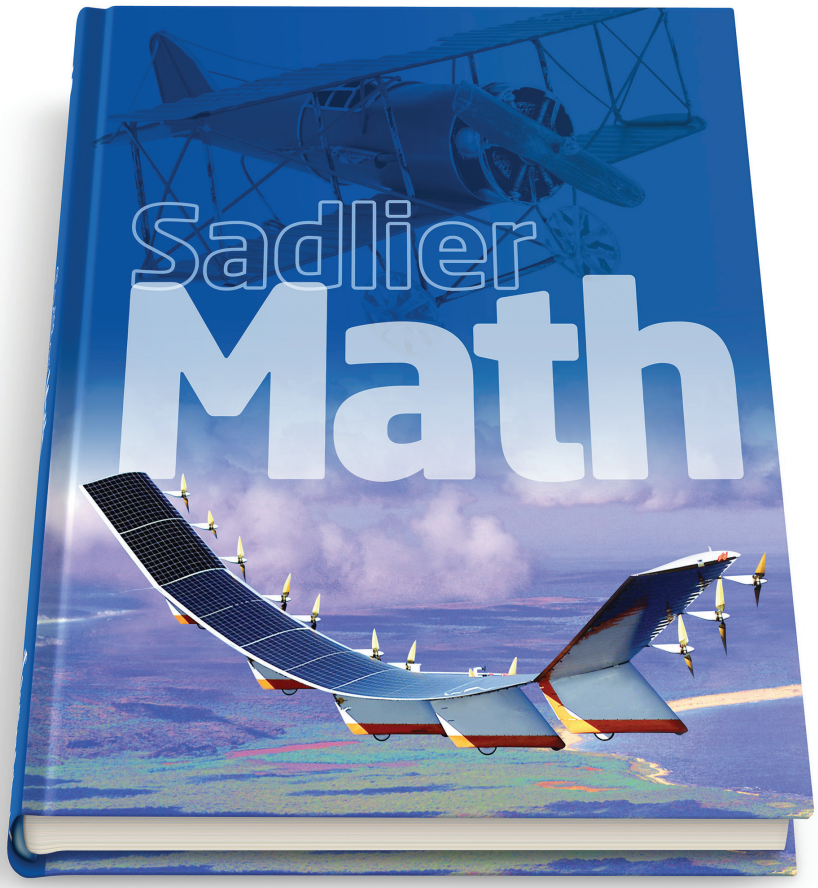
Sadlier Math™

Correlation to the Indiana Academic Standards for Mathematics

Grade 5



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THE NUMBER SYSTEM

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.NS.1 Use a number line to compare and order fractions, mixed numbers, and decimals to thousandths. Write the results using >, =, and < symbols.	**Chapter 2: 2-3** • 2-3 Compare and Order Decimals—pp. 30–31 (Compare and order decimals using symbols to record the comparison; TE Develop Concepts: Compare Numbers) **Chapter 5: 5-7** • 5-7 Compare and Order Fractions and Mixed Numbers—pp. 112–113 (Compare and order fractions and mixed numbers; TE Develop Concepts: Compare Fractions Models)
MA.5.NS.2 Explain different interpretations of fractions, including: as parts of a whole, parts of a set, and division of whole numbers by whole numbers.	**Chapter 5: 5-8** • 5-8 Interpret a Remainder—pp. 114–115 **Chapter 8: 8-6 & 8-7** • 8-6 Rename Mixed Numbers as Fractions—pp. 180–181 • 8-7 Estimate Products with Mixed Numbers—pp. 182–183
MA.5.NS.3 Recognize the relationship that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right, and inversely, a digit in one place represents 1/10 of what it represents in the place to its left.	**Chapter 1: 1-1, 1-2 & 1-4** • 1-1 Place Value to Billions—pp. 2–3 (Understand place value through billions; TE Develop Concepts: Use the Place-Value Chart to Build a Number) • 1-2 Expanded Form—pp. 4–5 (Read and write whole numbers through billions in expanded form; TE Develop Concepts: Use the Place-Value Chart to Build a Number) • 1-4 Problem Solving: Use the Four-Step Process—pp. 10–11 (Solve problems by using the four-step process; TE Develop Concepts: Write Equations to Represent Situations) See also Grade 4 **Chapter 1: 1-2 & 1-3** • 1-3 Millions—pp. 6–7 (Read and write numbers in millions using numerals and number names; TE Develop Concepts: Number Periods and Place Value) • 1-4 Expanded Form—pp. 8–9 (Read and write numbers in expanded form; TE Develop Concepts: Values of Digits in a Number)
MA.5.NS.4 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	**Chapter 1: 1-3 & 1-4** • 1-3 Powers of 10—pp. 8–9 (Multiply and divide whole numbers by powers of 10; TE Develop Concepts: Place Value and Powers of 10) • 1-4 Problem Solving: Use the Four-Step Process—pp. 10–11 (Solve problems by using the four-step process; TE Develop Concepts: Write Equations to Represent Situations) **Chapter 12: 12-1** • 12-1 Multiply by Powers of 10—pp. 262–263 (Observe and use patterns of zeros when multiplying by a power of 10; TE Develop Concepts: Multiply By 10 and 100) **Chapter 13: 13-1** • 13-1 Divide by Powers of 10—pp. 288–289 (Divide decimals and whole numbers by powers of 10; TE Develop Concepts: Powers of Ten and the Place-Value Chart)

