Curriculum Associates

i-Ready

Math Lesson List

JULY 22, 2018

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What's New

We are excited to announce that ALL of our i-Ready math content is iPad accessible!

Our latest release features the following content changes:

- 58 lessons in Grades K-2 that will provide instruction and practice in all domains
- 55 lessons in Grade 3-5 that will provide instruction and practice in all domains

Key:

Yellow highlight = Added to i-Ready in 2018

Number and Operations

Domain	Grade	Lesson	Objective
Number and Operations	K	Count up to 3 Objects	•Develop familiarity with numerals 1, 2, and 3. •Tell how many objects are in a given set of up to 3 objects.
Number and Operations	K	Count up to 5 Objects	•Develop familiarity with numerals 1-5. •Tell how many objects are in a given set of up to 5 objects.
Number and Operations	K	Count up to 10 Objects in Rows or Arrays	•Count groups of up to 10 objects arranged in a row or an array and tell how many there are in all. •Develop familiarity with numerals 6-10.
Number and Operations	K	Practice: Count up to 10 Objects in Rows or Arrays	•Count groups of 6-10 objects arranged in a row or an array and tell how many there are in all. •Develop familiarity with numerals 6-10.
Number and Operations	K	Count up to 10 Objects in Different Arrangements	•Count groups of 6-10 objects arranged in circular or scattered configurations, and tell how many there are in all. •Develop familiarity with numerals up to 10.
Number and Operations	K	Practice: Count up to 10 Objects, Part 1	•Count groups of 6-10 objects arranged in circular or scattered configurations, and tell how many there are in all. •Develop familiarity with numerals 6-10.
Number and Operations	K	Practice: Count up to 10 Objects, Part 2	•Count groups of up to 10 objects and tell how many there are in all. •Develop familiarity with numerals up to 10.
Number and Operations	K	Make Groups of up to 10 Objects	Given a number from 2 to 10, count out that many objects.
Number and Operations	K	Practice: Count and Make Groups to 10, Part 1	•Count groups of up to 10 objects. •Make groups of up to 10 objects.
Number and Operations	K	Order Numbers to 10	Count forward starting at a number other than 1 (within 10).
Number and Operations	K	More	Compare two groups of objects and identify which group has more.

Number and Operations	K	Find One More	•Find the number that is 1 more than the number of objects in a group. •Understand that each successive number name refers to a quantity that is 1 larger.
Number and Operations	K	Less	Compare two groups of objects and identify which group has less.
Number and Operations	K	Compare Numbers Within 10	•Identify whether the number of objects in one group is more than, less than, or the same number of objects in another group. •Given two numbers written as numerals, identify whether one is more, less, or the same as another.
Number and Operations	K	Practice: Count and Make Groups to 10, Part 2	•Count groups of up to 10 objects. •Make groups of up to 10 objects.
Number and Operations	K	Count up to 20 Objects	•Count groups of up to 20 objects. •Develop familiarity with numerals 11-20.
Number and Operations	K	Practice: Count up to 20 Objects	•Count groups of 11- 20 objects. •Develop familiarity with numerals 11-20.
Number and Operations	K	Make Groups of up to 20 Objects	Given a number from 11 to 20, count out that many objects.
Number and Operations	K	Practice: Make Groups of up to 20 Objects	Make groups of 11-20 objects.
Number and Operations	K	Order Numbers to 20	Count forward starting at a number other than 1 (within 11-20).
Number and Operations	K	Explore Teen Numbers	•Decompose numbers from 11 to 19. •Compose numbers from 11 to 19.
Number and Operations	1	Practice: Order Numbers 1 to 20	Count forward starting at a number other than 1 (up to 20).
Number and Operations	1	Order Numbers to 120	•Count forward in a given sequence, up to 120. •Order a given group of numbers up to 120 (counting by one).
Number and Operations	1	Practice: Order Numbers to 120	•Count forward in a given sequence, up to 120. •Order a given group of numbers up to 120 (counting by one).

Number and Operations	1	Identify Teen Numbers	•Understand that a ten is a unit made up of ten ones. •Identify teen numbers that are represented visually as a ten and some ones.
Number and Operations	1	Practice: Identify Teen Numbers	•Understand that a ten is a unit made up of ten ones. •Identify teen numbers that are represented visually as a ten and some ones.
Number and Operations	1	Build Teen Numbers	•Understand that a ten is a unit made up of ten ones. •Build teen numbers by representing them as a ten and some ones.
Number and Operations	1	Practice: Build Teen Numbers	•Understand that a ten is a unit made up of ten ones. •Build teen numbers by representing them as a ten and some ones.
Number and Operations	1	Identify Two-Digit Numbers	•Identify decade numbers that are represented visually as one, two, three, four, five, six, seven, eight, or nine tens. •Identify two-digit numbers that are represented visually as tens and ones.
Number and Operations	1	Practice: Identify Two-Digit Numbers	•Identify decade numbers that are represented as one, two, three, four, five, six, seven, eight, or nine tens. •Identify two-digit numbers that are represented as tens and ones.
Number and Operations	1	Build Two-Digit Numbers	•Understand that the first digit of a two-digit number represents the number of tens and the second digit represents the number of ones. •Build two-digit numbers by representing them as groups of tens and ones.
Number and Operations	1	Practice: Build Two-Digit Numbers	•Understand that the first digit of a two-digit number represents the number of tens and the second digit represents the number of ones. •Build two-digit numbers by representing them as groups of tens and ones.

Number and Operations	1	Add Multiples of Ten to Multiples of Ten	Add multiples of 10 to multiples of 10 with totals to 100.
Number and Operations	1	Practice: Add Multiples of Ten	Add multiples of 10 to multiples of 10 with totals to 100.
Number and Operations	1	Subtract Multiples of Ten from Multiples of Ten	Subtract a multiple of 10 from a multiple of 10 in the range 10-90.
Number and Operations	1	Practice: Subtract Multiples of Ten	Subtract a multiple of 10 from a multiple of 10 in the range 10-90.
Number and Operations	1	Add Multiples of Ten to Any Two-Digit Number	Add a multiple of 10 to any two-digit number.
Number and Operations	1	Practice: Add Multiples of 10 to Two-Digit Numbers	Add a multiple of 10 to any two-digit number (within 100).
Number and Operations	1	Add Two-Digit and One-Digit Numbers	Add a two-digit number and a one-digit number, regrouping as needed (sums within 40).
Number and Operations	1	Practice: Add Two-Digit and One-Digit Numbers	Add a two-digit and a one-digit number, regrouping as needed (sums within 40).
Number and Operations	1	Add More Two-Digit and One-Digit Numbers	Add a two-digit number and a one-digit number, regrouping as needed (sums within 100).
Number and Operations	1	Practice: Add More Two-Digit and One-Digit Numbers	Add a two-digit and a one-digit number, regrouping as needed (sums within 100).
Number and Operations	1	Add Two-Digit Numbers	Use models to add two-digit numbers, regrouping as needed (sums within 50).
Number and Operations	1	Practice: Add Two-Digit Numbers	Use models to add two-digit numbers, regrouping as needed (sums within 50).
Number and Operations	1	Add More Two-Digit Numbers	Use models to add two-digit numbers, regrouping as needed (sums within 100).
Number and Operations	1	Practice: Add More Two-Digit Numbers	Use models to add two-digit numbers, regrouping as needed (sums within 100).
Number and Operations	2	Add by Breaking Apart Two-Digit Numbers	Add two-digit numbers by decomposing addends into tens and ones.

