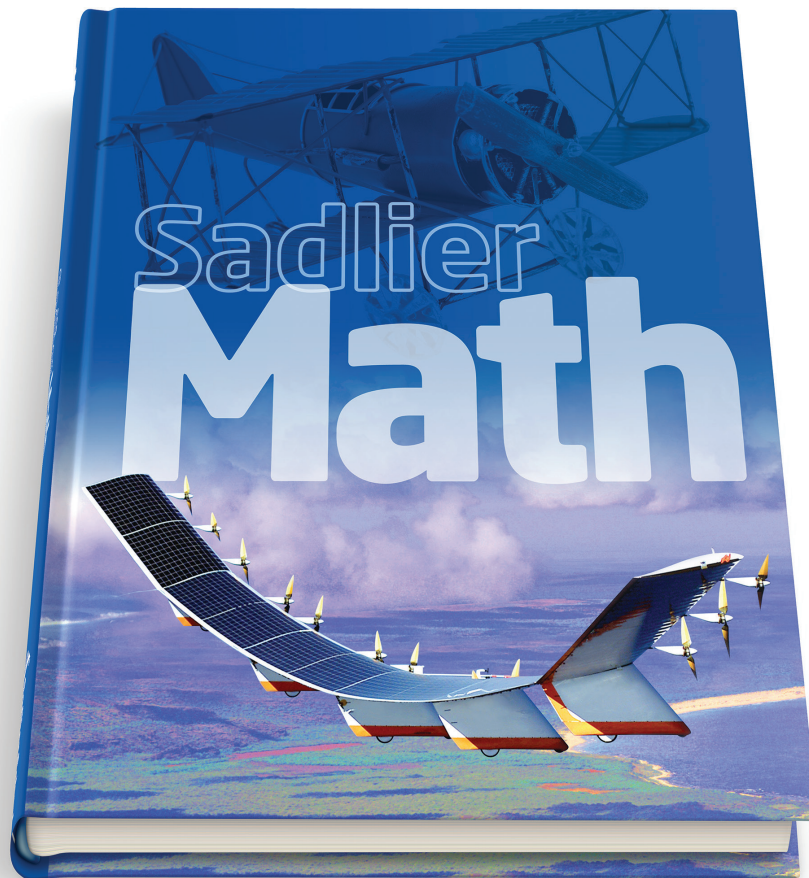


Sadlier Math™

Correlation to the Archdiocese of Cincinnati
Graded Course of Study for Mathematics 2012

Grade 5



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STANDARD 1 – DIVISION OF WHOLE NUMBERS

Grade 5 Content Standards	Sadlier Math, Grade 5
<p>M.5.1.1 Describe the process of finding quotients involving multi-digit dividends using models, place value, properties and the relationship of division to multiplication.</p>	<p>Chapter 4: 4-6 (divisibility) & 4-7 (arrays and area models) See also Grade 4 Chapter 7: 7-2 (relate multiplication and division) & 7-4 (use models to divide) Chapter 8: 8-4 (use models to divide)</p>
<p>M.5.1.2 Estimate quotients or calculate them mentally, depending on the context and numbers involved.</p>	<p>Chapter 4: 4-1 (divide by multiples of 10, 100, 1000), 4-2 (estimate quotients) & 4-5 (divisibility and mental math)</p>
<p>M.5.1.3 Interpret solutions to division situations including those with remainders depending on the context of the problem.</p>	<p>Chapter 4: 4-3, 4-4, 4-7 & 4-8 Chapter 5: 5-8 (interpret a remainder)</p>
<p>M.5.1.4 Divide multi-digit whole numbers fluently including solving real-world problems, demonstrating understanding of the standard algorithm and checking for reasonable results.</p>	<p>Chapter 4: 4-1 through 4-8</p>
<p>M.5.1.5 Solve non-routine problems using various strategies including “solving a simpler problem” and “guess, check and revise”.</p>	<p>Chapter 1: 1-4 (four-step process) Chapter 2: 2-5 (read and understand) Chapter 3: 3-6 (guess and test) Chapter 4: 4-9 (work backward) Chapter 5: 5-5 (make an organized list) Chapter 6: 6-5 (use a model) Chapter 7: 7-9 (write and solve equation) Chapter 8: 8-11 (use logical reasoning) Chapter 9: 9-7 (use a model/guess and test) Chapter 10: 10-4 (draw a picture) Chapter 11: 11-6 (use a model) Chapter 12: 12-9 (compare strategies) Chapter 13: 13-8 (work backward) Chapter 14: 14-9 (four-step process) Chapter 15: 15-5 (use a model) Chapter 16: 16-6 (act it out) Chapter 17: 17-7 (find and use a pattern)</p>

