SADLIER

Progress in Mathematics

Aligned to the

Archdiocese of Detroit

Second Grade Mathematics Standards

Grade 2

Sadlier

William H. Sadlier, Inc.

www.sadlierschool.com

800-221-5175

Operations and Algebraic Thinking

Archdiocese of Detroit: Second Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 2
Represent and solve problems involving addition and subtraction.	
2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	**1-1 Addition Concepts**—pp. 3–4 Objective(s): To add numbers with sums to 12. **1-2 Problem Solving: Read and Write in Math: Find Extra Information**—pp. 5–6 Objective(s): To use the reading strategy of rereading to help solve math problems. **1-7 Doubles Facts**—pp. 17–18 Objective(s): To use *doubles* strategy to find sums. ***1-11A Add or Subtract to Compare**—Online Objective(s): To subtract and compare two numbers. To add or subtract to find a missing number in a comparison situation when the difference is known. **1-12 Count Back to Subtract**—pp. 29–30 Objective(s): To use *count back* strategy to find differences from 12 or less. **1-14 Relate Addition and Subtraction**—pp. 33–34 Objective(s): To identify, solve, and write related addition and subtraction facts. **1-15 Use Addition to Check**—pp. 35–36 Objective(s): To use addition to check subtraction. **1-16 Count Up to Subtract**—pp. 39–40 Objective(s): To count up to subtract. ***1-16B Writing a Number Sentence**—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position. To write an equation to solve addition and subtraction word problems. **1-18 Missing Addends**—pp. 43–44 Objective(s): To count up or use a subtraction fact to find missing addends. ***1-18A Use a Bar Model**—Online Objective(s): To use a bar model to solve addition and subtraction word problems. To use an equation to represent addition and subtraction problems. **4-1 Add Ones and Tens**—pp. 155–156 Objective(s): To add ones and tens without regrouping. **4-2 Mental Math Addition**—pp. 157–158 Objective(s): To use mental math strategies to add. **4-4 Problem Solving: Read and Write in Math: Find Hidden Information**—pp. 161–162 Objective(s): To use the reading skill of finding hidden information to solve a problem. **4-6 Regroup Ones as Tens**—pp. 165–166 Objective(s): To add tens and ones, regrouping ones. ***4-6A Mental Math: Add Two-Digit Numbers**—Online Objective(s): To add a two-digit number by decomposing the number into tens and ones and adding mentally. ***4-6B Mental Math: Use Compensation**—Online Objective(s): To add two two-digit numbers by adding tens and counting back. **4-9 Three Addends**—pp. 173–174 Objective(s): To add three numbers with and without regrouping.

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Operations and Algebraic Thinking

Archdiocese of Detroit: Second Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 2
	4-12 Problem Solving Strategy: Use More Than One Step—pp. 181–182 Objective(s): To solve problems using more than one step. **5-1 Subtract Tens and Ones**—p. 195 Objective(s): To subtract 2-digit numbers without regrouping. **5-6 Regroup Tens as Ones**—pp. 205–206 Objective(s): To subtract two-digit numbers, with regrouping. To subtract one-digit numbers from two-digit numbers, with regrouping. ***5-6A Mental Math: Subtract Two-Digit Numbers**—Online Objective(s): To subtract a two-digit number by decomposing the number into tens and ones and subtracting mentally **5-8 Rewrite Two–Digit Subtraction**—pp. 211–212 Objective(s): To rewrite two-digit subtraction from horizontal form to vertical form and subtract. **5-9 Add to Check**—pp. 213–214 Objective(s): To use addition to check subtraction. **5-12 Problem Solving: Read and Write in Math: Ask a Question**—pp. 221–222 Objective(s): To ask an addition or subtraction question to complete a math problem. ***11-18A Solve Two-Step Problems**—Online Objective(s): To use drawings and equations to represent and solve two-step problems (within 100).
Add and subtract within 20.	
2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	**Skills Update: Addition Facts to 10**—p. A **1-1 Addition Concepts**—pp. 3–4 Objective(s): To add numbers with sums to 12. **1-2 Problem Solving: Read and Write in Math: Find Extra Information**—pp. 5–6 Objective(s): To use the reading strategy of rereading to help solve math problems. **1-3 Related Addition Facts**—pp. 7–8 Objective(s): To solve and write related addition facts. **1-4 Count On to Add**—pp. 9–10 Objective(s): To use the *count on* strategy to find sums. **1-5 Extend Facts to 20**—pp. 11–12 Objective(s): To add numbers with sums to 20. **1-6 Make 10 to Add**—pp. 15–16 Objective(s): To use the *make 10* strategy to find sums. **1-7 Doubles Facts**—pp. 17–18 Objective(s): To use *doubles* strategy to find sums. **1-8 Doubles + 1, Doubles –1**—pp. 19–20 Objective(s): To use the *doubles + 1* and *doubles - 1* strategies to find sums. **1-9 Three Addends**—pp. 21–22 Objective(s): To add a column of 3 numbers. **1-10 Four Addends**—pp. 23–24 Objective(s): To add a column of 4 numbers. **1-11 Subtraction Concepts**—pp. 27–28 Objective(s): To subtract numbers from 12 or less.

