SADLIER

Standards-Based Progress Mathematics

Aligned to the Chapter 111.

Texas Essential Knowledge and Skills (TEKS) for Mathematics

Subchapter A. Elementary, §111.5, Grade 3, Adopted 2012.

Grade 3

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(b) Knowledge and skills

GRADE	3 TEXAS	ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS	SADLIER STAI	NDARDS-BASED PROGRESS MATHEMATICS GRADE 3
(2)	math comp	ber and operations. The student applies sematical process standards to represent and pare whole numbers and understand relationships ed to place value. The student is expected to:		
	(A)	compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate;		n/a
	(B)	describe the mathematical relationships found in the base-10 place value system through the hundred thousands place;		n/a
	(C)	represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers; and	Lesson 13	Round Whole Numbers to the Nearest 10 or 100—pp. 112–119 Understand: Rounding two-digit numbers to the nearest 10 Understand: Rounding three-digit numbers to the nearest 100
	(D)	compare and order whole numbers up to 100,000 and represent comparisons using the symbols $>$, $<$, or $=$.		n/a
(3)	math	ber and operations. The student applies ematical process standards to represent and ain fractional units. The student is expected to:		
	(A)	represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines;	Lesson 16	 Understand Unit Fractions as Quantities—pp. 142–149 Understand: The meaning of a unit fraction Understand: The numerator in a unit fraction Understand: The denominator in a unit fraction
			Lesson 17	 Understand Fractions as Quantities—pp. 150–157 Understand: Using unit fractions to form other fractions
			Lesson 18	 Understand Fractions on the Number Line—pp 158–165 Understand: Representing a unit fraction on number line Understand: Representing a fraction on a number line

Lesson 19

Understand Equivalent Fractions—pp. 166–173
 Understand: Equivalent fractions on a number



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Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 21 Relate Whole Numbers and Fractions—pp. 182–189

- Understand: Recognizing fractions equivalent to whole numbers
- Understand: Expressing a whole number as a fraction

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator

(B) determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line;

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator
- (C) explain that the unit fraction 1/b represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number;

Lesson 16 Understand Unit Fractions as Quantities—pp. 142–149

- Understand: The meaning of a unit fraction
- Understand: The numerator in a unit fraction
- Understand: The denominator in a unit fraction



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Lesson 17 Understand Fractions as Quantities—pp. 150–157

Understand: Using unit fractions to form other fractions

Lesson 36 Partition Shapes to Make Equal Areas—pp. 320–327

- Understand: Partitioning a circle into 4 parts with equal area
- Understand: Partitioning a rectangle into 8 parts with equal area
- (D) compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts 1/b;

Lesson 16 Understand Unit Fractions as Quantities—pp. 142–149

- Understand: The meaning of a unit fraction
- Understand: The numerator in a unit fraction
- Understand: The denominator in a unit fraction

Lesson 17 Understand Fractions as Quantities—pp. 150–157

Understand: Using unit fractions to form other fractions

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator

Lesson 36 Partition Shapes to Make Equal Areas—pp. 320–327

- Understand: Partitioning a circle into 4 parts with equal area
- Understand: Partitioning a rectangle into 8 parts with equal area



 (E) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8;

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 18 Understand Fractions on the Number Line—pp. 158–165

- Understand: Representing a unit fraction on a number line
- Understand: Representing a fraction on a number line

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198– 205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 21 Relate Whole Numbers and Fractions—pp. 182–189

- Understand: Recognizing fractions equivalent to whole numbers
- Understand: Expressing a whole number as a fraction

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines;



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Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator
- (G) explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model; and

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 21 Relate Whole Numbers and Fractions—pp. 182–189

- Understand: Recognizing fractions equivalent to whole numbers
- Understand: Expressing a whole number as a fraction

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator

(H) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.