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THE NUMBER SYSTEM

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.NS.5 Use place value understanding to round decimal numbers up to thousandths to any given place value.	**Chapter 2: 2-4 through 2-6** • 2-4 Round Decimals—pp. 32–33 • 2-5 Problem Solving: Read and Understand—pp. 34–35 • 2-6 Estimate with Decimals—pp. 36–37 **Chapter 10: 10-3** • 10-3 Estimate Decimal Sums—pp. 224–225 **Chapter 11: 11-2** • 11-2 Estimate Decimal Differences—pp. 244–245
MA.5.NS.6 Understand, interpret, and model percents as part of a hundred (e.g. by using pictures, diagrams, and other visual models).	See Grade 6 **Chapter 11: 11-1** • 11-1 Percent—pp. 254–255 (Use models, fractions, and decimals to express percents; TE Develop Concepts: Translating Between Fractions and Decimals)

COMPUTATION

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.C.1 Multiply multi-digit whole numbers fluently using a standard algorithmic approach.	**Chapter 3: 3-4 through 3-8** • 3-4 Zeros in the Multiplicand—pp. 50–51 • 3-5 Multiply by Two-Digit Numbers—pp. 54–55 • 3-6 Problem Solving: Guess and Test—pp. 56–57 • 3-7 Multiply by Three-Digit Numbers—pp. 58–59 • 3-8 Zeros in the Multiplier—pp. 60–61
MA.5.C.2 Find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Describe the strategy and explain the reasoning used.	**Chapter 4: 4-1 through 4-9** • 4-1 Division Patterns—pp. 68–69 • 4-2 Estimation: Compatible Numbers—pp. 70–71 • 4-3 Divide by One-Digit Numbers—pp. 72–73 • 4-4 Zeros in the Quotient—pp. 74–75 • 4-5 Divisibility and Mental Math—pp. 76–77 • 4-6 Use Arrays and Area Models to Divide—pp. 80–81 • 4-7 Use Strategies to Divide—pp. 82–83 • 4-8 Divide by Two-Digit Numbers—pp. 84–85 • 4-9 Problem Solving: Work Backward—pp. 86–87
MA.5.C.3 Compare the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	**Chapter 8: 8-4** • 8-4 Scaling Fractions—pp. 174–175 (Understand how the value of one factor affects the size of the product; TE Develop Concepts: Rewrite a Fraction to Use the Distributive Property)