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Operations and Algebraic Thinking

Archdiocese of Detroit: Second Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 2
	***1-11A Add or Subtract to Compare**—Online Objective(s): To subtract and compare two numbers. To add or subtract to find a missing number in a comparison situation when the difference is known. **1-12 Count Back to Subtract**—pp. 29–30 Objective(s): To use *count back* strategy to find differences from 12 or less. **1-13 Related Subtraction Facts**—pp. 31–32 Objective(s): To solve and write related subtraction facts. **1-14 Relate Addition and Subtraction**—pp. 33–34 Objective(s): To identify, solve, and write related addition and subtraction facts. ***1-14A Think Addition to Subtract**—Online Objective(s): To use addition facts to find differences. **1-15 Use Addition to Check**—pp. 35–36 Objective(s): To use addition to check subtraction. **1-16 Count Up to Subtract**—pp. 39–40 Objective(s): To count up to subtract. ***1-16A Make 10 to Subtract**—Online Objective(s): To use the Make 10 strategy to find differences. ***1-16B Writing a Number Sentence**—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position. To write an equation to solve addition and subtraction word problems. **1-17 Fact Families**—pp. 41–42 Objective(s): To identify and write fact families. **1-18 Missing Addends**—pp. 43–44 Objective(s): To count up or use a subtraction fact to find missing addends. ***1-18A Use a Bar Model**—Online Objective(s): To use a bar model to solve addition and subtraction word problems. To use an equation to represent addition and subtraction problems. **1-19 Fact Patterns**—pp. 45–46 Objective(s): To recognize and complete number patterns. To identify and use patterns to complete addition and subtraction facts.
Work with equal groups of objects to gain foundations for multiplication.	
2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	**Introduction to Problem Solving: Problem-Solving Strategy: Write a Number Sentence**—SE p. D ***1-16B Writing a Number Sentence**—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position. To write an equation to solve addition and subtraction word problems. ***2-12A Model Even and Odd**—Online Objective(s): To determine if a group of objects (up to 20) has an odd or an even number of members. To write an equation to express an even number as a sum of two equal addends.

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Operations and Algebraic Thinking