Number and Operations	2	Practice: Add by Breaking Apart Two-Digit Numbers	Add two-digit numbers by decomposing addends into tens and ones.
Number and Operations	2	Add Within 100 on Number Lines, Part 1	Add two-digit numbers by decomposing one addend into tens and ones and adding up on a number line.
Number and Operations	2	Practice: Add Within 100 on Number Lines, Part 1	Add two-digit numbers by decomposing addends into tens and ones.
Number and Operations	2	Add Within 100 on Number Lines, Part 2	Add two-digit numbers by decomposing one addend to go to the next ten and adding up on a number line.
Number and Operations	2	Practice: Add Within 100 on Number Lines, Part 2	Add two-digit numbers by decomposing one addend to go to the next ten and adding up on a number line.
Number and Operations	2	Subtract Within 100 on Number Lines	Subtract two-digit numbers by decomposing one number into tens and ones and subtracting back on a number line.
Number and Operations	2	Practice: Subtract Within 100 on Number Lines	Subtract two-digit numbers by decomposing one number into tens and ones and subtracting back on a number line.
Number and Operations	2	Add to Subtract Within 100 on Number Lines, Part 1	Subtract two-digit numbers by first adding ones on a number line to go to the next ten.
Number and Operations	2	Practice: Add to Subtract on Number Lines, Part 1	Subtract two-digit numbers by first adding ones on a number line to go to the next ten
Number and Operations	2	Add to Subtract Within 100 on Number Lines, Part 2	Subtract two-digit numbers by first adding tens on a number line to get close to the total.
Number and Operations	2	Practice: Add to Subtract on Number Lines, Part 2	Subtract two-digit numbers by first adding tens on a number line to get close to the total.
Number and Operations	2	Practice: Tens and Ones	•Identify decade numbers that are represented as one, two, three, four, five, six, seven, eight, or nine tens. •Identify two-digit numbers that are represented as tens and ones.

Number and Operations	2	Understand Hundreds, Tens, and Ones	Identify two-digit numbers that are represented as tens and ones.
Number and Operations	2	Use Hundreds, Tens, and Ones	•Understand that the digits of a three-digit number represent an amount of hundreds, tens, and ones. •Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.
Number and Operations	2	Practice: Use Hundreds, Tens, and Ones	•Understand that one hundred is made up of 10 tens and that those 10 tens are made up of 100 ones. •Understand that the digits of a three-digit number represent an amount of hundreds, tens, and ones.
Number and Operations	2	Add or Subtract 10 or 100	•Mentally add 10 or 100 to a given number 100-900. •Mentally subtract 10 or 100 from a given number 100-900.
Number and Operations	2	Practice: Add Two-Digit Numbers	Use models to add two-digit numbers (sums within 50), regrouping as needed.
Number and Operations	2	Add Three-Digit and Two-Digit Numbers	Use base ten models to add a three-digit number and a two-digit number, regrouping ones and/or tens when needed.
Number and Operations	2	Practice: Add Three-Digit and Two-Digit Numbers	Use base-ten models to add a three-digit number and a two-digit number, regrouping ones and/or tens when needed.
Number and Operations	2	Add Three-Digit Numbers	Use base ten models to add two three-digit numbers, regrouping ones and/or tens when needed.
Number and Operations	2	Practice: Add Three-Digit Numbers	Use base-ten models to add two three-digit numbers, regrouping ones and/or tens when needed.
Number and Operations	2	Practice: Subtract Multiples of Ten	Subtract a multiple of 10 from a multiple of 10 in the range 10-90.
Number and Operations	2	Subtract Two-Digit from Three-Digit Numbers	Use base-ten models to subtract two-digit numbers from three-digit numbers, regrouping tens and/or hundreds when needed.

Number and Operations	2	Practice: Subtract 2-Digit from 3-Digit Numbers	Use base-ten models to subtract two-digit numbers from three-digit numbers, regrouping tens and/or hundreds when needed.
Number and Operations	2	Subtract Three-Digit Numbers	Use base-ten models to subtract two three-digit numbers, regrouping tens and/or hundreds when needed.
Number and Operations	2	Practice: Subtract Three-Digit Numbers	Use base-ten models to subtract two three-digit numbers, regrouping tens and/or hundreds when needed.
Number and Operations	2	Practice: Add Within 100 on Number Lines	Add two-digit numbers by decomposing addends into tens and ones.
Number and Operations	2	Add up to Four Two-Digit Numbers	Apply strategies based on place value and properties of operations to add up to four two-digit numbers.
Number and Operations	2	Add Within 1,000 on Number Lines	•Add within 1,000 by decomposing one addend to add hundreds, tens, and ones on a number line. •Add within 1,000 by decomposing one addend to go to the next ten and then adding up on a number line. •Add within 1,000 by decomposing one addend to go to the next hundred and then adding up on a number line.
Number and Operations	2	Practice: Add Within 1,000 on Number Lines	Add within 1,000 by decomposing one addend to add hundreds, tens, and ones on a number line.
Number and Operations	2	Practice: Subtract on Number Lines (Within 100)	Subtract two-digit numbers by decomposing one number into tens and ones and subtracting back on a number line.
Number and Operations	2	Subtract Within 1,000 on Number Lines	•Subtract within 1,000 by subtracting back hundreds, tens, and ones on a number line. •Subtract within 1,000 by first adding up to the next hundred on a number line.
Number and Operations	2	Practice: Subtract Within 1,000 on Number Lines	Subtract within 1,000 by subtracting back hundreds, tens, and ones on a number line.
Number and Operations	3	Practice: Place Value to Hundreds	Represent a three-digit number in multiple ways.

Number and Operations	3	Use Place Value to Round Numbers	•Round two- and three-digit numbers to the nearest 10. •Round three-digit numbers to the nearest 100.
Number and Operations	3	Practice: Use Place Value to Add Within 1,000	Use base-ten models and place value concepts to add two three-digit numbers, regrouping ones and/or tens when needed.
Number and Operations	3	Practice: Use Place Value to Subtract Within 1,000	Use base-ten models and place value concepts to subtract two three-digit numbers, regrouping ones and/or tens when needed.
Number and Operations	3	Add and Subtract within 1,000	•Use a variety of strategies to fluently add within 1,000. •Use a variety of strategies to fluently subtract within 1,000. •Estimate to determine if an answer is reasonable.
Number and Operations	3	Practice: Add and Subtract Within 1,000. Part 1	Use a variety of strategies to fluently add and subtract within 1,000.
Number and Operations	3	Practice: Add and Subtract Within 1,000. Part 2	Use a variety of strategies to fluently add and subtract within 1,000.
Number and Operations	3	Multiply by Multiples of 10	Use place value understanding and properties of multiplication to multiply a one-digit whole number by a multiple of 10
Number and Operations	3	Understand What a Fraction Is	•Understand that a fraction names equal parts of a whole. •Understand and recognize parts of a written fraction. •Understand that unit fractions are the building blocks of all other fractions.
Number and Operations	3	Understand Fractions on a Number Line	•Understand that fractions are numbers on a number line. •Understand how to use number lines to count and identify fractional parts. •Represent fractions on a number line that are less than, equal to, or greater than one.

