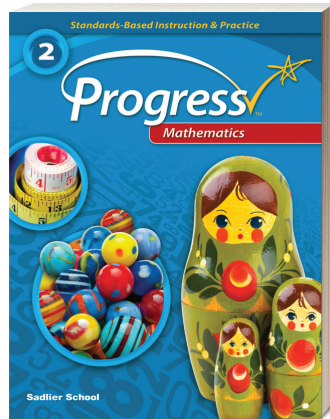


SADLIER

# Progress Mathematics



Aligned to the

## College and Career Ready Indiana Academic Standards Mathematics: Grade 2

### Contents

- 2 Number Sense
- 3 Computation and Algebraic Thinking
- 4 Geometry
- 5 Measurement
- 6 Data Analysis

## Number Sense

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.NS.1:** Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number.

**2.NS.2:** Read and write whole numbers up to 1,000. Use words, models, standard form and expanded form to represent and show equivalent forms of whole numbers up to 1,000.

**2.NS.3:** Plot and compare whole numbers up to 1,000 on a number line.

**2.NS.4:** Match the ordinal numbers first, second, third, etc., with an ordered set up to 30 items.

**2.NS.5:** Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., by placing that number of objects in two groups of the same size and recognizing that for even numbers no object will be left over and for odd numbers one object will be left over, or by pairing objects or counting them by 2s).

**2.NS.6:** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones (e.g., 706 equals 7 hundreds, 0 tens, and 6 ones). Understand that 100 can be thought of as a group of ten tens — called a “hundred.” Understand that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

**2.NS.7:** Use place value understanding to compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

### SADLIER PROGRESS MATHEMATICS, GRADE 2

**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 2s to tell if a number is even or odd

**Lesson 7** **Skip Count by 5s, 10s, and 100s**—pp. 64–71  
Understand: Skip-counting by 5s  
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

*\*Related content*  
**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

Not addressed at this level.

*\*See Kindergarten, Lesson 15, “Ordinal Numbers”*

**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 2s to tell if a number is even or odd

**Lesson 6** **Place Value: Hundreds, Tens, and Ones**—pp. 56–63  
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 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

## Computation and Algebraic Thinking

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.CA.1:** Add and subtract fluently within 100.

**2.CA.2:** Solve real-world problems involving addition and subtraction within 100 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). Use estimation to decide whether answers are reasonable in addition problems.

**2.CA.3:** Solve real-world problems involving addition and subtraction within 100 in situations involving lengths that are given in the same units (e.g., by using drawings, such as drawings of rulers, and equations with a symbol for the unknown number to represent the problem).

**2.CA.4:** Add and subtract within 1000, using models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and that sometimes it is necessary to compose or decompose tens or hundreds.

### SADLIER PROGRESS MATHEMATICS, GRADE 2

**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 10** **Add Two-Digit Numbers**—pp. 88–95  
Understand: Using place value to add two 2-digit numbers  
Understand: Using properties to add two 2-digit 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

**Lesson 12** **Add More than Two Numbers**—pp. 104–111  
Understand: You can add three 2-digit numbers using place value  
Understand: Grouping addends to add three 2-digit numbers

**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 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 13** **Add Three-Digit Numbers within 1,000**—pp. 112–119  
Understand: Adding 3-digit numbers without regrouping  
Understand: Adding 3-digit numbers by regrouping ones  
Understand: Adding two 3-digit numbers with regrouping tens to make a hundred

**Lesson 14** **Subtract Three-Digit Numbers within 1,000**—pp. 120–127  
Understand: Subtracting two 3-digit numbers without regrouping  
Understand: Subtracting two 3-digit numbers regrouping a ten  
Understand: Subtracting two 3-digit numbers regrouping a hundred

## Computation and Algebraic Thinking

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.CA.5:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal groups.

**2.CA.6:** Show that the order in which two numbers are added (commutative property) and how the numbers are grouped in addition (associative property) will not change the sum. These properties can be used to show that numbers can be added in any order.

