## Sadlier School

## Sadlier Math ${ }^{T M}$

Correlation to the Diocese of Grand Rapids Office of Catholic Schools Curriculum for Mathematics Grade 3


## NUMBER

Third Grade Mathematics Standards

## Sadlier Math, Grade 3

| 3.Math.N. 1 Use a number line to locate and compare (less than, greater than, equal to) whole numbers and commonly used fractions. | Chapter 9: 9-3 \& 9-5 <br> - 9-3 Find Unit Fractions on a Number Line-pp. 192-193 <br> - 9-5 Find Fractions on a Number Line-pp. 198-199 <br> Chapter 10: 10-3 through 10-6 <br> - 10-3 Find Equivalent Fractions on a Number Line-pp. 214-215 <br> - 10-4 Compare Fractions with the Same Denominator-pp. 218-219 <br> - 10-5 Compare Fractions with the Same Numerator-pp. 220-221 <br> - 10-6 Order Fractions-pp. 222-223 |
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| 3.Math.N. 2 Develop and use strategies to estimate computations involving fractions relevant to students' experience. | See Grade 4 <br> Chapter 11: 11-2 through 11-5, 11-7 \& 11-8 <br> - 11-2 Add Fractions: Like Denominators-pp. 226-227 <br> - 11-3 Decompose Fractions as Sums of Unit Fractions-pp. 228-229 <br> - 11-4 Use Models to Subtract Fractions-pp. 230-231 <br> - 11-5 Subtract Fractions: Like Denominators-pp. 232-233 <br> - 11-7 Add Mixed Numbers: Like Denominators-pp. 238-239 <br> - 11-8 Subtract Mixed Numbers: Like Denominators-pp. 240-241 |
| 3.Math.N. 3 Use whole numbers rounded to the nearest 10 or 100 to determine the reasonableness of a whole number computation. | Chapter 1: 1-4 through 1-6 <br> - 1-4 Round Numbers to the Nearest Ten-pp. 10-11 <br> - 1-5 Round Numbers to the Nearest Hundred-pp. 12-13 <br> - 1-6 Problem Solving: Use a Four-Step Process (reasonable sum)-pp. 14-15 <br> Chapter 2: 2-5 through 2-7 <br> - 2-5 Use Place Value to Add: Regroup Once (answer is reasonable)pp. 32-33 <br> - 2-6 Use Place Value to Add: Regroup Twice (reasonable estimates)pp. 34-35 <br> - 2-7 Add with Three or More Addends (answer is reasonable)-pp. 36-37 <br> Chapter 3: 3-4 through 3-5 <br> - 3-4 Subtract Three-Digit Numbers (reasonable estimates)-pp. 54-55 <br> - 3-5 Subtract Across Zeros (reasonable estimates)-pp. 56-57 |
| 3.Math.N. 4 Use inverse operations to solve problems. | Chapter 3: 3-1, 3-2 \& 3-6 <br> - 3-1 Estimate Differences-pp. 46-47 <br> - 3-2 Relate Addition and Subtraction-pp. 48-49 <br> - 3-6 Problem Solving: Read and Understand-pp. 58-59 <br> Chapter 7: 7-1 <br> - 7-1 Relate Multiplication and Division-pp. 142-143 |
| 3.Math.N. 5 Develop fluency of multiplication and division of whole numbers within 100. | Chapter 5: 5-1 through 5-6 <br> - 5-1 Multiply by 2-pp. 88-89 <br> - 5-2 Multiply by 5-pp. 90-91 <br> - 5-3 Multiply by 9-pp. 92-93 <br> - 5-4 Multiply by 1 and 0-pp. 96-97 <br> - 5-5 Multiply by 10-pp. 98-99 <br> - 5-6 Find Patterns in the Multiplication Table-pp. 100-101 continued |

