## Standards-Based Progress Mathematics

Aligned to the Chapter 111.

# Texas Essential Knowledge and Skills (TEKS) for Mathematics 

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

## Grade 2

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## (b) Knowledge and skills

## Grade 2 Texas Essential Knowledge and Skills for Mathematics

(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;
(B) use standard, word, and expanded forms to represent numbers up to 1,200 ;

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Lesson 6 Place Value: Hundreds, Tens, and Ones-pp. 5663

- Understand: Models can show that 10 tens is the same as 1 hundred
- Understand: A place-value chart shows the value of each digit in a number

| Lesson 7 | Skip Count by 5s, 10s, and 100s—pp. 64-71 |
| :--- | :--- |
|  | $\bullet \quad$ Understand: Skip-counting by 5s |

Lesson 9 Compare Numbers-pp. 80-87

- Understand: Using place-value models to compare two numbers
- Understand: Using place-value charts to compare two numbers
- Understand: Comparing numbers with the same digits in the same places
Lesson 6 Place Value: Hundreds, Tens, and Ones-pp. 5663
- Understand: Models can show that 10 tens is the same as 1 hundred
- Understand: A place-value chart shows the value of each digit in a number

Lesson 7 Skip Count by 5s, 10s, and 100s—pp. 64-71

- Understand: Skip-counting by 5 s
- Understand: Skip-counting by 10s

Lesson 8 Read and Write Numbers to 1,000—pp. 72-79

- Understand: Place-value models can help you read and write numbers

Lesson 9 Compare Numbers-pp. 80-87

- Understand: Using place-value models to compare two numbers
- Understand: Using place-value charts to compare two numbers
- Understand: Comparing numbers with the same digits in the same places

| GRADE 2 TEXAS ESSENTIAL KNOwLEDGE AND SKILLS FOR MATHEMATICS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Grade 2 Texas Essential Knowledge and Skills for Mathematics |
| :---: |
| (D)identify examples and non-examples of halves, <br> fourths, and eighths. |
| (4)Number and operations. The student applies <br> mathematical process standards to develop and use <br> strategies and methods for whole number <br> computations in order to solve addition and subtraction <br> problems with efficiency and accuracy. The student is <br> expected to: |

(A) recall basic facts to add and subtract within 20 with automaticity;
(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;

Sadlier Standards-Based Progress Mathematics Grade 2
Lesson 30 Equal Shares-pp. 264-271

- Understand: Make equal shares of a rectangle
- Understand: Recognize and describe an equal share
$\bar{\square}$

Lesson 1 Problem Solving: Addition—pp. 10-17

- Understand: Use drawings and equations to solve addition word problems
- Understand: Write an equation to solve an addition word problem

Lesson 2 Problem Solving: Subtraction—pp. 18-25

- Understand: Use drawings and equations to solve subtraction word problems
- Understand: Use related addition and subtraction equations to solve a subtraction word problem

Lesson 3 Addition and Subtraction Facts to 20 (Fluency) pp. 26-33

- Understand: Make a ten to help you add
- Understand: Make a ten to help you subtract
- Understand: Addition and subtraction are related

Lesson 1 Problem Solving: Addition—pp. 10-17

- Understand: Use drawings and equations to solve addition word problems
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Lesson 2 Problem Solving: Subtraction-pp. 18-25

- Understand: Use drawings and equations to solve subtraction word problems
- Understand: Use related addition and subtraction equations to solve a subtraction word problem

Lesson 10 Add Two-Digit Numbers-pp. 88-95

- Understand: Using place value to add two 2digit numbers
- Understand: Using properties to add two 2digit numbers

Lesson 11 Subtract Two-Digit Numbers-pp. 96-103

- Understand: Subtracting 2-digit numbers using place-value models
- Understand: Subtracting 2-digit numbers using place-value charts

(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
(D) generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.

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
(B) use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.

Sadlier Standards-Based Progress Mathematics Grade 2
Lesson 1 Problem Solving: Addition—pp. 10-17

- Understand: Use drawings and equations to solve addition word problems
- Understand: Write an equation to solve an addition word problem

Lesson 2 Problem Solving: Subtraction-pp. 18-25

- Understand: Use drawings and equations to solve subtraction word problems
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- Understand: Using properties to add two 2digit numbers

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- Understand: Subtracting 2-digit numbers using place-value models
- Understand: Subtracting 2-digit numbers using place-value charts


## Related content-

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Lesson 2 Problem Solving: Subtraction-pp. 18-25

- Understand: Use drawings and equations to solve subtraction word problems
- Understand: Use related addition and subtraction equations to solve a subtraction word problem


Lesson 24 Money-pp. 210-217

- Understand: Count on to find the total value of a group of coins
- Understand: Find the value of a group of bills

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- Understand: Count on to find the total value of a group of coins
- Understand: Find the value of a group of bills


## Grade 2 Texas Essential Knowledge and Skills for Mathematics

(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
(B) model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.
(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;
(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
(C) represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.

