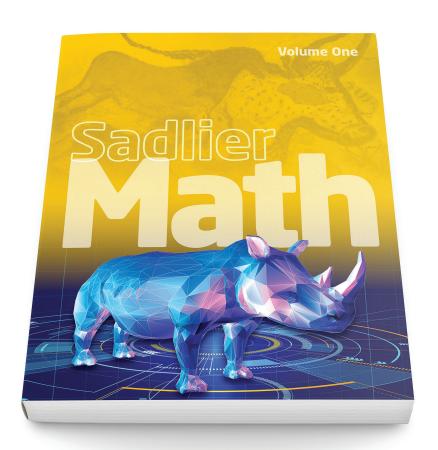
Sadlier School

Sadlier Math[™]

Correlation to the Diocese of Richmond Mathematics Curriculum

Grade K



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Problem Solving (Strategies)

Kindergarten Content Standards

Problem solving is integrated throughout the content strands. The development of problem-solving 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):

Sadlier Math, Kindergarten

Chapter 1: 1-6

• 1-6 Problem Solving: The Four-Step Process—pp. 25-30

Chapter 2: 2-7

• 2-7 Problem Solving: Use a Map-pp. 63-68

Chapter 3: 3-8

• 3-8 Problem Solving: Use Tools—pp. 105-110

Chapter 4: 4-5

• 4-5 Problem Solving: Read and Understand—pp. 135-140

Chapter 5: 5-8

• 5-8 Problem Solving: Use Counting—pp. 177-182

Chapter 6: 6-9

• 6-9 Problem Solving: Find a Pattern—pp. 223-228

Chapter 7: 7-6

• 7-6 Problem Solving: Make a Drawing -pp. 257-262

Chapter 8: 8-7

• 8-7 Problem Solving: Follow Directions/Act It Out—pp. 295-300

Chapter 9: 9-5

• 9-5 Problem Solving: Use Drawings to Solve Problems—pp. 325-330

Chapter 10: 10-9

• 10-9 Problem Solving: Use a Model—pp. 371-376

Chapter 11: 11-9

• 11-9 Problem Solving: Use a Number Sentence —pp. 417-422

Chapter 12: 12-10

• 12-10 Problem Solving: Use a Model—pp. 467-472

Chapter 13: 13-6

• 13-6 Problem Solving: Making a Drawing -pp. 501-506

Chapter 14: 14-8

• 14-8 Problem Solving: Make a Table—pp. 543-548

Chapter 15: 15-5

• 15-5 Problem Solving: Logical Reasoning—pp. 573–578

Chapter 16: 16-6

• 16-6 Problem Solving: Make a Table—pp. 607-612

Chapter 17: 17-5

• 17-5 Problem Solving: Draw a Picture—pp. 637-642

Chapter 18: 18-5

• 18-5 Problem Solving: Use a Model—pp. 667-672

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I.	I. NUMBERS AND OPERATIONS		
	Kindergarten Content Standards	Sadlier Math, Kindergarten	
Teachers should reinforce the process of estimation at each grade level. The use of a "Guessing Jar" containing an unknown number of objects is one way to do this.			
GOAL: For students to be able to count in a variety of ways, and to master one-to-one correspondence.			
A.	Number Sense		
The	e student will:		
1.	Count to 100 by: ones, five, tens	Chapter 16: 16-1 & 16-5 • 16-1 Count to 50 by Ones—pp. 585-588 (TE Develop Concepts: Count by Ones) • 16-3 Count to 100 by Ones—pp. 595-598 • 16-5 Count by Tens—pp. 603-606 (Count up to 100 by 10s; TE Develop Concepts: Count by Tens) See also Grade 1 Chapter 6: 6-9 • 6-9 Count and Order Using Hundred Chart Patterns—pp. 237-240 (Count by 2s, 5s, and 10s)	
2.	Count backwards from 10	Chapter 5: 5-2 • 5-2 Count Forward and Count Back—pp. 151-154 (Count forward from any number to 10; Count back from 10)	
3.	Demonstrate one-to-one correspondence for numbers to 31	Chapter 2: 2-1 • 2-1 As Many As—pp. 37-40 (Match objects one-to-one to show as many as)	
4.	Recognize the number of objects in a small group without counting	Chapter 2: 2-4 through 2-6 • 2-4 Count and Write 1 and 2—pp. 51-54 • 2-5 Count and Write 3 and 4—pp. 55-58 • 2-6 Count and Write 0 and 5—pp. 59-62	

