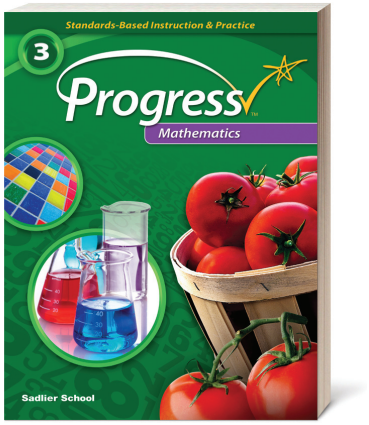
SADLIER

Progress Mathematics

Standards-Based Instruction & Practice



Aligned to the

South Carolina College- and Career-Ready Standards for Mathematics

Grade 3

Contents

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Number Sense and Base Ten

Standards		Sadlier *Progress Mathematics*, Grade 3
The student will:		
3.NSBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.	**Lesson 13** **Round Whole Numbers to the Nearest 10 or 100**—pp. 112–119
3.NSBT.2	Add and subtract whole numbers fluently to 1,000 using knowledge of place value and properties of operations.	**Lesson 14** **Add and Subtract Fluently within 1000**—pp. 120–127
3.NSBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10 – 90, using knowledge of place value and properties of operations.	**Lesson 15** **Multiply One-Digit Whole Numbers by Multiples of 10**—pp. 128–135
3.NSBT.4	Read and write numbers through 999,999 in standard form and equations in expanded form.	**See* Grade 2: Lesson 8, Read and Write Numbers to 1,000—pp. 72–79
3.NSBT.5	Compare and order numbers through 999,999 and represent the comparison using the symbols >, =, or <.	**See* Grade 2: Lesson 9, Compare Numbers—pp. 80–87

Number Sense — Fractions

Standards		Sadlier *Progress Mathematics*, Grade 3
The student will:		
3.NSF.1	Develop an understanding of fractions (i.e., denominators 2, 3, 4, 6, 8, 10) as numbers.	
	a. A fraction $1/b$ (called a unit fraction) is the quantity formed by one part when a whole is partitioned into b equal parts;	**Lesson 16** **Understand Unit Fractions as Quantities**—pp. 142–149
	b. A fraction a/b is the quantity formed by a parts of size $1/b$;	**Lesson 17** **Understand Fractions as Quantities**—pp. 150–157
	c. A fraction is a number that can be represented on a number line based on counts of a unit fraction;	**Lesson 18** **Understand Fractions on the Number Line**—pp. 158–165
	d. A fraction can be represented using set, area, and linear models.	**Lesson 16** **Understand Unit Fractions as Quantities**—pp. 142–149 **Lesson 17** **Understand Fractions as Quantities**—pp. 150–157 **Lesson 18** **Understand Fractions on the Number Line**—pp. 158–165

Number Sense — Fractions

Standards		Sadlier *Progress Mathematics*, Grade 3	
3.NSF.2	Explain fraction equivalence (i.e., denominators 2, 3, 4, 6, 8, 10) by demonstrating an understanding that:		
	a. two fractions are equal if they are the same size, based on the same whole, or at the same point on a number line;	**Lesson 19**	**Understand Equivalent Fractions**—pp. 166–173
	b. fraction equivalence can be represented using set, area, and linear models;	**Lesson 19**	**Understand Equivalent Fractions**—pp. 166–173
		Lesson 20	**Write Equivalent Fractions**—pp. 174–181
	c. whole numbers can be written as fractions (e.g., 4 = *4/1* and 1 = *4/4*);	**Lesson 21**	**Relate Whole Numbers and Fractions**—pp. 182–189
	d. fractions with the same numerator or same denominator can be compared by reasoning about their size based on the same whole.	**Lesson 22**	**Compare Fractions: Same Denominator**—pp. 190–197
		Lesson 23	**Compare Fractions: Same Numerator**—pp. 198–205
3.NSF.3	Develop an understanding of mixed numbers (i.e., denominators 2, 3, 4, 6, 8, 10) as iterations of unit fractions on a number line.		*See Grade 4: Lesson 18, Decompose a Fraction as a Sum of Fractions (mixed numbers)—pp. 158–165; Lesson 19, Add and Subtract Mixed Numbers with Like Denominators (mixed numbers on a number line)—pp. 166–173

Algebraic Thinking and Operations

Standards		Sadlier *Progress Mathematics*, Grade 3	
The student will:			
3.ATO.1	Use concrete objects, drawings and symbols to represent multiplication facts of two single-digit whole numbers and explain the relationship between the factors (i.e., 0 – 10) and the product.	**Lesson 1**	**Interpret Products of Whole Numbers**—pp. 10–17
3.ATO.2	Use concrete objects, drawings and symbols to represent division without remainders and explain the relationship among the whole number quotient (i.e., 0 – 10), divisor (i.e., 0 – 10), and dividend.	**Lesson 2**	**Interpret Quotients of Whole Numbers**—pp. 18–26
3.ATO.3	Solve real-world problems involving equal groups, area/array, and number line models using basic multiplication and related division facts. Represent the problem situation using an equation with a symbol for the unknown.	**Lesson 3**	**Problem Solving: Multiplication/Division and Equal Groups**—pp. 26–33
		Lesson 4	**Problem Solving: Multiplication/Division and Arrays**—pp. 34–41

