SADLIER

Progress in Mathematics

Aligned to the

Archdiocese of Detroit

First Grade Mathematics Standards

Grade 1

Sadlier

William H. Sadlier, Inc.

www.sadlierschool.com

800-221-5175

Operations and Algebraic Thinking

Archdiocese of Detroit: First Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 1
Represent and Solve Problems Involving Addition and Subtraction	
1.OA.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknown in all positions.	**1-6 One Fewer, One More**—pp. 15–16 Objective(s): To recognize and draw groups with one fewer and one more than a given group. **1-15 Problem Solving Applications: Mixed Strategies** (Act It Out, Draw a Picture)—pp. 35–36 **2-1 Understanding Addition**—pp. 51–52 Objective(s): To explore the concept of addition as the joining of groups of objects with sums of 6 or less. **2-2 Addition Sentences**—pp. 53–54 Objective(s): To introduce the plus (+) and equals (=) signs. To relate the joining of two groups to number sentences with sums or 6 or less. To complete and write an addition sentence that describes a pictured action for sums of 6 or less. ***2-2A Find Sums**—Online Objective(s): To explore addition as putting together. To write addition sentences for "putting together" situations. **2-3 Sums Through 6**—pp. 55–56 Objective(s): To know the parts of addition. To add numbers with sums of 6 or less in horizontal and vertical form. **2-6 Sums of 9 and 10**—pp. 61–62 Objective(s): To add numbers with sums of 9 and 10 in horizontal and vertical form. **2-7 Sums of 11 and 12**—pp. 63–64 Objective(s): To add numbers with sums of 11 and 12 in horizontal and vertical form. **2-9 Problem Solving: Read and Write in Math: Find Hidden Information**—pp. 69–70 Objective(s): To apply math vocabulary. ***2-13A Equivalent Sums**—Online Objective(s): To use strategies to find equivalent sums. **2-14 Addition Practice**—pp. 81–82 Objective(s): To use addition strategies to find sums to 12. **2-15 Add Three Numbers**—pp. 83–84 Objective(s): To add three addends with sums to 12. **2-16 Addition Strategies with Three Addends**—pp. 85–86 Objective(s): To add three numbers, sums through 12, using the doubles and count on strategies. ***2-16A Solve Addition Word Problems**—Online Objective(s): To solve word problems that involve the addition of three whole numbers whose sum is less than or equal to 20. **2-17 Problem Solving Strategy: Write a Number Sentence**—pp. 87–88 Objective(s): To solve problems by writing a number sentence. ***2-17A Find the Unknown Number**—Online Objective(s): To use part-whole models to find the unknown number in addition. **2-18 Problem Solving Applications: Mixed Strategies**—pp. 89–90 **3-1 Understanding Subtraction**—pp. 101–102 Objective(s): To explore the concept of subtraction as an action of separation from groups of 6 or less.

*Online at progressinmathematics.com.