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COMPUTATION

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.C.4 Add and subtract fractions with unlike denominators, including mixed numbers.	**Chapter 6: 6-1 through 6-6** • 6-1 Model Addition with Unlike Denominators—pp. 122–123 • 6-2 Add Fractions: Unlike Denominators—pp. 124–125 • 6-3 Fraction Addition: Estimation and Reasonableness—pp. 126–127 • 6-4 Add Mixed Numbers—pp. 130–131 • 6-5 Problem Solving: Use a Model—pp. 132–133 • 6-6 Rename Mixed Number Sums—pp. 134–135 **Chapter 7: 7-1, 7-2, 7-4, 7-6 through 7-8** • 7-1 Model Subtraction of Fractions with Unlike Denominators—pp. 142–143 • 7-2 Subtract Fractions: Unlike Denominators—pp. 144–145 • 7-4 Model Subtraction with Mixed Numbers—pp. 150–151 • 7-6 Subtract Fractions and Whole Numbers from Mixed Numbers—pp. 154–155 • 7-7 Subtract Mixed Numbers: Rename Fractions—pp. 156–157 • 7-8 Subtract Mixed Numbers: Rename Whole Numbers and Fractions—pp. 158–159
MA.5.C.5 Use visual fraction models and numbers to multiply a fraction by a fraction or a whole number.	**Chapter 8: 8-1 through 8-3, 8-5, 8-8 & 8-9** • 8-1 Model Multiplying Fractions—pp. 168–169 • 8-2 Multiply Fractions by Fractions—pp. 170–171 • 8-3 Multiply Fractions and Whole Numbers—pp. 172–173 • 8-5 Common Factors in Products—pp. 176–177 • 8-8 Multiply Fractions and Mixed Numbers—pp. 184–185 • 8-9 Multiply Mixed Numbers—pp. 186–187 See also Grade 4 **Chapter 12: 12-1 through 12-7** • 12-1 Add Unit Fractions to Multiply—pp. 250–251 • 12-2 Model Multiplying a Unit Fraction and a Whole Number—pp. 252–253 • 12-3 Multiply a Unit Fraction and a Whole Number—pp. 254–255 • 12-4 Model Multiplying a Fraction and a Whole Number—pp. 258–259 • 12-5 Multiply a Fraction and a Whole Number—pp. 260–261 • 12-6 Represent Situations Involving Multiplying a Fraction and a Whole Number—pp. 262–263 • 12-7 Problem Solving: Choose a Strategy—pp. 264–265
MA.5.C.6 Explain why multiplying a positive number by a fraction greater than 1 results in a product greater than the given number. Explain why multiplying a positive number by a fraction less than 1 results in a product smaller than the given number. Relate the principle of fraction equivalence, $a/b = (n \times a)/(n \times b)$, to the effect of multiplying a/b by 1.	**Chapter 8: 8-4** • 8-4 Scaling Fractions—pp. 174–175 (Understand how the value of one factor affects the size of the product; TE Develop Concepts: Rewrite a Fraction to Use the Distributive Property)