STANDARD – 2 ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION OF FRACTIONS AND DECIMALS

Grade 5 Content Standards	Sadlier Math, Grade 5
M.5.2.1 Use models to represent division as the inverse of multiplication, as partitioning and as successive subtraction.	Chapter 9: 9-1 through 9-5 Chapter 13: 13-2, 13-5, 13-8 & 13-9
M.5.2.2 Add, subtract, multiply and divide fractions and decimals fluently and verify reasonable results including in- problem situation and write/interpret simple expressions that record calculations with numbers.	Chapter 6: 6-1 through 6-4, 6-6 Chapter 7: 7-1 through 7-8 Chapter 8: 8- through 8-9 Chapter 9: 9-1 through 9-5 Chapter 10: 10-1 & 10-2, 10-5 through 10-7 Chapter 11: 11-1, 11-3 through 11-6 Chapter 12: 12-1 & 12-2, 12-4 through 12-8 Chapter 13: 13-1 & 13-2, 13-5 through 13-7, 13-9 & 13-10
M.5.2.3 Make reasonable estimates of fraction and decimal sums, differences, products and quotients and use techniques for rounding.	Chapter 6: 6-3 Chapter 7: 7-3 & 7-5 Chapter 8: 8-7 Chapter 10: 10-3, 10-6 & 10-7 Chapter 11: 11-2 & 11-5 Chapter 12: 12-3,12-4 & 12-5 Chapter 13: 13-3 & 13-4
M.5.2.4 Determine the prime factorization of numbers.	Chapter 5: 5-1
M.5.2.5 Identify and relate prime and composite numbers, factors and multiples within the context of fractions.	Chapter 5: 5-1
M.5.2.6 Read, write, round, and compare decimals to thousandths using $<$, $=$, and $>$ to record the results of comparisons.	Chapter 2: 2-1 through 2-4
M.5.2.7 Solve real world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem.	Chapter 8: 8-1 through 8-11

STANDARD 3 – ALGEBRAIC OPERATIONS

Grade 5 Content Standards	Sadlier Math, Grade 5
<p>M.5.3.1 Use the properties of equality to solve numerical and real-world situations.</p>	<p>See Grade 6 Chapter 5: 5-2 through 5-4 (properties of equality)</p>
<p>M.5.3.2 Use the order of operations which include parentheses, brackets or braces in numerical expressions and write/interpret simple expressions that record calculations with numbers.</p>	<p>Chapter 4: 4-10 (order of operations) & 4-11 (write/interpret expressions) Chapter 6: 6-2 Chapter 7: 7-2 Chapter 12: 12-7 & 12-8</p>
<p>M.5.3.3 Solve non-routine problems using various strategies including “solving a simpler problem” and “guess, check and revise”.</p>	<p>Chapter 1: 1-4 (four-step process) Chapter 2: 2-5 (read and understand) Chapter 3: 3-6 (guess and test) Chapter 4: 4-9 (work backward) Chapter 5: 5-5 (make an organized list) Chapter 6: 6-5 (use a model) Chapter 7: 7-9 (write and solve equation) Chapter 8: 8-11 (use logical reasoning) Chapter 9: 9-7 (use a model/guess and test) Chapter 10: 10-4 (draw a picture) Chapter 11: 11-6 (use a model) Chapter 12: 12-9 (compare strategies) Chapter 13: 13-8 (work backward) Chapter 14: 14-9 (four-step process) Chapter 15: 15-5 (use a model) Chapter 16: 16-6 (act it out) Chapter 17: 17-7 (find and use a pattern)</p>
<p>M.5.3.4 Describe real-world situations using positive and negative numbers.</p>	<p>See Grade 6 Chapter 9: 9-2</p>
<p>M.5.3.5 Compare and order and graph integers including integers shown on a number line.</p>	<p>See Grade 6 Chapter 9: 9-1 & 9-3</p>