Operations and Algebraic Thinking

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		3-2 Subtraction Sentences—pp. 103–104 Objective(s): To recognize the minus (-) and equals (=) signs. To relate the separating of a group of 6 or less to a number sentence. To complete and write a subtraction sentence for a total of 6 or less that describes a pictured action. **3-3 Subtract from 6 or Less**—pp. 105–106 Objective(s): To identify the difference when subtracting from 6 or less. To subtract from 6 or less in horizontal and vertical form. **3-4 All or Zero**—pp. 107–108 Objective(s): To add and subtract with zero. ***3-4A Find Differences**—Online Objective(s): To use part-whole models to subtract. **3-5 Subtract from 7 and 8**—pp. 109–110 Objective(s): To subtract from 7 and 8 in horizontal and vertical form. To explore subtraction as a whole (7 or 8) separated into parts. **3-6 Subtract from 9 and 10**—pp. 111–112 Objective(s): To subtract from 9 and 10 in horizontal and vertical form. **3-7 Subtract from 11 and 12**—pp. 113–114 Objective(s): To subtract from 11 and 12 in horizontal and vertical form. **3-10 Related Subtraction Facts**—pp. 121–122 Objective(s): To identify related subtraction facts when subtracting from 12 or less. To subtract from 12 or less in horizontal and vertical form. ***3-11A Think Addition to Subtract**—Online Objective(s): To use related addition facts to subtract. **3-12 Check by Adding**—pp. 125–126 Objective(s): To use related addition facts (sums to 12) to check subtraction. ***3-12A Use a Bar Model**—Online Objective(s): To use a bar model to solve addition and subtraction word problems. **3-14 Find Missing Addends**—pp. 131–132 Objective(s): To use subtraction facts from 12 or less to find the missing addend. **3-15 Subtract to Compare**—pp. 133–134 Objective(s): To use subtraction to compare sets. **3-16 Problem Solving: Read and Write in Math: Use More Than One Step**—pp. 135–136 Objective(s): To use the reading comprehension skill of sequencing to help solve two-step math problems. **3-18 Problem Solving Strategy: Choose the Operation**—pp. 139–140 Objective(s): To choose the operation to solve problems. **3-19 Problem Solving Applications: Mixed Strategies**—pp. 141–142
1.OA.A.2	Solve word problems that call for addition of three numbers whose sum is less than or equal to 20.	**2-15 Add Three Numbers**—pp. 83–84 Objective(s): To add three addends with sums to 12. **2-16 Addition Strategies with Three Addends**—pp. 85–86 Objective(s): To add three numbers, sums through 12, using the doubles and count on strategies. ***2-16A Solve Addition Word Problems**—Online Objective(s): To solve word problems that involve the addition of three whole numbers whose sum is less than or equal to 20.

*Online at progressinmathematics.com.

Operations and Algebraic Thinking

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
Understand and Apply Properties of Operations and the Relationship Between Addition and Subtraction		
1.OA.B.3	Apply properties of operations as strategies to add and to subtract.	**2-4 Related Addition Facts** (commutative)—pp. 57–58 Objective(s): To identify related facts to sums of 6. To add numbers with sums of 6 or less in horizontal and vertical form. **2-15 Add Three Numbers** (associative)—pp. 83–84 Objective(s): To add three addends with sums to 12. **2-16 Addition Strategies with Three Addends** (associative)—pp. 85–86 Objective(s): To add three numbers, sums through 12, using the doubles and count on strategies. **3-13 Fact Families** (commutative)—pp. 127–128 Objective(s): To identify addition and subtraction facts to 12 in a fact family To complete a fact family, sums to 12. ***6-2A Properties of Operations** (commutative)—Online Objective(s): To apply the properties of multiplication to add. **6-8 More Fact Families** (commutative)—pp. 273–274 Objective(s): To complete a fact family, sums to 18. **6-9 Three Addends** (associative)—pp. 277–278 Objective(s): To add three addends with sums to 18.
1.OA.B.4	Understand subtraction as an unknown-addend problem.	***3-11A Think Addition to Subtract**—Online Objective(s): To use related addition facts to subtract. **3-14 Find Missing Addends**—pp. 131–132 Objective(s): To use subtraction facts from 12 or less to find the missing addend. **6-11 Missing Part of a Number Sentence**—pp. 281–282 Objective(s): To use addition and subtraction to find the missing part of a number sentence.
Add and Subtract Within 20		
1.OA.C.5	Relate counting to addition and subtraction.	**2-10 Number-Line Addition**—pp. 71–72 Objective(s): To use a number line to count on to add sums to 12. **2-14 Addition Practice** (count on to add)—pp. 81–82 Objective(s): To use addition strategies to find sums to 12. **3-8 Number-Line Subtraction** (count back to subtract)—pp. 117–118 Objective(s): To use a number line to count back from 12 or less to subtract.
1.OA.C.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to 10, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.	**1-8 Count On**—pp. 19–20 Objective(s): To use a number line to 12 to count on. **2-4 Related Addition Facts**—pp. 57–58 Objective(s): To identify related facts to sums of 6. To add numbers with sums of 6 or less in horizontal and vertical form. **2-10 Number-Line Addition**—pp. 71–72 Objective(s): To use a number line to count on to add sums to 12. ***2-13A Equivalent Sums**—Online Objective(s): To use strategies to find equivalent sums. **3-7 Subtract from 11 and 12**—pp. 113–114 Objective(s): To subtract from 11 and 12 in horizontal and vertical form.