Number and Operations	3	Find Equivalent Fractions	•Use fraction models and number lines to identify and create equivalent fractions, including those that are greater to or equal to one whole. •Express whole numbers as fractions. •Identify fractions that are equivalent to whole numbers.
Number and Operations	3	Understand Comparing Fractions	•Compare two fractions with the same numerator or same denominator by reasoning about their size. •Use visual fraction models to explain and justify fraction comparisons. •Record the results of comparisons with the symbols >, =, or <.
Number and Operations	4	Practice: Place Value to Thousands	Represent a four-digit number in multiple ways.
Number and Operations	4	Understand Place Value	•Identify the value of a digit based on its location in the number. •Demonstrate how moving from one place-value position to the next changes the value by a multiple of ten. •Use standard form, word form, and expanded form to read and write multi-digit whole numbers.
Number and Operations	4	Practice: Understand Place Value	•Identify the value of a digit based on its location in the number. •Use standard form, word form, and expanded form to read and write multi-digit whole numbers.
Number and Operations	4	Round Whole Numbers	Use place value understanding to round multi-digit whole numbers to any place.
Number and Operations	4	Add Whole Numbers	Use the standard algorithm to add multi-digit whole numbers.
Number and Operations	4	Practice: Add Whole Numbers	Use the standard algorithm to add multi-digit whole numbers.
Number and Operations	4	Subtract Whole Numbers	Use the standard algorithm to subtract multi-digit whole numbers.
Number and Operations	4	Practice: Subtract Whole Numbers	Use the standard algorithm to subtract multi-digit whole numbers.

Number and Operations	4	Multiply by One-Digit Numbers, Part 1	•Multiply a two-digit number by a one-digit number. •Use arrays, partial products, and area models to multiply.
Number and Operations	4	Multiply by One-Digit Numbers, Part 2	•Multiply whole numbers with three and four-digits by one-digit whole numbers. •Use partial products and area models to multiply.
Number and Operations	4	Practice: Multiply by One-Digit Numbers	•Multiply whole numbers of up to four-digits by one-digit whole numbers. •Use partial products and area models to multiply.
Number and Operations	4	Multiply Two-Digit Numbers by Two-Digit Numbers	•Multiply a two-digit number by a two-digit number. •Use equations, rectangular arrays, and/or area models to illustrate and explain calculations
Number and Operations	4	Practice: Multiply Two-Digit Numbers	•Multiply a two-digit number by a two-digit number. •Use equations and area models to illustrate and explain calculations.
Number and Operations	4	Divide Whole Numbers, Part 1	•Divide up to four-digit dividends by one-digit divisors, with remainders. •Use equations, rectangular arrays, and area models to illustrate and explain calculations. •Interpret the remainder in a division word problem.
Number and Operations	4	Divide Whole Numbers, Part 2	•Divide up to four-digit dividends by one-digit divisors, with remainders. •Use area models to illustrate calculations.
Number and Operations	4	Practice: Divide Whole Numbers, Part 1	Divide two- and three-digit dividends by one-digit divisors, with remainders.
Number and Operations	4	Practice: Divide Whole Numbers, Part 2	Divide four-digit dividends by one-digit divisors, with remainders.
Number and Operations	4	Equivalent Fractions	•Understand why a fraction a/b is equivalent to a fraction (n x a)/(n x b). •Recognize and generate equivalent fractions.

Number and Operations	4	Compare Fractions	•Compare two fractions with different numerators and different denominators by creating common denominators or numerators, or by comparing to a benchmark fraction. •Record the results of comparisons with symbols and justify the conclusions
Number and Operations	4	Understand Adding and Subtracting Fractions	•Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. •Decompose a fraction into a sum of fractions with the same denominator in more than one way. •Use fraction models to add and subtract fractions with like denominators.
Number and Operations	4	Understand Mixed Numbers	•Use fraction models, number lines, and equations to decompose a fraction greater than one into the sum of a whole number and a fraction smaller than one. •Use mixed number notation. •Replace a mixed number with an equivalent fraction using addition. •Add and subtract mixed numbers with like denominators.
Number and Operations	4	Add and Subtract Fractions	•Solve word problems involving addition and subtraction of fractions and mixed numbers referring to the same whole and having like denominators. •Use fraction models, number lines, and equations to represent the word problems.
Number and Operations	4	Understand Fraction Multiplication	Multiply a fraction by a whole number.
Number and Operations	4	Fractions as Tenths and Hundredths	•Rewrite a fraction that has a denominator of 10 as an equivalent fraction with a denominator of 100. •Add two fractions with denominators of 10 or 100.
Number and Operations	5	Multiply Whole Numbers	Use the standard algorithm to multiply multi-digit whole numbers.

Number and Operations	5	Practice: Multiply Whole Numbers	Use the standard algorithm to multiply multi-digit whole numbers.
Number and Operations	5	Divide Whole Numbers	•Divide multi-digit numbers (up to 4-digit by 2-digit) using the partial quotients method •Use rounding to estimate quotient before dividing. •Check answers with multiplication.
Number and Operations	5	Practice: Divide Whole Numbers	•Fluently divide multi-digit numbers using the partial quotients method. •Use rounding to estimate the quotient before dividing.
Number and Operations	5	Understand Place Value	•Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. •Identify place values through thousandths.
Number and Operations	5	Read and Write Decimals	•Read decimals to the thousandths place using base ten, number names, and expanded form. •Write decimals to the thousandths place using base ten, number names, and expanded form.
Number and Operations	5	Round decimals	•Use benchmark numbers to round decimals. •Explain why a number is rounded to a given place value.
Number and Operations	5	Practice: Round Decimals	Use place value relationships to round decimals to the nearest hundredth, tenth, and whole number.
Numbers and Operations	5	Add and Subtract Decimals	•Add decimals to hundredths. •Subtract decimals to hundredths. •Use models to show how to add and subtract decimals to hundredths.
Number and Operations	5	Practice: Add Decimals	Add decimals to hundredths.
Number and Operations	5	Practice: Subtract Decimals	Subtract decimals to hundredths.

Number and Operations	5	Add and Subtract Fractions	•Find the sum of fractions with unlike denominators. •Find the difference of fractions with unlike denominators.
Number and Operations	5	Add and Subtract Fractions in Word Problems	•Solve word problems involving addition and subtraction of fractions referring to the same whole and having unlike denominators. •Estimate the reasonableness of solutions to word problems involving addition and subtraction of fractions referring to the same whole.
Number and Operations	5	Practice: Whole Numbers and Powers of Ten	•Use the patterns in the number of zeros of the product and the placement of the decimal point when multiplying or dividing by a power of ten. •Use exponents to denote powers of ten.
Number and Operations	5	Multiply and Divide Decimals by Powers of Ten	•Use place value concepts to mentally multiply whole numbers and decimals by 10, 100, 1,000, etc. • Use place value concepts to mentally divide whole numbers and decimals by 10, 100, 1,000, etc.
Number and Operations	5	Practice: Decimals and Powers of Ten	•Use the patterns in the number of zeros of the product and the placement of the decimal point when multiplying or dividing by a power of ten. •Use exponents to denote powers of ten.
Number and Operations	5	Multiply Decimals	•Understand how to multiply decimals to thousandths. •Multiply decimals to thousandths.
Number and Operations	5	Divide Decimals	•Understand how to divide decimals to hundredths. •Divide decimals to hundredths.
Number and Operations	5	Practice: Divide Decimals	Divide decimals to hundredths.
Number and Operations	5	Fractions as Division	•Understand that the fraction $a/b = a \div b$. •Solve word problems involving division of whole numbers where the quotient is a fraction or mixed number. •Estimate the value of a fraction greater than one by finding the two whole numbers the fraction is between.