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I.	I. NUMBERS AND OPERATIONS		
	Kindergarten Content Standards	Sadlier Math, Kindergarten	
5.	Create a group of a given number of objects	Chapter 2: 2-1 • 2-3 Make Equal Groups—pp. 45-48 Chapter 3: 3-1, 3-5 & 3-8 • 3-1 Count to Tell How Many—pp. 75-78 (Make a group) • 3-5 Less Than—pp. 93-96 (Make a group) • 3-8 Problem Solving: Use Tools—pp. 105-110 (Make a group) Chapter 4: 4-5 • 4-5 Problem Solving: Read and Understand—pp. 135-140 (Make/compare groups) Chapter 5: 5-1 • 5-1 Count Numbers to 10—pp. 147-150 (Make a group) Chapter 9: 9-5 • 9-5 Problem Solving: Make and Use a Plan—pp. 325-330 (Make a group) Chapter 10: 10-1 • 10-1 Add To—pp. 337-340 Chapter 11: 11-1 • 11-1 Take Away—pp. 383-386 Chapter 12: 12-1, 12-6 through 12-8 • 12-1 Count and Write 11 and 12—pp. 429-432 • 12-6 Count and Write 18 and 19—pp. 455-458 • 12-8 Count and Write 18 and 19—pp. 455-458	
6.	Read, order and write numbers 0 to 30	Chapter 2: 2-4 through 2-6 • 2-4 Count and Write 1 and 2—pp. 51-54 • 2-5 Count and Write 3 and 4—pp. 55-58 • 2-6 Count and Write 0 and 5—pp. 59-62 Chapter 4: 4-1 through 4-3 • 4-1 Count and Write 8 and 9—pp. 117-120 • 4-2 Count and Write 10—pp. 127-130 Chapter 12: 12-1, 12-4 through 12-8 • 12-1 Count and Write 11 and 12—pp. 429-432 • 12-4 Count and Write 13 and 14—pp. 441-444 • 12-5 Count and Write 15—pp. 447-450 • 12-6 Count and Write 16 and 17—pp. 451-454 • 12-7 Count and Write 18 and 19—pp. 455-458 • 12-8 Count and Write 20—pp. 459-462 Chapter 15: 15-1 through 15-3 • 15-1 Count and Write 21 to 24—pp. 555-558 • 15-2 Count and Write 29 to 31—pp. 565-568	
7.	Identify ordinal numbers from first to tenth	Chapter 3: 3-7 • 3-7 Ordinals: First to Fifth—pp. 101-104 Chapter 5: 5-7 • 5-7 Ordinals: First to Tenth—pp. 173-176	

I.	I. NUMBERS AND OPERATIONS		
	Kindergarten Content Standards	Sadlier Math, Kindergarten	
8.	Use language such as more than, less than, equal, before and after to compare small quantities	Chapter 2: 2-1 through 2-3 • 2-1 As Many As—pp. 37-40 • 2-2 Fewest, Most—pp. 41-44 • 2-3 Make Equal Groups—pp. 45-48 Chapter 3: 3-6 • 3-6 Compare Numbers up to 5—pp. 97-100 Chapter 5: 5-3 • 5-3 Compare Numbers up to 10—pp. 155-158	
9.	Recognize number words to 10	Chapter 2: 2-4 through 2-6 • 2-4 Count and Write 1 and 2—pp. 51-54 • 2-5 Count and Write 3 and 4—pp. 55-58 • 2-6 Count and Write 0 and 5—pp. 59-62 Chapter 4: 4-1 through 4-3 • 4-1 Count and Write 6 and 7—pp. 117-120 • 4-2 Count and Write 8 and 9—pp. 121-124 • 4-3 Count and Write 10—pp. 127-130	
10.	Identify one more and one less	Chapter 4: 4-4 • 4-4 Order Numbers to 10—pp. 131–134 Chapter 10: 10-3 & 10-7 • 10-3 Add 1—pp. 345–348 • 10-7 Addition Patterns—pp. 363–366 Chapter 11: 11-3 & 11-7 • 11-3 Subtract 1—pp. 391–394 • 11-7 Subtraction Patterns—pp. 409–412	
11.	Demonstrate place value with manipulatives: ones and tens	Chapter 13: 13-1 through 13-5 • 13-1 Make and Break Apart 11 and 12—pp. 479-482 • 13-2 Make and Break Apart 13 and 14—pp. 483-486 • 13-3 Make and Break Apart 15—pp. 487-490 • 13-4 Make and Break Apart 16 and 17—pp. 493-496 • 13-5 Make and Break Apart 18 and 19—pp. 497-500 See also Grade 1 Chapter 6: 6-1 • 6-1 Tens and Ones—pp. 201-204	
B. /	B. Addition and Subtraction		
The	e student will:		
1.	Count the number in combined groups	Chapter 10: 10-1 & 10-2 • 10-1 Add To—pp. 337-340 • 10-2 Put Together—pp. 341-344	