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COMPUTATION

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.C.7 Use visual fraction models and numbers to divide a unit fraction by a non-zero whole number and to divide a whole number by a unit fraction.	**Chapter 9: 9-1 through 9-5** • 9-1 Divide Whole Numbers by Unit Fractions—pp. 198–199 (Divide whole numbers by unit fractions; TE Develop Concepts: Patterns in Quotients) • 9-2 Reciprocals—pp. 200–201 (Determine the reciprocal of a fraction or whole number; TE Develop Concepts: Products of 1) • 9-3 Divide Whole Numbers by Fractions—pp. 202–203 (Divide a whole number by a fraction; TE Develop Concepts: Look for Patterns) • 9-4 Divide Unit Fractions by Whole Numbers—pp. 206–207 (Divide a fraction by a whole number; TE Develop Concepts: Interpreting Half in Word Problems) • 9-5 Divide Fractions by Whole Numbers—pp. 208–209 (Divide a fraction by a whole number; TE Develop Concepts: Compare Quotients)
MA.5.C.8 Add, subtract, multiply, and divide decimals to hundredths, using models or drawings and strategies based on place value or the properties of operations. Describe the strategy and explain the reasoning.	**Chapter 9: 9-1 through 9-7** • 9-1 Divide Whole Numbers by Unit Fractions—pp. 198–199 (Divide whole numbers by unit fractions; TE Develop Concepts: Patterns in Quotients) • 9-2 Reciprocals—pp. 200–201 (Determine the reciprocal of a fraction or whole number; TE Develop Concepts: Products of 1) • 9-3 Divide Whole Numbers by Fractions—pp. 202–203 (Divide a whole number by a fraction; TE Develop Concepts: Look for Patterns) • 9-4 Divide Unit Fractions by Whole Numbers—pp. 206–207 (Divide a fraction by a whole number; TE Develop Concepts: Interpreting Half in Word Problems) • 9-5 Divide Fractions by Whole Numbers—pp. 208–209 (Divide a fraction by a whole number; TE Develop Concepts: Compare Quotients) • 9-6 Word Problems Involving Fraction Division—pp. 210–211 (Solve problems that involve dividing with fractions; TE Develop Concepts: Interpreting Word Phrases) • 9-7 Problem Solving: Choose a Strategy—pp. 212–213 (Choose an appropriate strategy when solving a problem; TE Develop Concepts: Using Multiple Strategies)
MA.5.C.5 Evaluate expressions with parentheses or brackets involving whole numbers using the commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property.	**Chapter 1: 1-5** • 1-5 Addition Properties and Subtraction Rules—pp. 12–13 (Use addition properties and subtraction rules to add and subtract multi-digit numbers; TE Develop Concepts: Use Place-Value Workmats to Model Addition Properties) **Chapter 3: 3-1, 3-4 & 3-7** • 3-1 Multiplication Properties—pp. 44–45 (Use multiplication properties to compare and evaluate expressions; TE Develop Concepts: Use Properties to Verify Whole Number Products) • 3-4 Zeros in the Multiplicand—pp. 50–51 (Multiply multidigit numbers by 1-digit numbers; TE Develop Concepts: Multiply Using the Distributive Property) • 3-7 Multiply by Three-Digit Numbers—pp. 58–59 (Multiply a whole number by a 3-digit number; TE Develop Concepts: Distributive Property) *continued*

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COMPUTATION

Grade 5 Content Standards	*Sadlier Math*, Grade 5
	Chapter 4: 4-10 & 4-11 • 4-10 Order of Operations—pp. 88–89 (Use parentheses and brackets in numerical expressions and evaluate expressions using the order of operations; TE Develop Concepts: The Need for Order) • 4-11 Expressions—pp. 90–91 (Write, evaluate, and compare numerical expressions; TE Develop Concepts: Model Grouping Symbols) **Chapter 8: 8-4** • 8-4 Scaling Fractions—pp. 174–175 (Understand how the value of one factor affects the size of the product; TE Develop Concepts: Rewrite a Fraction to Use the Distributive Property) **Chapter 10: 10-2** • 10-2 Use Properties to Add Decimals—pp. 222–223 (Use properties and strategies to add decimals; TE Develop Concepts: Regrouping to Add) **Chapter 12: 12-2** • 12-2 Use Properties to Multiply a Decimal by a Whole Number—pp. 264–265 (Use properties of multiplication to multiply a decimal by a whole number; TE Develop Concepts: The Distributive Property)

ALGEBRAIC THINKING

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.AT.1 Solve real-world problems involving multiplication and division of whole numbers (e.g. by using equations to represent the problem). In division problems that involve a remainder, explain how the remainder affects the solution to the problem.	**Chapter 3: 3-1 through 3-8** • 3-1 Multiplication Properties—pp. 44–45 • 3-2 Multiplication Patterns—pp. 46–47 • 3-3 Estimate Products—pp. 48–49 • 3-4 Zeros in the Multiplicand—pp. 50–51 • 3-5 Multiply by Two-Digit Numbers—pp. 54–55 • 3-6 Problem Solving: Guess and Test—pp. 56–57 • 3-7 Multiply by Three-Digit Numbers—pp. 58–59 • 3-8 Zeros in the Multiplier—pp. 60–61 **Chapter 4: 4-1 through 4-9** • 4-1 Division Patterns—pp. 68–69 • 4-2 Estimation: Compatible Numbers—pp. 70–71 • 4-3 Divide by One-Digit Numbers—pp. 72–73 • 4-4 Zeros in the Quotient—pp. 74–75 • 4-5 Divisibility and Mental Math—pp. 76–77 • 4-6 Use Arrays and Area Models to Divide—pp. 80–81 • 4-7 Use Strategies to Divide—pp. 82–83 • 4-8 Divide by Two-Digit Numbers—pp. 84–85 • 4-9 Problem Solving: Work Backward—pp. 86–87 **Chapter 5: 5-8** • 5-8 Interpret a Remainder—pp. 114–115