**2.CA.7:** Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1000.

### SADLIER PROGRESS MATHEMATICS, GRADE 2

**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 10**    **Add Two-Digit Numbers**—pp. 88–95  
Understand: Using place value to add two 2-digit numbers (order of addends, p. 89)  
Understand: Using properties to add two 2-digit numbers

**Lesson 15**    **Mentally Add and Subtract 10 or 100**—pp. 128–145  
Understand: When you add or subtract 10, the digit in the tens place changes  
Understand: When you add or subtract 100, the digit in the hundreds place changes

## Geometry

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.G.1:** Identify, describe, and classify two- and three-dimensional shapes (triangle, square, rectangle, cube, right rectangular prism) according to the number and shape of faces and the number of sides and/or vertices. Draw two-dimensional shapes.

**2.G.2:** Create squares, rectangles, triangles, cubes, and right rectangular prisms using appropriate materials.

**2.G.3:** Investigate and predict the result of composing and decomposing two- and three-dimensional shapes.

**2.G.4:** Partition a rectangle into rows and columns of same-size (unit) squares and count to find the total number of same-size squares.

**2.G.5:** Partition circles and rectangles into two, three, or four equal parts; describe the shares using the words halves, thirds, half of, a third of, etc.; and describe the whole as two halves, three thirds, four fourths. Recognize that equal parts of identical wholes need not have the same shape.

### SADLIER PROGRESS MATHEMATICS, GRADE 2

**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  
\*No three-dimensional shapes at this level.

**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  
\*No three-dimensional shapes at this level.

**Lesson 30**    **Equal Shares**—pp. 264–271  
Understand: Make equal shares of a rectangle  
Understand: Recognize and describe an equal share  
\*No three-dimensional shapes at this level.

**Lesson 29**    **Partition Rectangles into Same-Size Squares**—pp. 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 30**    **Equal Shares**—pp. 264–271  
Understand: Make equal shares of a rectangle  
Understand: Recognize and describe an equal share

## Measurement

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.M.1:** Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter.

**2.M.2:** Estimate and measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, meter sticks, and measuring tapes to the nearest inch, foot, yard, centimeter and meter.

**2.M.3:** Understand that the length of an object does not change regardless of the units used. Measure the length of an object twice using length units of different lengths for the two measurements. Describe how the two measurements relate to the size of the unit chosen.

**2.M.4:** Estimate and measure volume (capacity) using cups and pints.

**2.M.5:** Tell and write time to the nearest five minutes from analog clocks, using a.m. and p.m. Solve real-world problems involving addition and subtraction of time intervals on the hour or half hour.

**2.M.6:** Describe relationships of time, including: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year.

**2.M.7:** Find the value of a collection of pennies, nickels, dimes, quarters and dollars.

### SADLIER PROGRESS MATHEMATICS, GRADE 2

**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 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 Lengths: 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 19** **Estimate Length**—pp. 170–177  
Understand: You can estimate length in inches  
Understand: You can estimate length in centimeters

**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

Not addressed at this level (see Gr. 3).

**Lesson 23** **Tell and Write Time**—pp. 202–209  
Understand: Read time to the nearest five minutes  
Understand: Read morning time and afternoon time  
\*No addition or subtraction of time intervals at this level.

**Lesson 23** **Tell and Write Time**—pp. 202–209  
Understand: Read time to the nearest five minutes  
Understand: Read morning time and afternoon time  
\*No describing relationships of time at this level.

**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

## Data Analysis

### MATHEMATICS STANDARDS & DESCRIPTION, GRADE 2

**2.DA.1:** Draw a picture graph (with single-unit scale) and a bar graph (with single-unit scale) to represent a data set with up to four choices (What is your favorite color? red, blue, yellow, green). Solve simple put-together, take-apart, and compare problems using information presented in the graphs.

### SADLIER *PROGRESS MATHEMATICS*, GRADE 2

**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