

Grades K–2 Lessons

National



Placement Grade	Lesson Title	Lesson Description
Counting and Cardinality		
K	Counting Numbers 1–5	Learn to recognize that cardinal numbers represent a quantity (numbers 1–5).
K	Counting Numbers 1–10	Learn to recognize that cardinal numbers represent a quantity (numbers 0–10).
K	Writing Numbers 0–10	Learn to write numbers from 0 to 10. Represent a number of objects with a written number 0–10.
K	Count How Many (1–5)	Learn to count 1 to 5 objects arranged in different ways and counted in different orders.
K	Count How Many (6–10)	Learn to count 6 to 10 objects arranged in different ways and counted in different orders.
K	Count Objects up to 20	Learn to count up to 20 objects arranged in a line, rectangular array, or circle. Learn to count up to 10 objects in a scattered configuration.
K	Count Out a Number of Objects	Given a number from 1–20, learn to count out that many objects.
K	Writing Numbers 10–20	Learn to write numbers from 10 to 20. Represent a number of objects with a written number 0–20.
K	Counting By 1	Learn to understand that each successive number name refers to a quantity that is one more.
K	Count On from a Number Other Than 1	Learn to count on from a given number other than 1.
K	Compare Two Groups of Objects	Learn to compare groups of objects to determine more/greater/less/fewer.
K	Count How Many More	Learn to compare groups to determine how many more objects are in one group than another.
K	Compare Groups of Objects by Size	Learn to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
K	Compare Two Numbers (Numerals)	Learn to compare two numbers from 1 to 10.
K	Order Numbers 1–10	Learn to determine which number is missing to complete a sequence of numbers 1–10.
Operations and Algebraic Thinking		
K	Adding with Objects	Learn to add within 10 given a picture of objects.
K	Using Models to Subtract	Learn to subtract within 10 given a picture of objects.

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Placement Grade	Lesson Title	Lesson Description
K	Addition Number Sentences	Learn to write an addition number sentence.
K	Subtraction Number Sentences	Learn to write a subtraction number sentence.
K	Adding Within 10	Learn to solve addition word problems within 10.
K	Subtracting Within 10	Learn to solve subtraction word problems within 10.
K	Decomposing Numbers Less than 10	Learn to decompose numbers less than 10 in pairs in more than one way using objects or drawings, and record each decomposition with an equation or drawing.
K	Decomposing 10	Learn to decompose the number 10 in pairs in more than one way using objects or drawings, and record each decomposition with an equation or drawing.
K	Making a 10	Learn to find the number that makes 10 when added to a given number.
K	Fluently Add and Subtract within 5	Learn to count on and count back to gain fluency in adding and subtracting within 5.
1	Add/Subtract to Solve Word Problems	Learn to solve addition and subtraction word problems within 20. Includes add to, with change unknown, and take from, with change unknown.
1	Solving Comparison Word Problems	Learn to solve comparison word problems within 20 using addition and subtraction. Includes comparing amounts with a bigger unknown, and comparing amounts with a smaller unknown.
1	Adding 3 Numbers (up to 10)	Learn to find the sum of three one-digit numbers with sums equal to or less than 10 using multiple strategies.
1	Adding 3 Numbers (up to 20)	Learn to find the sum of three one-digit numbers with sums equal to or less than 20 using multiple strategies.
1	Using Strategies to Add	Learn to solve addition problems using properties and strategies.
1	Using Strategies to Subtract	Learn to subtract by relating subtraction to addition.
1	Using Addition to Subtract	Learn to use addition to solve subtraction problems.
1	Counting On to Add	Learn to solve addition problems within 20 by counting on from a known amount.
1	Counting Back to Subtract	Learn to solve subtraction problems within 20 by counting back from a known amount.

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Placement Grade	Lesson Title	Lesson Description
1	Decomposing to Get a Ten — Addition	Learn to add within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as decomposing a number leading to a ten and creating equivalent but easier or known sums.
1	Decomposing to Get a Ten — Subtraction	Learn to subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as decomposing a number leading to a ten and creating equivalent but easier or known sums.
1	Understanding Equations (Add/Subtract)	Learn to work with addition and subtraction equations. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.
1	Finding Missing Numbers (Addition)	Learn to solve addition equations with an unknown number represented by a symbol.
1	Finding Missing Numbers (Subtraction)	Learn to solve subtraction equations with an unknown number represented by a symbol.
2	Odd and Even Numbers	Learn to determine whether a group of objects (up to 20) has an odd or even number of members by pairing objects or counting by 2s.
2	Even Sums	Learn to determine whether a group of objects (up to 20) has an odd or even number of members by pairing objects or counting them by 2s. Write an equation to express an even number as a sum of two equal addends.
2	Adding with Models	Learn to solve one-step addition word problems (with initial amount unknown) using equations, base-ten blocks, and number lines.
2	Subtracting with Models	Learn to solve one-step subtraction word problems (with initial amount unknown) using equations, base-ten blocks, and number lines.
2	Add to Solve Real-World Problems	Learn to represent and solve problems involving addition. Use addition within 100 to solve one- and two-step word problems involving situations of adding to, putting together, e.g., by using models, drawings, and equations with a symbol for the unknown number to represent the problem.
2	Subtract to Solve Real-World Problems	Learn to represent and solve problems involving subtraction. Use subtraction within 100 to solve one- and two-step word problems involving situations of taking from, taking apart, and comparing, e.g., by using models, drawings, and equations with a symbol for the unknown number to represent the problem.
2	Using Mental Math to Add and Subtract	Learn to use mental math strategies to add and subtract within 20.
2	Using Addition with Arrays	Learn to 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 addends.

