 12-8 Paper Money—pp. 525-528 • 12-9 Hour and Half Hour—pp. 531-534 • 12-10 Five Minutes—pp. 535-538 • 12-11 a.m. and p.m.—pp. 539-542 • 12-12 Problem Solving: Work Backward—pp. 543-548
GEOMETRY (G)	
Grade 2 Standards	Sadlier Math, Grade 2
G 2.1 Analyze characteristics and properties of two and three dimensional geometric shapes and develop mathematical arguments about relationships	Chapter 13: 13-1 through 13-10 • 13-1 Identify Two-Dimensional Shapes—pp. 555-558 • 13-2 Draw Two-Dimensional Shapes—pp. 559-562 • 13-3 Identify Three-Dimensional Shapes—pp. 565-568 • 13-4 Faces, Edges, Vertices—pp. 569-572 • 13-5 Problem Solving: Use Logical Reasoning—pp. 573-578
 To classify and identify plane figures and 	

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GEOMETRY (G)

Grade 2 Standards	Sadlier Math, Grade 2
G 2.2 Apply transformations and use symmetry to analyze mathematical situationsTo identify shapes as the same where there	N/A
 are changes in position (G 2.2) Recognize, apply and manipulate slides, flips and turns Explore, identify and draw lines of symmetry in simple shapes and forms Recognize and create simple figures and drawings with symmetry Identify translations, rotations, and reflections 	
 G 2.3 Use visualization, spatial reasoning, and geometric modeling to solve problems Find the area of squares and rectangles by modeling and counting square units Demonstrate ways to fill a region with different shapes Model and identify the perimeter of a polygon 	 See Grade 3 Chapter 15: 15-1 through 15-5 15-1 Understand Area—pp. 312-313 15-2 Find Area Using Standard Units—pp. 314-315 15-3 Find the Area of a Rectangle and a Square—pp. 316-317 15-4 Find Area Using the Distributive Property—pp. 320-321 15-5 Find Area of Composite Shapes—pp. 322-323 Chapter 16: 16-1 through 16-6 16-1 Understand Perimeter—pp. 332-333 16-2 Find Unknown Side Lengths—pp. 336-337 16-4 Problem Solving: Compare Strategies—pp. 340-341 16-5 Same Perimeter, Different Areas—pp. 342-343 16-6 Same Area, Different Perimeters—pp. 344-345



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DATA ANALYSIS, STATISTICS, & PROBABILITY (DSP)

Grade 2 Standards

Sadlier Math, Grade 2

 DP 2.1 Select and use appropriate methods to collect, organize, and analyze data To collect, organize, and describe data (DP 2.1) Read and interpret vertical graphs, pictographs Conduct simple surveys to gather data Create a tally chart using given data Create simple (picture, bar) graphs from given data Use a Venn diagram and other graphic organizers to sort items Demonstrate and explain survey findings Use range and mode to explain data Identify events as certain, possible or impossible, fair or unfair (If a bowl is filled with red M&M's, is it possible to pick a red M&M from the bowl? A green M&M?) Predict sample data 	 Chapter 11: 11-1, 11-3 11-1 Read Line Plots—pp. 459-462 11-2 Make Line Plots—pp. 463-466 11-3 Read Picture Graphs—pp. 467-470 11-4 Make Picture Graphs—pp. 471-474 11-5 Read Bar Graphs—pp. 477-480 11-6 Make Bar Graphs—pp. 481-484 11-7 Problem Solving: Choose a Model—pp. 485-490 See also Grade 3 Chapter 12: 12-1 through 12-8 12-1 Read Picture Graphs—pp. 252-253 12-2 Make Picture Graphs—pp. 254-255 12-3 Read Bar Graphs—pp. 258-259 12-4 Make Bar Graphs—pp. 266-257 12-5 Data and Two-Step Problems—pp. 260-261 12-6 Problem Solving: Compare Models—pp. 264-265 12-7 Read Line Plots—pp. 268-269 See also Grade 4 Chapter 15: 15-5 through 15-7 15-5 Line Graphs—pp. 336-337 15-7 Surveys and Line Plots—pp. 338-339
 DP 2.2 Develop and evaluate inferences and predictions that are based on data To pose questions to be answered through collection and analysis of data (DP 1.2) Conduct simple surveys to gather data 	See Grade 4 Chapter 15: 15-5 through 15-7 • 15-5 Line Graphs—pp. 334-335 • 15-6 Line Plots—pp. 336-337 • 15-7 Surveys and Line Plots—pp. 338-339
 DP 2.3 Understand and apply basic concepts of probability To determine the likelihood of certain events through games and simple experiments (DP 1.3) 	See Grade 6 Chapter 18: 18-3 through 18-7 • 18-3 Probability and Likelihood—online • 18-4 Theoretical Probability—online • 18-5 Relative Frequency and Experimental Probability—online • 18-6 Uniform Probability Models—online • 18-7 Non-Uniform Probability Models—online

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