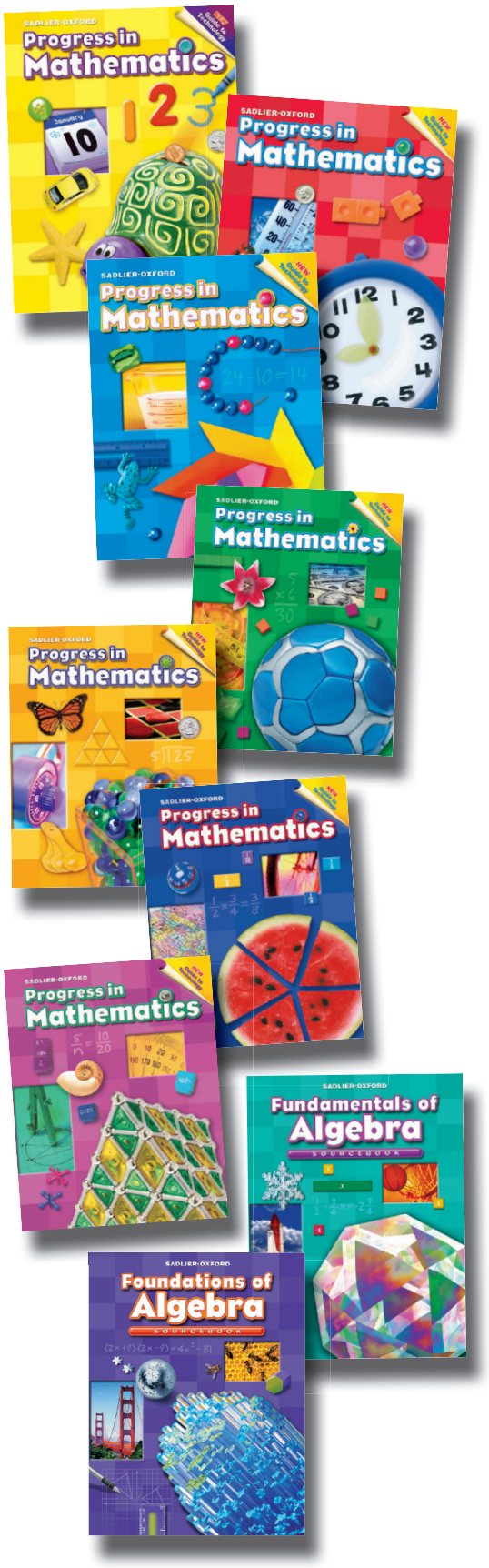

SADLIER

Progress in Mathematics

Aligned to the Chapter 111.

Texas Essential Knowledge and Skills for Mathematics

Subchapter A. Elementary, §111.4, Grade 2, Adopted 2012.

Grade 2

(b) Knowledge and skills

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(b) Knowledge and skills

Grade 2 Texas Essential Knowledge and Skills for Mathematics		Sadlier *Progress in Mathematics* Grade 2
(1)	Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	
(A)	apply mathematics to problems arising in everyday life, society, and the workplace;	Children in the program have the opportunity to apply mathematics to real-world situations in 36 problem solving lessons. They also see practical application of new skills in the introduction to many lessons throughout the textbook. Similarly, many lessons conclude with a set of problem solving exercises—word problems that further connect the new skill or concept to everyday life. The final stage of the lesson plan in the TE—Part 5: Follow-Up—includes applications, such as "Real-World Connections" or "Problem Solving." Each chapter ends with a "Connection" lesson (such as Math and Science, Math and Health, or Math and Visual Reasoning). And at the end of alternating chapters is a "Real-Aloud" story that is related to newly studied skills, plus the related list of "Books to Read."
(B)	use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution and evaluating the problem-solving process and the reasonableness of the solution;	Located immediately after the review of key Kindergarten skills at the beginning of the book, Introduction to Problem Solving presents a four-step problem solving model— Read, Plan, Solve, Check. After discussing the model, students examine two problem solving strategies: Act It Out and Draw a Picture. Instruction in each of the 12 chapters includes three problem solving lessons: Problem Solving: Read and Write in Math, Problem Solving Strategy, and the Problem Solving Applications: Mixed Review with exercises that engage students in applying a variety of strategies they've studied. Throughout the program, students are given step-by-step instructions that explain each process. And they are frequently directed to check the reasonableness of their solutions. In addition to the problem solving lessons listed above, a variety of problem solving activities appear at the end of many regular lessons (see "Problem Solving," "Challenge," and "Critical Thinking" sections). See also "Problem of the Day," located in the TE at the beginning of each chapter, for nonroutine problems for each lesson. The "Write Your Own" problem formulation activities that appear in several problem solving lessons encourage students to pose original problems for their classmates to solve (additional problem formulation ideas appear in the "5. Follow-Up: Related Activities" section of the daily lesson plan for select lessons—see TE pp. 136 and 380 for examples). For a comprehensive listing of Gr. 1 problem solving citations, see Index p. T68

