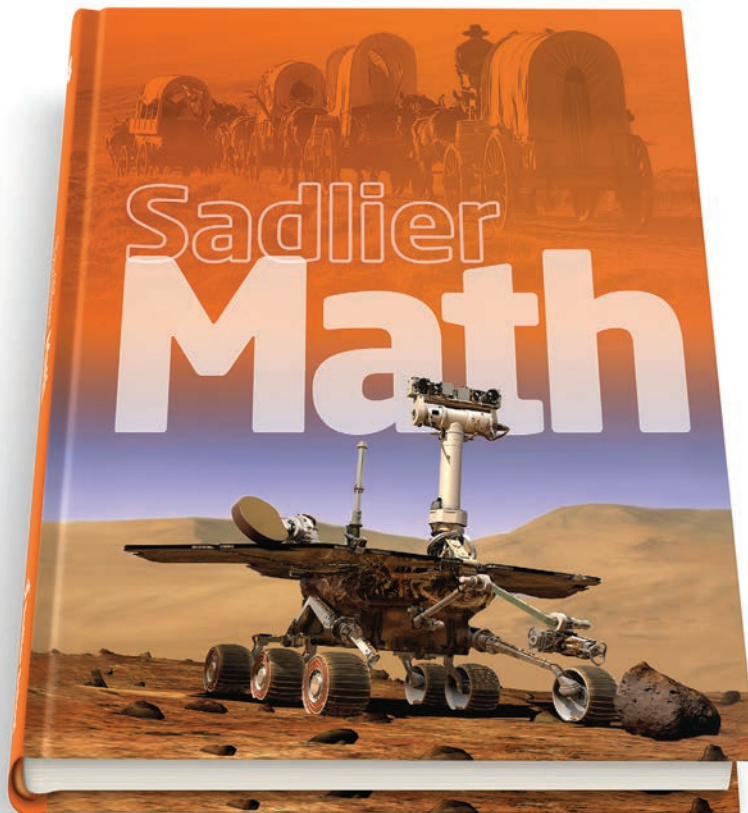


Sadlier Math™

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

Grade 4



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| NUMBER | |
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| Fourth Grade Mathematics Standards | Sadlier Math, Grade 4 |
| <p>4.Math.N.1 Identify the place on a number line for whole numbers, fractions, and decimals to the hundredths place, and explore values less than zero on the number line.</p> | <p>Chapter 1: 1-5 & 1-6</p> <ul style="list-style-type: none"> • 1-5 Round Whole Numbers: Navigating the Number Line—TE p. 12A • 1-6 Compare and Order Whole Numbers: Struggling Learners (number line)—TE p. 14A <p>Chapter 4: 4-3</p> <ul style="list-style-type: none"> • 4-3 Multiply Tens, Hundreds, and Thousands: English Language Learners (number line)—TE p. 74 <p>Chapter 8: 8-1</p> <ul style="list-style-type: none"> • 8-1 One-Digit Quotients: Struggling Learners (number line)—TE p. 148A <p>Chapter 9: 9-4</p> <ul style="list-style-type: none"> • 9-4 Multiples: Multiples vs. Factors (number lines)—TE p. 180 <p>Chapter 10: 10-2, 10-6 through 10-11</p> <ul style="list-style-type: none"> • 10-2 Equivalent Fractions: Number Line Diagrams—pp. 194-195 • 10-6 Compare Fractions: Use Benchmarks—pp. 204-205 • 10-7 Compare Fractions with the Same Denominator—pp. 206-207 • 10-8 Compare Fractions—pp. 208-209 • 10-9 Mixed Numbers—pp. 210-211 • 10-10 Compare Mixed Numbers: Compare Mixed Numbers on Number lines—TE p. 212A • 10-11 Order Fractions and Mixed Numbers: Struggling Learners (number lines)—TE p. 214A <p>Chapter 11: 11-1, 11-4 & 11-8</p> <ul style="list-style-type: none"> • 11-1 Use Models to Add Fractions—pp. 224-225 • 11-4 Use Models to Subtract Fractions—pp. 230-231 • 11-8 Subtract Mixed Numbers: Like Denominators: Struggling Learners (number line)—TE p. 240A <p>Chapter 13: 13-1 & 13-7</p> <ul style="list-style-type: none"> • 13-1 Equivalent Fractions: Rename Tenths as Hundredths—pp. 272-273 • 13-7 Order Decimals—pp. 286-287 <p>Chapter 15: 15-1, 15-4 & 15-6</p> <ul style="list-style-type: none"> • 15-1 Represent Measures on a Number Line—pp. 324-325 • 15-4 Temperature (thermometer/values less than zero)—pp. 330-331 • 15-6 Line Plots—pp. 336-337 |
| <p>4.Math.N.2 Compare (greater than, less than, equal to) whole numbers, commonly used fractions, and decimals to the hundredths place using a number line.</p> | <p>Chapter 1: 1-6</p> <ul style="list-style-type: none"> • 1-6 Compare and Order Whole Numbers: Struggling Learners (number line)—TE p. 14A <p>Chapter 10: 10-2, 10-6 through 10-8, 10-10 & 10-11</p> <ul style="list-style-type: none"> • 10-2 Equivalent Fractions: Number Line Diagrams—pp. 194-195 • 10-6 Compare Fractions: Use Benchmarks—pp. 204-205 • 10-7 Compare Fractions with the Same Denominator—pp. 206-207 • 10-8 Compare Fractions—pp. 208-209 • 10-10 Compare Mixed Numbers: Compare Mixed Numbers on Number lines—TE p. 212A • 10-11 Order Fractions and Mixed Numbers: Struggling Learners (number lines)—TE p. 214A <p style="text-align: right;"><i>continued</i></p> |