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		2-13 Even and Odd Numbers—pp. 93–94 Objective(s): To identify even and odd numbers.
2.OA.C.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	**Introduction to Problem Solving: Problem-Solving Strategy: Write a Number Sentence**—SE p. D ***1-16B Writing a Number Sentence**—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position. To write an equation to solve addition and subtraction word problems. **12-1 Multiplication as Repeated Addition**—pp. 549–550 Objective(s): To explore the concept of multiplication as repeated addition. ***12-1A Use an Array Model**—Online Objective(s): To use addition to find the total number of objects in a rectangular array.
2.OA.C.5	Understand division as another way of expressing multiplication, using fact families.	**12-15 Relate Multiplication and Division**—pp. 579–580 Objective(s): To relate multiplication and division. To recognize that multiplication and division are inverse operations.
2.OA.C.6	Given a situation involving groups of equal size or of sharing equally, represent with objects, words, symbols; solve	**Skills Update: Equal Groups**—p. M **12-9 Separate Groups of 2**—pp. 567–568 Objective(s): To explore the concept of division as separating. To divide by 2. **12-10 Separate Groups of 3**—pp. 569–570 Objective(s): To explore the concept of division as separating. To divide by 3. **12-11 Separate Groups of 4**—pp. 571–572 Objective(s): To explore the concept of division as separating. To divide by 4. **12-12 Separate Groups of 5**—pp. 573–574 Objective(s): To explore the concept of division as separating. To divide by 5.
2.OA.C.7	Develop strategies for fluently multiplying numbers up to 5 x 5.	***12-1A Use an Array Model**—Online Objective(s): To use addition to find the total number of objects in a rectangular array. **12-2 Multiply Groups of 2**—pp. 551–552 Objective(s): To multiply twos. **12-3 Multiply Groups of 3**—pp. 553–554 Objective(s): To multiply threes. **12-4 Problem Solving: Read and Write in Math: Visualize**—pp. 555–556 Objective(s): To solve problems using the skill of visualizing. **12-5 Multiply Groups of 4**—pp. 557–558 Objective(s): To multiply fours. **12-6 Multiply Groups of 5**—pp. 559–560 Objective(s): To multiply fives. **12-7 Related Multiplication Facts**—pp. 561–562 Objective(s): To use the commutative (order) property of multiplication. To use a multiplication table.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
Understand the place value system.		
2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:	
2.NBT.A.1a	100 can be thought of as a bundle of ten tens — called a "hundred."	**2-1 Tens and Ones**—pp. 65–66 Objective(s): To identify a group of 10 ones as 1 ten. To group ones as tens and ones. **2-2 Place Value**—pp. 67–68 Objective(s): To identify the place and value of each digit in numbers to 99 using place-value models. **8-1 Hundreds**—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred. To read and write numbers and number words for 100-900. To recognize place value of numbers to 900. ***8-1A Make Hundreds**—Online Objective(s): To recognize 10 tens as 1 hundred. To recognize a multiple of ten tens as a number of hundreds. To recognize place value of hundreds to 900. **8-2 Hundreds, Tens, and Ones**—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999. To recognize place value of numbers to 999. **8-3 Place Value of Three–Digit Numbers**—pp. 353–354 Objective(s): To identify the place value of a designated digit in a three-digit number. **8-4 Expanded Form with Hundreds, Tens, and Ones**—pp. 355–356 Objective(s): To write three-digit numbers in expanded form.
2.NBT.A.1b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	**8-1 Hundreds**—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred. To read and write numbers and number words for 100-900. To recognize place value of numbers to 900. ***8-1A Make Hundreds**—Online Objective(s): To recognize 10 tens as 1 hundred. To recognize a multiple of ten tens as a number of hundreds. To recognize place value of hundreds to 900. **8-2 Hundreds, Tens, and Ones**—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999. To recognize place value of numbers to 999. **8-3 Place Value of Three–Digit Numbers**—pp. 353–354 Objective(s): To identify the place value of a designated digit in a three-digit number. **8-4 Expanded Form with Hundreds, Tens, and Ones**—pp. 355–356 Objective(s): To write three-digit numbers in expanded form.
2.NBT.A.2	Count within 1000; skip-count by 5s, 10s, and 100s.	**2-15 Counting Patterns** (hundred chart, count by 10s)—pp. 97–98 Objective(s): To count and complete number patterns. To continue patterns and explain the patterns.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		8-1 Hundreds—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred. To read and write numbers and number words for 100-900. To recognize place value of numbers to 900. **8-2 Hundreds, Tens, and Ones** (count by 100s)—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999; to recognize place value of numbers to 999. ***8-4A Skip Count to 1000**—Online Objective(s): To skip count by 5s, 10s, and 100s to 1000. **8-5 Counting Patterns with 3–Digit Numbers** (10s, 100s)—pp. 357–358 Objective(s): To count by 1s, 10s, 25s, 50s, and 100s. **9-2 Count On 1, 10, and 100**—pp. 385–386 Objective(s): To count on by 1s, 10s, and 100s.
2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	**Skills Update: Number Words to Twenty**—p. C **2-3 Number Words Twenty to Forty–Nine—pp. 69–70** Objective(s): To read and write numbers 20-49 using numbers and number words. To recognize the numbers 20-49 expressed as tens and ones. **2-4 Number Words Fifty to Ninety–Nine—pp. 71–72** Objective(s): To read and write numbers 50-99 using numbers and number words. To recognize the numbers 50-99 expressed as tens and ones. **2-6 Place Value of Two–Digit Numbers—pp. 75–76** Objective(s): To determine the value of a designated digit in a two-digit number. **2-7 Expanded Form**—pp. 77–78 Objective(s): To write the expanded form of 2-digit numbers. **8-1 Hundreds**—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred; to read and write numbers and number words for 100-900. To recognize place value of numbers to 900. ***8-1A Make Hundreds**—Online Objective(s): To recognize 10 tens as 1 hundred; to recognize a multiple of ten tens as a number of hundreds. To recognize place value of hundreds to 900. **8-2 Hundreds, Tens, and Ones**—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999. To recognize place value of numbers to 999. **8-3 Place Value of Three–Digit Numbers**—pp. 353–354 Objective(s): To identify the place value of a designated digit in a three-digit number. **8-4 Expanded Form with Hundreds, Tens, and Ones**—pp. 355–356 Objective(s): To write three-digit numbers in expanded form.