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ALGEBRAIC THINKING

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.AT.2 Solve real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models and equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess whether the answer is reasonable.	**Chapter 6: 6-1 through 6-6** • 6-1 Model Addition with Unlike Denominators—pp. 122–123 • 6-2 Add Fractions: Unlike Denominators—pp. 124–125 • 6-3 Fraction Addition: Estimation and Reasonableness—pp. 126–127 • 6-4 Add Mixed Numbers—pp. 130–131 • 6-5 Problem Solving: Use a Model—pp. 132–133 • 6-6 Rename Mixed Number Sums—pp. 134–135 **Chapter 7: 7-1 through 7-3, 7-5, 7-7 through 7-9** • 7-1 Model Subtraction of Fractions with Unlike Denominators—pp. 142–143 • 7-2 Subtract Fractions: Unlike Denominators—pp. 144–145 • 7-3 Subtract Fractions: Estimation and Reasonableness—pp. 146–147 • 7-5 Estimate Sums and Differences of Mixed Numbers—pp. 152–153 • 7-7 Subtract Mixed Numbers: Rename Fractions—pp. 156–157 • 7-8 Subtract Mixed Numbers: Rename Whole Numbers and Fractions—pp. 158–159 • 7-9 Problem Solving: Write and Solve an Equation—pp. 160–161 **Chapter 8: 8-11** • 8-11 Problem Solving: Use Logical Reasoning—pp. 190–191 **Chapter 9: 9-6** • 9-6 Word Problems Involving Fraction Division—pp. 210–211
MA.5.AT.3 Solve real-world problems involving multiplication of fractions, including mixed numbers (e.g., by using visual fraction models and equations to represent the problem).	**Chapter 8: 8-2, 8-3, 8-6 through 8-9, 8-11** • 8-2 Multiply Fractions by Fractions—pp. 170–171 • 8-3 Multiply Fractions and Whole Numbers—pp. 172–173 • 8-6 Rename Mixed Numbers as Fractions—pp. 180–181 • 8-7 Estimate Products with Mixed Numbers—pp. 182–183 • 8-8 Multiply Fractions and Mixed Numbers—pp. 184–185 • 8-9 Multiply Mixed Numbers—pp. 186–187 • 8-11 Problem Solving: Use Logical Reasoning—pp. 190–191
MA.5.AT.4 Solve real-world problems involving division of unit fractions by non-zero whole numbers, and division of whole numbers by unit fractions (e.g., by using visual fraction models and equations to represent the problem).	**Chapter 9: 9-6 & 9-7** • 9-6 Word Problems Involving Fraction Division—pp. 210–211 (Solve problems that involve dividing with fractions; TE Develop Concepts: Interpreting Word Phrases) • 9-7 Problem Solving: Choose a Strategy—pp. 212–213 (Choose an appropriate strategy when solving a problem; TE Develop Concepts: Using Multiple Strategies)
MA.5.AT.5 Solve real-world problems involving addition, subtraction, multiplication, and division with decimals to hundredths, including problems that involve money in decimal notation (e.g. by using equations to represent the problem).	**Chapter 10: 10-1 through 10-7** • 10-1 Use Models to Add Decimals—pp. 220–221 • 10-2 Use Properties to Add Decimals—pp. 222–223 • 10-3 Estimate Decimal Sums—pp. 224–225 • 10-4 Problem Solving: Draw a Picture—pp. 228–229 • 10-5 Add Decimals: Hundredths—pp. 230–231 • 10-6 Add Decimals: Thousandths—pp. 232–233 • 10-7 Addition with Money—pp. 234–235 **Chapter 11: 11-1 through 11-6** • 11-1 Use Models to Subtract Decimals—pp. 242–243 • 11-2 Estimate Decimal Differences—pp. 244–245 • 11-3 Subtract Decimals: Hundredths—pp. 248–249 *continued*