Number and Operations	5	Understand Products of Fractions	•Understand what multiplying by a fraction means. •Use visual fraction models to multiply a whole number by a fraction. •Use visual fraction models to multiply a fraction by a fraction.
Number and Operations	5	Multiply Fractions to Find Area	•Find the area of rectangles with fractional side lengths using tiles. •Find the area of rectangles with fractional side lengths by multiplying side lengths.
Number and Operations	5	Understand Multiplication as Scaling	•Understand that multiplying a number times a fraction greater than 1 results in a product greater than the original number. •Understand that multiplying a number times a fraction less than 1 results in a product less than the original number.
Number and Operations	5	Understand Division with Unit Fractions	•Understand situations that involve dividing a unit fraction by a whole number and situations that involve dividing a whole number by a unit fraction. •Apply understanding of division to find the quotient of a unit fraction divided by a whole number using a visual model. •Apply understanding of division to find the quotient of a whole number divided by a unit fraction using a visual model.
Number and Operations	5	Divide Unit Fractions in Word Problems	•Represent and solve real-world problems involving division of unit fractions by whole numbers using visual fraction models and equations. •Represent and solve real-world problems involving division of a whole number by unit fractions using visual fraction models and equations.
Number and Operations	6	Division of Fractions	•Apply and extend previous understandings of multiplication and division to divide fractions by fractions. •Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

Number and Operations	6	Fluently add and subtract decimals	•Fluently add and subtract multi-digit decimals using place value strategies including the standard algorithm. •Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Number and Operations	6	Multiplication of Decimals	•Estimate products of decimal numbers. •Multiply multi-digit decimal numbers up to the thousandths.
Number and Operations	6	Division of Whole Numbers and Decimals	•Divide whole numbers with decimal quotients. •Divide decimals by whole numbers.
Number and Operations	6	Division of Decimals	•Divide whole numbers by decimals. •Divide decimals by decimals.
Number and Operations	6	Prime Factors	•Determine the prime factors of all numbers through 100. •Write the numbers as the product of their prime factors. •Find the greatest common factor of two whole numbers less than or equal to 100. •Find the least common multiple of two whole numbers less than or equal to 12.
Number and Operations	6	Rational Numbers and Absolute Value	•Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. •Understand a rational number as a point on the number line. •Understand ordering and absolute value of rational numbers.
Number and Operations	6	Coordinate Plane and Absolute Value	•Graph points in all four quadrants of the coordinate plane. •Find distances between points with the same first coordinate or the same second coordinate, using coordinates and absolute value. •Name a point given the distance to a given point.
Number and Operations	7	Addition and Subtraction of Positive and Negative Integers	•Add and subtract positive and negative integers. •Apply properties of addition as a strategy to add and subtract integers.

Number and Operations	7	Understanding Adding and Subtracting Positive and Negative Numbers	•Add integers using a number line. •Use subtraction and absolute value to find the distance between two numbers on a number line.
Number and Operations	7	Multiplication and Division of Positive and Negative Integers	•Multiply positive and negative integers. •Divide positive and negative integers.
Number and Operations	7	Expressing Fractions as Decimals	Convert a rational number to a decimal using long division.
Number and Operations	7	Multiplication and Division of Rational Numbers	•Multiply positive and negative rational numbers. •Divide positive and negative rational numbers.
Number and Operations	7	Addition and Subtraction of Rational Numbers	•Add and subtract positive and negative rational numbers. •Use mental computations and estimation to check the reasonableness of an answer.
Number and Operations	8	Properties of Integer Exponents	Discover and apply the properties of integer exponents.
Number and Operations	8	Square Roots and Cube Roots	•Evaluate square roots of perfect squares less than or equal to 225. •Evaluate cube roots of perfect cubes less than or equal to 125. •Use symbolic notation to solve equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. •Understand that an equation of the form $x^2 = p$ has two solutions, where p is a positive rational number.
Number and Operations	8	Rational and Irrational Numbers	•Identify real numbers as rational or irrational. •Write rational numbers as fractions given their decimal expansions.
Number and Operations	8	Approximating Irrational Numbers	•Estimate square roots to the nearest hundredth. •Compare and order rational and irrational numbers using a number line.
Number and Operations	8	Scientific Notation	•Write numbers as the product of a single digit and an integer power of ten. •Write numbers expressed with scientific notation in standard notation. •Compare the size of quantities written in scientific notation.

Number and Operations	8	Operations with Numbers Expressed in Scientific Notation	•Interpret scientific notation that has been generated by technology. •Use technology to perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. •Use estimation to check the reasonableness of the answers produced by technology.

Algebra and Algebraic Thinking

Domain	Grade	Lesson	Objective
Algebra and Algebraic Thinking	K	Understand Addition	Understand addition as adding to a set of objects.
Algebra and Algebraic Thinking	K	Add Within 5	Add within 5 using pictures or fingers.
Algebra and Algebraic Thinking	K	Understand Subtraction	•Understand subtraction as taking away from a set of objects. •Describe subtraction situations using mathematical language and numerical expressions.
Algebra and Algebraic Thinking	K	Subtract Within 5	Subtract within 5 using pictures.
Algebra and Algebraic Thinking	K	Practice: Add and Subtract Within 5	•Add within 5 using pictures or fingers. •Subtract within 5 using pictures.
Algebra and Algebraic Thinking	K	Number Partners for 3	•Decompose numbers less than or equal to 5 into pairs in more than one way using objects or drawings. •Record decomposition as addition using drawings and equations.
Algebra and Algebraic Thinking	K	Number Partners for 4 and 5	•Decompose the numbers 4 and 5 into pairs in more than one way using objects or drawings. •Record decomposition as addition using drawings and equations.
Algebra and Algebraic Thinking	K	Add Within 10	Add within 10 using pictures or fingers.
Algebra and Algebraic Thinking	K	Subtract Within 10	Subtract within 10 using pictures.
Algebra and Algebraic Thinking	K	Practice: Add and Subtract Within 10, Part 1	•Add within 10 using pictures or fingers. •Subtract within 10 using pictures.
Algebra and Algebraic Thinking	K	Number Partners for 6 and 7	•Decompose the numbers 6 and 7 into pairs in more than one way using objects or drawings. •Record decomposition as addition using drawings and equations.