2.NBT.A.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	**Skills Update: Greater or Less**—p. D **2-8 Compare Numbers**—pp. 81–82 Objective(s): To compare numbers using the symbols <, =, and >. **2-9 Order Using a Number Line**—pp. 83–84 Objective(s): To compare and order numbers to 100. **2-10 Order Using Models**—pp. 85–86 Objective(s): To compare and order numbers to 100 using models.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		***8-5A Use Benchmark Numbers to Compare**—Online Objective(s): To compare two 3-digit numbers by comparing them to benchmark numbers. **8-6 Compare Numbers to 1000**—pp. 361–362 Objective(s): To compare two 3-digit numbers using symbols <, >, and =. **8-7 Order to 1000**—pp. 363–364 Objective(s): To order 3-digit numbers from greatest to least and from least to greatest. **Connection: Math and Science** (compare)—p. 106
2.NBT.A.5	Round numbers to hundreds place.	**2-12 Round to the Nearest Ten**—pp. 89–90 Objective(s): To use a number line to round to the nearest ten. **8-9 Round to the Nearest Hundred**—pp. 367–368 Objective(s): To round numbers to the nearest hundred.
2.NBT.A.6	Count orally by 3's and 4's starting with 0, and by 2's, 5's, and 10's starting from any whole number.	**2-14 Count by 3s and 4s**—pp. 95–96 Objective(s): To count to 100 by 3s and 4s using a hundred chart and real-world objects. **2-15 Counting Patterns** (hundred chart, count by 10s)—pp. 97–98 Objective(s): To count and complete number patterns. ***8-4A Skip Count to 1000**—Online Objective(s): To skip count by 5s, 10s, and 100s to 1000. **8-5 Counting Patterns with 3–Digit Numbers** (10s, 100s)—pp. 357–358 Objective(s): To count by 1s, 10s, 25s, 50s, and 100s. **9-2 Count On 1, 10, and 100**—pp. 385–386 Objective(s): To count on by 1s, 10s, and 100s. To continue patterns and explain the patterns.
Use Place Value Understanding and Properties of Operations to Add and Subtract		
2.NBT.B.7	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**4-1 Add Ones and Tens**—pp. 155–156 Objective(s): To add ones and tens without regrouping. **4-2 Mental Math Addition**—pp. 157–158 Objective(s): To use mental math strategies to add. **4-3 Regroup Ones as Tens: Use Models**—pp. 159–160 Objective(s): To regroup ones as tens using models. **4-4 Problem Solving: Read and Write in Math: Find Hidden Information**—pp. 161–162 Objective(s): To use the reading skill of finding hidden information to solve a problem. **4-5 Regroup Ones as Tens: Model and Record**—pp. 163–164 Objective(s): To add tens and ones, regrouping ones. **4-6 Regroup Ones as Tens**—pp. 165–166 Objective(s): To add tens and ones, regrouping ones. ***4-6A Mental Math: Add Two-Digit Numbers**—Online Objective(s): To add a two-digit number by decomposing the number into tens and ones and adding mentally. ***4-6B Mental Math: Use Compensation**—Online Objective(s): To add two two-digit numbers by adding tens and counting back. **4-7 Estimate Sums**—pp. 169–170 Objective(s): To estimate sums of 2 two-digit numbers. **4-8 Rewrite Two–Digit Addition**—pp. 171–172 Objective(s): To rewrite two-digit addition from horizontal to vertical and add.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		4-9 Three Addends—pp. 173–174 Objective(s): To add three numbers with and without regrouping. **4-10 Add: Choose the Method**—pp. 177–178 Objective(s): To explore methods for finding sums, with and without regrouping. **5-1 Subtract Tens and Ones**—p. 195 Objective(s): To subtract 2-digit numbers without regrouping. **5-2 Mental Math Subtraction**—pp. 197–198 Objective(s): To use mental math strategies to subtract ones and tens. **5-3 Ways to Make Numbers**—pp. 199–200 Objective(s): To identify more than one way to write a number. **5-4 Regroup Tens as Ones: Use Models**—pp. 201–202 Objective(s): To use models to regroup 1 ten as 10 ones. **5-5 Regroup Tens as Ones: Model and Record**—pp. 203–204 Objective(s): To subtract 2-digit numbers, with regrouping. **5-6 Regroup Tens as Ones**—pp. 205–206 Objective(s): To subtract two-digit numbers, with regrouping. To subtract one-digit numbers from two-digit numbers, with regrouping. ***5-6A Mental Math: Subtract Two-Digit Numbers**—Online Objective(s): To subtract a two-digit number by decomposing the number into tens and ones and subtracting mentally **5-7 Estimate Differences**—pp. 209–210 Objective(s): To estimate differences of 2 two-digit numbers **5-8 Rewrite Two–Digit Subtraction**—pp. 211–212 Objective(s): To rewrite two-digit subtraction from horizontal form to vertical form and subtract. **5-9 Add to Check**—pp. 213–214 Objective(s): To use addition to check subtraction. **5-10 Subtraction Practice**—pp. 215–216 Objective(s): To practice subtraction with two-digit numbers, with and without regrouping. **5-11 Chain Operations**—pp. 217–218 Objective(s): To solve chain operations involving addition and subtraction. **5-13 Choose the Method**—pp. 223–224 Objective(s): To choose the most efficient computational method to add or subtract: mental math or paper and pencil.
2.NBT.B.8	Add up to four two-digit numbers using strategies based on place value and properties of operations.	**4-9 Three Addends**—pp. 173–174 Objective(s): To add three numbers with and without regrouping. ***4-9A Four Addends**—Online Objective(s): To add 2-digit numbers (up to 4 addends), within 100.
2.NBT.B.9	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	**9-1 Add Hundreds, Tens, and Ones**—pp. 383–384 Objective(s): To add 3-digit numbers without regrouping. To use mental math strategies to add 3-digit numbers. **9-2 Count On 1, 10, and 100**—pp. 385–386 Objective(s): To count on by 1s, 10s, and 100s. To continue patterns and explain the patterns. **9-3 Add: Regroup Ones as Tens**—pp. 387–388 Objective(s): To add 3-digit numbers, regrouping ones as tens. **9-4 Regroup Tens as Hundreds Using Models**—pp. 389–390 Objective(s): To explore regrouping tens as hundreds, using models. **9-5 Add: Regroup Tens as Hundreds**—pp. 391–392 Objective(s): To add 3-digit numbers, regrouping tens as hundreds. ***9-5A Draw Pictures to Add**—Online Objective(s): To draw pictures to represent regrouping twice in addition.