Grade 2 Texas Essential Knowledge and Skills for Mathematics		Sadlier *Progress in Mathematics* Grade 2
(C)	select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;	The lesson plan in the Teacher's Edition for many lessons offers ideas for using real objects and manipulatives—such as two-color counters, connecting cubes, and base-ten blocks—to model the new concept. Depending on the topic, engaging activities involve tools and materials such as scissors, rulers, crayons, tape, or index cards. There are several mental math activities (see pp. 16, 26, 86, 198, 222, 268, 436, 438, 478, 512, 525–526), including lessons (10-7 Estimate Sums: Mental Math, 11-1A Mental Math: Ten More or Ten Less, 11-11 Add and Subtract Mentally). Children estimate quantities of objects, also measurements. And beginning in Chapter 10, they learn number sense by estimating sums and differences. Located at the back of the TE are several blackline masters that can be used for learning activities. They include a place-value chart, grid and dot paper, number lines, fraction circles, and nets. There is also a wealth of online resources at www.progressinmathematics.com
(D)	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	Lessons in the program employ a rich variety of representations, including pictures of concrete models, diagrams, graphs, and symbols, to develop understanding of mathematical concepts and skills. Children use these representations in their discussions during daily lessons, thereby building communication skills and enhancing mathematical thinking through listening, modeled questioning, guided discussion, reading, and writing. Each lesson features a "Math Journal: Write About It" or "Talk It Over" activity. Students develop listening skills during the "Listen" activity at the beginning of each chapter. In addition, there are six "Read Alouds" and recommended "Books to Read." And the periodic "Check Your Progress" review/test preparation activities in each chapter require students to listen and respond to teacher- read directions. Children are systematically taught the language of mathematics. Located in the Teacher's Edition at the beginning of each chapter, the "Math Vocabulary" page includes "Vocabulary Review," "Math Word Wall," "Vocabulary Project," and "Chapter Words." The Meeting Individual Needs: English Language Learners section features "Oral Language and Vocabulary Development," New vocabulary for each chapter is listed in the Student Textbook on the "Math Alive at Home" page. Each daily lesson plan in the TE includes a scripted introduction of new words and terms; new words are highlighted in yellow and defined in context in the Student Textbook. And words and terms are defined in the online and end-of-book glossary. For additional communication activities, see the "5. Follow-Up: Related Activities—Communication" section of the daily lesson plan for select lessons (see TE pp. 24 and 220 for examples).
(E)	create and use representations to organize, record, and communicate mathematical ideas;	Lessons such as 6-12 Problem Solving Strategy: Make a Table, 11-9A Bar Diagrams and Subtraction Problems, 12-10 Problem Solving Strategy: Make a Model/Draw a Picture—as well as the entire Chapter 4 Data and Graphs—help young people learn to record, organize, and share data.

GRADE 2 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS			SADLIER *PROGRESS IN MATHEMATICS* GRADE 2
	(F)	analyze mathematical relationships to connect and communicate mathematical ideas; and	Children learn about relationships between mathematical ideas as they engage in "Lesson Readiness" and "Before Using the Page" activities for each lesson. For "Summarize/Assess", they use several logical processes—classify and sort, compare and contrast, identify and extend patterns, make generalizations and draw conclusions, justify answers, and make predictions.
	(G)	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	In addition to several opportunities in daily lessons to question and discuss the presentation of new concepts by the teacher, students explain mathematical ideas in written and oral communication in the daily "Talk It Over" and regular "Math Journal" activities.
(2)	Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:		
	(A)	use concrete and pictorial models to compose and decompose numbers up to 1,200 in more than one way as a sum of so many thousands, hundreds, tens, and ones;	Skills Update: Number Words to Twenty—p. C 2-1 Tens and Ones (connecting cubes, counters)—pp. 65–66 Objective(s): To identify a group of 10 ones as 1 ten; to group ones as tens and ones. 2-2 Place Value (place-value blocks and pictures)—pp. 67–68 Objective(s): To identify the place and value of each digit in numbers to 99 using place-value models. 2-6 Place Value of Two–Digit Numbers (place-value blocks and pictures)—pp. 75–76 Objective(s): To determine the value of a designated digit in a two-digit number. 2-7 Expanded Form (place-value blocks and pictures)—pp. 77–78 Objective(s): To write the expanded form of 2-digit numbers. 8-1 Hundreds (place-value blocks and pictures)—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred; to read and write numbers and number words for 100-900; to recognize place value of numbers to 900. *8-1A Make Hundreds (use concrete and pictorial place-value models)—Online Objective(s): To recognize 10 tens as 1 hundred; to recognize a multiple of ten tens as a number of hundreds; to recognize place value of hundreds to 900. 8-2 Hundreds, Tens, and Ones (place-value blocks and pictures)—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999; to recognize place value of numbers to 999. 8-3 Place Value of Three–Digit Numbers (place-value blocks and pictures)—pp. 353–354 Objective(s): To identify the place value of a designated digit in a three-digit number. 8-4 Expanded Form with Hundreds, Tens, and Ones (place-value blocks and pictures)—pp. 355–356 Objective(s): To write three-digit numbers in expanded form.
	(B)	use standard, word, and expanded forms to represent numbers up to 1,200;	Skills Update: Number Words to Twenty—p. C 2-1 Tens and Ones—pp. 65–66 Objective(s): To identify a group of 10 ones as 1 ten; to group ones as tens and ones. 2-2 Place Value—pp. 67–68 Objective(s): To identify the place and value of each digit in numbers to 99 using place-value models.