Lesson 16 Understand Unit Fractions as Quantities—pp. 142–149

- Understand: The meaning of a unit fraction
- Understand: The numerator in a unit fraction
- Understand: The denominator in a unit fraction

Lesson 17 Understand Fractions as Quantities—pp. 150– 157

Understand: Using unit fractions to form other fractions

Lesson 18 Understand Fractions on the Number Line—pp. 158–165

- Understand: Representing a unit fraction on a number line
- Understand: Representing a fraction on a number line



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

Lesson 23 Compare Fractions: Same Numerator—pp. 198–205

- Understand: Using number lines and models to compare fractions with the same numerator
- Understand: Using number strips to compare fractions with the same numerator
- (4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
 - (A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 11 Problem Solving: Use Equations—pp. 96–103

- Understand: Writing an equation for a twostep word problem
- Understand: Using diagrams in solving twostep word problems

Lesson 13 Round Whole Numbers to the Nearest 10 or 100—pp. 112–119

- Understand: Rounding two-digit numbers to the nearest 10
- Understand: Rounding three-digit numbers to the nearest 100

Lesson 14 Add and Subtract Fluently within 1000—pp. 120–127

- Understand: Using place-value methods to add and subtract
- Understand: Using properties of addition to find sums
- Understand: Adding on to subtract
- (B) round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems;

Lesson 13 Round Whole Numbers to the Nearest 10 or 100—pp. 112–119

- Understand: Rounding two-digit numbers to the nearest 10
- Understand: Rounding three-digit numbers to the nearest 100

Estimation—pp. 88–89, 95–96, 98, 112–114, 118–119, 138, 213, 215–216, 226–230, 250, 353



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(C)	determine the value of a collection of coins and bills;		n/a	
(D)	determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10;	Lesson 1	Interpret Products of Whole Numbers—pp. 10– 17 • Understand: What multiplication means • Understand: What a product means	
		Lesson 3	Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33 Understand: Using multiplication to solve problems involving equal groups Understand: Using division to find the number of equal groups Understand: Using division to find the number in each group	
		Lesson 4	Problem Solving: Multiplication/Division and Arrays—pp. 34–41 Understand: Using arrays to solve problems Understand: Representing problem situations with arrays	
		Lesson 32	 Problem Solving: Measurement—pp. 288–295 Understand: Using a drawing to help solve a problem 	
(E)	(E) represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting;	Lesson 1	Interpret Products of Whole Numbers—pp. 10– 17 • Understand: What multiplication means • Understand: What a product means	
		Lesson 3	Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33 Understand: Using multiplication to solve problems involving equal groups Understand: Using division to find the number of equal groups Understand: Using division to find the number in each group	
		Lesson 4	Problem Solving: Multiplication/Division and Arrays—pp. 34–41 Understand: Using arrays to solve problems Understand: Representing problem situations with arrays	
		Lesson 5	Find Unknown Numbers in Multiplication and Division Equations—pp. 42–49 Understand: Finding unknown numbers in multiplication equations Understand: Finding unknown numbers in	

division equations



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58–65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 8 Divide by Finding an Unknown Factor—pp. 66–73

- Understand: Understand: Multiplication and division fact families
- Understand: Using a fact family to find an unknown factor

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 11 Problem Solving: Use Equations—pp. 96–103

- Understand: Writing an equation for a twostep word problem
- Understand: Using diagrams in solving twostep word problems

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 32 Problem Solving: Measurement—pp. 288–295

Understand: Using a drawing to help solve a problem

(F) recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts:

Lesson 1 Interpret Products of Whole Numbers—pp. 10– 17

- Understand: What multiplication means
- Understand: What a product means

Lesson 2 Interpret Quotients of Whole Numbers—pp. 18– 25

- Understand: Using division to find how many in an equal share
- Understand: Using division to separate

Lesson 3 Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33

 Understand: Using multiplication to solve problems involving equal groups



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- Understand: Using division to find the number of equal groups
- Understand: Using division to find the number in each group

Lesson 4 Problem Solving: Multiplication/Division and Arrays—pp. 34–41

- Understand: Using arrays to solve problems
- Understand: Representing problem situations with arrays

Lesson 5 Find Unknown Numbers in Multiplication and Division Equations—pp. 42–49

- Understand: Finding unknown numbers in multiplication equations
- Understand: Finding unknown numbers in division equations

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58-65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 8 Divide by Finding an Unknown Factor—pp. 66–73

- Understand: Understand: Multiplication and division fact families
- Understand: Using a fact family to find an unknown factor

Lesson 9 Multiply and Divide Fluently within 100—pp. 80–87

- Understand: How multiplication and division are related
- Understand: How to use properties of multiplication to learn facts

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 11 Problem Solving: Use Equations—pp. 96–103

- Understand: Writing an equation for a twostep word problem
- Understand: Using diagrams in solving twostep word problems



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 32 Problem Solving: Measurement—pp. 288–295