Yellow highlight indicates lessons added to i-Ready in 2018.
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Algebra and Algebraic Thinking	K	Number Partners for 8 and 9	Decompose the numbers 8 and 9 into pairs in more than one way using objects or drawings.
Algebra and Algebraic Thinking	K	Number Partners for 10	•Decompose the number 10 into pairs in more than one way using objects or drawings. •Record decomposition as addition using drawings and equations.
Algebra and Algebraic Thinking	K	Practice: Add and Subtract Within 10, Part 2	•Add within 10 using pictures or fingers. •Subtract within 10 using pictures.
Algebra and Algebraic Thinking	K	Fluently Add and Subtract Within 5	•Develop fluency with addition facts to 5. •Develop fluency with subtraction facts to 5.
Algebra and Algebraic Thinking	K	Make 10	•For any number from 1 to 9, find the number that can be added to make 10. •Record each composition as addition, using drawings and equations.
Algebra and Algebraic Thinking	K	Practice: Make 10	•For any number from 1 to 9, find the number that can be added to make 10. •Record each composition as addition, using drawings and equations.
Algebra and Algebraic Thinking	1	Practice: Add and Subtract Within 10	•Add within 10 using pictures or fingers. •Subtract within 10 using pictures.
Algebra and Algebraic Thinking	1	Add in Any Order	Understand that two numbers may be added in either order and will result in the same sum.
Algebra and Algebraic Thinking	1	Count On to Add	•Relate addition by counting to addition. •Count on to add within 15. •Apply the Commutative Property to count on the smaller of two addends.
Algebra and Algebraic Thinking	1	Practice: Count On to Add	•Relate addition by counting to addition. •Count on to add within 15. •Apply the Commutative Property to count on the smaller of two addends.

Algebra and Algebraic Thinking	1	Think Addition to Subtract	•Understand how addition and subtraction sentences relate to a total made up of two parts. •Subtract by thinking addition.
Algebra and Algebraic Thinking	1	Count On to Subtract	Apply the counting on strategy to subtract within 15.
Algebra and Algebraic Thinking	1	Doubles	•Recognize doubles as adding two of the same number. •Find sums of doubles.
Algebra and Algebraic Thinking	1	Doubles and Near Doubles	Add two numbers by finding an equivalent sum that uses a double.
Algebra and Algebraic Thinking	1	Practice: Make 10	•For any number from 1 to 9, find the number that can be added to make 10. •Record each composition as addition, using drawings and equations.
Algebra and Algebraic Thinking	1	Make a Ten to Add	•Understand the rationale for decomposing a number to make ten when adding. •Add by making a ten.
Algebra and Algebraic Thinking	1	Practice: Make a Ten to Add	•Understand the rationale for decomposing a number to make ten when adding. •Add by making a ten.
Algebra and Algebraic Thinking	1	Make a Ten to Subtract	•Understand the rationale for decomposing a number to make ten when subtracting. •Subtract by decomposing a number leading to a ten.
Algebra and Algebraic Thinking	1	Practice: Make a Ten to Subtract	•Understand the rationale for decomposing a number to make ten when subtracting. •Subtract by decomposing a number leading to a ten.
Algebra and Algebraic Thinking	1	Practice: Number Partners for 10	•Decompose the number 10 into pairs in more than one way by using objects or drawings. •Record decomposition as addition using drawings and equations.
Algebra and Algebraic Thinking	1	Fluently Add and Subtract Within 10	•Develop fluency with addition facts to 10. •Develop fluency with subtraction facts to 10.

Algebra and Algebraic Thinking	2	Practice: Add Within 10	•Add within 10. •For any number from 1 to 9, find the number that can be added to make 10.
Algebra and Algebraic Thinking	2	Use Mental Math to Add (Make a Ten), Part 1	Mentally use the make a ten strategy to add within 20.
Algebra and Algebraic Thinking	2	Use Mental Math to Add (Make a Ten), Part 2	•Apply the commutative property to add in any order. •Mentally use the make a ten strategy to add within 20.
Algebra and Algebraic Thinking	2	Practice: Use Mental Math to Add (Make a Ten)	•Apply the commutative property to add in any order. •Mentally use the make a ten strategy to add within 20.
Algebra and Algebraic Thinking	2	Use Mental Math to Add (Near Doubles)	Mentally use the near doubles strategy to add within 20.
Algebra and Algebraic Thinking	2	Use Mental Math Strategies to Add	Use a variety of mental strategies to add within 20.
Algebra and Algebraic Thinking	2	Practice: Use Mental Math Strategies to Add	•Use a variety of mental strategies to add within 20. •Mentally use the near doubles strategy to add within 20.
Algebra and Algebraic Thinking	2	Think Addition to Subtract	Mentally use the relationship between addition and subtraction to subtract within 20.
Algebra and Algebraic Thinking	2	Think Addition to Subtract (Make a Ten)	Mentally apply the make a ten strategy to subtract by thinking of subtraction problems as unknown addend problems.
Algebra and Algebraic Thinking	2	Practice: Think Addition to Subtract	Mentally apply the make a ten strategy to subtract by thinking of subtraction problems as unknown addend problems.
Algebra and Algebraic Thinking	2	Solve Two-Step Problems	•Use addition and subtraction to solve two-step problems. •Use drawings and/or equations with a symbol for the unknown number to represent two-step problems.

Algebra and Algebraic Thinking	2	Add Using Arrays	•Arrange objects in an array with up to 5 rows with 5 items in each row. •Calculate the number of items in an array using repeated addition and skip-counting. •Write an equation to express the total number of items in an array.
Algebra and Algebraic Thinking	3	Understand Multiplication, Part 1	•Understand that the symbol x means "groups of," and problems such as 5 x 7 refer to 5 groups of 7. •Interpret a multiplication problem situation using pictures, objects, words, numbers, and equations.
Algebra and Algebraic Thinking	3	Practice: Multiples of 2	Develop strategies for finding multiples of 2.
Algebra and Algebraic Thinking	3	Practice: Multiplying by 10	Develop strategies for multiplying by a factor of 10.
Algebra and Algebraic Thinking	3	Practice: Multiplying by 5	Develop strategies for multiplying by a factor of 5.
Algebra and Algebraic Thinking	3	Understand Multiplication, Part 2	•Understand that the symbol x means "groups of," and expressions such as 5 x 7 refer to 5 groups of 7. •Represent a multiplication problem situation using arrays and equations. •Understand that numbers can be multiplied in any order and the product will be the same (commutative property of multiplication).
Algebra and Algebraic Thinking	3	Practice: Multiples of 3	Develop strategies for finding multiples of 3.
Algebra and Algebraic Thinking	3	Practice: Multiples of 4	Develop strategies for finding multiples of 4.
Algebra and Algebraic Thinking	3	Practice: Multiplying by 0 and 1	•Multiply by a factor of 1 (Identity Property of Multiplication). •Multiply by a factor of 0 (Zero Property of Multiplication).

Algebra and Algebraic Thinking	3	Use Order and Grouping to Multiply	•Understand that numbers can be multiplied in any order and the product will be the same. •Understand that three or more factors in a problem can be grouped in different ways and the product will be the same. •Apply properties of operations as strategies to multiply
Algebra and Algebraic Thinking	3	Practice: Multiplying by 2, 3, and 4	•Understand that numbers can be multiplied in any order and the product will be the same. •Apply the commutative property of multiplication as a strategy to multiply by 2, 3, and 4.
Algebra and Algebraic Thinking	3	Practice: Multiples of 5 and 10	•Understand that numbers can be multiplied in any order and the product will be the same. •Apply the commutative property of multiplication as a strategy to find multiples of 5 and 10.
Algebra and Algebraic Thinking	3	Practice: Use Order and Grouping to Multiply	Apply properties of operations as strategies to multiply three factors together.
Algebra and Algebraic Thinking	3	Practice: Multiply Within 100	Fluently multiply within 100.
Algebra and Algebraic Thinking	3	Break Apart a Number to Multiply	Break apart a factor as a strategy to multiply (apply the distributive property of multiplication).
Algebra and Algebraic Thinking	3	Practice: Multiples of 6	Break apart a factor as a strategy to find multiples of 6.
Algebra and Algebraic Thinking	3	Practice: Multiples of 7	Break apart a factor as a strategy to find multiples of 7.
Algebra and Algebraic Thinking	3	Practice: Multiples of 8	Break apart a factor as a strategy to find multiples of 8.
Algebra and Algebraic Thinking	3	Practice: Multiples of 9	Break apart a factor as a strategy to find multiples of 9.
Algebra and Algebraic Thinking	3	Understand Division, Part 1	•Understand division as sharing, knowing the number of equal shares and finding the number in each share or group. •Use division expressions to represent contexts.