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| | <p>Chapter 13: 13-1 & 13-7</p> <ul style="list-style-type: none"> 13-1 Equivalent Fractions: Rename Tenths as Hundredths—pp. 272-273 13-7 Order Decimals—pp. 286-287 |
| 4.Math.N.3 Use familiar applications to describe the role of numbers less than zero. | <p>Chapter 15: 15-4</p> <ul style="list-style-type: none"> 15-4 Temperature (thermometer/values less than zero)—pp. 330-331 |
| 4.Math.N.4 Use multiple models such as pictures and physical objects to describe orally and in written form place value with decimals to the hundredths place. | <p>Chapter 13: 13-1 through 13-5</p> <ul style="list-style-type: none"> 13-1 Equivalent Fractions: Rename Tenths as Hundredths—pp. 272-273 13-2 Add and Subtract Fractions with Denominators of 10 and 100—pp. 274-275 13-3 Tenths and Hundredths as Fractions and Decimals—pp. 276-277 13-4 Decimals Greater than One—pp. 278-279 13-5 Decimal Place Value—pp. 280-281 |
| 4.Math.N.5 Recognize and generate equivalent forms of commonly used fractions, decimals, and percents. | <p>Chapter 10: 10-2</p> <ul style="list-style-type: none"> 10-2 Equivalent Fractions: Number Line Diagrams—pp. 194-195 <p>Chapter 13: 13-1, 13-3 & 13-4</p> <ul style="list-style-type: none"> 13-1 Equivalent Fractions: Rename Tenths as Hundredths—pp. 272-273 13-3 Tenths and Hundredths as Fractions and Decimals—pp. 276-277 13-4 Decimals Greater than One—pp. 278-279 <p>See also Grade 6</p> <p>Chapter 11: 11-1 through 11-6</p> <ul style="list-style-type: none"> 11-1 Percent—pp. 254-255 11-2 Relate Percents to Fractions—pp. 256-257 11-3 Relate Percents to Decimals—pp. 258-259 11-4 Relate Decimals, Fractions, and Percents—pp. 260-261 11-5 Percents Greater Than 100%—pp. 262-263 11-6 Percents Less Than 1%—pp. 264-265 |
| 4.Math.N.6 Describe groups of numbers according to their characteristics, such as the nature of their factors and multiples within 100. | <p>Chapter 9: 9-1 through 9-5</p> <ul style="list-style-type: none"> 9-1 Factors—pp. 172-173 9-2 Factor Pairs—pp. 174-175 9-3 Prime and Composite Numbers—pp. 176-177 9-4 Multiples—pp. 180-181 9-5 Common Multiples—pp. 182-183 |
| 4.Math.N.7 Develop and use strategies to estimate the results of whole number computations involved in story problems, including rounding to the nearest whole number and justifying the reasonableness of the estimate. | <p>Chapter 1: 1-5</p> <ul style="list-style-type: none"> 1-5 Round Whole Numbers—pp. 12-13 <p>Chapter 2: 2-3 through 2-5</p> <ul style="list-style-type: none"> 2-3 Estimate Sums—pp. 28-29 2-4 Add Thousands (reasonableness)—pp. 30-31 2-5 Add Millions (reasonableness)—pp. 34-35 <p style="text-align: right;"><i>continued</i></p> |