*Online at progressinmathematics.com.

Operations and Algebraic Thinking

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		3-11 Relate Addition and Subtraction—pp. 123–124 Objective(s): To recognize the relationship between addition and subtraction. ***3-11A Think Addition to Subtract**—Online Objective(s): To use related addition facts to subtract. **3-12 Check by Adding**—pp. 125–126 Objective(s): To use related addition facts (sums to 12) to check subtraction. **3-13 Fact Families**—pp. 127–128 Objective(s): To identify addition and subtraction facts to 12 in a fact family. To complete a fact family, sums to 12. ***6-3A Make 10 to Add**—Online Objective(s): To decompose one addend to make 10 to find sums. **6-8 More Fact Families**—pp. 273–274 Objective(s): To complete a fact family, sums to 18.
Work with Addition and Subtraction Equations		
1.OA.D.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.	**2-2 Addition Sentences** (equal sign)—pp. 53–54 Objective(s): To introduce the plus (+) and equals (=) signs To relate the joining of two groups to number sentences with sums or 6 or less To complete and write an addition sentence that describes a pictured action for sums of 6 or less. **2-10 Number-Line Addition**—pp. 71–72 Objective(s): To use a number line to count on to add sums to 12. **2-14 Addition Practice** (count on to add)—pp. 81–82 Objective(s): To use addition strategies to find sums to 12. **3-2 Subtraction Sentences** (equal sign)—pp. 103–104 Objective(s): To recognize the minus (-) and equals (=) signs To relate the separating of a group of 6 or less to a number sentence To complete and write a subtraction sentence for a total of 6 or less that describes a pictured action. **3-8 Number-Line Subtraction**—pp. 117–118 Objective(s): To use a number line to count back from 12 or less to subtract. ***6-10A True and False Sentences**—Online Objective(s): To determine if an equation involving addition or subtraction is true or false To understand the meaning of the plus sign. **10-5 Add Ones or Tens**—pp. 473–474 Objective(s): To use mental math to count on 1s and 10s.
1.OA.D.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	**2-8 Other Names for Numbers**—pp. 67–68 Objective(s): To find other names for numbers, sums to 12. ***2-17A Find the Unknown Number**—Online Objective(s): To use part-whole models to find the unknown number in addition. **3-14 Find Missing Addends**—pp. 131–132 Objective(s): To use subtraction facts from 12 or less to find the missing addend. **6-11 Missing Part of a Number Sentence**—pp. 281–282 Objective(s): To use addition and subtraction to find the missing part of a number sentence.

*Online at progressinmathematics.com.

