## Sadlier School

## Sadlier Math"

Correlation to the Diocese of Richmond Mathematics Curriculum

## Grade 1



Learn more at www.SadlierSchool.com/SadlierMath

## Problem Solving (Strategies)

## $\mathbf{1 s t}^{\text {tr }}$ Grade Content Standards

Sadlier Math, Grade 1

Problem solving is integrated throughout the content strands. The development of problemsolving skills is a major goal of the mathematics program at every grade level. Instruction in the process of problem-solving, which should include problems involving Catholic Social Teaching, not just textbook word problems, will need to be integrated early and continuously into each student's mathematics education. Students must be helped to develop a wide range of skills and strategies for solving a variety of problem types. The student will apply the following problem solving strategies to solve real life situations (use of manipulatives is imperative):

## Chapter 1: 1-7

- 1-7 Problem Solving: The Four-Step Process-pp. 29-34

Chapter 2: 2-6

- 2-6 Problem Solving: Use a Number Sentence-pp. 63-68


## Chapter 3: 3-5

- 3-5 Problem Solving: Use a Model-pp. 97-102


## Chapter 4: 4-6

- 4-6 Problem Solving: Use a Model—pp. 139-144


## Chapter 5: 5-5

- 5-5 Problem Solving: Use Logical Reasoning-pp. 181-186


## Chapter 6: 6-8

- 6-8 Problem Solving: Use a Model-pp. 231-236


## Chapter 7: 7-8

- 7-8 Problem Solving: Use Reasoning-pp. 277-282

Chapter 8: 8-8

- 8-8 Problem Solving: Write and Solve an Equation-pp. 319-324


## Chapter 9: 9-7

- 9-7 Problem Solving: Use a Number Sentence-pp. 357-362


## Chapter 10: 10-5

- 10-5 Problem Solving: Use a Model-pp. 395-400


## Chapter 11: 11-9

- 11-9 Problem Solving: Use a Model-pp. 441-446

Chapter 12: 12-5

- 12-5 Problem Solving: Guess and Test-pp. 471-476

Chapter 13: 13-10

- 13-10 Problem Solving: Use Logical Reasoning-pp. 521-526


## Chapter 14: 14-5

- 14-5 Problem Solving: Draw a Picture-pp. 551-556

Chapter 15: 15-5

- 15-5 Problem Solving: Use Logical Reasoning-pp. 581-586

Chapter 16: 16-6

- 16-6 Problem Solving: Work Backward-pp. 615-620


## I. NUMBERS AND OPERATIONS

$1^{\text {st }}$ Grade Content Standards

| GOAL: To teach students the concept of addition and subtraction and their inverse relationship to each other, whole number relationships including grouping in tens and ones. Students should be exposed to the appropriate vocabulary of the math concepts. Teachers should reinforce the process of estimation at each grade level. |  |
| :---: | :---: |
| A. Number Sense |  |
| The student will: |  |
| 1. Read and write numbers O to 100 | Chapter 6: 6-1 through 6-7 <br> - 6-1 Tens and Ones-pp. 201-204 <br> - 6-2 Tens Through One Hundred-pp. 205-208 <br> - 6-3 Numbers 11 Through 19—pp. 209-212 <br> - 6-4 Numbers 20 Through 39-pp. 213-216 <br> - 6-5 Numbers 40 Through 59-pp. 219-222 <br> - 6-6 Numbers 60 Through 89-pp. 223-226 <br> - 6-7 Numbers 90 Through 100-pp. 227-230 <br> Chapter 7: 7-1 \& 7-2 <br> - 7-1 Place Value of Digits-pp. 247-250 <br> - 7-2 Expanded Form-pp. 251-254 |
| 2. Count by 2's to 100 | Chapter 6: 6-9 <br> - 6-9 Count and Order Using Hundred Chart Patterns-pp. 237-240 |
| 3. Compare sets of objects to show more than, less than, equal to using symbols | Chapter 7: 7-6 <br> - 7-6 Compare Numbers-pp. 269-272 |
| 4. Identify numbers that come before, after and between and represent them on a number line | Chapter 1: 1-6 <br> - 1-6 Count on to Add-pp. 25-28 <br> Chapter 3: 3-6 <br> - 3-6 Count On to Subtract-pp. 103-106 <br> Chapter 4: 4-4 <br> - 4-4 Think Addition to Subtract-pp. 129-132 <br> Chapter 7: 7-4 \& 7-6 <br> - 7-4 Numbers to 120—pp. 261-264 <br> - 7-6 Compare Numbers-pp. 269-272 |
| 5. Identify place value of ones and tens up to 100 | Chapter 6: 6-1 <br> - 6-1 Tens and Ones-pp. 201-204 |
| 6. Recognize two-digit numbers as groups of tens and ones | Chapter 6: 6-2 <br> - 6-2 Tens Through One Hundred-pp. 205-208 |