Algebraic Thinking and Operations

Standards		Sadlier *Progress Mathematics*, Grade 3	
			Additional Aligned Instruction
		Lesson 32	**Problem Solving: Measurement**—pp. 288–295
3.ATO.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.	**Lesson 5**	**Find Unknown Numbers in Multiplication and Division Equations**—pp. 42–49
3.ATO.5	Apply properties of operations (i.e., Commutative Property of Multiplication, Associative Property of Multiplication, Distributive Property) as strategies to multiply and divide and explain the reasoning.	**Lesson 6**	**Apply Commutative and Associative Properties to Multiply**—pp. 50–57
		Lesson 7	**Apply the Distributive Property to Multiply**—pp. 58–65
3.ATO.6	Understand division as a missing factor problem.	**Lesson 8**	**Divide by Finding an Unknown Factor**—pp. 66–73
3.ATO.7	Demonstrate fluency with basic multiplication and related division facts of products and dividends through 100.	**Lesson 9**	**Multiply and Divide Fluently within 100**—pp. 80–87
3.ATO.8	Solve two-step real-world problems using addition, subtraction, multiplication and division of whole numbers and having whole number answers. Represent these problems using equations with a letter for the unknown quantity.	**Lesson 10**	**Problem Solving: Two-Step Problems**—pp. 88–95
		Lesson 11	**Problem Solving: Use Equations**—pp. 96–103
3.ATO.9	Identify a rule for an arithmetic pattern (e.g., patterns in the addition table or multiplication table).	**Lesson 12**	**Identify and Explain Arithmetic Patterns**—pp. 104–111

Geometry

Standards		Sadlier *Progress Mathematics*, Grade 3	
The student will:			
3.G.1	Understand that shapes in different categories (e.g., rhombus, rectangle, square, and other 4-sided shapes) may share attributes (e.g., 4-sided figures) and the shared attributes can define a larger category (e.g., quadrilateral). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	**Lesson 35**	**Understand Shapes and Attributes**—pp. 312–319

Geometry

Standards		Sadlier *Progress Mathematics*, Grade 3
3.G.2	Partition two-dimensional shapes into 2, 3, 4, 6, or 8 parts with equal areas and express the area of each part using the same unit fraction. Recognize that equal parts of identical wholes need not have the same shape.	**Lesson 36** **Partition Shapes to Make Equal Areas**—pp. 320–327
3.G.3	Use a right angle as a benchmark to identify and sketch acute and obtuse angles.	**Lesson 35** **Understand Shapes and Attributes** (right angles)—pp. 312–319 *For acute and obtuse angles, see Grade 4: Lesson 32, Use a Protractor to Measure Angles—pp. 282–289
3.G.4	Identify a three-dimensional shape (i.e., right rectangular prism, right triangular prism, pyramid) based on a given two-dimensional net and explain the relationship between the shape and the net.	

Measurement and Data Analysis

Standards		Sadlier *Progress Mathematics*, Grade 3
The student will:		
3.MDA.1	Use analog and digital clocks to determine and record time to the nearest minute, using a.m. and p.m.; measure time intervals in minutes; and solve problems involving addition and subtraction of time intervals within 60 minutes.	**Lesson 24** **Problem Solving: Time**—pp. 218–225
3.MDA.2	Estimate and measure liquid volumes (capacity) in customary units (i.e., c., pt., qt., gal.) and metric units (i.e., mL, L) to the nearest whole unit.	**Lesson 25** **Problem Solving: Volumes and Masses**—pp. 226–233
3.MDA.3	Collect, organize, classify, and interpret data with multiple categories and draw a scaled picture graph and a scaled bar graph to represent the data.	**Lesson 26** **Draw Graphs to Represent Categorical Data**—pp. 234–241
3.MDA.4	Generate data by measuring length to the nearest inch, half-inch and quarter-inch and organize the data in a line plot using a horizontal scale marked off in appropriate units.	**Lesson 27** **Generate and Graph Measurement Data**—pp. 242–249
3.MDA.5	Understand the concept of area measurement.	
	a. Recognize area as an attribute of plane figures;	**Lesson 28** **Understand Concepts of Area Measurement**—pp. 256–263
	b. Measure area by building arrays and counting standard unit squares;	**Lesson 28** **Understand Concepts of Area Measurement**—pp. 256–263

Measurement and Data Analysis

Standards		Sadlier *Progress Mathematics*, Grade 3	
	c. Determine the area of a rectilinear polygon and relate to multiplication and addition.	**Lesson 29**	**Find Areas of Rectangles: Tile and Multiply**—pp. 264–271
3.MDA.6	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	**Lesson 33**	**Problem Solving: Perimeter**—pp. 296–303
		Lesson 34	**Problem Solving: Compare Perimeter and Area**—pp. 304–311