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    Lesson 5 Arrays-pp. 42-55
    - Understand: Use repeated addition to find how many in all
- Understand: You arrange things in equal rows and equal columns to make an array
Lesson $7 \quad$ Skip Count by 5s, 10s, and 100s-pp. 64-71
- Understand: Skip-counting by 5 s
- Understand: Skip-counting by 10s
n/a

Lesson 4 Odd and Even Numbers-pp. 34-41

- Understand: Even numbers of objects make pairs
- Understand: Odd numbers of objects make pairs with 1 left over
- Understand: Skip-count by 2 s to tell if a number is even or odd


## Lesson 9 Compare Numbers-pp. 80-87

- Understand: Using place-value models to compare two numbers
- Understand: Using place-value charts to compare two numbers
- Understand: Comparing numbers with the same digits in the same places
Lesson 1 Problem Solving: Addition-pp. 10-17
- Understand: Use drawings and equations to solve addition word problems
- Understand: Write an equation to solve an addition word problem


## Lesson 2 Problem Solving: Subtraction-pp. 18-25

- Understand: Use drawings and equations to solve subtraction word problems
- Understand: Use related addition and subtraction equations to solve a subtraction word problem
Lesson 3 Addition and Subtraction Facts to 20 (Fluency)pp. 26-33
- Understand: Make a ten to help you add

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Grade 2 Texas Essential Knowledge and Skills for Mathematics
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(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;
(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;
(C) classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices;
(D) compose two-dimensional shapes and threedimensional solids with given properties or attributes; and
(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.
(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;

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- Understand: Make a ten to help you subtract
- Understand: Addition and subtraction are related

Lesson 28 Identify and Draw Shapes-pp. 248-255

- Understand: Use sides and angles to identify a flat shape
- Understand: Use sides and angles to identify special quadrilaterals

Lesson 28 Identify and Draw Shapes (cubes)—pp. 248-255

- Understand: Use sides and angles to identify a flat shape
- Understand: Use sides and angles to identify special quadrilaterals

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Lesson 28 Identify and Draw Shapes-pp. 248-255
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- Understand: Use sides and angles to identify special quadrilaterals
Lesson 29 Partition Rectangles into Same-Size Squarespp. 256-263
- Understand: Identify rows and columns in a rectangle made up of same-size squares
- Understand: Count to find the number of same-size squares in a rectangle

Lesson 16 Measure Length: Inches and Feet-pp. 146-153

- Understand: You can use an inch ruler to find how long an object is
- Understand: You can measure objects using a yardstick or a tape measure
Lesson 17 Measure Length: Centimeters and Meters-pp. 154-161
- Understand: You can use a centimeter ruler to find how long an object is
- Understand: Use a meter stick to measure longer objects

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(B) describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object;
(C) represent whole numbers as distances from any given location on a number line;

Sadlier Standards-Based Progress Mathematics Grade 2
Lesson 18 Use Different Units to Measure Length—pp. 162169

- Understand: You can use inches and feet to measure the same object
- Understand: You can use inches and centimeters to measure the same object

Lesson 20 Compare Lengths-pp. 178-185

- Understand: You can find how much longer one object is than another
- Understand: You can find how much shorter one object is than another

Lesson 16 Measure Length: Inches and Feet-pp. 146-153

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- Understand: You can use inches and centimeters to measure the same object

Lesson 19 Estimate Length—pp. 170-177

- Understand: You can estimate length in inches
- Understand: You can estimate length in centimeters

Lesson 20 Compare Lengths-pp. 178-185

- Understand: You can find how much longer one object is than another
- Understand: You can find how much shorter one object is than another

Grade 2 Texas Essential Knowledge and Skills for Mathematics
(D) determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;
(E) determine a solution to a problem involving length, including estimating lengths;

Sadlier Standards-Based Progress Mathematics Grade 2
Lesson 22 Number Line Diagrams—pp. 194-201