## I. NUMBERS AND OPERATIONS

$\mathbf{1 s t}^{\text {st }}$ Grade Content Standards

| B. Addition and Subtraction |  |
| :---: | :---: |
| GOAL: To demonstrate the relationship between addition and subtraction as an inverse relationship. |  |
| The student will: |  |
| 1. Use strategies (e.g., doubles, plus-minus-one, making 10, fact families, counting on, etc.) to generate basic facts and to demonstrate understanding of the inverse relationship between addition and subtraction | Chapter 1: 1-5 \& 1-6 <br> - 1-5 Related Addition Facts-pp. 21-24 <br> - 1-6 Count on to Add-pp. 25-28 <br> Chapter 2: 2-3 through 2-5 <br> - 2-3 Doubles and Doubles Plus 1-pp. 49-52 <br> - 2-4 Equivalent Sums-pp. 53-56 <br> - 2-5 Addition Practice-pp. 57-60 <br> Chapter 3: 3-6 \& 3-7 <br> - 3-6 Count On to Subtract-pp. 103-106 <br> - 3-7 All or Zero-pp. 107-110 <br> Chapter 4: 4-1 through 4-3 <br> - 4-1 Related Subtraction Facts-pp. 117-120 <br> - 4-2 Relate Addition and Subtraction-pp. 121-124 <br> - 4-3 Fact Families Through 10-pp. 125-128 <br> Chapter 8: 8-1 <br> - 8-1 Make 10 to Add-pp. 289-292 <br> Chapter 9: 9-1, 9-2 \& 9-6 <br> - 9-1 Make 10 to Subtract-pp. 331-334 <br> - 9-2 Subtract from 11 and 12-pp. 335-338 <br> - 9-6 Fact Families Through 20-pp. 353-356 <br> Chapter 11: 11-1 <br> - 11-1 Mental Math: Find 10 or More-pp. 407-410 |
| 2. Use objects, pictures, length-based model (e.g., connecting cubes), and number lines to illustrate addition and subtraction concepts | Chapter 1: 1-1 through 1-6 <br> - 1-1 Sums Through 5-pp. 3-6 <br> - 1-2 Sums Through 6-pp. 7-10 <br> - 1-3 Sums of 7 and 8-pp. 11-14 <br> - 1-4 Sums of 9 and 10-pp. 15-18 <br> - 1-5 Related Addition Facts-pp. 21-24 <br> - 1-6 Count on to Add-pp. 25-28 <br> Chapter 2: 2-1 through 2-5, 2-7 <br> - 2-1 Add Three Numbers-pp. 41-44 <br> - 2-2 Solve Addition Word Problems-pp. 45-48 <br> - 2-3 Doubles and Doubles Plus 1-pp. 49-52 <br> - 2-4 Equivalent Sums-pp. 53-56 <br> - 2-5 Addition Practice-pp. 57-60 <br> - 2-7 Solve for Unknown Addends-pp. 69-72 |