Grade 2 Texas Essential Knowledge and Skills for Mathematics		Sadlier *Progress in Mathematics* Grade 2
		2-3 Number Words Twenty to Forty–Nine—pp. 69–70 Objective(s): To read and write numbers 20-49 using numbers and number words; to recognize the numbers 20-49 expressed as tens and ones. 2-4 Number Words Fifty to Ninety–Nine—pp. 71–72 Objective(s): To read and write numbers 50-99 using numbers and number words; to recognize the numbers 50-99 expressed as tens and ones. 2-6 Place Value of Two–Digit Numbers—pp. 75–76 Objective(s): To determine the value of a designated digit in a two-digit number. 2-7 Expanded Form—pp. 77–78 Objective(s): To write the expanded form of 2-digit numbers. 8-1 Hundreds—pp. 349–350 Objective(s): To recognize 10 tens as 1 hundred; to read and write numbers and number words for 100-900; to recognize place value of numbers to 900. *8-1A Make Hundreds—Online Objective(s): To recognize 10 tens as 1 hundred; to recognize a multiple of ten tens as a number of hundreds; to recognize place value of hundreds to 900. 8-2 Hundreds, Tens, and Ones—pp. 351–352 Objective(s): To read and write numbers and number words for 100-999; to recognize place value of numbers to 999. 8-3 Place Value of Three–Digit Numbers—pp. 353–354 Objective(s): To identify the place value of a designated digit in a three-digit number. 8-4 Expanded Form with Hundreds, Tens, and Ones—pp. 355–356 Objective(s): To write three-digit numbers in expanded form.
(C)	generate a number that is greater than or less than a given whole number up to 1,200;	Skills Update: Greater or Less—p. D 2-8 Compare Numbers—pp. 81–82 Objective(s): To compare numbers using the symbols <, =, and >. 2-9 Order Using a Number Line—pp. 83–84 Objective(s): To compare and order numbers to 100. 2-10 Order Using Models—pp. 85–86 Objective(s): To compare and order numbers to 100 using models. 8-6 Compare Numbers to 1000—pp. 361–362 Objective(s): To compare two 3-digit numbers using symbols <, >, and =. 8-7 Order to 1000—pp. 363–364 Objective(s): To order 3-digit numbers from greatest to least and from least to greatest.
(D)	use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols (>, <, or =);	Skills Update: Greater or Less—p. D 2-8 Compare Numbers—pp. 81–82 Objective(s): To compare numbers using the symbols <, =, and >. 2-9 Order Using a Number Line—pp. 83–84 Objective(s): To compare and order numbers to 100. 2-10 Order Using Models—pp. 85–86 Objective(s): To compare and order numbers to 100 using models. 8-6 Compare Numbers to 1000—pp. 361–362 Objective(s): To compare two 3-digit numbers using symbols <, >, and =. 8-7 Order to 1000—pp. 363–364 Objective(s): To order 3-digit numbers from greatest to least and from least to greatest.