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| | <p>Chapter 3: 3-1, 3-3 & 3-6</p> <ul style="list-style-type: none"> • 3-1 Estimate Differences—pp. 46-47 • 3-3 Subtract with Two Regroupings (reasonableness)—pp. 50-51 • 3-6 Multistep Problems Using Addition and Subtraction (reasonableness)—pp. 58-59 <p>Chapter 4: 4-4</p> <ul style="list-style-type: none"> • 4-4 Estimate Products—pp. 76-77 <p>Chapter 6: 6-3 through 6-6</p> <ul style="list-style-type: none"> • 6-3 Multiply by Two-Digit Numbers: No Regrouping (reasonable answer)—pp. 114-115 • 6-4 Multiply by Two-Digit Numbers: Regrouping (reasonable answer)—pp. 116-117 • 6-5 Multiplication Patterns—pp. 118-119 • 6-6 Problem Solving: Write and Solve an Equation—pp. 120-121 <p>Chapter 7: 7-3</p> <ul style="list-style-type: none"> • 7-3 Estimate Quotients—pp. 132-133 |
| 4.Math.N.8 Use models and drawings to describe the effects of the multiplication and division of two-digit whole numbers. | <p>Chapter 6: 6-1</p> <ul style="list-style-type: none"> • 6-1 Use Area Models to Multiply by Two-Digit Numbers—pp. 108-109 <p>Chapter 7: 7-2 & 7-4</p> <ul style="list-style-type: none"> • 7-2 Relate Multiplication and Division—pp. 130-131 • 7-4 Use Models to Divide—pp. 136-137 |
| 4.Math.N.9 Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions. | <p>Chapter 11: 11-1 through 11-8</p> <ul style="list-style-type: none"> • 11-1 Use Models to Add Fractions—pp. 224-225 • 11-2 Add Fractions: Like Denominators—pp. 226-227 • 11-3 Decompose Fractions as Sums of Unit Fractions—pp. 228-229 • 11-4 Use Models to Subtract Fractions—pp. 230-231 • 11-5 Subtract Fractions: Like Denominators—pp. 232-233 • 11-6 Write Mixed Numbers as Equivalent Fractions—pp. 236-237 • 11-7 Add Mixed Numbers: Like Denominators—pp. 238-239 • 11-8 Subtract Mixed Numbers: Like Denominators—pp. 240-241 |
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| Fourth Grade Mathematics Standards | Sadlier Math, Grade 4 |
| 4.Math.A.1 Represent the idea of a variable as an unknown quantity using a letter or symbol. | <p>Chapter 6: 6-6</p> <ul style="list-style-type: none"> • 6-6 Problem Solving: Write and Solve an Equation—pp. 120-121 |
| 4.Math.A.2 Solve multiplication and division problems involving two-digit numbers. | <p>Chapter 6: 6-1 through 6-6</p> <ul style="list-style-type: none"> • 6-1 Use Area Models to Multiply by Two-Digit Numbers—pp. 108-109 • 6-2 Break Apart Numbers to Multiply—pp. 110-111 • 6-3 Multiply by Two-Digit Numbers: No Regrouping—pp. 114-115 • 6-4 Multiply by Two-Digit Numbers: Regrouping—pp. 116-117 • 6-5 Multiplication Patterns—pp. 118-119 <p style="text-align: right;"><i>continued</i></p> |