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Placement Grade	Lesson Title	Lesson Description
Number and Operations in Base Ten		
K	Composing Numbers 11–19	Learn to compose numbers 11–19 by combining a group of 10 with a number less than ten. Record each composition with a drawing or equation.
K	Decomposing Numbers 11–19	Learn to decompose numbers 11–19 by making a group of 10 and amount of ones left over. Record each decomposition with a drawing or equation.
1	Understanding Numbers (11–19)	Learn that a teen number is made up of one ten and some leftover ones.
1	Write and Expand Numbers up to 120	Learn to write numbers up to 120 in standard and expanded forms.
1	Understanding Tens	Learn that a ten is a bundle of 10 ones. Learn that the decade numbers are tens with zero ones.
1	Comparing Numbers with Symbols	Learn to compare two 2-digit numbers using the symbols for less than, greater than, and equal to.
1	Adding within 100	Learn to add within 100, including adding a two-digit number and a one-digit number using concrete models or drawings and strategies based on place value and properties of operations.
1	Explaining How to Add	Learn to add within 100, including adding a two-digit number and a two-digit number using concrete models or drawings and strategies based on place value and properties of operations.
1	Finding 10 More and 10 Less	Learn to find 10 more and 10 less than a number, without having to count. Explain the reasoning used.
1	Subtracting Multiples of 10	Learn how to subtract multiples of 10 using ten frames and a hundreds chart.
2	Counting by 2, 5, and 10	Learn to count by 2, 5, and 10.
2	Counting by 25, 50, and 100	Learn to count by 25, 50, and 100.
2	Understanding Hundreds	Learn that the three digits of a 3-digit number represent amounts of hundreds, tens, and ones.
2	Writing and Expanding Numbers to 1,000	Learn to write and expand numbers to 1,000.
2	Comparing 3-Digit Numbers	Learn to compare two 3-digit numbers based on the meanings of the hundreds, tens, and ones digits, using comparison symbols.
2	Comparing 2- or 3-Digit Numbers	Learn to compare two 2-digit or 3-digit numbers based on the meanings of the hundreds, tens, and ones digits, using comparison symbols.

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Placement Grade	Lesson Title	Lesson Description
2	Add to Solve Problems (Regroup)	Learn to add numbers with regrouping.
2	Subtract to Solve Problems (Regroup)	Learn to subtract numbers with regrouping.
2	Using Strategies to Add within 100	Learn to use strategies to add numbers within 100.
2	Subtracting within 100	Learn to use strategies to subtract within 100.
2	Adding up to Four 2-Digit Numbers	Learn to add up to four 2-digit numbers using strategies based on place value and properties of operations.
2	Using Models to Add within 1,000	Learn to use models such as base-ten blocks and number lines to add within 1,000.
2	Using Models to Subtract within 1,000	Learn to use models such as base-ten blocks and number lines to subtract within 1,000.
2	Mentally Adding 10 or 100	Learn to mentally add 10 or 100 using place value understanding.
2	Mentally Subtracting 10 or 100	Learn to mentally subtract 10 or 100 using place value understanding.
2	Add/Subtract Strategies	Learn to explain why addition and subtraction strategies work, using place value and properties of operations.
Measurement and Data		
K	Comparing Objects by Length	Learn to compare the length of objects.
K	Compare Capacities	Learn to compare the capacity of objects.
K	Sorting and Counting Objects	Learn to sort objects into given categories and count the objects in each category.
K	Describing Objects	Learn to describe objects.
1	Order and Compare Objects by Length	Learn to order three objects by length. Learn to compare the lengths of two objects using a third object.
1	Measuring with Nonstandard Units	Learn to use non-standard units to estimate and measure lengths.
1	Tally Table	Learn to sort objects into categories and create a tally table.
2	Using Tools to Measure Length	Learn to measure the length of an object by using the appropriate measuring tools.