Number and Operations in Base Ten

Archdiocese of Detroit: First Grade Mathematics Standards	Sadlier *Progress in Mathematics*, Grade 1
Extend the Counting Sequence	
1.NBT.A.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	**1-7 Order 0 Through 12**—pp. 17–18 Objective(s): To order numbers 0-12. **1-8 Count On**—pp. 19–20 Objective(s): To use a number line to 12 to count on. **5-2 Tens Through One Hundred**—pp. 197–198 Objective(s): To read and write numbers and number words for decade names ten to one hundred. To count by 10s to 100. **5-3 Numbers 11 Through 19**—pp. 199–200 Objective(s): To write numbers 11-19 using numbers and number words. To express and represent numbers 11-19 as composed of 1 ten and ones. **5-4 Numbers 20 Through 39**—pp. 201–202 Objective(s): To write numbers 20-39 using numbers and number words. To express and represent numbers 20-39 as composed of tens and ones. **5-5 Numbers 40 Through 59**—pp. 203–204 Objective(s): To write numbers 40-59 using numbers and number words. To express and represent numbers 40-59 as composed of tens and ones. **5-6 Numbers 60 Through 89**—pp. 205–206 Objective(s): To write numbers 60-89 using numbers and number words. To express and represent numbers 60-89 as composed of tens and ones. **5-7 Numbers 90 Through 100**—pp. 207–208 Objective(s): To write numbers 90-100 using numbers and number words. To express and represent numbers 90-100 as being composed of tens and ones. ***5-7A Numbers to 120**—Online Objective(s): To read and write numbers less than 120; to count to 120, starting at any number. To represent a number of objects with a numeral. **5-11 One Less, One More**—pp. 217–218 Objective(s): To identify and write numbers one less and one more than a given 2-digit number. **5-12 Identify Before, Between, After**—pp. 219–220 Objective(s): To identify and write numbers just before, between, and just after given 2-digit numbers. **5-13 Compare Numbers**—pp. 221–222 Objective(s): To compare 2-digit numbers using the symbols <, =, and >. **5-14 Order Numbers**—pp. 223–224 Objective(s): To order numbers to 100. **5-15 Hundred-Chart Patterns**—pp. 225–226 Objective(s): To identify and describe number patterns in numbers 1-100. To use a hundred chart to order numbers to 100. **Ch. 5 Enrichment: Counting Beyond 100**—p. 248 **8-1 Nickels and Pennies**—pp. 353–354 Objective(s): To recognize the value of a penny (1 cent, 1¢, 1 penny) and a nickel (5 cents, 5¢, 5 pennies). To count on with nickels and pennies to find the value of a group of coins.

*Online at progressinmathematics.com.

Number and Operations in Base Ten

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		8-2 Dimes and Pennies—pp. 355–356 Objective(s): To recognize the value of a dime (10 cents, 10¢, 10 pennies). To count on with dimes and pennies to find the value of a group of coins. **8-3 Quarters and Pennies**—pp. 357–358 Objective(s): To recognize the value of a quarter (25 cents, 25¢, 25 pennies). To count on with quarters and pennies to find the value of a group of coins.
1.NBT.A.2	Count backwards by 1's starting at any number between 0 and 120.	**1-9 Count Back**—pp. 21–22 Objective(s): To use a number line to 12 to count back. ***11-4A Count Back by Tens or Ones to Subtract**—Online Objective(s): To count back by tens from a 2-digit number to find a number that is a given amount less than the original number. To count back by ones from a 2-digit number to find a number that is a given amount less than the original number.
1.NBT.A.3	Count to 120 by 2's, 5's and 10's fluently.	**5-2 Tens Through One Hundred**—pp. 197–198 Objective(s): To read and write numbers and number words for decade names ten to one hundred. To count by 10s to 100. **5-19 Count by 5s**—pp. 235–236 Objective(s): To skip count by 5s from 0 to 100, using a hundred chart and number line as models. To discover skip counting patterns on a hundred chart. **5-20 Count by 2s**—pp. 237–238 Objective(s): To skip count by 2s from 0 to 100 using a hundred chart and other models. To discover skip counting patterns on a hundred chart. **Ch. 10 Connection: Math and Technology** (skip count by 10s)—p. 494
Understand Place Value		
1.NBT.B.4	Understand that the two digits of a two-digit number represent amounts of tens and ones	
1.NBT.B.5a	10 can be thought of as a bundle of ten ones-called a "ten."	**1-4 Numbers 10 Through 12**—pp. 9–10 Objective(s): To recognize groups of 10 through 12. To identify and write the numbers and number words for 10 through 12. **5-1 Tens and Ones**—pp. 195–196 Objective(s): To identify ten as a set of 10 ones To represent and recognize sets of ones as groups of tens and ones. **5-9 Place Value of Digits**—pp. 213–214 Objective(s): To determine the value of a designated digit in a number. **8-2 Dimes and Pennies**—pp. 355–356 Objective(s): To recognize the value of a dime (10 cents, 10¢, 10 pennies). To count on with dimes and pennies to find the value of a group of coins.