I. NUMBERS AND OPERATIONS		
Kindergarten Content Standards	Sadlier Math, Kindergarten	
Use concrete objects to solve problems with sums and differences up to 10	Chapter 10: 10-3 through 10-9 10-3 Add 1—pp. 345-348 10-4 Add 2—pp. 349-352 10-5 Add 3—pp. 353-356 10-6 Add 4—pp. 357-360 10-7 Addition Patterns—pp. 363-366 10-8 Use Ten-Frames to Add—pp. 367-370 10-9 Problem Solving: Use a Model—pp. 371-376 Chapter 11: 11-3 through 11-8 11-3 Subtract 1—pp. 391-394 11-4 Subtract 2—pp. 395-398 11-5 Subtract 3—pp. 399-402 11-6 Subtract 4—pp. 403-406 11-7 Subtraction Patterns—pp. 409-412 11-8 Use Ten-Frames to Subtract—pp. 413-416	
C. Multiplication and Division		
No objectives.		
D. Properties		
No objectives.		
E. Fractions/Decimals/Percents		
The student will:		
1. Represent commonly used fractions such as 1/4 and 1/2	See Grade 1 related content Chapter 14: 14-2 through 14-5 • 14-2 Make Halves—pp. 537-540 • 14-3 Make Fourths—pp. 541-544 • 14-4 Halves and Fourths—pp. 547-550 • 14-5 Problem Solving: Draw a Picture—pp. 551-556 See Grade 3 Chapter 9: 9-2 • 9-2 Name Unit Fractions of a Whole—pp. 190-191 (introduce numerator, denominator, fractional notation)	

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II.	II. MEASUREMENT		
	Kindergarten Content Standards	Sadlier Math, Kindergarten	
and of le mor sho of t	dents should be able to estimate and measure in both customary and metric measurements ength, weight, capacity, temperature, time and ney. As their ability to measure increases, they uld be able to determine the reasonableness heir answers. Students should use appropriate els for answers.		
A. L	inear Measurement		
The	student will:		
1.	Identify by direct comparison the difference between longer and shorter	Chapter 14: 14-2 • 14-2 Describe and Compare by Length—pp. 517-520	
2.	Using a non-standard unit of measurement determine longer and shorter (using a shoe, a hand, etc)	See Grade 1 Chapter 5: 5-2 through 5-4 • 5-2 Use Indirect Comparison—pp. 167-170 • 5-3 Same-Size Length Units—pp. 171-174 • 5-4 Measure Length—pp. 175-178	
3.	Order several objects according to length	 Chapter 14: 14-2 & 14-3 14-2 Describe and Compare by Length—pp. 517-520 14-3 Order by Length—pp. 521-524 	
B. V	Veight		
The	student will:		
1.	Identify by direct comparison the difference between heavier and lighter	Chapter 14: 14-5 • 14-5 Describe and Compare by Weight—pp. 531-534	
C. T	emperature emperature		
The	student will:		
1.	Identify by direct comparison the difference between hotter and colder	Chapter 14: 14-7 • 14-7 Describe Temperature—pp. 539-542	
D. T	D. Time/Money		
The	student will:		
1.	Recite the 7 days of the week and the 12 months of the year	Chapter 17: 17-2 • 17-2 Calendar—pp. 623-626	