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ALGEBRAIC THINKING

Grade 5 Content Standards	*Sadlier Math*, Grade 5
	• 11-4 Subtract Decimals: Thousandths—pp. 250–251 • 11-5 Subtraction with Money—pp. 252–253 • 11-6 Problem Solving: Use a Model—pp. 254–255 **Chapter 12: 12-1 through 12-9** • 12-1 Multiply by Powers of 10—pp. 262–263 • 12-2 Use Properties to Multiply a Decimal by a Whole Number—pp. 264–265 • 12-3 Estimate Decimal Products—pp. 266–267 • 12-4 Multiply Decimals by Whole Numbers—pp. 268–269 • 12-5 Multiplication with Money—pp. 270–271 • 12-6 Model Multiplying Two Decimals—pp. 274–275 • 12-7 Multiply Decimals by Decimals—pp. 276–277 • 12-8 Zeros in the Product—pp. 278–279 • 12-9 Problem Solving: Compare Strategies—pp. 280–281 **Chapter 13: 13-1 through 13-10** • 13-1 Divide by Powers of 10—pp. 288–289 • 13-2 Model Dividing a Decimal by a Whole Number—pp. 290–291 • 13-3 Estimate Decimal Quotients—pp. 292–293 • 13-4 Estimate with Money—pp. 294–295 • 13-5 Divide Decimals by Whole Numbers—pp. 296–297 • 13-6 Zeros in Decimal Quotients—pp. 298–299 • 13-7 Division with Money—pp. 302–303 • 13-8 Problem Solving: Work Backward—pp. 304–305 • 13-9 Model Dividing a Decimal by a Decimal—pp. 306–307 • 13-10 Divide a Decimal by a Decimal—pp. 308–309
MA.5.AT.6 Graph points with whole number coordinates on a coordinate plane. Explain how the coordinates relate the point as the distance from the origin on each axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).	**Chapter 17: 17-3** • 17-3 The Coordinate Plane—pp. 386–387 (Plot and name ordered pairs on the coordinate plane; TE Develop Concepts: Two Kinds of Tables)
MA.5.AT.7 Represent real-world problems and equations by graphing ordered pairs in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	**Chapter 17: 17-4** • 17-4 Using Coordinate Graphs—pp. 388–389 (Interpret coordinate graphs; TE Develop Concepts: Using Tables to Graph)
MA.5.AT.8 Define and use up to two variables to write linear expressions that arise from real-world problems, and evaluate them for given values.	**Problem Solving Strategies** • Write and Solve an Equation—p. xxxi **Chapter 1: 1-4** • 1-4 Problem Solving: Use the Four-Step Process—pp. 10–11 (Solve problems by using the four-step process; TE Develop Concepts: Write Equations to Represent Situations) *continued*

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ALGEBRAIC THINKING

Grade 5 Content Standards	*Sadlier Math*, Grade 5
	Chapter 7: 7-9 • 7-9 Problem Solving: Write and Solve an Equation—pp. 160–161 (Focus on writing and solving equations to solve problems; TE Develop Concepts: Checking Equations from Real-World Statements) **Chapter 9: 9-7** • 9-7 Problem Solving: Choose a Strategy—pp. 212–213 (Write and solve an equation) **Chapter 11: 11-6** • 11-6 Problem Solving: Use a Model—pp. 254–255 (Write and solve equations) **Chapter 12: 12-9** • 12-9 Problem Solving: Compare Strategies—pp. 280–281 (Write and Solve an Equation) **Chapter 13: 13-8** • 13-8 Problem Solving: Work Backward—pp. 304–305 (Write and solve equations) **Chapter 16: 16-4** • 16-4 Volume Formulas—pp. 368–369 (Use formulas to find the volumes of rectangular prisms; TE Develop Concepts: Arrays and Equations)