*Online at progressinmathematics.com.

Number and Operations in Base Ten

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		8-5 Count Mixed Coins—pp. 361–362 Objective(s): To find the value of a group of coins consisting of a quarter, dimes, nickels, and pennies. To solve real-world problems involving money. **8-8 One Dollar**—pp. 369–370 Objective(s): To identify a dollar bill and its value: 100 cents. To identify the coins equivalent to a dollar. To use coins to show different ways to make a dollar. **10-1 Add Tens and Dimes**—pp. 465–466 Objective(s): To add multiples of 10, including dimes, to sums of 90. **10-2 Add Ones and Tens Using Models**—pp. 467–468 Objective(s): To use models to add ones and tens with no regrouping. **10-4 Add Money**—pp. 471–472 Objective(s): To add 2-digit money amounts with no regrouping. **10-6 Nearest Ten**—pp. 475–476 Objective(s): To explore rounding to the nearest ten. **11-4 Subtract Money**—pp. 509–510 Objective(s): To subtract 2-digit money amounts without regrouping. **11-8 Regroup Tens as Ones Using Models**—pp. 519–520 Objective(s): To regroup 1 ten as 10 ones. **11-9 Regroup Tens as Ones Using a Chart**—pp. 521–522 Objective(s): To subtract tens and ones with regrouping. **10-11-10 Regroup Dimes as Pennies**—pp. 523–524 Objective(s): To add money amounts, regrouping 1 dime as 10 pennies.
1.NBT.B.5b	The numbers from 11-19 are composed of a ten and one, two, three, four, five, six, seven, eight or nine ones	**1-4 Numbers 10 Through 12**—pp. 9–10 Objective(s): To recognize groups of 10 through 12. To identify and write the numbers and number words for 10 through 12. **5-1 Tens and Ones**—pp. 195–196 Objective(s): To identify ten as a set of 10 ones. To represent and recognize sets of ones as groups of tens and ones. **5-3 Numbers 11 Through 19**—pp. 199–200 Objective(s): To write numbers 11-19 using numbers and number words. To express and represent numbers 11-19 as composed of 1 ten and ones.
1.NBT.B.5c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight or nine tens (and 0 ones).	**5-1 Tens and Ones**—pp. 195–196 Objective(s): To identify ten as a set of 10 ones. To represent and recognize sets of ones as groups of tens and ones. **5-2 Tens Through One Hundred**—pp. 197–198 Objective(s): To read and write numbers and number words for decade names ten to one hundred. To count by 10s to 100. **10-1 Add Tens and Dimes—pp. 465–466** Objective(s): To add multiples of 10, including dimes, to sums of 90. **11-1 Subtract Tens and Dimes**—pp. 503–504 Objective(s): To subtract multiples of 10, including dimes, from 90 or less.
1.NBT.B.6	Compare two two-digit numbers based on meanings of the tens and ones digit, recording the results of comparisons with the symbols < > and =.	**5-13 Compare Numbers**—pp. 221–222 Objective(s): To compare 2-digit numbers using the symbols <, =, and >. **5-14 Order Numbers**—pp. 223–224 Objective(s): To order numbers to 100.

*Online at progressinmathematics.com.