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Placement Grade	Lesson Title	Lesson Description
2	Measuring Length with Different Units	Learn to measure the length of an object using different units and to describe how the measurements relate to the size of the unit.
2	Estimating Lengths (in, ft, cm, m)	Learn to estimate lengths using standard and metric units (in, ft, cm, m).
2	Comparing Lengths (Standard)	Learn to estimate and measure the length of an object in inches. Use inches to find the difference in length of two objects.
2	Comparing Lengths (Metric)	Learn to measure the length of an object in centimeters. Use centimeters to find the difference in length of two objects.
2	Solving Word Problems about Length	Learn to solve word problems about length using drawings and equations with a symbol for the unknown number to represent the problem.
2	Use a Number Line to Add and Subtract	Learn to use a number line to add and subtract numbers within 100.
2	Tell and Write Time to the 5 Minutes	Learn how to tell and write time to the nearest five minutes using an analog clock.
Geometry		
K	Identifying Shapes	Learn to identify two-dimensional shapes such as a circle, square, triangle, and rectangle. Investigate shapes in a real-world setting.
K	Describing Shapes	Learn to identify two-dimensional shapes including square, circle, triangle, rectangle, hexagon, trapezoid, and rhombus. Correctly name shapes regardless of their orientations or overall size.
K	Making Shape Models	Learn to model shapes in the world by building shapes from components such as sticks and clay balls. Analyze and compare two-dimensional shapes and their attributes.
K	Making Shape Pictures	Learn to compose shapes to make pictures. Identify and count shapes within other shapes.
K	Identifying Shapes and Solids	Learn to identify shapes as two-dimensional (plane or "flat") or three-dimensional ("solid").
K	Describe the Position of Objects	Learn to identify shapes in the world and describe the relative positions of objects.
1	Making Shapes	Learn to compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.

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Placement Grade	Lesson Title	Lesson Description
1	Building Solids	Learn to compose three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
1	Making Making Equal Parts	Learn to partition circles and rectangles into two and four equal shares, and describe the shares.
2	Shape Attributes	Learn to recognize two-dimensional shapes having specified attributes, such as a given number of corners or a given number of sides. Identify triangles, quadrilaterals, pentagons, and hexagons.
2	Describing Cubes	Learn to describe cubes with specified attributes, such as number of faces, edges, and vertices.
2	Building Squares	Learn to partition a square into rows and columns of same-size squares, and use addition to find the total number of them.
2	Building Rectangles	Learn to partition a rectangle into rows and columns of same-size squares, and use addition to find the total number of them.

Grades 3–5 Lessons

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Placement Grade	Lesson Title	Lesson Description
Counting and Cardinality		
K	Comparing Numbers up to 20	Learn to compare numbers up to 20 using $>$, $<$, or $=$.
Operations and Algebraic Thinking		
K	Addition Equations	Learn to add using objects and addition equations to find sums up to 20.
K	Subtraction Equations	Learn to subtract using objects and subtraction equations to find differences less than 20.
K	Add/Subtract to Solve Problems	Learn to solve addition and subtraction word problems within 20.
K	Decompose – Both Sides of Equals Sign	Learn to compose and decompose numbers up to 20 to the left or right of the equal sign.
1	Solve Problems Involving Three Numbers	Learn to solve addition word problems involving three whole numbers (sum is less than or equal to 50).
1	Use Properties and Strategies to Add	Learn to solve addition problems using properties and strategies.
1	Use Strategies to Subtract	Learn to subtract by relating subtraction to addition.
1	Using Addition to Find an Unknown	Learn subtraction as an unknown-addend problem.
1	Count On and Back to Add and Subtract	Learn to relate counting to addition and subtraction.
1	Identify True/False Equations	Learn to determine whether addition and subtraction equations are true and false.
1	Finding the Unknown in Equations	Learn to find the unknown in addition and subtraction equations.
2	Determining Odd and Even Numbers	Learn to determine whether a given number is odd or even.
2	Understanding Addition through Arrays	Learn to use addition to find the total number of objects in an array and representing an array with an addition equation.
2	Solving Word Problems within 1,000	Learn to solve one-step addition and subtraction word problems within 1,000 using standard algorithm.
3	Introduction to Multiplication I	Represent and solve problems involving multiplication. Describe a context in which a total number of objects can be expressed as multiplication equation.