GEOMETRY

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.G.1 Identify, describe, and draw triangles (right, acute, obtuse) and circles using appropriate tools (e.g., ruler or straightedge, compass and technology). Understand the relationship between radius and diameter.	**Chapter 15: 15-2** • 15-2 Triangles—pp. 344–345 (Understand and use attributes of triangles; TE Develop Concepts: Classifying Angles) See also Grade 6 (circles) **Chapter 14: 14-4** • 14-4 Circumferences and Areas of Circles—pp. 324–325 (Find the circumference and area of a circle; TE Develop Concepts: Investigate Pi)
MA.5.G.2 Identify and classify polygons including quadrilaterals, pentagons, hexagons, and triangles (equilateral, isosceles, scalene, right, acute and obtuse) based on angle measures and sides. Classify polygons in a hierarchy based on properties.	**Chapter 15: 15-1 through 15-5** • 15-1 Polygons—pp. 342–343 (Understand and use attributes of polygons; TE Develop Concepts: Geometric Definitions) • 15-2 Triangles—pp. 344–345 (Understand and use attributes of triangles; TE Develop Concepts: Classifying Angles) • 15-3 Quadrilaterals—pp. 348–349 (Understand and use attributes of quadrilaterals: trapezoid, parallelogram, rhombus, rectangle, square; TE Develop Concepts: Draw Four-Sided Polygons) • 15-4 Classify Quadrilaterals—pp. 350–351 (Classify quadrilaterals in a hierarchy based on their properties; Venn diagram, trapezoid, parallelogram, rhombus, rectangle, square; TE Develop Concepts: Using a Tangram) • 15-5 Problem Solving: Use a Model—pp. 352–353 (Use models to represent and organize information while solving problems; Venn diagram; TE Develop Concepts: Use a Table to Organize Information)

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MEASUREMENT

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.M.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems.	**Chapter 14: 14-1 through 14-9** • 14-1 Relate Customary Units of Length—pp. 316–317 • 14-2 Relate Customary Units of Capacity—pp. 318–319 • 14-3 Relate Customary Units of Weight—pp. 320–321 • 14-4 Compute with Customary Units—pp. 322–323 • 14-5 Relate Metric Units of Length—pp. 326–327 • 14-6 Relate Metric Units of Capacity—pp. 328–329 • 14-7 Relate Metric Units of Mass—pp. 330–331 • 14-8 Compute with Metric Units—pp. 332–333 • 14-9 Problem Solving: Use the Four-Step Process—pp. 334–335
MA.5.M.2 Find the area of a rectangle with fractional side lengths by modeling with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	**Chapter 8: 8-10** • 8-10 Find the Area of a Rectangle—pp. 188–189 (Use tiling or a formula to find the area of a rectangle with fractional side lengths; TE Develop Concepts: Explore Perimeter and Area of a Rectangle)
MA.5.M.3 Develop and use formulas for the area of triangles, parallelograms and trapezoids. Solve real-world and other mathematical problems that involve perimeter and area of triangles, parallelograms and trapezoids, using appropriate units for measures.	**Chapter 8: 8-10** • 8-10 Find the Area of a Rectangle—pp. 188–189 (Use tiling or a formula to find the area of a rectangle with fractional side lengths; TE Develop Concepts: Explore Perimeter and Area of a Rectangle) See also Grade 4 (perimeter and area formulas) **Chapter 4: 4-9** • 17-6 Use Perimeter Formulas—pp. 382–383 (Use formulas to find the perimeters of polygons; TE Develop Concepts: What Is Perimeter?) • 17-7 Use Area Formulas—pp. 384–385 (Use formulas to find the areas of rectangles and squares; TE Develop Concepts: Derive Area Formulas) • 17-8 Problem Solving: Draw a Picture—pp. 386–387 (Solve problems by drawing a picture; TE Develop Concepts: See It to Believe It—perimeter) See also Grade 6 (area of triangles, parallelograms, trapezoids) **Chapter 4: 4-9** • 4-9 Use Formulas—pp. 88–89 (Evaluate expressions that arise from formulas; TE Develop Concepts: Explore Perimeter) **Chapter 14: 14-1 through 14-7** • 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 (Find the areas of parallelograms; TE Develop Concepts: Name Banners) • 14-2 Areas of Triangles—pp. 318–319 (Use a formula to find the area of triangles; TE Develop Concepts: Areas of Complex Figures) *continued*