Number and Operations in Base Ten

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
Use Place Value Understanding and Properties of Operations to Add and Subtract		
1.NBT.C.7	Add within 120, including adding a two-digit and a one-digit number, and adding a two-digit and a multiple of 10, 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 and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	**10-1 Add Tens and Dimes**—pp. 465–466 Objective(s): To add multiples of 10, including dimes, to sums of 90. **10-2 Add Ones and Tens Using Models**—pp. 467–468 Objective(s): To use models to add ones and tens with no regrouping. ***10-2A Add Using Drawings**—Online Objective(s): To add two 2-digit numbers using drawings. **10-3 Add Ones and Tens Without Models**—pp. 469–470 Objective(s): To add ones and tens with no regrouping. To use the commutative property of addition to check the sum. **10-4 Add Money**—pp. 471–472 Objective(s): To add 2-digit money amounts with no regrouping. ***10-4A Count On by Tens or Ones to Add**—Online Objective(s): To count on by tens from a 2-digit number to find a number that is a given amount more than the original number. To count on by ones from a 2-digit number to find a number that is a given amount more than the original number. **10-5 Add Ones or Tens**—pp. 473–474 Objective(s): To use mental math to count on 1s and 10s. ***10-5A Use Strategies to Add**—Online Objective(s): To add a multiple of 10 and a number less than ten to a 2-digit number. ***10-5B Add 2-digit Numbers**—Online Objective(s): To use decomposition to add a 2-digit number to a 2-digit number. **10-8 Problem Solving: Read and Write in Math: Use More Than One Step**—pp. 479–480 Objective(s): To solve problems with more than one step. **10-9 Regroup Ones as Tens Using Models**—pp. 483–484 Objective(s): To regroup 10 ones as 1 ten. **10-10 Regroup Ones as Tens Using a Chart**—pp. 485–486 Objective(s): To add ones and tens, regrouping ones. ***10-10A Bar Models and Addition Problems**—Online Objective(s): To use a bar model to solve addition problems. **10-11 Regroup Money**—pp. 487–488 Objective(s): To add money amounts, regrouping 10 pennies as 1 dime. **10-13 Problem Solving Applications: Mixed Strategies**—pp. 491–492
1.NBT.C.8	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count.	**10-5 Add Ones or Tens**—pp. 473–474 Objective(s): To use mental math to count on 1s and 10s. ***11-1A Mental Math: Ten More or Ten Less**—Online Objective(s): To find 10 more or 10 less without having to count and explaining the reasoning used. **11-3 Subtract Ones and Tens Without Models**—pp. 507–508 Objective(s): To subtract ones and tens without regrouping. To use addition to check subtraction.
1.NBT.C.9	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10–90.	**11-1 Subtract Tens and Dimes**—pp. 503–504 Objective(s): To subtract multiples of 10, including dimes, from 90 or less.

*Online at progressinmathematics.com.

Number and Operations in Base Ten

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		***11-1B Subtract Multiples of 10**—Online Objective(s): To subtract multiples of ten using the relationship between addition and subtraction. ***11-4A Count Back by Tens or Ones to Subtract**—Online Objective(s): To count back by tens from a 2-digit number to find a number that is a given amount less than the original number. To count back by ones from a 2-digit number to find a number that is a given amount less than the original number. **11-5 Subtract Ones or Tens**—pp. 511–512 Objective(s): To use mental math to subtract 2-digit and 1-digit numbers with no regrouping. ***11-9A Bar Diagrams and Subtraction Problems**—Online Objective(s): To use a bar model to solve subtraction problems.
1.NBT.C.10	Understand that a number to the right of another number on the number line is bigger and that the number to the left is smaller.	**1-8 Count On**—pp. 19–20 Objective(s): To use a number line to 12 to count on. **1-9 Count Back**—pp. 21–22 Objective(s): To use a number line to 12 to count back. **2-10 Number-Line Addition**—pp. 71–72 Objective(s): To use a number line to count on to add sums to 12. **3-8 Number-Line Subtraction**—pp. 117–118 Objective(s): To use a number line to count back from 12 or less to subtract.

*Online at progressinmathematics.com.