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Number and Operations in Base Ten

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		9-6 Add: Regroup Twice—pp. 393–394 Objective(s): To add 3-digit numbers, regrouping twice. ***9-6A Using Properties to Add**—Online Objective(s): To use the associative property to decompose a number that is being added to another number. **9-7 Add Money: No Regrouping**—pp. 397–398 Objective(s): To add money amounts without regrouping. **9-8 Problem Solving: Read and Write in Math: Find Needed Information**—pp. 399–400 Objective(s): To use the strategy of rereading to find information in a problem. **9-9 Add Money: Regroup Dimes or Pennies**—pp. 401–402 Objective(s): To add money amounts, regrouping once. **9-10 Add Money: Regroup Twice**—pp. 403–404 Objective(s): To add money amounts, regrouping twice. **9-11 Subtract Hundreds, Tens, and Ones**—pp. 407–408 Objective(s): To subtract 3-digit numbers without regrouping. **9-12 Count Back 1, 10, and 100**—pp. 409–410 Objective(s): To count back by 1s, 10s, and 100s. To continue patterns and explain the patterns. **9-13 Subtract: Regroup Tens as Ones**—pp. 411–412 Objective(s): To subtract 3-digit numbers, regrouping tens as ones. **9-14 Regroup Hundreds as Tens Using Models**—pp. 413–414 Objective(s): To explore regrouping hundreds as tens, using models. ***9-14A Draw Pictures to Subtract**—Online Objective(s): To draw pictures to represent regrouping in subtraction. **9-15 Subtract: Regroup Hundreds as Tens**—pp. 415–416 Objective(s): To subtract 3-digit numbers, regrouping hundreds as tens. **9-16 Subtract: Regroup Twice**—pp. 417–418 Objective(s): To subtract 3-digit numbers, regrouping twice. ***9-16A Add to Check Subtraction**—Online Objective(s): To use the relationship between addition and subtraction to check a difference. **9-17 Subtract Money: Regroup Dollars or Dimes**—pp. 421–422 Objective(s): To subtract money amounts, regrouping once. **9-18 Subtract Money: Regroup Twice**—pp. 423–424 Objective(s): To subtract money amounts, regrouping twice. **9-19 Estimate to Add or Subtract**—pp. 425–426 Objective(s): To round 3-digit numbers to the nearest hundred. To estimate sums and differences of 3-digit numbers. **9-20 Problem Solving Strategy: Use Logical Reasoning**—pp. 427–428 Objective(s): To use logical reasoning to solve a problem. **9-21 Problem Solving Applications: Mixed Strategies**—pp. 429–430 **Ch. 9 Enrichment: Add Three 3-Digit Addends**—p. 436
2.NBT.B.10	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	**2-15 Counting Patterns** (hundred chart, count by 10s)—pp. 97–98 Objective(s): To count and complete number patterns. ***8-4A Skip Count to 1000**—Online Objective(s): To skip count by 5s, 10s, and 100s to 1000. **8-5 Counting Patterns with 3–Digit Numbers** (10s, 100s)—pp. 357–358 Objective(s): To count by 1s, 10s, 25s, 50s, and 100s. **9-2 Count On 1, 10, and 100**—pp. 385–386 Objective(s): To count on by 1s, 10s, and 100s. To continue patterns and explain the patterns.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		***9-5A Draw Pictures to Add**—Online Objective(s): To draw pictures to represent regrouping twice in addition. **9-12 Count Back 1, 10, and 100**—pp. 409–410 Objective(s): To count back by 1s, 10s, and 100s; to continue patterns and explain the patterns. ***9-14A Draw Pictures to Subtract**—Online Objective(s): To draw pictures to represent regrouping in subtraction.
2.NBT.B.11	Explain why addition and subtraction strategies work, using place value and the properties of operations.	***4-9A Four Addends**—Online Objective(s): To add 2-digit numbers (up to 4 addends), within 100. **9-1 Add Hundreds, Tens, and Ones**—pp. 383–384 Objective(s): To add 3-digit numbers without regrouping. To use mental math strategies to add 3-digit numbers. **9-2 Count On 1, 10, and 100**—pp. 385–386 Objective(s): To count on by 1s, 10s, and 100s. To continue patterns and explain the patterns. **9-3 Add: Regroup Ones as Tens**—pp. 387–388 Objective(s): To add 3-digit numbers, regrouping ones as tens. **9-4 Regroup Tens as Hundreds Using Models**—pp. 389–390 Objective(s): To explore regrouping tens as hundreds, using models. **9-5 Add: Regroup Tens as Hundreds**—pp. 391–392 Objective(s): To add 3-digit numbers, regrouping tens as hundreds. **9-6 Add: Regroup Twice**—pp. 393–394 Objective(s): To add 3-digit numbers, regrouping twice. ***9-6A Using Properties to Add**—Online Objective(s): To use the associative property to decompose a number that is being added to another number. **9-11 Subtract Hundreds, Tens, and Ones**—pp. 407–408 Objective(s): To subtract 3-digit numbers without regrouping. **9-12 Count Back 1, 10, and 100**—pp. 409–410 Objective(s): To count back by 1s, 10s, and 100s. To continue patterns and explain the patterns. **9-13 Subtract: Regroup Tens as Ones**—pp. 411–412 Objective(s): To subtract 3-digit numbers, regrouping tens as ones. **9-14 Regroup Hundreds as Tens Using Models**—pp. 413–414 Objective(s): To explore regrouping hundreds as tens, using models. **9-15 Subtract: Regroup Hundreds as Tens**—pp. 415–416 Objective(s): To subtract 3-digit numbers, regrouping hundreds as tens. **9-16 Subtract: Regroup Twice**—pp. 417–418 Objective(s): To subtract 3-digit numbers, regrouping twice. ***9-16A Add to Check Subtraction**—Online Objective(s): To use the relationship between addition and subtraction to check a difference. *See *Talk It Over* or *Write About It* in the above lessons for opportunities for students to discuss and explain why addition and subtraction strategies work.
2.NBT.B.12	Calculate mentally sums and differences involving: three-digit number and ones, three-digit numbers and tens; three-digit numbers and hundreds	***4-6A Mental Math: Add Two-Digit Numbers**—Online Objective(s): To add a two-digit number by decomposing the number into tens and ones and adding mentally. ***4-6B Mental Math: Use Compensation**—Online Objective(s): To add two two-digit numbers by adding tens and counting back. **4-10 Add: Choose the Method**—pp. 177–178 Objective(s): To explore methods for finding sums, with and without regrouping.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		5-2 Mental Math Subtraction—pp. 197–198 Objective(s): To use mental math strategies to subtract ones and tens. ***5-6A Mental Math: Subtract Two-Digit Numbers**—Online Objective(s): To subtract a two-digit number by decomposing the number into tens and ones and subtracting mentally **5-13 Choose the Method**—pp. 223–224 Objective(s): To choose the most efficient computational method to add or subtract: mental math or paper and pencil. *Calculating mentally sums and differences in the above-cited lessons is limited to two-digit numbers; mental calculations with larger numbers begins in Grade 3.
2.NBT.B.13	Estimate the sum of two numbers with three digits.	**9-19 Estimate to Add or Subtract**—pp. 425–426 Objective(s): To round 3-digit numbers to the nearest hundred. To estimate sums and differences of 3-digit numbers.
2.NBT.B.14	Find the missing values in open sentences (42 + _ = 57); use relationship between addition and subtraction	***1-16B Writing a Number Sentence**—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position. To write an equation to solve addition and subtraction word problems. **1-17 Fact Families**—pp. 41–42 Objective(s): To identify and write fact families. **1-18 Missing Addends**—pp. 43–44 Objective(s): To count up or use a subtraction fact to find missing addends. **1-19 Fact Patterns**—pp. 45–46 Objective(s): To recognize and complete number patterns. To identify and use patterns to complete addition and subtraction facts. **5-9 Add to Check**—pp. 213–214 Objective(s): To use addition to check subtraction. ***9-16A Add to Check Subtraction**—Online Objective(s): To use the relationship between addition and subtraction to check a difference.
Work with Unit Fractions		
2.NBT.C.15	Recognize, name and represent commonly used unit fractions with denominators 12 or less.	**10-1 Fractions: 1/2, 1/4, 1/8**—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8. To write a fraction for the shaded part of a figure. ***10-1A Fractions: 1/2, 1/3, 1/4**—Online Objective(s): To identify unit fractions for halves, thirds, and fourths. To partition shapes into halves, thirds, and fourths. **10-2 More Fractions**—pp. 447–448 Objective(s): To identify the fractions 1/3, 1/5, 1/6, 1/7, 1/9, 1/10, 1/11, 1/12. To write a fraction for the shaded part of a figure.
2.NBT.C.16	Recognize, name and write commonly used fractions: 1/2, 1/3, 2/3 , etc.	**10-1 Fractions: 1/2, 1/4, 1/8**—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8. To write a fraction for the shaded part of a figure. ***10-1A Fractions: 1/2, 1/3, 1/4**—Online Objective(s): To identify unit fractions for halves, thirds, and fourths. To partition shapes into halves, thirds, and fourths.