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MEASUREMENT

Grade 5 Content Standards	*Sadlier Math*, Grade 5
	• 14-3 Areas of Trapezoids—pp. 320–321 (Use a formula to find the area of a trapezoid; TE Develop Concepts: Order of Operations & Formulas) • 14-4 Circumferences and Areas of Circles—pp. 324–325 (Find the circumference and area of a circle; TE Develop Concepts: Investigate Pi) • 14-5 Areas of Regular Polygons—pp. 326–327 (Find the area of a regular polygon; TE Develop Concepts: Regular Polygons)
MA.5.M.4 Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths or multiplying the height by the area of the base.	**Chapter 16: 16-1 through 16-3, 16-6** • 16-1 Solid Figures—pp. 360–361 (Identify solid figures and their attributes; Relate plane and solid figures to identify nets for solid figures; TE Develop Concepts: Two-Dimensional Objects) • 16-2 Cubic Measure—pp. 362–363 (Describe and use cubic measures; TE Develop Concepts: Measuring Volume) • 16-3 Volume of Rectangular Prisms—pp. 364–365 (Find volume by packing with unit cubes; TE Develop Concepts: Using Water to Measure Volumes of Solids) • 16-6 Problem Solving: Act it Out—pp. 372–373 (Use the Act It Out strategy to solve problems)
MA.5.M.5 Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for right rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths to solve real-world problems and other mathematical problems.	**Chapter 16: 16-4** • 16-4 Volume Formulas—pp. 368–369 (Use formulas to find the volumes of rectangular prisms; TE Develop Concepts: Arrays and Equations)
MA.5.M.6 Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems and other mathematical problems.	**Chapter 16: 16-5** • 16-5 Volume of Composite Figures—pp. 370–371 (Find the volume of a solid figure composed of rectangular prisms; TE Develop Concepts: How can you use a model to find missing lengths?)

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DATA ANALYSIS AND STATISTICS

Grade 5 Content Standards	*Sadlier Math*, Grade 5
MA.5.DS.1 Formulate questions that can be addressed with data and make predictions about the data. Use observations, surveys, and experiments to collect, represent, and interpret the data using tables (including frequency tables), line plots, bar graphs, and line graphs. Recognize the differences in representing categorical and numerical data.	**Chapter 17: 17-1 & 17-2** • 17-1 Line Plots with Whole Numbers and Decimals—pp. 380–381 (Make and use line plots with whole numbers and decimals; TE Develop Concepts: Organizing Data) • 17-2 Line Plots with Fractions and Mixed Numbers—pp. 382–383 (Make and use line plots with fractions and mixed numbers; TE Develop Concepts: Desk Shuffleboard—collect data using fractions and mixed numbers) See also Grade 4 **Chapter 15: 15-5 through 15-8** • 15-5 Line Graphs—pp. 334–335 (Solve problems using customary units of measure; TE Develop Concepts: Graphing Data) • 15-6 Line Plots—pp. 336–337 (Solve length problems with metric units of measure; TE Develop Concepts: Making and Using Tally Charts) • 15-7 Surveys and Line Plots—pp. 338–339 (Solve capacity problems using metric units of measure; TE Develop Concepts: Analyzing Surveys) • 15-8 Choose an Appropriate Display—pp. 340–341 (Solve mass problems using metric units of measure; TE Develop Concepts: Comparing Graphical Displays: table, bar graph, picture graph, line plot, line graph)
MA.5.DS.2 Understand and use measures of center (mean and median) and frequency (mode) to describe a data set.	See Grade 6 **Chapter 16: 16-2** • 16-2 Measures of Center—pp. 360–361 (Determine measures of center and use them to summarize data sets; TE Develop Concepts: Review Decimal Division)

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