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Placement Grade	Lesson Title	Lesson Description
3	Introduction to Multiplication II	Represent and solve problems involving multiplication. Describe a context in which a total number of objects can be expressed as multiplication equation.
3	Introduction to Division I	Represent and solve problems involving division. Interpret quotients of whole number as the either the number of objects in each share when objects are partitioned equally, or as the number of shares when objects are partitioned into equal shares.
3	Introduction to Division II	Represent and solve problems involving division. Interpret quotients of whole number as the either the number of objects in each share when objects are partitioned equally, or as the number of shares when objects are partitioned into equal shares.
3	Multiplying with Arrays	Learn to work with equal groups of objects to gain foundations for multiplication. Use addition and/or multiplication 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 product.
3	Multiplication Word Problems	Represent and solve problems involving multiplication. Use multiplication within 100 to solve word problems in situations involving equal groups by using drawings and equations with a symbol for the unknown number to represent the problem.
3	Division Word Problems	Represent and solve problems involving division. Use division within 100 to solve word problems in situations involving equal groups by using drawings and equations with a symbol for the unknown number to represent the problem.
3	Multiply and Divide to Solve Problems	Learn to solve a multi-step word problem using multiplication and division.
3	Find a Missing Number (Multiply)	Determine the unknown whole number in a multiplication equation relating three whole numbers.
3	Find a Missing Number (Divide)	Determine the unknown whole number in a division equation relating three whole numbers.
3	Properties of Multiplication	Understand properties of multiplication and apply these properties as strategies to multiply.
3	Properties of Division	Understand properties of division and apply these properties as strategies to divide.
3	Understand Division as Unknown Factor	Learn to understand division as an unknown-factor problem.
3	Use Strategies to Multiply within 100	Learn to understand multiplication and use strategies to fluently multiply within 100.
3	Using Strategies to Divide within 100	Learn to understand division and use strategies to fluently divide within 100.

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Placement Grade	Lesson Title	Lesson Description
3	Finding the Unknown in Equations	Learn to find the missing number when given an addition, subtraction, multiplication, or division equation.
3	Solving 2-Step Problems I	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity.
3	Solving 2-Step Problems II	Solve two-step word problems using the four operations. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
3	Identify Patterns (Addition)	Learn to identify arithmetic patterns using an addition table.
3	Identify Patterns (Multiplication)	Learn to identify arithmetic patterns using a multiplication table, and explain them using properties of operations.
3	Applying Rules in Numeric Patterns	Learn to identify and extend patterns to apply pattern rules using a sequence of related numbers.
4	Using Multiplication to Solve Problems	Learn to model a multiplicative comparison using a multiplication equation.
4	Interpreting Multiplication Equations	Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.
4	Describing Multiplication Situations	Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.
4	Using Division to Compare	Learn to use division to make multiplicative comparisons.
4	Interpreting Remainders	Solve one-step and two-step word problems in which remainders must be interpreted.
4	Represent Situations with Equations	Solve multi-step word problems. Represent these problems using equations with a letter standing for the unknown quantity.
4	Solving Multi-Step Word Problems	Solve multi-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers.
4	Patterns in Input-Output Tables	Learn to find a pattern and rule in an input-output table.
4	Rounding with Compatible Numbers	Round whole numbers to the nearest 10, 100, or 1,000 by using compatible numbers to estimate and simplify reasoning

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4	Solving Two-Step Problems	Solve two-step word problems involving multiplication and division with whole numbers, and interpret remainders in real-world contexts.
5	Understand Parentheses and Brackets	Interpret parentheses and brackets in numeric expressions to understand their purpose in grouping numbers or operations.
5	Using Variables	Learn to write and evaluate algebraic expressions.
5	Evaluating Numerical Expressions	Learn to evaluate expressions with symbols using order of operations.
5	Writing Simple Expressions	Learn to write simple expressions without evaluating.
5	Solving Equations with Addition	Learn to solve one-step equations with whole numbers, decimals, and fractions involving addition.
5	Solving Equations with Subtraction	Learn to solve one-step equations with whole numbers, decimals, and fractions involving subtraction.
Numbers and Operations in Base Ten		
K	Compose/Decompose Numbers (11–19)	Learn to compose and decompose numbers up to 19.
1	Tens and Ones in Numbers (11–19)	Learn to understand tens and ones in teen numbers.
1	Comparing Numbers Two 2-Digit Numbers	Learn to compare two 2-digit numbers using comparison symbols.
1	Add/Subtract (Models and Place Value)	Learn to add and subtract within 100 using models and place value.
1	Mentally Add/Subtract by Tens	Learn to mentally find 10 more or 10 less from any number up to 100.
2	Understanding Place Value to Hundreds	Learn to understand the three digits of a three-digit number represent amounts of hundreds, tens, and ones.
2	Writing and Expanding Numbers to 1,000	Learn to write and expand numbers to 1,000.
2	Comparing 3- and 4-Digit Numbers	Learn to compare three-digit and four-digit numbers using $>$, $<$, and $=$.
2	Fluently Add/Subtract within 100	Learn to add and subtract within 100 fluently using strategies based on properties of operations and the relationship between addition and subtraction.
2	Adding Four 2-Digit Numbers	Learn to add up to four 2-digit numbers.