STANDARD 4 – GEOMETRY

Grade 5 Content Standards	Sadlier Math, Grade 5
M.5.4.1 Identify, generate, represent real world problems, and plot ordered pairs on the first quadrant of the coordinate plane.	Chapter 17: 17-3
M.5.4.2 Compare and analyze the properties of two-dimensional figures and three-dimensional solids (polyhedral) including the number of edges, faces, vertices, angles, and types of faces. Then, classify two-dimensional figures in a hierarchy based on properties.	Chapter 15: 15-1 through 15-4 Chapter 16: 16-1
M.5.4.3 Describe, define and determine surface area and volume of prisms by using appropriate units and selecting strategies and tools.	Chapter 16: 16-3 through 16-5 (volume) See Grade 6 Chapter 15: 15-2 & 15-3 (surface area)
M.5.4.4 Derive and apply formulas for areas of parallelograms, triangles and trapezoids from the area of a rectangle.	Chapter 8: 8-10 (find area of a rectangle) See Grade 6 Chapter 14: 14-1 (find area of parallelograms and rhombuses), 14-2 (find area of triangles) & 14-3 (find area of a trapezoids)

STANDARD 5 – MEASUREMENT AND DATA

Grade 5 Content Standards	Sadlier Math, Grade 5
M.5.5.1 Compare, contrast and convert units of measure within the same dimension (length, mass or time) to solve problems.	Chapter 14: 14-1 through 14-3, 14-5 through 14-7
M.5.5.2 Solve problems requiring attention to approximation, selection of appropriate measuring tools and precision of measurement.	See Grade 3 Chapter 11: 11-2 (estimate liquid volume) & 11-4 (estimate mass) See Grade 2 Chapter 6: 6-3 & 6-6 (choose appropriate tools and units)
M.5.5.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.	Chapter 16: 16-2

STANDARD 5 – MEASUREMENT AND DATA

Grade 5 Content Standards	<i>Sadlier Math, Grade 5</i>
M.5.5.4 Measure volumes by counting unit cubes, using cubic centimeters, cubic inches, and cubic feet and improvised units.	Chapter 16: 16-2 & 16-3
M.5.5.5 Relate problems finding volume to the operations of multiplication and to addition and solve real-world and mathematical problems involving volume.	Chapter 16: 16-4 & 16-5
M.5.5.6 Construct and describe a graph showing continuous data, such as a graph of a quantity that changes over time.	See Grade 4 Chapter 15: 15-4 (line graphs) See Grade 6 Chapter 10: 10-9 (line graphs/proportional relationships)
M.5.5.7 Identify and plot order pairs on the first quadrant of the coordinate plane.	Chapter 17: 17-3 & 17-4
M.5.5.8 Construct and analyze line graphs and bar graphs.	See Grade 4 Chapter 15: 15-4 (line graphs) & 15-8 (appropriate display: bar graphs) See Grade 3 Chapter 12: 12-3 & 12-4 (bar graphs)
M.5.5.9 Differentiate between continuous and discrete data and determine ways to represent those using graphs and diagrams.	See Grade 4 Chapter 15: 15-4 (line graphs) & 15-8 (appropriate display: bar graphs)
M.5.5.10 Make a line plot to display a data set of measurement in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$).	Chapter 17: 17-2