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Number and Operations in Base Ten

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		10-2 More Fractions—pp. 447–448 Objective(s): To identify the fractions 1/3, 1/5, 1/6, 1/7, 1/9, 1/10, 1/11, 1/12. To write a fraction for the shaded part of a figure.
2.NBT.C.17	Place 0 and halves on the number line; relate to a ruler	***10-2A Whole Numbers and the Number Line**—Online Objective(s): To represent whole numbers as lengths from 0 on a number line. To represent sums and differences (within 100) on a number line.
2.NBT.C.18	For unit fractions from 1/12 to 1/2 understand the inverse relationship between the size of a unit fractions and size of the denominator; compare unit fractions from 1/12 to 1/2.	**10-3 Compare Fractions**—pp. 449–450 Objective(s): To use the greater than, less than, and equals signs to compare unit fractions. **10-4 Order Fractions**—pp. 451–452 Objective(s): To use models to order unit fractions.
2.NBT.C.19	Recognize that fractions such as 2/2, 3/3, 4/4 are equal to the whole (one).	**10-6 Fractions Equal to 1**—pp. 457–458 Objective(s): To recognize and write fractions equal to 1.

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Measurement and Data

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
Measure and estimate lengths in standard units.		
2.MD.A.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	**11-2 Inches**—pp. 493–494 Objective(s): To estimate and measure length and height in inches. **11-3 Half Inch**—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. **11-4 Feet and Yards**—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards. To choose inches, feet, or yards as the most appropriate unit of measure. **11-9 Centimeters**—pp. 511–512 Objective(s): To estimate and measure length and height in centimeters. **11-10 Meters**—pp. 513–514 Objective(s): To estimate and measure length and height in centimeters and meters. **11-17 Choose Tools and Units of Measure**—pp. 529–530 Objective(s): To identify appropriate units of measure. To identify the appropriate measuring tool.
2.MD.A.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	***11-4A Measure Length**—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen. To measure to find how much longer one object is than another.
2.MD.A.3	Estimate lengths using units of inches, feet, centimeters, and meters.	**11-2 Inches**—pp. 493–494 Objective(s): To estimate and measure length and height in inches. **11-4 Feet and Yards**—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards. To choose inches, feet, or yards as the most appropriate unit of measure. **11-9 Centimeters**—pp. 511–512 Objective(s): To estimate and measure length and height in centimeters. **11-10 Meters**—pp. 513–514 Objective(s): To estimate and measure length and height in centimeters and meters.
2.MD.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	***11-4A Measure Length**—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen. To measure to find how much longer one object is than another.
2.MD.A.5	Distinguish between length, width, height, and weight.	**11-2 Inches**—pp. 493–494 Objective(s): To estimate and measure length and height in inches. **11-4 Feet and Yards**—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards. To choose inches, feet, or yards as the most appropriate unit of measure. ***11-4A Measure Length** (length, width)—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen. To measure to find how much longer one object is than another.

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Measurement and Data

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		11-8 Ounces and Pounds (weight)—pp. 507–508 Objective(s): To estimate and measure weight in ounces and pounds; to order objects by weight. To choose ounces or pounds as the better estimate. **11-13 Grams and Kilograms** (mass)—pp. 519–520 Objective(s): To choose grams or kilograms as the better estimate of mass. ***11-17A Measurement and Data** (height)—Online Objective(s): To collect measurement data to answer questions about a group of items.
Relate addition and subtraction to length.		
2.MD.B.6	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	**11-2 Inches**—pp. 493–494 Objective(s): To estimate and measure length and height in inches. **11-3 Half Inch**—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. **11-4 Feet and Yards**—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards. To choose inches, feet, or yards as the most appropriate unit of measure. ***11-4B Relate Addition and Subtraction to Length**—Online Objective(s): To find sums of lengths and differences in length. To solve word problems involving lengths given the same units. **11-9 Centimeters**—pp. 511–512 Objective(s): To estimate and measure length and height in centimeters. **11-10 Meters**—pp. 513–514 Objective(s): To estimate and measure length and height in centimeters and meters. **11-19 Problem Solving Applications: Mixed Strategies**—pp. 533–534
2.MD.B.7	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	**1-3 Related Addition Facts** (number line)—pp. 7–8 Objective(s): To solve and write related addition facts. **1-4 Count On to Add**—pp. 9–10 Objective(s): To use the *count on* strategy to find sums. **1-12 Count Back to Subtract**—pp. 29–30 Objective(s): To use *count back* strategy to find differences from 12 or less. **1-16 Count Up to Subtract**—pp. 39–40 Objective(s): To count up to subtract. **2-9 Order Using a Number Line**—pp. 83–84 Objective(s): To compare and order numbers to 100. **8-2 Hundreds, Tens, and Ones** (number line)—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999. To recognize place value of numbers to 999. **8-9 Round to the Nearest Hundred** (number lines)—pp. 367–368 Objective(s): To round numbers to the nearest hundred. ***10-2A Whole Numbers and the Number Line**—Online Objective(s): To represent whole numbers as lengths from 0 on a number line. To represent sums and differences (within 100) on a number line.