Algebra and Algebraic Thinking	3	Understand Division, Part 2	•Understand division as separating a total into equal groups and finding the number of groups. •Understand and use the relationship of multiplication and division. •Describe stories or contexts for division expressions, such as 24÷4. •Represent and solve division problems.
Algebra and Algebraic Thinking	3	Practice: Understand Division	Understand and use the relationship of multiplication and division to find quotients.
Algebra and Algebraic Thinking	3	Practice: Multiply and Divide Within 100	Fluently multiply and divide within 100.
Algebra and Algebraic Thinking	3	Solve One-Step Word Problems Using Multiplication and Division	•Identify the elements and the relationship between them in a multiplication or division word problem. •Solve multiplication and division word problems involving equal groups and using strategies such as arrays, numbers lines or pictures.
Algebra and Algebraic Thinking	3	Practice: Divide and Multiply (Within 100)	Fluently multiply and divide within 100.
Algebra and Algebraic Thinking	3	Solve Two-Step Word Problems Using the Four Operations	•Determine operations needed to solve two-step word problems. •Model two-step problems with four operations using a variety of representations, including equations with a variable. •Solve two-step problems with four operations. •Assess the reasonableness of answers.
Algebra and Algebraic Thinking	3	Understand Patterns	•Use number properties to find and explain patterns. •Use knowledge of even and odd numbers to find and explain patterns.
Algebra and Algebraic Thinking	4	Understand Multiplication as Comparison	•Solve word problems that indicate a multiplicative comparison. •Write an equation to represent a multiplicative comparison indicated by a word problem

Algebra and Algebraic Thinking	4	Practice: Understand Multiplication as Comparison	•Solve word problems that indicate a multiplicative comparison. •Write an equation to represent a multiplicative comparison indicated by a word problem.
Algebra and Algebraic Thinking	4	Solve Multiplicative Comparison Problems	•Use drawings and symbols to represent and solve a multiplicative comparison problem. •Use an equation to solve for the unknown in a multiplicative comparison problem.
Algebra and Algebraic Thinking	4	Multiples	•Given a whole number within 10, determine all its multiples up to 100. •Determine whether a whole number within 100 is a multiple of a given number within 10.
Algebra and Algebraic Thinking	4	Factors	•Find all the factor pairs for a given whole number within 100. •Determine whether a given whole number within 100 is prime or composite.
Algebra and Algebraic Thinking	4	Practice: Multiples, Factors, and Prime Numbers	•Determine whether a whole number within 100 is a multiple of a given number within 10. •Determine whether a whole number within 10 is a factor of a given number within 100. •Determine whether a given whole number within 100 is prime or composite.
Algebra and Algebraic Thinking	4	Number and Shape Patterns	•Use rules to generate or extend a number or shape pattern. •Analyze and describe features in number and shape patterns
Algebra and Algebraic Thinking	4	Solve Multi-Step Problems	•Solve multi-step word problems. •Use estimation strategies to make sure the answer makes sense
Algebra and Algebraic Thinking	5	Write and Evaluate Expressions	•Evaluate expressions containing parentheses. •Write numerical expressions containing parentheses. •Interpret numerical expressions without evaluating them.

Algebra and Algebraic Thinking	5	Practice: Interpret and Evaluate Expressions	Evaluate expressions containing parentheses. Interpret numerical expressions without evaluating them.
Algebra and Algebraic Thinking	6	Concept of Ratio	•Understand the concept of a ratio. •Use ratio language to describe a ratio relationship between two quantities. •Recognize a:b and a/b as alternative notations for ratios. •Write a ratio equivalent to a given ratio.
Algebra and Algebraic Thinking	6	Concept of Rate	•Understand the concept of a unit rate Use rate language in the context of a ratio relationship. •Solve rate and unit rate problems.
Algebra and Algebraic Thinking	6	Concept of Percent	•Find a percent of a quantity as a rate per 100. •Solve problems involving finding the whole, given a part and the percent.
Algebra and Algebraic Thinking	6	Problem Solving with Ratio and Percent	•Use ratio to solve real-world and mathematical problems. •Use percent to solve real-world and mathematical problems.
Algebra and Algebraic Thinking	6	Numerical Expressions and Order of Operations	•Read and write expressions that describe situations as well as operations. •Read and write numerical expressions involving whole-number exponents. •Apply algebraic order of operations to evaluate numerical expressions involving multiple operations. •Use standard terms (sum, term, product, factor, quotient, coefficient) to describe numerical expressions.
Algebra and Algebraic Thinking	6	Algebraic Expressions	•Write and evaluate algebraic expressions involving whole-number exponents. •Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate algebraic expressions.

Algebra and Algebraic Thinking	6	Equivalent Expressions	•Apply the properties of operations to generate equivalent expressions. •Identify when two expressions are equivalent.
Algebra and Algebraic Thinking	6	Solving Equations	•Solve simple one-step equations by using inverse operations and the properties of equality. •Use substitution to determine whether a given number makes an equation true.
Algebra and Algebraic Thinking	6	Using Equations to Solve Problems	Solve real-world and mathematical problems by writing and solving equations of the form x + p = q, x - p = q, and px = q for cases in which p, q, and x are all non-negative rational numbers.
Algebra and Algebraic Thinking	6	Solving Inequalities	•Use substitution to determine whether a given number in a specified set makes an inequality true. •Write an inequality of the form x >; c, x >= c, x < c or x <= c to represent a real-world or mathematical problem. •Represent solutions of inequalities on a number line diagram. •Recognize that inequalities of the form x > c, x >= c, x < c or x <= c have infinitely many solutions.
Algebra and Algebraic Thinking	6	Relationships Between Variables in Equations	•Write equations using variables to represent two quantities in a real-world problem that change in relationship to one another. •Analyze the relationship between the dependent and independent variables, using graphs and tables, and relate these to the equation.
Algebra and Algebraic Thinking	7	Problem Solving with Rational Numbers	•Solve multi-step real-world problems by finding the sums, products and/or quotients of rational numbers in any form (fractions, decimals and/or percentages). •Use mental computations and estimation to check the reasonableness of an answer.
Algebra and Algebraic Thinking	7	Ratios involving Complex Fractions	•Simplify complex fractions. •Determine unit rates associated with ratios of fractions.