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## Sadlier Math, Grade 3

|  | Chapter 6: 6-1 through 6-6 <br> - 6-1 Break Apart to Multiply-pp. 112-113 <br> - 6-2 Multiply by 3-pp. 114-115 <br> - 6-3 Multiply by 4-pp. 116-117 <br> - 6-4 Multiply by 6-pp. 118-119 <br> - 6-5 Multiply by 7-pp. 120-121 <br> - 6-6 Multiply by 8-pp. 122-123 <br> Chapter 7: 7-2 through 7-5 <br> - 7-2 Divide by 2-pp. 144-145 <br> - 7-3 Divide by 3-pp. 146-147 <br> - 7-4 Divide by 4-pp. 150-151 <br> - 7-5 Divide by 5-pp. 152-153 <br> Chapter 8: 8-1 through 8-5 <br> - 8-1 Divide by 6-pp. 162-163 <br> - 8-2 Divide by 7-pp. 164-165 <br> - 8-3 Divide by 8-pp. 166-167 <br> - 8-4 Divide by 9-pp. 168-169 <br> - 8-5 One and Zero in Division-pp. 172-173 |
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| 3.Math.N. 6 Use basic number combinations for multiplication and division to mentally compute related problems. | Chapter 5: 5-1 through 5-6 <br> - 5-1 Multiply by 2-pp. 88-89 <br> - 5-2 Multiply by 5-pp. 90-91 <br> - 5-3 Multiply by 9—pp. 92-93 <br> - 5-4 Multiply by 1 and 0-pp. 96-97 <br> - 5-5 Multiply by 10-pp. 98-99 <br> - 5-6 Find Patterns in the Multiplication Table-pp. 100-101 <br> Chapter 6: 6-1 through 6-7, 6-9 through 6-11 <br> - 6-1 Break Apart to Multiply—pp. 112-113 <br> - 6-2 Multiply by 3-pp. 114-115 <br> - 6-3 Multiply by 4-pp. 116-117 <br> - 6-4 Multiply by 6-pp. 118-119 <br> - 6-5 Multiply by 7-pp. 120-121 <br> - 6-6 Multiply by 8-pp. 122-123 <br> - 6-7 Use a Bar Model to Multiply—pp. 126-127 <br> - 6-9 Use the Associative Property to Multiply—pp. 130-131 <br> - 6-10 Find More Multiplication Patterns—pp. 132-133 <br> - 6-11 Multiply by Multiples of 10-pp. 134-135 <br> Chapter 7: 7-1 through 7-5 <br> - 7-1 Relate Multiplication and Division-pp. 142-143 <br> - 7-2 Divide by 2-pp. 144-145 <br> - 7-3 Divide by 3-pp. 146-147 <br> - 7-4 Divide by 4-pp. 150-151 <br> - 7-5 Divide by 5-pp. 152-153 <br> Chapter 8: 8-1 through 8-5, 8-7 \& 8-8 <br> - 8-1 Divide by 6-pp. 162-163 <br> - 8-2 Divide by 7-pp. 164-165 <br> - 8-3 Divide by 8-pp. 166-167 <br> - 8-4 Divide by 9-pp. 168-169 <br> - 8-5 One and Zero in Division-pp. 172-173 <br> - 8-7 Fact Families-pp. 176-177 <br> - 8-8 Use Facts to Solve Problems-pp. 178-179 |

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## Sadlier Math, Grade 3

3.Math.N. 7 Select and apply the best method to solve word problems.

## Problem Solving Math Practices

- A Four-Step Process-p. xxi
- Make sense of problems/Use reasoning-p. xxii
- Explain your reasoning/Model with mathematics-p. xxiii
- Use the right tools/Be precise-p. xxiv
- Look for a pattern-p. xxv


## Problem Solving Strategies

- Make and Use a Plan-p. xxvi
- Work Backward-p. xxvii
- Use Logical Reasoning-p. xxviii
- Read and Understand-p. xxix
- Write and Solve an Equation-p. $x x x$


