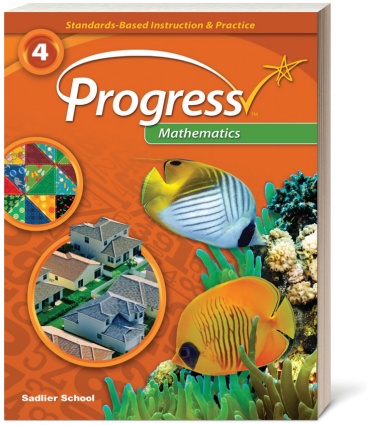
SADLIER

Progress Mathematics

Standards-Based Instruction & Practice



Aligned to the

South Carolina College- and Career-Ready Standards for Mathematics

Grade 4

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Number Sense and Base Ten

Standards		Sadlier *Progress Mathematics*, Grade 4	
The student will:			
4.NSBT.1	Understand that, in a multi-digit whole number, a digit represents ten times what the same digit represents in the place to its right.	**Lesson 6**	**Understand Place Value of Whole Numbers**—pp. 56–63
4.NSBT.2	Recognize math periods and number patterns within each period to read and write in standard form large numbers through 999,999,999.	**Lesson 7**	**Read, Write, and Compare Whole Numbers**—pp. 64–71
4.NSBT.3	Use rounding as one form of estimation and round whole numbers to any given place value.	**Lesson 8**	**Apply Place Value to Round Whole Numbers**—pp. 72–79
4.NSBT.4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.	**Lesson 9**	**Add and Subtract Fluently with Whole Numbers**—pp. 80–87
4.NSBT.5	Multiply up to a four-digit number by a one-digit number and multiply a two-digit number by a two-digit number using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using rectangular arrays, area models and/or equations.	**Lesson 10**	**Multiply Whole Numbers: Use Place Value**—pp. 88–95
		Lesson 11	**Multiply Whole Numbers: Use Properties of Operations**—pp. 96–103
4.NSBT.6	Divide up to a four-digit dividend by a one-digit divisor using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	**Lesson 12**	**Divide Whole Numbers: Use Place Value**—pp. 104–111
		Lesson 13	**Divide Whole Numbers: Use Properties of Operations**—pp. 112–119

Number Sense and Operations — Fractions

Standards		Sadlier *Progress Mathematics*, Grade 4	
The student will:			
4.NSF.1	Explain why a fraction (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100), a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	**Lesson 14**	**Understand Equivalent Fractions**—pp. 126–133
		Lesson 15	**Write Equivalent Fractions**—pp. 134–141
4.NSF.2	Compare two given fractions (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100) by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2 and represent the comparison using the symbols >, =, or <.	**Lesson 16**	**Compare Two Fractions**—pp. 142–149

Number Sense and Operations — Fractions

Standards		Sadlier *Progress Mathematics*, Grade 4	
4.NSF.3	Develop an understanding of addition and subtraction of fractions (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100) based on unit fractions.		
	a. Compose and decompose a fraction in more than one way, recording each composition and decomposition as an addition or subtraction equation;	**Lesson 17**	**Add and Subtract Fractions with Like Denominators**—pp. 150–157
		Lesson 18	**Decompose a Fraction as a Sum of Fractions**—pp. 158–165
	b. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.	**Lesson 19**	**Add and Subtract Mixed Numbers with Like Denominators**—pp. 166–173
	c. Solve real-world problems involving addition and subtraction of fractions referring to the same whole and having like denominators.	**Lesson 20**	**Problem Solving: Add and Subtract Fractions**—pp. 174–181
4.NSF.4	Apply and extend an understanding of multiplication by multiplying a whole number and a fraction (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100).		
	a. Understand a fraction *a*/*b* as a multiple of 1/*b*.	**Lesson 21**	**Multiply Unit Fractions by Whole Numbers**—pp. 182–189
	b. Understand a multiple of *a*/*b* as a multiple of 1/*b*, and use this understanding to multiply a fraction by a whole number.	**Lesson 22**	**Multiply Fractions by Whole Numbers**—pp. 190–197
	c. Solve real-world problems involving multiplication of a fraction by a whole number (i.e., use visual fraction models and equations to represent the problem).	**Lesson 23**	**Problem Solving: Multiply Fractions by Whole Numbers**—pp. 198–205
4.NSF.5	Express a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 and use this technique to add two fractions with respective denominators of 10 and 100.	**Lesson 24**	**Add Fractions: Denominators of 10 and 100**—pp. 206–213
4.NSF.6	Write a fraction with a denominator of 10 or 100 using decimal notation, and read and write a decimal number as a fraction.	**Lesson 25**	**Write and Compare Decimal Fractions**—pp. 214–221
4.NSF.7	Compare and order decimal numbers to hundredths, and justify using concrete and visual models.	**Lesson 25**	**Write and Compare Decimal Fractions**—pp. 214–221