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Measurement and Data

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
Understand the Concept of Area and Perimeter		
2.MD.C.8	Measure area using non-standard units to the nearest whole unit.	**11-12 Area**—pp. 517–518 Objective(s): To estimate and find the area of a figure in square units
2.MD.C.9	Find the area of a rectangle with whole number side lengths by covering with unit squares and counting, or by using a grid of unit squares; write area as a product.	**11-12 Area**—pp. 517–518 Objective(s): To estimate and find the area of a figure in square units. ***11-12A Rectangles and Area**—Online Objective(s): To partition a rectangle into rows and columns of the same-size squares and to count to find the total number of them.
2.MD.C.10	Determine perimeter of rectangles and triangles by adding lengths of sides.	**11-11 Perimeter**—pp. 515–516 Objective(s): To measure the perimeter of a figure in inches and centimeters.
Work with time and money.		
2.MD.C.11	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**Skills Update: Clock Sense: Hours**—p. J **7-10 Hour and Half Hour**—pp. 313–314 Objective(s): To tell time to the hour and half hour. **7-11 Five Minutes**—pp. 315–316 Objective(s): To tell time in 5-minute intervals. ***7-13A A.M. and P.M.**—Online Objective(s): To determine what part of the day a given time occurs. To determine time expressed with A.M. and P.M. To tell time from an analog and digital clock to the nearest five minutes.
2.MD.C.12	Using both AM and PM, tell time from the clock face in 1 minute intervals and from digital clocks to the minute; including reading time 9:15 as nine-fifteen and 9:50 as nine-fifty. Interpret time as both minutes after the hour and minutes before the next hour. Show times by drawing hand on clock faces.	***7-13A A.M. and P.M.**—Online Objective(s): To determine what part of the day a given time occurs. To determine time expressed with A.M. and P.M. To tell time from an analog and digital clock to the nearest five minutes.
2.MD.C.13	Use the concept of duration of time to the quarter hour.	**7-14 Elapsed Time—pp. 323–324** Objective(s): To determine elapsed time. To tell what time it will be given a length of time. **Ch. 7 Connection: Math and the Real World** (A.M./P.M., elapsed time)—p. 336
2.MD.C.14	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*	**Skills Update: Penny, Nickel, Dime**—p. I **7-1 Pennies, Nickels, and Dimes—pp. 291–292** Objective(s): To find the value of a group of coins consisting of pennies, nickels, and dimes. **7-2 Quarters**—pp. 293–294 Objective(s): To find the value of a group of pennies, nickels, dimes, and quarters. **7-3 Half Dollar**—pp. 295–296 Objective(s): To find the value of a group of coins consisting of pennies, nickels, dimes, quarters, and a half dollar. **7-3 Half Dollar**—pp. 295–296 Objective(s): To find the value of a group of coins consisting of pennies, nickels, dimes, quarters, and a half dollar.

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Measurement and Data

Archdiocese of Detroit: Second Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 2
	7-4 Equal Amounts—pp. 299–300 Objective(s): To show amounts of money in more than one way. To find the fewest number of coins to equal a given amount. **7-5 Compare Money**—pp. 301–302 Objective(s): To compare an amount of money to the cost of an item. **7-6 Make Change**—pp. 303–304 Objective(s): To find the amount of change after making a purchase. **7-7 Add and Subtract Money**—pp. 305–306 Objective(s): To apply regrouping in addition and subtraction of money. **7-8 One Dollar**—pp. 307–308 Objective(s): To identify a dollar bill and dollar coin. To count and find amounts of coins equal to a dollar. **7-9 Dollars and Cents**—pp. 309–310 Objective(s): To identify the place value of money amounts. To find the value of a group of bills and coins. ***7-9A Money Problems**—Online Objective(s): To solve word problems involving money (dollar bills, quarters, dimes, nickels, and pennies). **7-18 Problem Solving Strategy: Guess and Test**—pp. 331–332 Objective(s): To use the *Guess and Test* strategy to solve a problem. **7-19 Problem Solving Applications: Mixed Strategies**—pp. 333–334 **Read Aloud: "The Time Machine"** (value of groups of coins)—pp. 341-344 **9-7 Add Money: No Regrouping**—pp. 397–398 Objective(s): To add money amounts without regrouping. **9-8 Problem Solving: Read and Write in Math: Find Needed Information**—pp. 399–400 Objective(s): To use the strategy of rereading to find information in a problem. **9-9 Add Money: Regroup Dimes or Pennies**—pp. 401–402 Objective(s): To add money amounts, regrouping once. **9-10 Add Money: Regroup Twice**—pp. 403–404 Objective(s): To add money amounts, regrouping twice. **9-17 Subtract Money: Regroup Dollars or Dimes**—pp. 421–422 Objective(s): To subtract money amounts, regrouping once. **9-18 Subtract Money: Regroup Twice**—pp. 423–424 Objective(s): To subtract money amounts, regrouping twice **9-21 Problem Solving Applications: Mixed Strategies**—pp. 429–430
Read Thermometers	
2.MD.D.16 Read temperature using the scale on a thermometer in degrees Fahrenheit.	**11-16 Temperature—pp. 527–528** Objective(s): To read a thermometer in degrees Fahrenheit and Celsius. To compare temperatures.
Represent and interpret data.	
2.MD.E.17 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	**3-9 Line Plots**—pp. 133–134 Objective(s): To read and interpret line plots. **11-1 Nonstandard Units**—pp. 491–492 Objective(s): To estimate and measure length using nonstandard units of measurement. To compare and order objects by length. **11-2 Inches**—pp. 493–494 Objective(s): To estimate and measure length and height in inches.

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Measurement and Data

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		11-3 Half Inch—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. **11-4 Feet and Yards**—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards. To choose inches, feet, or yards as the most appropriate unit of measure. ***11-4A Measure Length**—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen. To measure to find how much longer one object is than another. **11-9 Centimeters**—pp. 511–512 Objective(s): To estimate and measure length and height in centimeters. **11-10 Meters**—pp. 513–514 Objective(s): To estimate and measure length and height in centimeters and meters. ***11-17A Measurement and Data**—Online Objective(s): To collect measurement data to answer questions about a group of items.
2.MD.D.18	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	**Skills Update: Tallying**—p. E **3-2 Pictographs**—pp. 117–118 Objective(s): To use information from a tally chart to make a pictograph. To read and interpret pictographs. **3-3 Bar Graphs**—pp. 119–120 Objective(s): To use information from a tally chart to make a bar graph. To read and interpret bar graphs. **3-4 Surveys**—pp. 121–122 Objective(s): To gather, record, and interpret data. To construct questions for a survey. **3-5 Range, Mode, and Median**—pp. 123–124 Objective(s): To find the range, mode, and median for given data. To describe data using range, mode, and median. **3-6 Understand Data**—pp. 125–126 Objective(s): To predict future data based on present data. **3-7 Compare Data**—pp. 129–130 Objective(s): To compare data from two different sources using the same survey. **3-11 Problem Solving Strategy: Use a Graph**—pp. 137–138 Objective(s): To use information from a graph to solve a problem. **3-12 Problem Solving Applications: Mixed Strategies**—pp. 139–140