- Understand: Use a number line to add
- Understand: Use a number line to subtract
- Understand: Use a number line with 2-digit numbers

Lesson 16 Measure Length: Inches and Feet-pp. 146-153

- Understand: You can use an inch ruler to find how long an object is
- Understand: You can measure objects using a yardstick or a tape measure

Lesson 17 Measure Length: Centimeters and Meters—pp. 154-161

- Understand: You can use a centimeter ruler to find how long an object is
- Understand: Use a meter stick to measure longer objects
Lesson 18 Use Different Units to Measure Length—pp. 162-
169
- Understand: You can use inches and feet to measure the same object
- Understand: You can use inches and centimeters to measure the same object

Lesson 16 Measure Length: Inches and Feet-pp. 146-153

- Understand: You can use an inch ruler to find how long an object is
- Understand: You can measure objects using a yardstick or a tape measure

Lesson 17 Measure Length: Centimeters and Meters-pp. 154-161

- Understand: You can use a centimeter ruler to find how long an object is
- Understand: Use a meter stick to measure longer objects

Lesson 18 Use Different Units to Measure Length—pp. 162169

- Understand: You can use inches and feet to measure the same object
- Understand: You can use inches and centimeters to measure the same object
Lesson 19 Estimate Length—pp. 170-177
- Understand: You can estimate length in inches
- Understand: You can estimate length in centimeters

Lesson 20 Compare Lengths-pp. 178-185

- Understand: You can find how much longer one object is than another
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(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
(G) read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.

| (10) $\quad$Data analysis. The student applies mathematical <br> process standards to organize data to make it useful for <br> interpreting information and solving problems. The <br> student is expected to: |
| :--- | :--- |
| (A) $\quad$explain that the length of a bar in a bar graph or <br> the number of pictures in a pictograph <br> represents the number of data points for a given <br> category; |

(B) organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more;
(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
(D) draw conclusions and make predictions from information in a graph.

Sadlier Standards-Based Progress Mathematics Grade 2
Lesson 21 Add and Subtract Lengths-pp. 186-193

- Understand: You can add lengths to solve a problem
- Understand: You can subtract lengths to solve a problem

Lesson 29 Partition Rectangles into Same-Size Squarespp. 256-263

- Understand: Identify rows and columns in a rectangle made up of same-size squares
- Understand: Count to find the number of same-size squares in a rectangle

Lesson 23 Tell and Write Time—pp. 202-209

- Understand: Read time to the nearest five minutes
- Understand: Read morning time and afternoon time

| $\square$ |
| :--- |
|  |

Lesson 26 Picture Graphs-pp. 226-233

- Understand: Read a picture graph
- Understand: Make a picture graph

Lesson 27 Bar Graphs-pp. 234-247

- Understand: Read a bar graph
- Understand: Make a bar graph

Lesson 26 Picture Graphs-pp. 226-233

- Understand: Read a picture graph
- Understand: Make a picture graph

Lesson 27 Bar Graphs-pp. 234-247

- Understand: Read a bar graph
- Understand: Make a bar graph

Lesson 26 Picture Graphs—pp. 226-233

- Understand: Read a picture graph
- Understand: Make a picture graph

Lesson 27 Bar Graphs-pp. 234-247

- Understand: Read a bar graph
- Understand: Make a bar graph

Lesson 26 Picture Graphs-pp. 226-233

- Understand: Read a picture graph
- Understand: Make a picture graph

Lesson 27 Bar Graphs—pp. 234-247

- Understand: Read a bar graph
- Understand: Make a bar graph

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## Grade 2 Texas Essential Knowledge and Skills for Mathematics

(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:
\(\left.$$
\begin{array}{ll}\text { (A) } & \begin{array}{l}\text { calculate how money saved can accumulate } \\
\text { into a larger amount over time; }\end{array}
$$ <br>

\hline (B) \& explain that saving is an alternative to spending;\end{array}\right]\)| (C) | distinguish between a deposit and a <br> withdrawal; |
| :--- | :--- |
| (D) | identify examples of borrowing and distinguish <br> between responsible and irresponsible <br> borrowing; |
| (E) | identify examples of lending and use concepts <br> of benefits and costs to evaluate lending <br> decisions; and |
| (F) | differentiate between producers and consumers <br> and calculate the cost to produce a simple item. |

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| n/a |
| :---: | :---: |
| n/a |
| n/a |
| $n / a$ |
| $n / a$ |