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Placement Grade	Lesson Title	Lesson Description
2	Add/Subtract up to 1,000 (Regrouping)	Learn to add and subtract within 1,000 involving regrouping.
2	Mentally Add/Subtract 10 or 100	Learn to mentally add and subtract 10 or 100 from numbers 100–900.
3	Adding with Three or Four Addends	Learn to add three and four single-digit addends with and without regrouping.
3	Expanding Numbers up to Ten Thousand	Learn to expand whole numbers up to 9,999.
3	Rounding to Nearest 10	Round numbers up to the ten-thousands to the nearest ten. Use number lines and knowledge of place value.
3	Rounding to Nearest 100	Round numbers up to the ten-thousands to the nearest hundred. Use number lines and knowledge of place value.
3	Rounding Numbers to Any Place	Learn to round whole numbers to a given place-value position through the thousands place.
3	Add/Subtract Numbers (No Regrouping)	Learn to add and subtract whole numbers within 1,000 without regrouping.
3	Add 2- and 3-Digit Numbers (Regroup)	Learn to add 2- and 3-digit numbers with or without regrouping.
3	Subtracting 2- and 3-Digit Numbers	Learn to subtract 2- and 3-digit numbers involving regrouping.
3	Add/Subtract Numbers (with Regrouping)	Learn to add and subtract whole numbers within 1,000 with regrouping.
3	Subtracting Numbers with Zeros	Learn to subtract 2- and 3-digit numbers with zeros involving regrouping.
3	Multiply by a Multiple of Ten I	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties of operations.
3	Multiply by a Multiple of Ten II	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties of operations.
3	Rounding with Number Lines	Show how a number fits between two consecutive multiples of 10, 100, 1,000, or 10,000 on a number line, and explain its relative position using words to determine how to round the number.
4	Exploring Base Ten I	Multiply by 10 and 100. Generalize place value understanding for multi-digit whole numbers. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

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Placement Grade	Lesson Title	Lesson Description
4	Exploring Base Ten II	Divide by 10 and 100. Generalize place value understanding for multi-digit whole numbers. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
4	Write and Expand Numbers to 1,000,000	Learn to read numbers to 1,000,000 and to write them in standard and expanded forms.
4	Writing Numbers in Standard Form	Learn to write numbers up to 999,999,999 from word form to standard form.
4	Expanding Numbers up to Ten Million	Learn to expand whole numbers up to 9,999,999.
4	Compare Numbers up to 1,000,000	Learn to compare multi-digit numbers up to 1,000,000.
4	Using Place Value to Round	Use place value understanding to round multi-digit whole number to the nearest ten, hundred, or thousand.
4	Rounding Whole Numbers	Learn to round whole numbers to a given place-value position through the hundred thousands place.
4	Adding Multi-Digit Numbers	Learn to add multi-digit whole numbers using place value and the standard algorithm.
4	Adding 4-Digit Numbers	Learn to add 4-digit whole numbers.
4	Subtracting Multi-Digit Numbers	Learn to subtract multi-digit whole numbers using place value and the standard algorithm.
4	Subtracting Across Zeros	Learn to subtract 4-digit whole numbers with multiple zeros.
4	Multiply One-Digit Numbers (Models)	Learn to multiply a multi-digit whole number by a one-digit whole number using base-ten blocks and area models.
4	Multiply Two-Digit Numbers (Models)	Learn to multiply two-digit by two-digit numbers using base-ten blocks and area models.
4	Strategies for Dividing I	Find whole-number quotients and remainders with one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
4	Strategies for Dividing II	Find whole-number quotients and remainders with one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, standard algorithms, and models.
4	Multiplying Numbers by 10 and 100	Find products of whole numbers and 10 or 100 using place value and multiplication patterns.