Understand: Using a drawing to help solve a problem

(G) use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;

Lesson 5 Find Unknown Numbers in Multiplication and Division Equations—pp. 42–49

- Understand: Finding unknown numbers in multiplication equations
- Understand: Finding unknown numbers in division equations

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 15 Multiply One-Digit Whole Numbers by Multiples of 10—pp. 128–135

- Understand: What a multiple of 10 is
- Understand: Multiplying by a multiple of 10

Lesson 1 Interpret Products of Whole Numbers—pp. 10-

- Understand: What multiplication means
- Understand: What a product means

Lesson 2 Interpret Quotients of Whole Numbers—pp. 18– 25

- Understand: Using division to find how many in an equal share
- Understand: Using division to separate

Lesson 3 Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33

- Understand: Using multiplication to solve problems involving equal groups
- Understand: Using division to find the number of equal groups
- Understand: Using division to find the number in each group

Lesson 4 Problem Solving: Multiplication/Division and Arrays—pp. 34–41

- Understand: Using arrays to solve problems
- Understand: Representing problem situations with arrays

 (H) determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally;



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58–65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 8 Divide by Finding an Unknown Factor—pp. 66–73

- Understand: Understand: Multiplication and division fact families
- Understand: Using a fact family to find an unknown factor

Lesson 9 Multiply and Divide Fluently within 100—pp. 80–87

- Understand: How multiplication and division are related
- Understand: How to use properties of multiplication to learn facts

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 32 Problem Solving: Measurement—pp. 288–295

 Understand: Using a drawing to help solve a problem

Lesson 2 Interpret Quotients of Whole Numbers—pp. 18– 25

- Understand: Using division to find how many in an equal share
- Understand: Using division to separate

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

⁽I) determine if a number is even or odd using divisibility rules;



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Lesson 7 Apply the Distributive Property to Multiply—pp. 58–65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 9 Multiply and Divide Fluently within 100—pp. 80–

- Understand: How multiplication and division are related
- Understand: How to use properties of multiplication to learn facts

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 2 Interpret Quotients of Whole Numbers—pp. 18– 25

- Understand: Using division to find how many in an equal share
- Understand: Using division to separate

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58-65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 8 Divide by Finding an Unknown Factor—pp. 66–73

- Understand: Understand: Multiplication and division fact families
- Understand: Using a fact family to find an unknown factor

Lesson 9 Multiply and Divide Fluently within 100—pp. 80–87

- Understand: How multiplication and division are related
- Understand: How to use properties of multiplication to learn facts

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

Understand: Patterns in the multiplication table

(J) determine a quotient using the relationship between multiplication and division; and



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(K) solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.

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- Understand: Patterns in the addition table
- Understand: Rules for patterns

Lesson 3 Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33

- Understand: Using multiplication to solve problems involving equal groups
- Understand: Using division to find the number of equal groups
- Understand: Using division to find the number in each group

Lesson 4 Problem Solving: Multiplication/Division and Arrays—pp. 34-41

- Understand: Using arrays to solve problems
- Understand: Representing problem situations with arrays

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 11 Problem Solving: Use Equations—pp. 96–103

- Understand: Writing an equation for a twostep word problem
- Understand: Using diagrams in solving twostep word problems

Lesson 32 Problem Solving: Measurement—pp. 288-295

- Understand: Using a drawing to help solve a problem
- 5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
 - (A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations;
 - (B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations;

Lesson 14 Add and Subtract Fluently within 1000—pp. 120–127

- Understand: Using place-value methods to add and subtract
- Understand: Using properties of addition to find sums
- Understand: Adding on to subtract

Lesson 1 Interpret Products of Whole Numbers—pp. 10-17

- Understand: What multiplication means
- Understand: What a product means

Lesson 2 Interpret Quotients of Whole Numbers—pp. 18– 25

- Understand: Using division to find how many in an equal share
- Understand: Using division to separate



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 3 Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33

- Understand: Using multiplication to solve problems involving equal groups
- Understand: Using division to find the number of equal groups
- Understand: Using division to find the number in each group

Lesson 4 Problem Solving: Multiplication/Division and Arrays—pp. 34–41

- Understand: Using arrays to solve problems
- Understand: Representing problem situations with arrays

Lesson 10 Problem Solving: Two-Step Problems—pp. 88–95

- Understand: Solving a two-step word problem
- Understand: Checking that an answer is reasonable