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## I. NUMBERS AND OPERATIONS

$\mathbf{1 s t}^{\text {st }}$ Grade Content Standards

|  | Chapter 3: 3-1 through 3-7 <br> - 3-1 Subtract from 5 or Less-pp. 79-82 <br> - 3-2 Subtract from 6 or Less-pp. 83-86 <br> - 3-3 Subtract from 7 and 8-pp. 87-90 <br> - 3-4 Subtract from 9 and 10-pp. 91-94 <br> - 3-5 Problem Solving: Use a Model-pp. 97-102 <br> - 3-6 Count On to Subtract-pp. 103-106 <br> - 3-7 All or Zero-pp. 107-110 <br> Chapter 4: 4-1 through 4-4, 4-6 \& 4-7 <br> - 4-1 Related Subtraction Facts-pp. 117-120 <br> - 4-2 Relate Addition and Subtraction-pp. 121-124 <br> - 4-3 Fact Families Through 10-pp. 125-128 <br> - 4-4 Think Addition to Subtract-pp. 129-132 <br> - 4-6 Problem Solving: Use a Model-pp. 139-144 <br> - 4-7 Find Missing Addends-pp. 145-148 <br> Chapter 12: 12-1 <br> - 12-1 Mental Math: Find 10 Less-pp. 453-456 |
| :---: | :---: |
| 3. Demonstrate single-digit addition and subtraction facts with automaticity (facts to 12) | Chapter 1: 1-1 through 1-5 <br> - 1-1 Sums Through 5-pp. 3-6 <br> - 1-2 Sums Through 6-pp. 7-10 <br> - 1-3 Sums of 7 and 8-pp. 11-14 <br> - 1-4 Sums of 9 and 10-pp. 15-18 <br> - 1-5 Related Addition Facts-pp. 21-24 <br> Chapter 3: 3-1 through 3-4 <br> - 3-1 Subtract from 5 or Less-pp. 79-82 <br> - 3-2 Subtract from 6 or Less-pp. 83-86 <br> - 3-3 Subtract from 7 and 8-pp. 87-90 <br> - 3-4 Subtract from 9 and 10-pp. 91-94 <br> Chapter 4: 4-3 through 4-5, 4-7 <br> - 4-3 Fact Families Through 10-pp. 125-128 <br> - 4-4 Think Addition to Subtract-pp. 129-132 <br> - 4-5 Check by Adding-pp. 133-136 <br> - 4-7 Find Missing Addends-pp. 145-148 <br> Chapter 8: 8-2 <br> - 8-2 Addition: Sums of 11 and 12-pp. 293-296 <br> Chapter 9: 9-2 <br> - 9-2 Subtract from 11 and 12-pp. 335-338 |
| 4. Add and subtract two-digit numbers without regrouping | Chapter 11: 11-1 through 11-4, 11-6 <br> - 11-1 Mental Math: Find 10 or More-pp. 407-410 <br> - 11-2 Add Tens-pp. 411-414 <br> - 11-3 Add Two-Digit Numbers and Multiples of Ten-pp. 415-418 <br> - 11-4 Add Two-Digit and One-Digit Numbers-pp. 419-422 <br> - 11-6 Add Two-Digit Numbers-pp. 429-432 <br> Chapter 12: 12-1 through 12-4 <br> - 12-1 Mental Math: Find 10 Less-pp. 453-456 <br> - 12-2 Subtract Tens-pp. 457-460 <br> - 12-3 Think Addition to Subtract Tens-pp. 461-464 <br> - 12-4 Subtract Multiples of Ten from Two-Digit Numbers-pp. 467-470 |

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## I. NUMBERS AND OPERATIONS

## $\mathbf{1 s t}^{\text {st }}$ Grade Content Standards

5. Choose the appropriate operation of addition or subtraction in word problems

## Chapter 4: 4-9

- 4-9 Solve Comparison Word Problems-pp. 153-156 (choose to add or subtract)
C. Multiplication and Division

No objectives.
D. Properties

| The student will: |
| :--- |

1. Use the commutative and associative properties to add single-digit whole numbers (i.e., $2+5=5+2,3+(4+1)=(3+4)+1)$. Use the correct vocabulary when using this property.