Algebra and Algebraic Thinking	7	Recognizing Proportional Relationships	•Recognize proportional relationships between quantities using tables or graphs in the coordinate plane. •Identify the constant of proportionality (unit rate) in a proportional relationship in tables, graphs and/or equations.
Algebra and Algebraic Thinking	7	Equations for Proportional Relationships	•Represent a proportional relationship as a linear equation. •Explain what a point on the graph of a proportional relationship means in context of the situation.
Algebra and Algebraic Thinking	7	Problem Solving with Proportional Relationships	Use proportional relationships to solve multistep percent problems, including percent increase and percent decrease.
Algebra and Algebraic Thinking	7	Linear Expressions	•Use the distributive property to expand linear expressions with rational coefficients. •Use the GCF of two terms to factor a linear expression with rational coefficients. •Simplify a linear expression by combining like terms, as well as using the associative, commutative, and distributive properties.
Algebra and Algebraic Thinking	7	Problem Solving with Equations	•Solve single-variable linear equations with rational coefficients. •Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations to solve the problem.
Algebra and Algebraic Thinking	7	Problem Solving with Inequalities	•Solve word problems leading to inequalities of the form $px + q >; r$ or $px + q <; r$, where p, q, and r are specific rational numbers. •Graph the solution set of the inequality and interpret it in the context of the problem.
Algebra and Algebraic Thinking	8	Concept of a Function	•Understand that a function is a rule that assigns to each input exactly one output. •Identify whether a relationship is a function or not, from a graph, equation or table of values.
Algebra and Algebraic Thinking	8	Linear Functions	•Determine if a function is linear or non-linear. •Interpret the equation $y = mx + b$ as defining a linear function.

Algebra and Algebraic Thinking	8	Linear Functions, Rate of Change and Initial Value	•Determine and interpret the rate of change from the description of a relationship, two coordinates from a table, or two coordinates from a graph. •Determine and interpret the initial value from the description of a relationship, a table of values, or a graph.
Algebra and Algebraic Thinking	8	Properties of Functions	Compare properties of two functions each represented in a different way.
Algebra and Algebraic Thinking	8	Using a Graph to Analyze a Functional Relationship	•Sketch a graph of a function from a verbal description. •Describe qualitatively the functional relationship between two quantities by analyzing a graph.
Algebra and Algebraic Thinking	8	Representing Proportional Relationships	•Interpret the unit rate of a proportional relationship as the slope of its graph. •Understand that the y-intercept is zero for proportional relationships. •Compare two different proportional relationships represented in different ways.
Algebra and Algebraic Thinking	8	Linear Equations and Slope	•Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line. •Understand that slope is a rate of change and the y-intercept is an initial value. •Use the slope and y-intercept to derive an equation for a linear function. •Identify the slope and y-intercept from an equation or graph. •Relate/match an equation of the form y = mx + b to the corresponding line in the coordinate plane.

Algebra and Algebraic Thinking	8	Solving Linear Equations	•Solve linear equations with integer coefficients in one variable with one solution, infinitely many solutions, or no solutions. •Use properties and the order of operations to collect like terms and simplify a linear equation.
Algebra and Algebraic Thinking	8	Solving Linear Equations with Rational Coefficients	•Solve linear equations with rational coefficients in one variable with one solution, infinitely many solutions, or no solutions. •Use properties and the order of operations to collect like terms and simplify a linear equation.
Algebra and Algebraic Thinking	8	Systems of Linear Equations	Solve systems of linear equations by graphing the equations.
Algebra and Algebraic Thinking	8	Solving Systems of Linear Equations Algebraically	•Estimate solutions to systems of linear equations by graphing the equations. •Solve systems of equations in two variables algebraically using substitution (rational solutions).

Measurement and Data

Domain	Grade Level	Lesson	Objectives
Measurement and Data	K	Different	Given a set of objects, students identify an object that is different.
Measurement and Data	K	Same	Given a set of objects, students identify an object that is the same.
Measurement and Data	K	Longer or Shorter	•Compare two objects to find which is longer or shorter. •Compare two objects to find which is longer or shorter than a third reference object.
Measurement and Data	K	Taller or Shorter	•Compare two objects to find which is taller or shorter. •Compare two objects to find which is taller or shorter than a third reference object.
Measurement and Data	K	Lighter of Heavier	•Compare two objects to find which is lighter or heavier. •Compare two objects to find which is lighter or heavier than a third reference object.
Measurement and Data	K	Holds More or Less	•Compare two objects to find which holds more or holds less. •Compare two objects to find which holds more or holds less than a third reference object.
Measurement and Data	K	Sort Objects	•Sort objects into given categories. •Count the number of objects in each category. •Compare the number of objects in each category.
Measurement and Data	K	Practice: Sort Objects	•Sort objects into given categories. •Count the number of objects in each category. •Compare the number of objects in each category.

Measurement and Data	1	Measure Lengths	•Understand that the length measurement of an object is the number of same-size units that span it with no gaps or overlaps. •Measure the length of an object by iterating length units from end to end and counting the number of units used.
Measurement and Data	2	Measure Lengths in Inches	•Connect measurement using inch tiles to measurement with a ruler. •Measure the length of an object to the nearest inch using a ruler.
Measurement and Data	2	Measure Lengths in Centimeters	Use a ruler to measure objects to the nearest centimeter.
Measurement and Data	2	Practice: Measure Lengths	Measure the length of an object to the nearest inch or to the nearest centimeter using a ruler.
Measurement and Data	2	Understand Measurement with Different Units	Understand how the number of units used to measure is related to the size of the units used.
Measurement and Data	2	Estimate Lengths in Inches	•Use benchmarks to estimate lengths in inches. •Understand when an estimate is appropriate.
Measurement and Data	2	Estimate Lengths in Centimeters	•Use benchmarks to estimate lengths in centimeters. •Understand when an estimate is appropriate.
Measurement and Data	2	Practice: Estimate Lengths	Use benchmarks to estimate the length of an object in inches or centimeters.
Measurement and Data	2	Compare Lengths	Measure to determine how much longer or shorter one object is than another
Measurement and Data	2	Understand Number Lines	•Create a number line. •Represent whole numbers on a number line as a distance from 0.
Measurement and Data	2	Understand Addition Using Number Lines	Represent sums within 100 on a number line.
Measurement and Data	2	Practice: Addition Using Number Lines	Represent sums within 100 on a number line.

Measurement and Data	2	Understand Subtraction Using Number Lines, Part 1	Represent differences within 100 on a number line by moving backward.
Measurement and Data	2	Practice: Subtraction Using Number Lines, Part 1	Represent differences within 100 on a number line by moving backward.
Measurement and Data	2	Understand Subtraction Using Number Lines, Part 2	Represent differences within 100 on a number line by moving forward.
Measurement and Data	2	Practice: Subtraction Using Number Lines, Part 2	Represent differences within 100 on a number line by moving forward.
Measurement and Data	2	Solve Problems Involving Length	•Use addition and subtraction to solve word problems involving lengths. •Use models, including a number line, to solve word problems involving lengths.
Measurement and Data	2	Line plot and measuring length	Measure lengths and make a line plot to show the measurements.
Measurement and Data	3	Tell and Write Time	•Tell and write time to the nearest minute. •Express time as the number of minutes before the hour.
Measurement and Data	3	Practice: Tell and Write Time	•Tell and write time to the nearest minute. •Express time as the number of minutes before the hour.
Measurement and Data	3	Solve Problems About Time	•Measure time intervals in minutes using clock models and number lines. •Solve word problems involving addition of time intervals in minutes. •Solve word problems involving subtraction of time intervals in minutes.
Measurement and Data	3	Solve Problems About Liquid Volume	•Understand the relative sizes of a liter and a milliliter. •Use unit size to measure and estimate liquid volume. •Solve one-step word problems involving liquid volume.