GRADE 2 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS			SADLIER *PROGRESS IN MATHEMATICS* GRADE 2
	(E)	locate the position of a given whole number on an open number line; and	*10-2A Whole Numbers and the Number Line—Online Objective(s): To represent whole numbers as lengths from 0 on a number line; to represent sums and differences (within 100) on a number line.
	(F)	name the whole number that corresponds to a specific point on a number line.	1-4 Count On to Add (number lines)—pp. 9–10 Objective(s): To use the *count on* strategy to find sums. 1-12 Count Back to Subtract (number lines)—pp. 29–30 Objective(s): To use *count back* strategy to find differences from 12 or less. 1-16 Count Up to Subtract (number lines)—pp. 39–40 Objective(s): To count up to subtract. 2-9 Order Using a Number Line—pp. 83–84 Objective(s): To compare and order numbers to 100. 2-12 Round to the Nearest Ten—pp. 89–90 Objective(s): To use a number line to round to the nearest ten. *10-2A Whole Numbers and the Number Line—Online Objective(s): To represent whole numbers as lengths from 0 on a number line; to represent sums and differences (within 100) on a number line.
(3)	Number and operations. The student applies mathematical process standards to recognize and represent fractional units and communicates how they are used to name parts of a whole. The student is expected to:		
	(A)	partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words;	10-1 Fractions: 1/2, 1/4, 1/8—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8; to write a fraction for the shaded part of a figure. *10-1A Fractions: 1/2, 1/3, 1/4—Online Objective(s): To identify unit fractions for halves, thirds, and fourths; to partition shapes into halves, thirds, and fourths.
	(B)	explain that the more fractional parts used to make a whole, the smaller the part; and the fewer the fractional parts, the larger the part;	10-1 Fractions: 1/2, 1/4, 1/8—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8; to write a fraction for the shaded part of a figure. *10-1A Fractions: 1/2, 1/3, 1/4—Online Objective(s): To identify unit fractions for halves, thirds, and fourths; to partition shapes into halves, thirds, and fourths.
	(C)	use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole; and	10-1 Fractions: 1/2, 1/4, 1/8—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8; to write a fraction for the shaded part of a figure. *10-1A Fractions: 1/2, 1/3, 1/4—Online Objective(s): To identify unit fractions for halves, thirds, and fourths; to partition shapes into halves, thirds, and fourths.
	(D)	identify examples and non-examples of halves, fourths, and eighths.	10-1 Fractions: 1/2, 1/4, 1/8—p. 445 Objective(s): To identify the fractions 1/2, 1/4, and 1/8; to write a fraction for the shaded part of a figure. *10-1A Fractions: 1/2, 1/3, 1/4—Online Objective(s): To identify unit fractions for halves, thirds, and fourths; to partition shapes into halves, thirds, and fourths.
(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 addition and subtraction problems with efficiency and accuracy. The student is expected to:		
	(A)	recall basic facts to add and subtract within 20 with automaticity;	Skills Update: Addition Facts to 10—p. A Skills Update: Subtraction Facts to 10—p. B

Grade 2 Texas Essential Knowledge and Skills for Mathematics	Sadlier *Progress in Mathematics* Grade 2
	1-1 Addition Concepts—pp. 3–4 Objective(s): To add numbers with sums to 12. 1-3 Related Addition Facts—pp. 7–8 Objective(s): To solve and write related addition facts. 1-4 Count On to Add—pp. 9–10 Objective(s): To use the *count on* strategy to find sums. 1-5 Extend Facts to 20—pp. 11–12 Objective(s): To add numbers with sums to 20. 1-6 Make 10 to Add—pp. 15–16 Objective(s): To use the *make 10* strategy to find sums. 1-7 Doubles Facts—pp. 17–18 Objective(s): To use *doubles* strategy to find sums. 1-8 Doubles + 1, Doubles –1—pp. 19–20 Objective(s): To use the *doubles + 1* and *doubles - 1* strategies to find sums. 1-9 Three Addends—pp. 21–22 Objective(s): To add a column of 3 numbers. 1-10 Four Addends—pp. 23–24 Objective(s): To add a column of 4 numbers. 1-11 Subtraction Concepts—pp. 27–28 Objective(s): To subtract numbers from 12 or less. *1-11A Add or Subtract to Compare—Online Objective(s): To subtract and compare two numbers; to add or subtract to find a missing number in a comparison situation when the difference is known. 1-12 Count Back to Subtract—pp. 29–30 Objective(s): To use *count back* strategy to find differences from 12 or less. 1-13 Related Subtraction Facts—pp. 31–32 Objective(s): To solve and write related subtraction facts. 1-14 Relate Addition and Subtraction—pp. 33–34 Objective(s): To identify, solve, and write related addition and subtraction facts. *1-14A Think Addition to Subtract—Online Objective(s): To use addition facts to find differences. 1-15 Use Addition to Check—pp. 35–36 Objective(s): To use addition to check subtraction. 1-16 Count Up to Subtract—pp. 39–40 Objective(s): To count up to subtract. *1-16A Make 10 to Subtract—Online Objective(s): To use the Make 10 strategy to find differences. *1-16B Writing a Number Sentence—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position; to write an equation to solve addition and subtraction word problems. 1-17 Fact Families—pp. 41–42 Objective(s): To identify and write fact families. 1-18 Missing Addends—pp. 43–44 Objective(s): To count up or use a subtraction fact to find missing addends. *1-18A Use a Bar Model—Online Objective(s): To use a bar model to solve addition and subtraction word problems; to use an equation to represent addition and subtraction problems. 1-19 Fact Patterns—pp. 45–46 Objective(s): To recognize and complete number patterns; to identify and use patterns to complete addition and subtraction facts.