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Placement Grade	Lesson Title	Lesson Description
4	Modeling Division with Area Models	Use area models to represent and solve division problems involving up to four-digit dividends and one-digit divisors.
5	Representing Decimals with Money	Model whole numbers and decimals, including tenths and hundredths, by using money.
5	Decimal Division with Models	Represent quotients of decimals to the hundredths using objects and pictorial models.
5	Understanding Place Value	Interactive Exploration. Learn that a digit in one place represents 10 times as much as it represents in the place to its right and one-tenth of what it represents in the place to its left.
5	Multiplying by Powers of 10	Learn to use the patterns in the number of zeros in a product when multiplying by a power of 10, and express powers of 10 using exponents.
5	Read/Write Decimals to Thousandths	Learn to read and write numbers to the thousandths in written and standard form and show equivalencies between the two.
5	Read, Write, and Expand Decimals	Learn to read, write, expand decimals to thousandths.
5	Decimals on Number Lines	Learn to identify the number and place on the number line to signify given decimals.
5	Comparing Decimals to Thousandths	Learn to compare decimals to the thousandths using symbols.
5	Rounding Decimals	Learn to round decimals to any place.
5	Rounding Decimals to Identified Place	Learn to round decimals to an identified place value and to the nearest half or whole number.
5	Multiplying Whole Numbers (Algorithm)	Learn to multiply multi-digit whole numbers using the standard algorithm.
5	Multiplying up to 3-Digit by 2-Digit	Learn to solve multiplication problems that involve two-digit by two-digit multiplication as well as three-digit by two-digit multiplication.
5	Dividing by 2-Digit Divisors	Learn to solve problems using up to three-digit dividends and two-digit divisors, and check the accuracy of the quotients using multiplication.
5	Dividing 3- and 4-Digit Numbers	Learn to divide 3-digit by 2-digit with no remainders and 4-digit by 2-digit with no remainder.
5	Estimating Decimal Sums/Differences	Learn to estimate sums and differences with decimals.

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5	Add/Subtract Decimals	Learn to add and subtract decimal to the hundredths using strategies and relate to a written method or standard algorithm.
5	Multiply/Divide Decimals	Learn to multiply and divide decimals to the hundredths using strategies and relate to a written method.
5	Dividing Decimals	Learn to divide decimals with decimals and whole numbers in both the divisor and dividend.
5	Estimate Decimal Products/Quotients	Learn to estimate products and quotients using decimals.
5	Comparing Fractions	Learn to compare and order fractions.
Measurement and Data		
1	Measuring Lengths of Objects (No Gaps)	Learn to measure lengths of objects with no gaps or overlaps.
1	Tell Time to the Hour and Half Hour	Learn to tell time to the hour and half hour.
2	Measuring the Length of Objects	Learn to measure the length of objects using centimeters and inches.
3	Tell/Write Time to Nearest Minute	Learn to tell and write time to the nearest minute.
3	Solve Problems (Elapsed Time)	Learn to solve problems of elapsed time using a number line.
3	Estimating and Measuring Volume	Learn to estimate volumes of objects in liters and milliliters by comparing to benchmark objects.
3	Solving Problems (Mass and Volume)	Learn to solve real-world problems involving mass in kilograms and grams, and volume in liters.
3	Adding Side Lengths to Find Perimeter	Learn to find the perimeter by measuring the lengths and adding the lengths.
3	Find Area of Rectangles (Unit Squares)	Learn to measure the area of a rectangle using unit squares.
3	Measure Area by Counting Unit Squares	Learn to find the area of a figure by counting unit squares.
3	Use Tiles to Find Area of a Rectangle	Learn to find the area of a rectangle by tiling and by multiplying the side lengths.
3	Multiply to Find Area of a Rectangle	Learn to find the area of a rectangle by multiplying the length and width.
3	Finding Area by Measuring	Learn to find the area by measuring the lengths and multiplying the lengths.

Grades 3–5 Lessons

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Placement Grade	Lesson Title	Lesson Description
3	Decompose Rectangles to Find Area	Learn to find the area of a rectangle by dividing it into two smaller rectangles.
3	Decompose Shapes to Find Area	Learn to find area by decomposing composite shapes into rectangles and adding the areas.
3	Use Area and Perimeter to Find Lengths	Learn how to find the length and width dimensions of a rectangle when given the perimeter and area.
3	Summarizing Data Sets with Pictographs	Summarize data sets using pictographs.
3	Solving with Dot Plots and Tables	Use dot plots and frequency tables with scaled intervals to solve one- and two-step questions.
4	Solving Volume and Mass Problems	Solve one- and two-step word problems involving measurements of liquid volume and mass using addition, subtraction, multiplication, and division.
4	Solving Time Interval Problems	Solve one- and two-step word problems involving intervals of time using addition, subtraction, multiplication, or division.
4	Solving Problems with Money	Solve one- and two-step problems involving money by applying addition, subtraction, multiplication, or division.
4	Find Perimeter by Measuring Lengths	Learn to find the perimeter by measuring the side lengths and adding the side lengths together.
4	Finding Area by Counting Square Units	Learn to find the area by counting half and whole square units.
4	Solving Area Problems (Formula)	Learn to apply the area formula for rectangles to solve real world problems.
4	Find Lengths Using Area and Perimeter	Learn to find the side lengths of a rectangle using the given area and perimeter of the rectangle.
4	Converting Customary Units of Length	Learn to find the area by counting half and whole square units.
4	Converting Customary Units of Capacity	Learn to convert customary units of capacity.
4	Converting Customary Units of Weight	Learn to convert customary units of weight and mass.
4	Converting Metric Units of Length	Learn to convert metric units of length.
4	Multiplying and Dividing Money	Learn to solve multiplication and division problems involving money.
4	Adding/Subtracting Decimals	Learn to add and subtract decimals to the thousandths using standard algorithm.