## Chapter 1: 1-6

- 1-6 Problem Solving: Use a Four-Step Process-pp. 14-15

Chapter 2: 2-8

- 2-8 Problem Solving: Use a Model-pp. 38-39

Chapter 3: 3-6

- 3-6 Problem Solving: Read and Understand-pp. 58-59


## Chapter 4: 4-7

- 4-7 Problem Solving: Write an Equation-pp. 80-81


## Chapter 5: 5-8

- 5-8 Problem Solving: Compare Models-pp. 104-105


## Chapter 6: 6-8

- 6-8 Problem Solving: Make a Table-pp. 128-129

Chapter 7: 7-6

- 7-6 Problem Solving: Use Drawings to Solve Problems-pp. 154-155

Chapter 8: 8-6

- 8-6 Problem Solving: Work Backward—pp. 174-175


## Chapter 9: 9-7

- 9-7 Problem Solving: Use a Model-pp. 202-203


## Chapter 10: 10-7

- 10-7 Problem Solving: Act It Out—pp. 224-225


## Chapter 11: 11-6

- 11-6 Problem Solving: Write an Equation-pp. 244-245


## Chapter 12: 12-6

- 12-6 Problem Solving: Compare Models-pp. 264-265

Chapter 13: 13-5

- 13-5 Problem Solving: Use Logical Reasoning-pp. 286-287

Chapter 14: 14-5

- 14-5 Problem Solving: Choose a Strategy-pp. 304-305

Chapter 15: 15-6

- 15-6 Problem Solving: Guess and Test-pp. 324-325

Chapter 16: 16-4

- 16-4 Problem Solving: Compare Strategies—pp. 340-341


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## Sadlier Math, Grade 3

3.Math.N. 8 Solve problems with multiple steps involving any combination of addition, subtraction, multiplication, and division, including those with solutions that are not whole numbers.

## Chapter 3: 3-6

- 3-6 Problem Solving: Read and Understand (two-step problems)pp. 58-59


## Chapter 6: 6-8

- 6-8 Problem Solving: Make a Table (two-step problems)-pp. 128-129


## Chapter 8: 8-6

- 8-6 Problem Solving: Work Backward (solve multistep problems)pp. 174-175
Chapter 12: 12-5
- 12-5 Data and Two-Step Problems-pp. 260-261


## Chapter 4: 4-1 through 4-6

- 4-1 Represent Multiplication as Repeated Addition-pp. 66-67
- 4-2 Represent Multiplication on a Number Line-pp. 68-69
- 4-3 Represent Multiplication as Arrays-pp. 70-71
- 4-4 Multiply with the Commutative Property-pp. 74-75
- 4-5 Represent Division by Sharing-pp. 76-77
- 4-6 Represent Division by Repeated Subtraction-pp. 78-79


## ALGEBRA

Third Grade Mathematics Standards
Sadlier Math, Grade 3
3.Math.A. 1 Apply the commutative, associative, and distributive properties of operations to compute with whole numbers.

## Chapter 2: 2-1

- 2-1 Use Addition Properties-pp. 22-23


## Chapter 4: 4-4

- 4-4 Multiply with the Commutative Property-pp. 74-75

Chapter 6: 6-1, 6-3 through 6-5, 6-9 through 6-11

- 6-1 Break Apart to Multiply (distributive property)—pp. 112-113
- 6-3 Multiply by 4-pp. 116-117
- 6-4 Multiply by 6 (commutative property) -pp. 118-119
- 6-5 Multiply by 7 (commutative property)-pp. 120-121
- 6-9 Use the Associative Property to Multiply-pp. 130-131
- 6-10 Find More Multiplication Patterns-pp. 132-133
- 6-11 Multiply by Multiples of 10 (associative/distributive properties)pp. 134-135


## Chapter 15: 15-4

- 15-4 Find Area Using the Distributive Property-pp. 320-321

Chapter 16: 16-1

- 16-1 Understand Perimeter (associative property) -pp. 332-333


## ALGEBRA

Third Grade Mathematics Standards

## Sadlier Math, Grade 3

3.Math.A. 2 Describe and extend geometric and numeric patterns.