Lesson 11 Problem Solving: Use Equations—pp. 96–103

- Understand: Writing an equation for a twostep word problem
- Understand: Using diagrams in solving twostep word problems

Lesson 32 Problem Solving: Measurement—pp. 288–295

 Understand: Using a drawing to help solve a problem

(C) describe a multiplication expression as a comparison such as 3 x 24 represents 3 times as much as 24;

Lesson 1 Interpret Products of Whole Numbers—pp. 10– 17

- Understand: What multiplication means
- Understand: What a product means

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58–65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

(D) determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product; and

Lesson 3 Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33

- Understand: Using multiplication to solve problems involving equal groups
- Understand: Using division to find the number of equal groups
- Understand: Using division to find the number in each group



SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 4 Problem Solving: Multiplication/Division and Arrays—pp. 34–41

- Understand: Using arrays to solve problems
- Understand: Representing problem situations with arrays

Lesson 5 Find Unknown Numbers in Multiplication and Division Equations—pp. 42–49

- Understand: Finding unknown numbers in multiplication equations
- Understand: Finding unknown numbers in division equations

Lesson 6 Apply Commutative and Associative Properties to Multiply—pp. 50–57

- Understand: Two numbers can be multiplied in any order
- Understand: Three factors can be grouped in different ways

Lesson 7 Apply the Distributive Property to Multiply—pp. 58–65

- Understand: Breaking apart numbers to multiply
- Understand: Using parentheses with the Distributive Property

Lesson 8 Divide by Finding an Unknown Factor—pp. 66-

- Understand: Understand: Multiplication and division fact families
- Understand: Using a fact family to find an unknown factor

Lesson 32 Problem Solving: Measurement—pp. 288–295

- Understand: Using a drawing to help solve a problem
- (E) represent real-world relationships using number pairs in a table and verbal descriptions.

Lesson 12 Identify and Explain Arithmetic Patterns—pp. 104–111

- Understand: Patterns in the multiplication table
- Understand: Patterns in the addition table
- Understand: Rules for patterns
- (6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:
 - (A) classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language;

Lesson 35 Understand Shapes and Attributes—pp. 312–319

- Understand: Using number of sides and number of vertices to identify polygons
- Understand: Using lengths of sides and right angles to identify special quadrilaterals



- (B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories;
- (C) determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row;

(D) decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area; and

SADLIER STANDARDS-BASED PROGRESS MATHEMATICS GRADE 3

Lesson 35 Understand Shapes and Attributes—pp. 312–319

- Understand: Using number of sides and number of vertices to identify polygons
- Understand: Using lengths of sides and right angles to identify special quadrilaterals

Lesson 28 Understand Concepts of Area Measurement pp. 264–271

• Understand: The meaning of area

Lesson 29 Find Areas of Rectangles: Tile and Multiply—pp. 264–271

• Understand: Finding the area of a rectangle

Lesson 33 Problem Solving: Perimeter—pp. 296–303

- Understand: The meaning of perimeter
- Understand: Finding an unknown side length of a polygon

Lesson 34 Problem Solving: Compare Perimeter and Area—pp. 304–311

- Understand: Areas of different rectangles with the same perimeter
- Understand: Perimeters of different rectangles with the same area

Lesson 29 Find Areas of Rectangles: Tile and Multiply—pp. 264–271

• Understand: Finding the area of a rectangle

Lesson 30 Find Areas of Rectangles: Use the Distributive Property—pp. 272–279

- Understand: Using tiling to show the Distributive Property
- Understand: Using area models to represent the Distributive Property

Lesson 31 Find Areas: Decompose Figures into Rectangles—pp. 280–287

Understand: Decomposing figures into rectangles to find their areas

Lesson 32 Problem Solving: Measurement—pp. 288–295

Understand: Using a drawing to help solve a problem

Lesson 33 Problem Solving: Perimeter—pp. 296–303

- Understand: The meaning of perimeter
- Understand: Finding an unknown side length of a polygon

Lesson 34 Problem Solving: Compare Perimeter and Area—pp. 304–311

- Understand: Areas of different rectangles with the same perimeter
- Understand: Perimeters of different rectangles with the same area



- (E) decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.
- (7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
 - (A) represent fractions of halves, fourths, and eighths as distances from zero on a number line;