Measurement and Data

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
Measure Lengths Indirectly and by Iterating Length Units.		
1.MD.A.1	Order three objects by length; compare the length of two objects indirectly by using a third object.	**9-4 Compare Lengths**—pp. 413–414 Objective(s): To compare lengths using the phrases shortest to longest and longest to shortest. ***9-4A Use Indirect Comparison**—Online Objective(s): To compare lengths of two nonadjacent pictures by indirect comparison to a third object.
1.MD.A.2	Express the length/width of an object as a whole number of length/width units, by laying multiple copies of a shorter object end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.	**9-1 Length and Height: Nonstandard Units**—pp. 407–408 Objective(s): To measure length and height in nonstandard units. ***9-1A Length of a Path**—Online Objective(s): To use iterations of nonstandard units to measure the distance along a 2-segment path. **9-2 Estimate with Nonstandard Units**—pp. 409–410 Objective(s): To estimate and measure length and height in nonstandard units. ***9-4B Use a Ruler—Online** Objective(s): To use a ruler that displays iterated nonstandard units to measure length. To draw pictures of a given length.
Tell and Write Time		
1.MD.B.3	Tell and write time in hours and half hours using analog and digital clocks.	**8-9 Hour**—pp. 373–374 Objective(s): To tell time to the hour. To write time in standard notation. **8-10 Half Hour**—pp. 375–376 Objective(s): To tell time to the half hour. To write time in standard notation. **8-11 Time Patterns**—pp. 377–378 Objective(s): To show time patterns.
1.MD.B.4	Tell and write time of day using am and pm.	*See Grade 2: Lesson 7-13A A.M. and P.M.—Online
1.MD.B.5	Introduce elapsed time in hours.	**8-12 Elapsed Time**—pp. 379–380 Objective(s): To determine the length of elapsed time to the hour and half hour. To draw the minute and hour hands to show a given time.
Represent and Interpret Data		
1.MD.C.6	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	**4-2 Tally Charts**—pp. 159–160 Objective(s): To record tallies to match the number of objects in a group. To make and interpret tally charts. **4-3 Real Graphs**—pp. 161–162 Objective(s): To use data from a tally chart and organize it into a real graph. **4-4 Picture Graphs**—pp. 163–164 Objective(s): To make and interpret picture graphs. To add and subtract to interpret data from picture graphs. **4-5 Pictographs**—pp. 165–166 Objective(s): To make and interpret pictographs. To add and subtract to interpret data from pictographs.

*Online at progressinmathematics.com.

Measurement and Data

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
		4-6 Bar Graphs—pp. 167–168 Objective(s): To make and interpret bar graphs. To add and subtract to interpret data from bar graphs. **4-7 Surveys**—pp. 171–172 Objective(s): To conduct a survey; to organize and interpret the results of a survey. ***4-7A Data and Questions**—Online Objective(s): To ask questions about the total number of data points. **4-12 Problem Solving Strategy: Use a Graph**—pp. 181–182 Objective(s): To solve problems by using information from a graph. **7-8 Graphing Attributes**—pp. 313–314 Objective(s): To make and read horizontal and vertical bar graphs. To identify attributes of plane and solid figures.
1.MD.C.7	Collect and organize data to create and use a graph.	**4-7 Surveys**—pp. 171–172 Objective(s): To conduct a survey; to organize and interpret the results of a survey.
Work with Money		
1.MD.D.8	Tell the cent equivalent to the penny, nickel, dime, and quarter.	**8-1 Nickels and Pennies**—pp. 353–354 Objective(s): To recognize the value of a penny (1 cent, 1¢, 1 penny) and a nickel (5 cents, 5¢, 5 pennies). To count on with nickels and pennies to find the value of a group of coins. **8-2 Dimes and Pennies**—pp. 355–356 Objective(s): To recognize the value of a dime (10 cents, 10¢, 10 pennies). To count on with dimes and pennies to find the value of a group of coins. **8-3 Quarters and Pennies**—pp. 357–358 Objective(s): To recognize the value of a quarter (25 cents, 25¢, 25 pennies). To count on with quarters and pennies to find the value of a group of coins.
1.MD.D.9	Match one coin of one denomination to an equivalent set of coin of another denomination.	**8-6 Equal Amounts**—pp. 365–366 Objective(s): To identify two groups of coins that show the same amount. To show equal amounts.
1.MD.D.10	Understand that some money that we receive should be saved, and some should be given to those in need.	**9-20 Problem Solving Applications: Mixed Strategies** (saving)—pp. 449–450

*Online at progressinmathematics.com.