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| | <ul style="list-style-type: none"> • 6-6 Problem Solving: Write and Solve an Equation—pp. 120-121 <p>Chapter 8: 8-1, 8-3 through 8-5, 8-7 & 8-8</p> <ul style="list-style-type: none"> • 8-1 One-Digit Quotients—pp. 148-149 • 8-3 Two-Digit Quotients—pp. 152-153 • 8-4 Zeros in Quotients—pp. 154-155 • 8-5 More Quotients—pp. 158-159 • 8-7 Multistep Problems Using Multiplication and Division—pp. 162-163 • 8-8 Problem Solving: Use a Model—pp. 164-165 |
| 4.Math.A.3 Describe, extend, and make generalizations about geometric and numeric patterns. | <p>Chapter 1: 1-2 & 1-3</p> <ul style="list-style-type: none"> • 1-2 What Is One Million? (patterns)—pp. 4-5 • 1-3 Millions—pp. 6-7 <p>Chapter 4: 4-3</p> <ul style="list-style-type: none"> • 4-3 Multiply Tens, Hundreds, and Thousands (pattern of zeros)—pp. 74-75 <p>Chapter 6: 6-5</p> <ul style="list-style-type: none"> • 6-5 Multiplication Patterns—pp. 118-119 <p>Chapter 7: 7-5</p> <ul style="list-style-type: none"> • 7-5 Number Patterns—pp. 138-139 <p>Chapter 13: 13-5 & 13-8</p> <ul style="list-style-type: none"> • 13-5 Decimal Place Value (patterns)—pp. 280-281 • 13-8 Problem Solving: Find a Pattern—pp. 288-289 <p>Chapter 17: 17-5 & 17-8</p> <ul style="list-style-type: none"> • 17-5 Shape Patterns—pp. 380-381 • 17-8 Problem Solving: Draw a Picture (use pattern blocks)—pp. 386-387 |
| GEOMETRY | |
| Fourth Grade Mathematics Standards | <i>Sadlier Math, Grade 4</i> |
| 4.Math.G.1 Describe 2D shapes using the terms line segment, parallel, perpendicular, angle, right angle, and line of symmetry. | <p>Chapter 16: 16-1 through 16-5</p> <ul style="list-style-type: none"> • 16-1 Points, Lines, Line Segments, Rays, and Angles—pp. 350-351 • 16-2 Angle Measure—pp. 352-353 • 16-3 Measure Angles—pp. 356-357 • 16-4 Unknown Angle Measures—pp. 358-359 • 16-5 Parallel and Perpendicular Lines—pp. 360-361 <p>Chapter 17: 17-1 through 17-4</p> <ul style="list-style-type: none"> • 17-1 Polygons—pp. 370-371 • 17-2 Quadrilaterals—pp. 372-373 • 17-3 Triangles—pp. 374-375 • 17-4 Symmetry—pp. 376-377 |
| 4.Math.G.2 Build a 3D object from a 2D representation of that object. | <p>See Grade 5</p> <p>Chapter 16: 16-1</p> <ul style="list-style-type: none"> • 16-1 Solid Figures (net)—pp. 360-361 |