Grade 2 Texas Essential Knowledge and Skills for Mathematics	Sadlier *Progress in Mathematics* Grade 2
(B) add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations;	4-1 Add Ones and Tens—pp. 155–156 Objective(s): To add ones and tens without regrouping. 4-2 Mental Math Addition—pp. 157–158 Objective(s): To use mental math strategies to add. 4-3 Regroup Ones as Tens: Use Models—pp. 159–160 Objective(s): To regroup ones as tens using models. 4-4 Problem Solving: Read and Write in Math: Find Hidden Information—pp. 161–162 Objective(s): To use the reading skill of finding hidden information to solve a problem. 4-5 Regroup Ones as Tens: Model and Record—pp. 163–164 Objective(s): To add tens and ones, regrouping ones. 4-6 Regroup Ones as Tens—pp. 165–166 Objective(s): To add tens and ones, regrouping ones. *4-6A Mental Math: Add Two-Digit Numbers—Online Objective(s): To add a two-digit number by decomposing the number into tens and ones and adding mentally. *4-6B Mental Math: Use Compensation—Online Objective(s): To add two two-digit numbers by adding tens and counting back. 4-7 Estimate Sums—pp. 169–170 Objective(s): To estimate sums of 2 two-digit numbers. 4-8 Rewrite Two–Digit Addition—pp. 171–172 Objective(s): To rewrite two-digit addition from horizontal to vertical and add. 4-9 Three Addends—pp. 173–174 Objective(s): To add three numbers with and without regrouping. *4-9A Four Addends—Online Objective(s): To add 2-digit numbers (up to 4 addends), within 100. 4-10 Add: Choose the Method—pp. 177–178 Objective(s): To explore methods for finding sums, with and without regrouping. 4-11 Addition Practice—pp. 179–180 Objective(s): To add one- and two-digit numbers, with and without regrouping. 5-1 Subtract Tens and Ones—p. 195 Objective(s): To subtract 2-digit numbers without regrouping. 5-2 Mental Math Subtraction—pp. 197–198 Objective(s): To use mental math strategies to subtract ones and tens. 5-3 Ways to Make Numbers—pp. 199–200 Objective(s): To identify more than one way to write a number. 5-4 Regroup Tens as Ones: Use Models—pp. 201–202 Objective(s): To use models to regroup 1 ten as 10 ones. 5-5 Regroup Tens as Ones: Model and Record—pp. 203–204 Objective(s): To subtract 2-digit numbers, with regrouping. 5-6 Regroup Tens as Ones—pp. 205–206 Objective(s): To subtract two-digit numbers, with regrouping; to subtract one-digit numbers from two-digit numbers, with regrouping. *5-6A Mental Math: Subtract Two-Digit Numbers—Online Objective(s): To subtract a two-digit number by decomposing the number into tens and ones and subtracting mentally 5-7 Estimate Differences—pp. 209–210 Objective(s): To estimate differences of 2 two-digit numbers. 5-8 Rewrite Two–Digit Subtraction—pp. 211–212 Objective(s): To rewrite two-digit subtraction from horizontal form to vertical form and subtract. 5-9 Add to Check—pp. 213–214 Objective(s): To use addition to check subtraction.

Grade 2 Texas Essential Knowledge and Skills for Mathematics		Sadlier *Progress in Mathematics* Grade 2
		5-10 Subtraction Practice—pp. 215–216 Objective(s): To practice subtraction with two-digit numbers, with and without regrouping. 5-11 Chain Operations—pp. 217–218 Objective(s): To solve chain operations involving addition and subtraction. 5-12 Problem Solving: Read and Write in Math: Ask a Question—pp. 221–222 Objective(s): To ask an addition or subtraction question to complete a math problem. 5-13 Choose the Method—pp. 223–224 Objective(s): To choose the most efficient computational method to add or subtract: mental math or paper and pencil. 5-14 Mixed Practice—pp. 225–226 Objective(s): To practice addition and subtraction, with and without regrouping.
(C)	solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms; and	1-2 Problem Solving: Read and Write in Math: Find Extra Information—pp. 5–6 Objective(s): To use the reading strategy of rereading to help solve math problems. 1-20 Problem Solving Strategy: Choose the Operation—pp. 47–48 Objective(s): To choose the operation to solve problems. *1-20A Two-Step Problems—Online Objective(s): To solve sequential 1-step problems to solve a 2-step problem; to use an equation to represent addition and subtraction word problems. 1-21 Problem Solving Applications: Mixed Strategies—pp. 49–50 4-4 Problem Solving: Read and Write in Math: Find Hidden Information—pp. 161–162 Objective(s): To use the reading skill of finding hidden information to solve a problem. 4-12 Problem Solving Strategy: Use More Than One Step—pp. 181–182 Objective(s): To solve problems using more than one step. 4-13 Problem Solving Applications: Mixed Strategies—pp. 183–184 5-12 Problem Solving: Read and Write in Math: Ask a Question—pp. 221–222 Objective(s): To ask an addition or subtraction question to complete a math problem. 5-16 Problem Solving Strategy: Make a Table—pp. 229–230 Objective(s): To solve problems by making a table. 5-17 Problem Solving Applications: Mixed Strategies—pp. 231–232
(D)	generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.	*1-16B Writing a Number Sentence—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position; to write an equation to solve addition and subtraction word problems. *The "Write Your Own" problem formulation activities that appear in several problem solving lessons encourage students to pose original problems for their classmates to solve. Additional problem formulation ideas appear in the "5. Follow-Up: Related Activities" section of the daily lesson plan for select lessons—see "Problem Formulation," TE p. 84 for example.