Geometry

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
Reason with Shapes and their Attributes		
1.G.A.1	Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes.	**7-1 Open and Closed Figures**—pp. 297–298 Objective(s): To identify open and closed figures. **7-2 Sides and Corners**—pp. 299–300 Objective(s): To identify and count sides and corners (vertices) of plane figures. To draw a plane figure with a given number of sides and corners. ***7-2A Reason with Shapes**—Online Objective(s): To distinguish between defining attributes of plane figures. To build shapes with defining attributes. **7-3 Sorting Plane Figures**—pp. 301–302 Objective(s): To recognize and sort plane figures by shape. To identify trapezoids and other 4-sided figures. To model and find representations of plane figures in the environment. **7-5 Solid Figures**—pp. 307–308 Objective(s): To identify and sort solid figures according to their shapes. To identify real-world objects shaped like solid figures. **7-6 Attributes of Solid Figures**—pp. 309–310 Objective(s): To identify and classify solid figures according to their properties.
1.G.A.2	Compose two-dimensional shapes or three-dimensional shapes to create a composite shape, and compose new shapes from the composite shape.	***7-3A Ways to Make Plane Figures—Online** Objective(s): To make and take apart plane figures, including rectangles, squares, and circles. To visualize and name plane figures that are composed of other plane figures. To compose figures using half circles and quarter circles. **7-4 Ways to Make Figures**—pp. 303–304 Objective(s): To make and take apart plane figures. To visualize and name plane figures that are composed of other plane figures. ***7-5A Ways to Make Solid Figures**—Online Objective(s): To compose composite shapes from cubes, prisms, cones, and cylinders.
1.G.A.3	Partition circles and rectangles into two and four equal shares, describing the shares using the words, halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	**7-16 Symmetry** (rectangle in two equal shares, circle in four equal shares)—pp. 333–334 Objective(s): To identify shapes that have symmetry and identify their line(s) of symmetry. To verify a line of symmetry by folding models. **12-1 Equal Parts**—pp. 551–552 Objective(s): To identify equal parts of a whole. **12-2 One Half, 1/2**—pp. 553–554 Objective(s): To identify one half of a whole. **12-4 One Fourth, 1/4**—pp. 557–558 Objective(s): To identify one fourth of a whole. **12-10 Problem Solving Strategy: Make a Model/Draw a Picture**—pp. 571–572 Objective(s): To make a model or draw a picture to solve a problem.

*Online at progressinmathematics.com.

Geometry

Archdiocese of Detroit: First Grade Mathematics Standards		Sadlier *Progress in Mathematics*, Grade 1
1.G.A.4	Describe relative positions of objects on a plane and in space, using words such as above, below, behind, in front of.	**1-10 Before, Between, After**—pp. 23–24 Objective(s): To identify and write numbers to 12 that are just before, between, and just after a given number. **1-13 Ordinals: From Top or Bottom** (in front of, behind)—pp. 31–32 Objective(s): To identify ordinal positions 1st through 10th from top to bottom and bottom to top. To read and write ordinal numbers and ordinal number words first through tenth. **Ch. 3 Connection: Math and Health** (above)—p. 144 **5-5 Numbers 40 Through 59** (below)—pp. 203–204 Objective(s): To write numbers 40-59 using numbers and number words. To express and represent numbers 40-59 as composed of tens and ones.
1.G.A.5	Recognize symmetry as equal halves of the same object.	**7-16 Symmetry**—pp. 333–334 Objective(s): To identify shapes that have symmetry and identify their line(s) of symmetry. To verify a line of symmetry by folding models.