Grades 3–5 Lessons

National

Placement Grade	Lesson Title	Lesson Description
4	Adding and Subtracting Money	Learn to solve addition and subtraction problems involving money.
5	Solving Customary Length Problems	Learn to apply formulas to solve customary length problems, identify the correct tools to use to solve customary length problems, and apply concepts of estimation to arrive at answers.
5	Solving Customary Weight Problems	Learn to apply formulas to solve customary weight problems, identify the correct tools to use to solve customary weight problems, and apply concepts of estimation to arrive at answers.
5	Solving Customary Capacity Problems	Learn to apply formulas to solve customary capacity problems, identify the correct tools to use to solve customary capacity problems, and apply concepts of estimation to arrive at answers.
5	Solving Customary Temperature Problems	Learn to apply formulas involving temperatures in Fahrenheit degrees to solve real-life problems.
5	Metric System (Multiply/Divide)	Learn about the metric system and how multiplying and dividing by ten affects the placement in the system.
5	Solving Metric Length Problems	Learn to apply formulas to solve metric length problems, identify the correct tools to use to solve metric length problems, and apply concepts of estimation to arrive at answers.
5	Solving Metric Weight Problems	Learn to apply formulas to solve metric weight problems, identify the correct tools to use to solve metric weight problems, and apply concepts of estimation to arrive at answers.
5	Solving Metric Capacity Problems	Learn to apply formulas to solve metric capacity problems. identify the correct tools to use to solve metric capacity problems, and apply concepts of estimation to arrive at answers.
5	Solving Metric Temperature Problems	Learn to apply formulas involving temperatures in Celsius degrees to solve real-life problems.
5	Volume of Rectangular Prisms (Units)	Learn to find the volume of a rectangular prism by counting unit cubes.
5	Finding Volume of Rectangular Prisms	Learn to find the volume of a rectangular prism by multiplying the edge lengths, or by multiplying the area of the base by the height.
5	Volume of Rectangular Prisms (Formula)	Learn to find the volume of a rectangular prism by applying the formulas $V = l \times w \times h$ and $V = B \times h$.
5	Finding the Volume of Solids	Learn to find the volume of cubes and rectangular prisms.
5	Finding Volume of Solid Figures	Learn to find the volume of a solid figure composed of two rectangular prisms.
5	Analyze Two-Step Data Problems	Solve two-step problems using data from frequency tables, dot plots, bar graphs, stem-and-leaf plots, and scatterplots.

Grades 3–5 Lessons

National

Placement Grade	Lesson Title	Lesson Description
Geometry		
K	Describe and Compose Solids	Learn to describe solids and compose solids.
1	Compose Shapes to Make New Shapes	Learn to compose shapes to make new composite shapes.
1	Partition Shapes (Halves and Fourths)	Learn to partition circles, squares, and rectangles into halves and fourths.
2	Building Squares and Rectangles	Learn to determine the total number of same-size squares in a rectangle partitioned into rows and columns.
2	Partition Shapes/Describe Equal Shares	Learn to partition shapes and describe the equal shares.
4	Identify Points, Lines, Segments, Rays	Learn to identify points, lines, line segments, rays, and angles.
4	Identifying and Classifying Angles	Learn to identify and classify angles as right, obtuse, or acute.
4	Classifying Polygons by Attributes	Learn to identify and classify polygons, regular polygons, and non-polygons and their attributes.
5	Identifying Lines	Learn to identify parallel, perpendicular, and intersecting lines.
5	Classifying Two-Dimensional Figures	Learn to classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.
5	Graphing Ordered Pairs	Learn how to graph ordered pairs of numbers in the first quadrant of the coordinate plane.
5	Identifying Ordered Pairs	Learn to identify ordered pairs on coordinate plane, and locate and plot points in all four quadrants.
Number and Operations — Fractions		
3	Understanding Fractions of a Whole	Learn to recognize fractions as part of a whole and understand the meaning of the numerator and the denominator.
3	Represent Fractions on a Number Line	Learn to identify the fraction shown by a point on a number line and learn how to place a fraction on a number line.
3	Understand Equivalent Fractions	Learn to understand two fractions as equivalent if they are the same size, or the same point on a number line.