## Chapter 1: 1-5

- 1-5 Related Addition Facts—pp. 21-24

See also Grade 2
Chapter 8: 8-8

- 8-8 Use Properties to Add-pp. 373-376


## II. MEASUREMENT

## $\mathbf{1 s t}^{\text {st }}$ Grade Content Standards

Students should be able to estimate and measure in both customary and metric measurements of length, weight, capacity, temperature, time and money. As their ability to measure increases, they should be able to determine the reasonableness of their answers. Students should use appropriate labels for answers.

## A. Linear Measurement

The student will:

1. Measure length, width and height using nonstandard and standard units

## Chapter 5: 5-3 \& 5-4

- 5-3 Same-Size Length Units-pp. 171-174
- 5-4 Measure Length-pp. 175-178


## See also

## Chapter 5: 5-5

- 5-5 Problem Solving: Use Logical Reasoning-pp. 181-186 (length and height)
continued


## II. MEASUREMENT

${ }^{\text {stt }}$ Grade Content Standards

|  | Chapter 13: 13-5 <br> - 13-5 Three-Dimensional Shapes-pp. 501-504 (width) <br> Chapter 14: 14-2 <br> - 14-2 Customary Units of Length—pp. 298-299 (width) |
| :---: | :---: |
| 2. Using non-standard units make and check estimates of length | Chapter 5: 5-3 \& 5-4 <br> - 5-3 Same-Size Length Units-pp. 171-174 <br> - 5-4 Measure Length-pp. 175-178 |
| 3. Compare and order lengths | Chapter 5: 5-1 <br> - 5-1 Order by Length-pp. 163-166 |
| B. Weight |  |
| The student will: |  |
| 1. Measure weight using non-standard and standard units | See Grade 3 <br> Chapter 11: 11-4 <br> - 11-4 Estimate and Measure Mass-pp. 240-241 <br> See Grade 4 <br> Chapter 14: 14-4 <br> - 14-4 Customary Units of Weight-pp. 302-303 |
| 2. Compare and order weights using nonstandard and standard units | See Grade 3 <br> Chapter 11: 11-4 <br> - 11-4 Estimate and Measure Mass-pp. 240-241 <br> See Grade 4 <br> Chapter 14: 14-4 <br> - 14-4 Customary Units of Weight-pp. 302-303 |
| 3. Select an appropriate tool for measuring weight (i.e., a balance scale versus a ruler or a cup) | See Grade 4 <br> Chapter 14: 14-4 <br> - 14-4 Customary Units of Weight-pp. 302-303 |
| C. Temperature |  |
| No objectives. |  |
| D. Time/Money |  |
| The student will: |  |
| 1. Read and identify dates and days of the week using a calendar | See Kindergarten Chapter 17: 17-2 <br> - 17-2 Calendar-pp. 623-626 |

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## II. MEASUREMENT

$1^{\text {st }}$ Grade Content Standards

| 2. Sequence days and months | See Kindergarten <br> Chapter 17: 17-2 <br> - 17-2 Calendar-pp. 623-626 |
| :---: | :---: |
| 3. Tell time to the hour and half-hour | Chapter 15: 15-1 \& 15-2 <br> - 15-1 Hour-pp. 563-566 <br> - 15-2 Half Hour-pp. 567-570 |
| 4. Identify the value of coins including halfdollars and dollar coins | Chapter 16: 16-1, 16-2 <br> - 16-1 Pennies and Nickels-pp. 593-596 <br> - 16-2 Dimes and Quarters-pp. 597-600 <br> See also <br> Chapter 16: 16-5 <br> - 16-5 One Dollar-pp. 611-614 |
| 5. Add total value of mixed coins; pennies, nickels, dimes and quarters | Chapter 16: 16-3 \& 16-4 <br> - 16-3 Count On by Dimes and Pennies-pp. 601-604 <br> - 16-4 Count on by Dimes and Nickels-pp. 605-608 |
| E. Capacity |  |
| No objectives. |  |