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Geometry

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
Reason with Shapes and their Attributes		
2.G.A.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	**Skills Update: Plane Figures**—p. H **6-1 Solid Figures**—pp. 247–248 Objective(s): To identify cones, cubes, cylinders, pyramids, rectangular prisms, and spheres. To identify flat and curved surfaces of solid figures. **6-2 Faces, Edges, Vertices**—pp. 249–250 Objective(s): To identify the faces, edges, and vertices of solid figures. **6-3 Explore Plane Figures**—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures. To identify circle, triangle, rectangle, and square. **6-4 Plane Figures**—pp. 253–254 Objective(s): To identify the number of sides, vertices, and angles of closed plane figures. ***6-4A Identify and Draw Plane Figures**—Online Objective(s): To identify triangles, quadrilaterals, pentagons, and hexagons. To draw and identify the side attributes of closed plane figures. ***6-4B Attributes of Plane Figures**—Online Objective(s): To identify the side, angle, and vertex attributes of triangles, quadrilaterals, pentagons, and hexagons. To draw closed plane figures with a stated set of attributes. **6-5 Sort Figures**—pp. 255–256 Objective(s): To sort plane figures and solid figures by one and two attributes. **6-11 Ways to Make Figures**—pp. 271–272 Objective(s): To combine and separate figures to form other figures. To predict the results of combining or separating figures. **6-12 Problem Solving: Read and Write in Math: Understand Math Words**—pp. 273–274 Objective(s): To understand math words in order to solve math problems. **6-15 Problem Solving Applications: Mixed Strategies**—pp. 279–280
2.G.A.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	**11-12 Area**—pp. 517–518 Objective(s): To estimate and find the area of a figure in square units. ***11-12A Rectangles and Area**—Online Objective(s): To partition a rectangle into rows and columns of the same-size squares and to count to find the total number of them.
2.G.A.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	**Skills Update: Equal Parts**—p. K **10-1 Fractions: 1/2, 1/4, 1/8**—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8. To write a fraction for the shaded part of a figure. ***10-1A Fractions: 1/2, 1/3, 1/4**—Online Objective(s): To identify unit fractions for halves, thirds, and fourths. To partition shapes into halves, thirds, and fourths. **10-2 More Fractions**—pp. 447–448 Objective(s): To identify the fractions 1/3, 1/5, 1/6, 1/7, 1/9, 1/10, 1/11, 1/12. To write a fraction for the shaded part of a figure.

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Geometry

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
		10-3 Compare Fractions—pp. 449–450 Objective(s): To use the greater than, less than, and equals signs to compare unit fractions. **10-4 Order Fractions**—pp. 451–452 Objective(s): To use models to order unit fractions. **10-5 Other Fractions**—pp. 453–454 Objective(s): To recognize and write non-unit fractions. To write the fraction for the shaded part of a figure. **10-6 Fractions Equal to 1**—pp. 457–458 Objective(s): To recognize and write fractions equal to 1. **10-8 Equal Fractions of a Whole**—pp. 461–462 Objective(s): To show equal fractions of a whole. **10-16 Problem Solving Applications: Mixed Strategies**—p. 480 **Connection: Math and Social Studies** (hopscotch boards/equal parts)—p. 482
2.G.A.4	Identify, describe and compare familiar three-dimensional shapes, such as spheres and rectangular prisms.	**6-1 Solid Figures**—pp. 247–248 Objective(s): To identify cones, cubes, cylinders, pyramids, rectangular prisms, and spheres. To identify flat and curved surfaces of solid figures.
2.G.A.5	Explore and predict the results of putting together and taking apart two-dimensional and three-dimensional shapes.	**6-11 Ways to Make Figures**—pp. 271–272 Objective(s): To combine and separate figures to form other figures. To predict the results of combining or separating figures. *Putting together and taking apart three-dimensional shapes is presented in Grade 3: Ch. 9 Enrichment: Complex Solid Figures—p. 331.
2.G.A.6	Distinguish between curves and straight lines and between curved surfaces and flat surfaces.	**6-1 Solid Figures**—pp. 247–248 Objective(s): To identify cones, cubes, cylinders, pyramids, rectangular prisms, and spheres. To identify flat and curved surfaces of solid figures.
2.G.A.7	Classify familiar plane and solid objects.	**6-1 Solid Figures**—pp. 247–248 Objective(s): To identify cones, cubes, cylinders, pyramids, rectangular prisms, and spheres. To identify flat and curved surfaces of solid figures. **6-2 Faces, Edges, Vertices**—pp. 249–250 Objective(s): To identify the faces, edges, and vertices of solid figures. **6-3 Explore Plane Figures**—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures. To identify circle, triangle, rectangle, and square. **6-4 Plane Figures**—pp. 253–254 Objective(s): To identify the number of sides, vertices, and angles of closed plane figures. ***6-4A Identify and Draw Plane Figures**—Online Objective(s): To identify triangles, quadrilaterals, pentagons, and hexagons. To draw and identify the side attributes of closed plane figures. ***6-4B Attributes of Plane Figures**—Online Objective(s): To identify the side, angle, and vertex attributes of triangles, quadrilaterals, pentagons, and hexagons. To draw closed plane figures with a stated set of attributes.

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Geometry

Archdiocese of Detroit: Second Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 2
2.G.A.8	Recognize that shapes that have been slid, turned, or flipped are the same shape.	**6-8 Slides and Flips**—pp. 263–264 Objective(s): To identify slides and flips. **6-9 Turns**—pp. 265–266 Objective(s): To identify turns and distinguish them from slides and flips.
Use Coordinate Systems		
2.G.B.9	Find and name locations using simple coordinate systems such as maps and first quadrant grids.	**6-13 Ordered Pairs**—pp. 275–276 Objective(s): To locate ordered pairs on a coordinate grid.