Algebraic Thinking and Operations

Standards		Sadlier *Progress Mathematics*, Grade 4	
The student will:			
4.ATO.1	Interpret a multiplication equation as a comparison (e.g. interpret 35 = 5x7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.) Represent verbal statements of multiplicative comparisons as multiplication equations.	**Lesson 1**	**Interpret Multiplication Equations as Comparisons**—pp. 10–17
4.ATO.3	Solve multi-step, real-world problems using the four operations. Represent the problem using an equation with a variable as the unknown quantity.	**Lesson 2**	**Problem Solving: Use Multiplication and Division to Make Comparisons**—pp. 18–25
		Lesson 3	**Problem Solving: Multistep Problems**—pp. 26–33
4.ATO.4	Recognize that a whole number is a multiple of each of its factors. Find all factors for a whole number in the range 1 – 100 and determine whether the whole number is prime or composite.	**Lesson 4**	**Find Factors and Multiples for Whole Numbers**—pp. 34–41
4.ATO.5	Generate a number or shape pattern that follows a given rule and determine a term that appears later in the sequence.	**Lesson 5**	**Generate and Analyze Number and Shape Patterns**—pp. 42–49

Geometry

Standards		Sadlier *Progress Mathematics*, Grade 4	
The student will:			
4.G.1	Draw points, lines, line segments, rays, angles (i.e., right, acute, obtuse), and parallel and perpendicular lines. Identify these in two-dimensional figures.	**Lesson 34**	**Draw and Identify Points, Lines, and Angles**—pp. 304–311
4.G.2	Classify quadrilaterals based on the presence or absence of parallel or perpendicular lines.	**Lesson 35**	**Classify Two-Dimensional Figures**—pp. 312–319
4.G.3	Recognize right triangles as a category, and identify right triangles.	**Lesson 31**	**Understand Angle Measures**—pp. 274–281
4.G.4	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line- symmetric figures and draw lines of symmetry.	**Lesson 36**	**Identify Lines of Symmetry**—pp. 320–327

Measurement and Data Analysis

Standards		Sadlier *Progress Mathematics*, Grade 4	
The student will:			
4.MDA.1	Convert measurements within a single system of measurement, customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., cm, m, km, g, kg, mL, L) from a larger to a smaller unit.	**Lesson 26**	**Convert Customary Measurement Units**—pp. 234–241
4.MDA.2	Solve real-world problems involving distance/length, intervals of time within 12 hours, liquid volume, mass, and money using the four operations.	**Lesson 27**	**Convert Metric Measurement Units**—pp. 242–249
		Lesson 28	**Problem Solving: Measurement**—pp. 250–257
4.MDA.3	Apply the area and perimeter formulas for rectangles.	**Lesson 29**	**Problem Solving: Apply Area and Perimeter Formulas**—pp. 258–265
4.MDA.4	Create a line plot to display a data set (i.e., generated by measuring length to the nearest quarter-inch and eighth-inch) and interpret the line plot.	**Lesson 30**	**Problem Solving: Use Line Plots**—pp. 266–273
4.MDA.5	Understand the relationship of an angle measurement to a circle.	**Lesson 31**	**Understand Angle Measures**—pp. 274–281
4.MDA.6	Measure and draw angles in whole number degrees using a protractor.	**Lesson 32**	**Use a Protractor to Measure Angles**—pp. 282–289
4.MDA.7	Solve addition and subtraction problems to find unknown angles in real-world and mathematical problems.	**Lesson 33**	**Problem Solving: Find Unknown Angle Measures**—pp. 290–297
4.MDA.8	Determine the value of a collection of coins and bills greater than $1.00.	*Related content–* **Lesson 25**	**Write and Compare Decimal Fractions**—pp. 219, 221