Grades 3–5 Lessons

National



Placement Grade	Lesson Title	Lesson Description
3	Simplify Fractions to Whole Numbers	Simplify improper fractions to whole numbers using models.
3	Fractions and Equivalent Whole Numbers	Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.
3	Comparing Fractions (Like)	Learn to compare two fractions with the same numerator or the same denominator using fraction models.
3	Ordering Decimals to the Hundredths	Learn to compare and order decimals up to the hundredths.
4	Generating Equivalent Fractions	Learn to generate equivalent fractions using multiplication and division.
4	Finding Equivalent Fractions	Learn to recognize and generate equivalent fractions using multiplication or division.
4	Comparing Fractions Using Models	Learn to compare two fractions using fraction models.
4	Comparing and Ordering Fractions	Learn to compare and order fractions with like and unlike denominators.
4	Adding and Subtracting Fractions	Learn how adding fractions is joining parts related to the same whole, and how subtracting fractions is separating parts related to the same whole.
4	Decomposing Fractions	Decompose a fraction into a sum of fractions with the same denominator in more than one way using a visual fraction model.
4	Decomposing Improper Fractions	Decompose an improper fraction into a sum of fractions with the same denominator in more than one way and record each decomposition with an equation.
4	Add/Subtract Mixed Numbers (Like)	Learn to add and subtract mixed numbers with like denominators.
4	Add Fractions with Like Denominators	Learn to add fractions with like denominators.
4	Adding Fractions (10 and 100)	Learn to add two fractions with respective denominators of 10 and 100.
4	Adding Fractions (Like)	Solve word problems involving addition of fractions with like denominators by using fraction models and equations.
4	Subtracting Fractions (Like)	Solve word problems involving subtraction of fractions with like denominators by using fraction models and equations.
4	Adding a Fraction Multiple Times	Add a fraction multiple times.

Grades 3–5 Lessons

National

Placement Grade	Lesson Title	Lesson Description
4	Fraction Multiples	Recognize multiples of a fraction.
4	Multiply Fraction by a Whole — Models	Match a visual model to a multiplication equation involving multiplying a fraction by a whole number.
4	Multiply Fraction by Whole — Multiple	Multiply a fraction by a whole number using previous knowledge of multiples.
4	Multiply Fraction by Whole Number I	Solve word problems involving multiplication of a fraction by a whole number by using visual fraction models to represent the problem.
4	Multiply Fraction by Whole Number II	Solve word problems involving multiplication of a fraction by a whole number by using an equation to represent the problem.
4	Equivalent Tenths and Hundredths	Express a fraction with denominator 10 as an equivalent fraction with denominator 100.
4	Writing Decimals as Fractions	Learn to express a decimal as a fraction with a denominator of 10 or 100.
4	Comparing Decimals to Hundredths	Learn to compare two decimal numbers up to the hundredths.
4	Comparing and Ordering Decimals	Learn to compare and order decimals up to the thousandths place.
4	Representing Fractions and Decimals	Represent fractions and decimals to the tenths or hundredths as distances from zero on a number line.
5	Equivalent Fractions	Learn to find equivalent forms of fractions not including mixed numbers.
5	Add Fractions Like/Unlike Denominators	Learn to add fractions, not including mixed numbers, with like and unlike denominators.
5	Subtract Fractions (Like/Unlike)	Learn to subtract fractions, not including mixed numbers, with like and unlike denominators.
5	Adding Mixed Numbers	Learn to add mixed numbers with and without regrouping.
5	Subtracting Mixed Numbers	Learn to subtract mixed numbers with and without regrouping.
5	Add/Subtract Fractions with Models	Learn to add and subtract fractions with unlike denominators.
5	Add/Subtract Mixed Numbers (Unlike)	Learn to add and subtract mixed numbers with unlike denominators using models.
5	Add/Subtract Fractions (Unlike)	Learn to solve real-world problems involving adding and subtracting fractions with unlike denominators.

Placement Grade	Lesson Title	Lesson Description
5	Interpreting Fractions as Division	Learn to interpret a fraction as representing division. Solve real-world problems involving dividing whole numbers where the answer is a fraction or mixed number.
5	Multiplying Fractions	Learn to multiply a fraction or whole number by a fraction.
5	Multiply Fractions (No Mixed)	Learn to multiply fractions, not including mixed numbers, and simplify answers.
5	Multiply Fractions with an Area Model	Learn to represent the product of two fractions using an area model.
5	Multiply Whole Numbers by Fractions	Learn to determine the effect of multiplying a whole number by a fraction less than 1 and by a fraction greater than 1.
5	Multiply Fractions and Mixed Numbers	Solve problems involving multiplying a fraction by a mixed number, and multiplying a mixed number by a mixed number.
5	Dividing with Unit Fractions	Learn to model dividing whole numbers by unit fractions and unit fractions by whole numbers.
5	Dividing Fractions (No Mixed)	Learn to divide fractions, not including mixed numbers, by using reciprocals and simplify answers.
5	Dividing Fractions	Learn to solve real-world problems involving dividing with unit fractions.