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Lesson 36 Partition Shapes to Make Equal Areas—pp. 320–327

- Understand: Partitioning a circle into 4 parts with equal area
- Understand: Partitioning a rectangle into 8 parts with equal area

Lesson 18 Understand Fractions on the Number Line—pp. 158–165

- Understand: Representing a unit fraction on a number line
- Understand: Representing a fraction on a number line

Lesson 19 Understand Equivalent Fractions—pp. 166–173

Understand: Equivalent fractions on a number line

Lesson 20 Write Equivalent Fractions—pp. 174–181

- Understand: Using fraction strips to find equivalent fractions
- Understand: Using number lines to find equivalent fractions

Lesson 21 Relate Whole Numbers and Fractions—pp. 182–189

- Understand: Recognizing fractions equivalent to whole numbers
- Understand: Expressing a whole number as a fraction

Lesson 22 Compare Fractions: Same Denominator—pp. 190–197

- Understand: Comparing fractions on a number line
- Understand: Using fraction strips to compare fractions with the same denominator

 (B) determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems;

Lesson 33 Problem Solving: Perimeter—pp. 296–303

- Understand: The meaning of perimeter
- Understand: Finding an unknown side length of a polygon

Lesson 34 Problem Solving: Compare Perimeter and Area—pp. 304–311

- Understand: Areas of different rectangles with the same perimeter
- Understand: Perimeters of different rectangles with the same area



GRADE 3 TEXAS	ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS	SADLIER STAI	NDARDS-BASED PROGRESS MATHEMATICS GRADE 3
(C)	determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes;	Lesson 24	 Problem Solving: Time—pp. 218–225 Understand: How to tell and write time Understand: How to measure intervals of time
(D)	determine when it is appropriate to use measurements of liquid volume (capacity) or weight; and	Lesson 10	 Problem Solving: Two-Step Problems—pp. 88–95 Understand: Solving a two-step word problem Understand: Checking that an answer is reasonable
		Lesson 25	Problem Solving: Liquid Volumes and Masses— pp. 226–233 Understand: How to estimate liquid volume Understand: How to estimate mass Understand: How to solve problems involving mass
		Lesson 32	 Problem Solving: Measurement—pp. 288–295 Understand: Using a drawing to help solve a problem
(E)	determine liquid volume (capacity) or weight using appropriate units and tools.	Lesson 3	Problem Solving: Multiplication/Division and Equal Groups—pp. 26–33 Understand: Using multiplication to solve problems involving equal groups Understand: Using division to find the number of equal groups Understand: Using division to find the number in each group
		Lesson 4	Problem Solving: Multiplication/Division and Arrays—pp. 34–41 Understand: Using arrays to solve problems Understand: Representing problem situations with arrays
		Lesson 10	Problem Solving: Two-Step Problems—pp. 88–95 Understand: Solving a two-step word problem Understand: Checking that an answer is reasonable

Lesson 25 Problem Solving: Liquid Volumes and Masses—pp. 226–233

- Understand: How to estimate liquid volume
- Understand: How to estimate mass
- Understand: How to solve problems involving mass

Lesson 32 Problem Solving: Measurement—pp. 288–295

 Understand: Using a drawing to help solve a problem



GRADE	3 TEXAS	ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS	SADLIER STAI	NDARDS-BASED PROGRESS MATHEMATICS GRADE 3	
(8)	Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:				
	(A)	summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals; and	Lesson 26	Draw Graphs to Represent Categorical Data—pp. 234–241 Understand: How to draw picture graphs Understand: How to draw bar graphs	
	(B)	solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	Lesson 26	 Draw Graphs to Represent Categorical Data—pp. 234–241 Understand: How to draw picture graphs Understand: How to draw bar graphs 	
(9)	math finan	onal financial literacy. The student applies dematical process standards to manage one's cial resources effectively for lifetime financial rity. The student is expected to:			
	(A)	explain the connection between human capital/labor and income;		n/a	
	(B)	describe the relationship between the availability or scarcity of resources and how that impacts cost;		n/a	
	(C)	identify the costs and benefits of planned and unplanned spending decisions;		n/a	
	(D)	explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower's responsibility to pay it back to the lender, usually with interest;		n/a	
	(E)	list reasons to save and explain the benefit of a savings plan, including for college; and		n/a	
	(F)	identify decisions involving income, spending, saving, credit, and charitable giving.		n/a	