GRADE 2 TEXAS ESSENTIAL KNOWLEDGE AND SKILLS FOR MATHEMATICS		SADLIER *PROGRESS IN MATHEMATICS* GRADE 2
(5)	Number and operations. The student applies mathematical process standards to determine the value of coins in order to solve monetary transactions. The student is expected to:	
	(A) determine the value of a collection of coins up to one dollar; and	7-1 Pennies, Nickels, and Dimes—pp. 291–292 Objective(s): To find the value of a group of coins consisting of pennies, nickels, and dimes. 7-2 Quarters—pp. 293–294 Objective(s): To find the value of a group of pennies, nickels, dimes, and quarters. 7-3 Half Dollar—pp. 295–296 Objective(s): To find the value of a group of coins consisting of pennies, nickels, dimes, quarters, and a half dollar. 7-6 Make Change—pp. 303–304 Objective(s): To find the amount of change after making a purchase. 7-7 Add and Subtract Money—pp. 305–306 Objective(s): To apply regrouping in addition and subtraction of money. 7-8 One Dollar—pp. 307–308 Objective(s): To identify a dollar bill and dollar coin; to count and find amounts of coins equal to a dollar
	(B) use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.	7-1 Pennies, Nickels, and Dimes—pp. 291–292 Objective(s): To find the value of a group of coins consisting of pennies, nickels, and dimes. 7-2 Quarters—pp. 293–294 Objective(s): To find the value of a group of pennies, nickels, dimes, and quarters. 7-3 Half Dollar—pp. 295–296 Objective(s): To find the value of a group of coins consisting of pennies, nickels, dimes, quarters, and a half dollar. 7-6 Make Change—pp. 303–304 Objective(s): To find the amount of change after making a purchase. 7-7 Add and Subtract Money—pp. 305–306 Objective(s): To apply regrouping in addition and subtraction of money. 7-8 One Dollar—pp. 307–308 Objective(s): To identify a dollar bill and dollar coin; to count and find amounts of coins equal to a dollar
(6)	Number and operations. The student applies mathematical process standards to connect repeated addition and subtraction to multiplication and division situations that involve equal groupings and shares. The student is expected to:	
	(A) model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined; and	12-1 Multiplication as Repeated Addition—pp. 549–550 Objective(s): To explore the concept of multiplication as repeated addition. *12-1A Use an Array Model—Online Objective(s): To use addition to find the total number of objects in a rectangular array. 12-2 Multiply Groups of 2—pp. 551–552 Objective(s): To multiply twos. 12-3 Multiply Groups of 3—pp. 553–554 Objective(s): To multiply threes. 12-4 Problem Solving: Read and Write in Math: Visualize—pp. 555–556 Objective(s): To solve problems using the skill of visualizing.

Grade 2 Texas Essential Knowledge and Skills for Mathematics			Sadlier *Progress in Mathematics* Grade 2
			12-5 Multiply Groups of 4—pp. 557–558 Objective(s): To multiply fours. 12-6 Multiply Groups of 5—pp. 559–560 Objective(s): To multiply fives. 12-7 Related Multiplication Facts—pp. 561–562 Objective(s): To use the commutative (order) property of multiplication; to use a multiplication table.
	(B)	model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.	12-8 Division as Repeated Subtraction—pp. 565–566 Objective(s): To explore the concept of division as repeated subtraction. 12-9 Separate Groups of 2—pp. 567–568 Objective(s): To explore the concept of division as separating; to divide by 2. 12-10 Separate Groups of 3—pp. 569–570 Objective(s): To explore the concept of division as separating; to divide by 3. 12-11 Separate Groups of 4—pp. 571–572 Objective(s): To explore the concept of division as separating; to divide by 4. 12-12 Separate Groups of 5—pp. 573–574 Objective(s): To explore the concept of division as separating; to divide by 5. 12-13 Separate with Leftovers—pp. 575–576 Objective(s): To explore division as separating, with leftovers. 12-14 Share with Leftovers—pp. 577–578 Objective(s): To explore division as sharing, with leftovers.
(7)		Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	
	(A)	determine whether a number up to 40 is even or odd using pairings of objects to represent the number;	*2-12A Model Even and Odd—Online Objective(s): To determine if a group of objects (up to 20) has an odd or an even number of members; to write an equation to express an even number as a sum of two equal addends. 2-13 Even and Odd Numbers—pp. 93–94 Objective(s): To identify even and odd numbers.
	(B)	use an understanding of place value to determine the number that is 10 or 100 more or less than a given number up to 1,200; and	2-15 Counting Patterns (10 more, 10 less)—pp. 97–98 Objective(s): To count and complete number patterns. *8-4A Skip Count to 1000—Online Objective(s): To skip count by 5s, 10s, and 100s to 1000. 8-5 Counting Patterns with 3–Digit Numbers—pp. 357–358 Objective(s): To count by 1s, 10s, 25s, 50s, and 100s.
	(C)	represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.	Introduction to Problem Solving: Problem-Solving Strategy: Write a Number Sentence—p. D *1-16B Writing a Number Sentence—Online Objective(s): To write a number sentence to solve a problem involving joining or separating, where the unknown number is in any position; to write an equation to solve addition and subtraction word problems. *1-18A Use a Bar Model—Online Objective(s): To use a bar model to solve addition and subtraction word problems; to use an equation to represent addition and subtraction problems. 1-20 Problem Solving Strategy: Choose the Operation—pp. 47–48 Objective(s): To choose the operation to solve problems.