## Problem Solving Math Practices

- Look for a pattern-p. xxv

Chapter 2: 2-2

- 2-2 Explore Addition Patterns-pp. 24-25


## Chapter 5: 5-6

- 5-6 Find Patterns in the Multiplication Table-pp. 100-101

Chapter 6: 6-10

- 6-10 Find More Multiplication Patterns-pp. 132-133

Chapter 10: 10-1

- 10-1 Whole Numbers and Fractions (describe patterns)-pp. 210-211


## Chapter 14: 14-5

- 14-5 Problem Solving: Choose a Strategy (describe pattern)-pp. 304-305


## GEOMETRY

Third Grade Mathematics Standards

| 3.Math.G. 1 Identify, compare, and analyze properties of 2D and 3D shapes to classify them. | Chapter 14: 14-1 through 14-3 <br> - 14-1 Classify Polygons-pp. 294-295 <br> - 14-2 Classify Quadrilaterals-pp. 296-297 <br> - 14-3 Draw Quadrilaterals-pp. 298-299 <br> See also Grade 2 <br> Chapter 13: 13-3 \& 13-4 <br> - 13-3 Identify Three-Dimensional Shapes-pp. 565-568 <br> - 13-4 Faces, Edges, Vertices-pp. 569-572 |
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| 3.Math.G. 2 Identify and describe line and rotational symmetry in 2D and 3D shapes and designs. | See Grade 4 <br> Chapter 17: 17-4 <br> - 17-4 Symmetry-pp. 376-377 <br> See also Grade 6 <br> Chapter 9: 9-8 <br> - 9-8 Reflections of Points (Develop Concepts: Symmetry)—pp. 212-213 |
| 3.Math.G. 3 Describe the results of subdividing, combining, and transforming shapes. | Chapter 14: 14-4 <br> - 14-4 Compose and Decompose Shapes-pp. 302-303 |

## MEASUREMENT

Third Grade Mathematics Standards Sadlier Math, Grade 3

| 3.Math.M. 1 Determine the perimeter and area of regular shapes using standard units. | Chapter 15: 15-1 through 15-4 <br> - 15-1 Understand Area-pp. 312-313 <br> - 15-2 Find Area Using Standard Units-pp. 314-315 <br> - 15-3 Find the Area of a Rectangle and a Square-pp. 316-317 <br> - 15-4 Find Area Using the Distributive Property-pp. 320-321 <br> Chapter 16: 16-1 through 16-3 <br> - 16-1 Understand Perimeter-pp. 332-333 <br> - 16-2 Find Perimeter-pp. 334-335 <br> - 16-3 Find Unknown Side Lengths-pp. 336-337 |
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| 3.Math.M. 2 Describe what happens to measurements of a 2D shape, such as its perimeter and area, when the shape is changed in some way. | Chapter 16: 16-5 \& 16-6 <br> - 16-5 Same Perimeter, Different Areas-pp. 342-343 <br> - 16-6 Same Area, Different Perimeters-pp. 344-345 |
| 3.Math.M. 3 Show how differences in units affect precision. | Chapter 11: 11-1 through 11-4 <br> - 11-1 Measure Length-pp. 232-233 <br> - 11-2 Estimate and Measure Liquid Volume-pp. 234-235 <br> - 11-3 Operations with Liquid Volume-pp. 236-237 <br> - 11-4 Estimate and Measure Mass-pp. 240-241 |
| 3.Math.M. 4 Solve problems involving perimeters of 2D shapes, including various non-regular polygons. | Chapter 16: 16-1 through 16-6 <br> - 16-1 Understand Perimeter-pp. 332-333 <br> - 16-2 Find Perimeter-pp. 334-335 <br> - 16-3 Find Unknown Side Lengths-pp. 336-337 <br> - 16-4 Problem Solving: Compare Strategies-pp. 340-341 <br> - 16-5 Same Perimeter, Different Areas-pp. 342-343 <br> - 16-6 Same Area, Different Perimeters-pp. 344-345 |

## DATA ANALYSIS

Third Grade Mathematics Standards

## Sadlier Math, Grade 3

3.Math.D. 1 Compare different representations of the same data and evaluate how well each representation shows important aspects of the data.

Chapter 12: 12-1 through 12-5, 12-7 \& 12-8

- 12-1 Read Picture Graphs-pp. 252-253
- 12-2 Make Picture Graphs-pp. 254-255
- 12-3 Read Bar Graphs-pp. 256-257
- 12-4 Make Bar Graphs-pp. 258-259
- 12-5 Data and Two-Step Problems-pp. 260-261
- 12-7 Read Line Plots-pp. 266-267
- 12-8 Make Line Plots-pp. 268-269


## See Grade 6

## Chapter 18: 18-3

- 18-3 Probability and Likelihood-online