II. MEASUREMENT		
	Kindergarten Content Standards	Sadlier Math, Kindergarten
2.	Recognize parts of the calendar: day of the week, month, year, date	Chapter 17: 17-2 • 17-2 Calendar—pp. 623-626
3.	Identify and determine the value of coins (penny, nickel, dime, quarter)	 Chapter 18: 18-1 & 18-3 18-1 Pennies and Nickels—pp. 649-652 18-3 Dimes and Quarters—pp. 659-662
4.	Tell time to hour and half hour	Chapter 17: 17-4 • 17-4 Time on the Hour—pp. 633-636 See also Grade 1 Chapter 15: 15-2 • 15-2 Half Hour—pp. 567-570

	III. GEOMETRY		
	Kindergarten Content Standards	Sadlier Math, Kindergarten	
The	e student will:		
1.	Identify the difference between two- (circle, square, triangle, rectangle, oval, diamond, heart) and three-dimensional shapes (sphere, cube, cone, rectangular prism, pyramid)	Chapter 6: 6-1 through 6-5 • 6-1 Triangles—pp. 189–192 • 6-2 Squares and Rectangles—pp. 193–196 • 6-3 Circles—pp. 197–200 • 6-4 Hexagons—pp. 203–206 • 6-5 Compare Two-Dimensional Shapes—pp. 207–210 Chapter 7: 7-1 through 7-4 • 7-1 Cylinders, Cones, and Spheres—pp. 235–238 • 7-2 Cubes and Rectangular Prisms—pp. 239–242 • 7-3 Compare Three-Dimensional Shapes—pp. 245–248 • 7-4 Model Three-Dimensional Shapes—pp. 249–252 • 7-5 Compare Two-Dimensional and Three-Dimensional Shapes—pp. 253–256	
2.	Demonstrate common language of spatial sense and show examples: inside,	Chapter 8: 8-1 through 8-6 • 8-2 Top, Middle, Bottom—pp. 273-276 • 8-3 Over, On, Under—pp. 277-280 • 8-4 Inside, Outside, Beside—pp. 283-286 • 8-5 In Front of, Behind, Next to—pp. 287-290 • 8-6 Left, Right, Between—pp. 291-294	

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IV. STATISTICS, PROBABILITY AND DATA ANALYSIS		
	Kindergarten Content Standards	Sadlier Math, Kindergarten
The	e student will:	
1.	Sort and classify objects according to their attributes (e.g., shape, size, color)	Chapter 1: 1-3 through 1-5 1-3 Sort by Color—pp. 11-14 1-4 Sort by Shape—pp. 17-20 1-5 Sort by Size—pp. 21-24
2.	Collect data about themselves and their surroundings (e.g., hair color, eye color, shoe color, birthdays)	See Grate 1 Chapter 10: 10-1 • 10-1 Read Tally Charts—pp. 377-380 (collecting data)
3.	Construct and interpret graphs, real graphs (using physical objects), pictographs	See Grate 1 Chapter 10: 10-1 10-1 Read Tally Charts—pp. 377-380 10-2 Make Tally Charts—pp. 381-384 10-3 Read Picture Graphs—pp. 387-390

• 10-4 Make Picture Graphs-pp. 391-394

V.	V. ALGEBRA	
	Kindergarten Content Standards	Sadlier Math, Kindergarten
The	e student will:	
1.	Sort objects and pictures by attributes	Chapter 1: 1-3 through 1-5 1-1 Alike or Same—pp. 3-6 1-2 Different—pp. 7-10 1-3 Sort by Color—pp. 11-14 1-4 Sort by Shape—pp. 17-20 1-5 Sort by Size—pp. 21-24
2.	Describe sorting rules	Chapter 1: 1-3 through 1-5 1-1 Alike or Same—pp. 3-6 1-2 Different—pp. 7-10 1-3 Sort by Color—pp. 11-14 1-4 Sort by Shape—pp. 17-20 1-5 Sort by Size—pp. 21-24
3.	Identify, create, copy and extend patterns using numbers, pictures, manipulatives, etc.	Chapter 6: 6-6 & 6-7 • 6-6 Shape Patterns—pp. 211-214 • 6-7 Make Patterns—pp. 215-218