Grade 2 Texas Essential Knowledge and Skills for Mathematics			Sadlier *Progress in Mathematics* Grade 2
			*1-20A Two-Step Problems—Online Objective(s): To solve sequential 1-step problems to solve a 2-step problem; to use an equation to represent addition and subtraction word problems. Read Aloud: "The Watering Hole"—pp. 57-60 5-11 Chain Operations—p. 218 Objective(s): To solve chain operations involving addition and subtraction. 12-16 Symbols for Numbers—pp. 583–584 Objective(s): To find if a given value solves a number sentence. 12-17 Solve Number Sentences—pp. 585–586 Objective(s): To find the value of a symbol in a number sentence.
(8)	Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:		
	(A)	create two-dimensional shapes based on given attributes, including number of sides and vertices;	Skills Update: Plane Figures—p. H 6-3 Explore Plane Figures—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures; to identify circle, triangle, rectangle, and square. 6-4 Plane Figures—pp. 253–254 Objective(s): To identify the number of sides, vertices, and angles of closed plane figures. *6-4A Identify and Draw Plane Figures—Online Objective(s): To identify triangles, quadrilaterals, pentagons, and hexagons; to draw and identify the side attributes of closed plane figures. *6-4B Attributes of Plane Figures—Online Objective(s): To identify the side, angle, and vertex attributes of triangles, quadrilaterals, pentagons, and hexagons; to draw closed plane figures with a stated set of attributes.
	(B)	classify and sort three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes as special rectangular prisms), and triangular prisms, based on attributes using formal geometric language;	6-1 Solid Figures—pp. 247–248 Objective(s): To identify cones, cubes, cylinders, pyramids, rectangular prisms, and spheres; to identify flat and curved surfaces of solid figures. 6-2 Faces, Edges, Vertices—pp. 249–250 Objective(s): To identify the faces, edges, and vertices of solid figures. 6-3 Explore Plane Figures (solid figures)—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures; to identify circle, triangle, rectangle, and square. 6-5 Sort Figures—pp. 255–256 Objective(s): To sort plane figures and solid figures by one and two attributes.
	(C)	classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices;	Skills Update: Plane Figures—p. H 6-3 Explore Plane Figures—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures; to identify circle, triangle, rectangle, and square. 6-4 Plane Figures—pp. 253–254 Objective(s): To identify the number of sides, vertices, and angles of closed plane figures. *6-4A Identify and Draw Plane Figures—Online Objective(s): To identify triangles, quadrilaterals, pentagons, and hexagons; to draw and identify the side attributes of closed plane figures. *6-4B Attributes of Plane Figures—Online Objective(s): To identify the side, angle, and vertex attributes of triangles, quadrilaterals, pentagons, and hexagons; to draw closed plane figures with a stated set of attributes.

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			6-5 Sort Figures—pp. 255–256 Objective(s): To sort plane figures and solid figures by one and two attributes.
	(D)	compose two-dimensional shapes and three-dimensional solids with given properties or attributes; and	6-3 Explore Plane Figures (solid figures from nets)—pp. 251–252 Objective(s): To make plane figures by tracing flat surfaces of solid figures; to identify circle, triangle, rectangle, and square. 6-11 Ways to Make Figures—pp. 271–272 Objective(s): To combine and separate figures to form other figures; to predict the results of combining or separating figures.
	(E)	decompose two-dimensional shapes such as cutting out a square from a rectangle, dividing a shape in half, or partitioning a rectangle into identical triangles and identify the resulting geometric parts.	6-11 Ways to Make Figures—pp. 271–272 Objective(s): To combine and separate figures to form other figures; to predict the results of combining or separating figures.
(9)	Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:		
	(A)	find the length of objects using concrete models for standard units of length;	11-2 Inches—pp. 493–494 Objective(s): To estimate and measure length and height in inches. 11-3 Half Inch—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. 11-4 Feet and Yards—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards; to choose inches, feet, or yards as the most appropriate unit of measure. *11-4A Measure Length—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen; to measure to find how much longer one object is than another.
	(B)	describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object;	11-3 Half Inch—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. 11-4 Feet and Yards—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards; to choose inches, feet, or yards as the most appropriate unit of measure. *11-4A Measure Length—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen; to measure to find how much longer one object is than another. *11-4B Relate Addition and Subtraction to Length—Online Objective(s): To find sums of lengths and differences in length; to solve word problems involving lengths given the same units.
	(C)	represent whole numbers as distances from any given location on a number line;	*10-2A Whole Numbers and the Number Line—Online Objective(s): To represent whole numbers as lengths from 0 on a number line; to represent sums and differences (within 100) on a number line. *11-17A Measurement and Data (number lines)—Online Objective(s): To collect measurement data to answer questions about a group of items.
	(D)	determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;	**Related content—* 11-2 Inches—pp. 493–494 Objective(s): To estimate and measure length and height in inches. 11-3 Half Inch—pp. 495–496 Objective(s): To measure lengths to the nearest half inch.