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| 4.Math.G.3 Create a 2D representation of a 3D object. | See Grade 5 Chapter 16: 16-1 • 16-1 Solid Figures (net)—pp. 360–361 |
| 4.Math.G.4 Describe a motion or a series of motions that will show that two shapes are congruent. | N/A |
| MEASUREMENT | |
| Fourth Grade Mathematics Standards | Sadlier Math, Grade 4 |
| 4.Math.M.1 Develop strategies for estimating the perimeters and areas of irregular shapes. | Chapter 17: 17-7 • 17-7 Use Area Formulas—pp. 384–385 See also Grade 3 Chapter 15: 15-2, 15-4 & 15-5 • 15-2 Find Area Using Standard Units—pp. 314–315 • 15-4 Find Area Using the Distributive Property—pp. 320–321 • 15-5 Find Area of Composite Shapes—pp. 322–323 Chapter 16: 16-1 & 16-3 • 16-1 Understand Perimeter—pp. 332–333 • 16-3 Find Unknown Side Lengths—pp. 336–337 See also Grade 5 Chapter 8: 8-10 • 8-10 Find the Area of a Rectangle—pp. 188–189 |
| 4.Math.M.2 Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, and temperature. | Chapter 14: 14-1 through 14-9 • 14-1 Measure with Inches—pp. 296–297 • 14-2 Customary Units of Length—pp. 298–299 • 14-3 Customary Units of Capacity—pp. 300–301 • 14-4 Customary Units of Weight—pp. 302–303 • 14-5 Operations with Customary Units—pp. 304–305 • 14-6 Metric Units of Length—pp. 308–311 • 14-7 Metric Units of Capacity—pp. 310–313 • 14-8 Metric Units of Mass—pp. 312–313 • 14-9 Operations with Metric Units—pp. 314–315 Chapter 15: 15-1, 15-3 & 15-4 • 15-1 Represent Measures on a Number Line—pp. 324–325 • 15-3 Elapsed Time—pp. 328–329 • 15-4 Temperature—pp. 330–331 |
| 4.Math.M.3 Develop strategies to determine the surface areas of rectangular solids. | See Grade 6 Chapter 15: 15-2 & 15-3 • 15-2 Use Nets to Find Surface Areas of Prisms—pp. 340–341 • 15-3 Use Nets to Find Surface Areas of Pyramids—pp. 342–343 |

| MEASUREMENT | |
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| Fourth Grade Mathematics Standards | Sadlier Math, Grade 4 |
| <p>4.Math.M.4 Describe the relationships among perimeter, area, and surface area.</p> | <p>Chapter 17: 17-6 & 17-7</p> <ul style="list-style-type: none"> 17-6 Use Perimeter Formulas—pp. 382-383 17-7 Use Area Formulas—pp. 384-385 <p>See also Grade 3</p> <p>Chapter 15: 15-1 through 15-4</p> <ul style="list-style-type: none"> 15-1 Understand Area—pp. 312-313 15-2 Find Area Using Standard Units—pp. 314-315 15-3 Find the Area of a Rectangle and a Square—pp. 316-317 15-4 Find Area Using the Distributive Property—pp. 320-321 <p>Chapter 16: 16-1 through 16-3</p> <ul style="list-style-type: none"> 16-1 Understand Perimeter—pp. 332-333 16-2 Find Perimeter—pp. 334-335 16-3 Find Unknown Side Lengths—pp. 336-337 <p>See also Grade 5</p> <p>Chapter 8: 8-10</p> <ul style="list-style-type: none"> 8-10 Find the Area of a Rectangle—pp. 188-189 <p>See also Grade 6</p> <p>Chapter 15: 15-2 & 15-3</p> <ul style="list-style-type: none"> 15-2 Use Nets to Find Surface Areas of Prisms—pp. 340-341 15-3 Use Nets to Find Surface Areas of Pyramids—pp. 342-343 |

| DATA ANALYSIS | |
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| Fourth Grade Mathematics Standards | Sadlier Math, Grade 4 |
| <p>4.Math.D.1 Represent and interpret data using graphs and tables that include whole numbers, fractions, and decimals.</p> | <p>Chapter 7: 7-5</p> <ul style="list-style-type: none"> 7-5 Number Patterns—pp. 138-139 <p>Chapter 14: 14-10</p> <ul style="list-style-type: none"> 14-10 Problem Solving: Make a Table—pp. 316-317 <p>Chapter 15: 15-5 through 15-8</p> <ul style="list-style-type: none"> 15-5 Line Graphs—pp. 334-335 15-6 Line Plots—pp. 336-337 15-7 Surveys and Line Plots—pp. 338-339 15-8 Choose an Appropriate Display—pp. 340-341 |
| <p>4.Math.D.2 Use measures of center (mean, median, mode) while interpreting data.</p> | <p>See Grade 6</p> <p>Chapter 16: 16-2</p> <ul style="list-style-type: none"> 16-2 Measures of Center—pp. 360-361 |
| <p>4.Math.D.3 Predict the probability of outcomes of simple experiments and test the predictions.</p> | <p>See Grade 6</p> <p>Chapter 18: 18-3 through 18-5</p> <ul style="list-style-type: none"> 18-3 Probability and Likelihood—online 18-4 Theoretical Probability—online 18-5 Relative Frequency and Experimental Probability—online |