## III. GEOMETRY

## $\mathbf{1 s t}^{\text {st }}$ Grade Content Standards

 Sadlier Math, Grade 1| The student will: |  |
| :---: | :---: |
| 1. Compare similarities and differences between common geometric shapes | Chapter 13: 13-7 \& 13-8 <br> - 13-7 Compare Two-Dimensional and Three-Dimensional Shapes-pp. 509-512 <br> - 13-8 Sort Two-Dimensional and Three-Dimensional Shapes-pp. 513-516 |
| 2. Compose (combine) and decompose (take apart) basic shapes | Chapter 13: 13-3, 13-4 \& 13-9 <br> - 13-3 Compose Two-Dimensional Shapes-pp. 491-494 <br> - 13-4 Compose More Two-Dimensional Shapes-pp. 495-498 <br> - 13-9 Compose Three-Dimensional Shapes-pp. 517-520 |
| 3. Describe characteristics of two-and threedimensional geometric shapes to include squares, rectangles, triangles, circles, cubes, pyramid, sphere, cylinder, rectangular prism and cone | Chapter 13: 13-1 through 13-6 <br> - 13-1 Two-Dimensional Shapes-pp. 483-486 <br> - 13-2 Attributes of Two-Dimensional Shapes-pp. 487-490 <br> - 13-5 Three-Dimensional Shapes-pp. 501-504 <br> - 13-6 Atributes of Three-Dimensional Shapes-pp. 505-508 |

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## IV. STATISTICS, PROBABILITY AND DATA ANALYSIS

$1^{\text {st }}$ Grade Content Standards
Sadlier Math, Grade 1

| The student will: |  |
| :---: | :---: |
| 1. Use data collected to describe parts to whole | Chapter 10: 10-1 \& 10-2 <br> - 10.1 Read Tally Charts-pp. $377-380$ 10-2 Make Tlly <br> - 10-2 Make Tally Charts-pp. 381-384 |
| 2. Construct and interpret pictures and bar graphs | Chapter 10: 10-3 \& 10-4 <br> 0-3 Read Picture Graphs-pp. 387 -390 <br> 10-4 Make Picture Graphs-pp. 39--394 <br> See also Grade 2 <br> Chapter 11: 10-5 \& 11-6 <br> - 11-5 Read Bar Graphs-pp. 477-480 <br> - 11-6 Make Bar Graphs-pp. 481-484 |

## V. ALGEBRA

$1^{\text {st }}$ Grade Content Standards Sadlier Math, Grade 1

| The student will: |  |
| :---: | :---: |
| 1. Use concrete objects and pictures to create patterns and describe them in a variety of ways | Chapter 2: 2-3 <br> - 2-3 Doubles and Doubles Plus 1-pp. 49-52 <br> Chapter 4: 4-2 <br> - 4-2 Relate Addition and Subtraction-pp. 121-124 <br> Chapter 6: 6-9 <br> - 6-9 Count and Order Using Hundred Chart Patterns-pp. 237-240 |
| 2. Use number pairs to describe another number | Chapter 1: 1-3 \& 1-5 <br> - 1-3 Sums of 7 and 8-pp. 11-14 <br> - 1-5 Related Addition Facts-pp. 21-24 <br> Chapter 2: 2-3 through 2-5 <br> - 2-3 Doubles and Doubles Plus 1-pp. 49-52 <br> - 2-4 Equivalent Sums-pp. 53-56 <br> - 2-5 Addition Practice-pp. 57-60 |