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			11-4 Feet and Yards—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards; to choose inches, feet, or yards as the most appropriate unit of measure. *11-4A Measure Length—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen; to measure to find how much longer one object is than another. *11-18A Solve Two-Step Problems (distance)—Online Objective(s): To use drawings and equations to represent and solve two-step problems (within 100).
	(E)	determine a solution to a problem involving length, including estimating lengths;	11-2 Inches—pp. 493–494 Objective(s): To estimate and measure length and height in inches. 11-3 Half Inch—pp. 495–496 Objective(s): To measure lengths to the nearest half inch. 11-4 Feet and Yards—pp. 497–498 Objective(s): To estimate and measure length and height in feet and yards; to choose inches, feet, or yards as the most appropriate unit of measure. *11-4A Measure Length—Online Objective(s): To describe how two different measurements of the same objects relate to the size of the unit chosen; to measure to find how much longer one object is than another. *11-18A Solve Two-Step Problems (distance)—Online Objective(s): To use drawings and equations to represent and solve two-step problems (within 100).
	(F)	use concrete models of square units to find the area of a rectangle by covering it with no gaps or overlaps, counting to find the total number of square units, and describing the measurement using a number and the unit; and	11-12 Area—pp. 517–518 Objective(s): To estimate and find the area of a figure in square units. *11-12A Rectangles and Area—Online Objective(s): To partition a rectangle into rows and columns of the same-size squares and to count to find the total number of them.
	(G)	read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.	7-10 Hour and Half Hour—pp. 313–314 Objective(s): To tell time to the hour and half hour. 7-11 Five Minutes—pp. 315–316 Objective(s): To tell time in 5-minute intervals. 7-12 Quarter Hour—pp. 317–318 Objective(s): To tell time to the quarter hour. 7-13 Before the Hour—pp. 319–320 Objective(s): To tell time in 5-minute intervals in two ways, minutes before and minutes after the hour. *7-13A A.M. and P.M.—Online Objective(s): To determine what part of the day a given time occurs; to determine time expressed with A.M. and P.M.; to tell time from an analog and digital clock to the nearest five minutes.
(10)	Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:		
	(A)	explain that the length of a bar in a bar graph or the number of pictures in a pictograph represents the number of data points for a given category;	3-2 Pictographs—pp. 117–118 Objective(s): To use information from a tally chart to make a pictograph; to read and interpret pictographs. 3-3 Bar Graphs—pp. 119–120 Objective(s): To use information from a tally chart to make a bar graph; to read and interpret bar graphs.

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	(B)	organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more;	3-2 Pictographs—pp. 117–118 Objective(s): To use information from a tally chart to make a pictograph; to read and interpret pictographs. 3-3 Bar Graphs—pp. 119–120 Objective(s): To use information from a tally chart to make a bar graph; to read and interpret bar graphs.
	(C)	write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one; and	**Related content—* 3-2 Pictographs—pp. 117–118 Objective(s): To use information from a tally chart to make a pictograph; to read and interpret pictographs. 3-3 Bar Graphs—pp. 119–120 Objective(s): To use information from a tally chart to make a bar graph; to read and interpret bar graphs.
	(D)	draw conclusions and make predictions from information in a graph.	3-6 Understand Data—pp. 125–126 Objective(s): To predict future data based on present data. 3-9 Line Plots—pp. 133–134 Objective(s): To read and interpret line plots.
(11)	Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:		
	(A)	calculate how money saved can accumulate into a larger amount over time;	n/a
	(B)	explain that saving is an alternative to spending;	n/a
	(C)	distinguish between a deposit and a withdrawal;	n/a
	(D)	identify examples of borrowing and distinguish between responsible and irresponsible borrowing;	n/a
	(E)	identify examples of lending and use concepts of benefits and costs to evaluate lending decisions; and	n/a
	(F)	differentiate between producers and consumers and calculate the cost to produce a simple item.	n/a