Measurement and Data	3	Solve Problems about Mass	•Understand mass and measure mass using grams and kilograms. •Solve one-step word problems involving mass.
Measurement and Data	3	Draw Scaled Picture Graphs	•Recognize that data displayed in picture graphs can be represented by a scale other than 1. •Draw a scaled picture graph.
Measurement and Data	3	Draw Scaled Bar Graphs	•Recognize that data displayed in bar graphs can be represented by a scale other than 1. •Draw a scaled bar graph.
Measurement and Data	3	Practice: Draw Scaled Graphs	•Draw a scaled picture graph. •Draw a scaled bar graph.
Measurement and Data	3	Solve Problems Using Scaled Picture Graphs	Interpret data displayed in a scaled picture graph to solve one-step problems involving addition, subtraction, or multiplication.
Measurement and Data	3	Solve Problems Using Scaled Bar Graphs	Interpret data displayed in a scaled bar graph to solve one- and two-step problems involving addition or subtraction.
Measurement and Data	3	Practice: Solve Problems Using Scaled Bar Graphs	Interpret data displayed in a scaled bar graph to solve one- and two-step problems involving addition or subtraction.
Measurement and Data	3	Measure Length and Plot Data on Line Plots	•Use a ruler to measure objects to the nearest 1/2 inch. •Use a ruler to measure objects to the nearest 1/4 inch. •Display measurement data in a line plot.
Measurement and Data	3	Understand Area	•Recognize area as an attribute of plane figures. •Understand how to measure area by covering a shape with unit squares and counting the squares. •Find the area of shapes using unit squares (non-standard units, square inch, square foot).

Measurement and Data	3	Add and Multiply to Find Area	•Understand that multiplying side lengths of a rectangle provides the same results as tiling it and counting the units. •Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems. •Decompose rectilinear shapes formed by rectangles to find the area. •Use the distributive property to find the area of combined rectangles.
Measurement and Data	3	Connect Area and Perimeter	•Understand the difference between perimeter and area. •Use side lengths to find the perimeter of a shape. •Find an unknown side length given the perimeter of a shape.
Measurement and Data	4	Express Measurements in Larger Units	•Convert measurements from a larger unit to a smaller unit within the same system. •Create a conversion table showing equivalent measurements within the same system.
Measurement and Data	4	Solve Word Problems Involving Measurement	•Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. •Use the four operations to solve word problems involving distances, liquid volumes, and weights and masses of objects, including problems involving simple fractions or decimals. •Represent measurement quantities using diagrams.
Measurement and Data	4	Add and Subtract Angle Measures	•Recognize that an angle is a geometric shape measured in degrees. •Identify angle measures and show that angles can be put together to form larger angles and broken up into two or more smaller angles. •Use addition and subtraction to find unknown angle measures
Measurement and Data	4	Measure Angles	Use a protractor to measure an angle.

Measurement and Data	4	Practice: Measure Angles	•Use a protractor to measure an angle. •Determine whether an angle is less than or greater than 90 degrees.
Measurement and Data	5	Solve Word Problems Involving Conversions	Solve multi-step real world problems that require expressing measurements in larger or smaller units within a measurement system.
Measurement and Data	5	Fractions on a Line Plot	•Make a line plot to display a data set of measurements in fractions of a unit. •Add, subtract, multiply, and divide fractions to solve problems that contain fraction data sets presented in line plots.
Measurement and Data	5	Understand and Measure Volume	•Understand the concept of volume as an attribute of solid figures. •Find the volume of right rectangular prisms with whole number edge lengths by counting unit cubes. •Understand that a unit cube can be different sizes depending on which unit of measurement the cube represents. •Find the volume of a rectangular prism with whole- number side lengths using addition and multiplication.
Measurement and Data	5	Practice: Measure Volume	Find the volume of a rectangular prism in various cubic units by filling it with unit cubes and counting them or by counting the number of unit cubes in one layer and multiplying by the number of layers.
Measurement and Data	5	Measure Volume Using Formulas	•Solve real world problems involving volumes of right rectangular prisms by multiplying the height by the area of the base or using the formula V = l x w x h. •Use addition to find volumes of solid figures composed of two non-overlapping right rectangular prisms.

Measurement and Data	5	Practice: Volume of Rectangular Prisms	•Find the volume of a rectangular prism by multiplying its height by the area of the base. •Find the volume of a rectangular prism using the formula V = l × w × h. •Determine the third dimension of a rectangular prism given its volume and two dimensions.
Measurement and Data	5	Practice: Volume of Composite Figures	Use addition to find volumes of solid figures composed of two non-overlapping rectangular prisms.
Measurement and Data	6	Understanding Statistics	•Understand that data generated from statistical questions will vary. •Identify the difference between a statistical and non-statistical question. •Understand that data distribution can be viewed by its center, spread, and overall shape
Measurement and Data	6	Box Plots	•Display numerical data in a box plot. •Describe what kinds of inferences can be drawn from a box plot. •Find, use, and interpret median and the interquartile range.
Measurement and Data	6	Understand Mean and MAD	•Understand that data distribution can be described by its center, spread, and overall shape. •Recognize that the mean for a numerical data set summarizes all of its values with a single number. •Recognize that the MAD for a numerical data set describes how its values vary with a single number.
Measurement and Data	6	Dot Plots	•Display numerical data in dot plots. •Describe what kinds of inferences can be drawn from a dot plot. •Describe overall pattern of data in a dot plot.

Measurement and Data	6	Choice of Measures of Center and Variability	•Use the shape of a data distribution to determine which measure of center and variability to use. •Use the context in which data was collected to determine which measure of center and variability to use. •Describe the effects of an outlier on the mean value of a data set.
Measurement and Data	6	Histograms	•Display numerical data on a histogram. •Describe what kinds of inferences can be drawn from a histogram. •Describe the overall pattern of data in a histogram.
Measurement and Data	6	Choosing Data Displays	Understand what types of data are best displayed in a dot plot, histogram, or box plot.
Measurement and Data	7	Random Samples	Recognize when a sample is representative of a population.
Measurement and Data	7	Making Statistical Inferences	Use data from a sample(s) to make inferences about the population.
Measurement and Data	7	Using Mean and Mean Absolute Deviation to Compare Data	•Calculate the mean absolute deviation of a set of data. •Compare the variability of two populations with similar means and ranges using their mean absolute deviation. •Visually compare the means of two populations with similar variability by using their dot plots. •Calculate the difference in means of two populations and determine if it is likely that the difference is the result of chance.
Measurement and Data	7	Using Measures of Center and Variability to Compare Data	•Compare the medians of two populations with similar variability using the interquartile range (IQR). •Visually compare the medians of two populations with similar variability by using their boxplots. •Calculate the difference in medians of two populations and determine if it is likely that the difference is the result of chance.

Measurement and Data	7	Probability Concepts	•Explain why the probability of an event cannot be greater than 1. •Explain why events that are likely to occur have probabilities close to 1, unlikely to occur have probabilities near 0, etc. •Evaluate probabilities to determine how likely an event is to occur.
Measurement and Data	7	Experimental Probability	•Approximate the probability of a chance event occurring by observing its behavior in the long run. •Predict the approximate relative frequency of a chance event, given the probability of the event occurring.
Measurement and Data	7	Probability Models	•Create a probability model, given a table of data, a description of an event, or a diagram. •Compare probability models to data collected through observation.
Measurement and Data	7	Probability of Compound Events	Find probabilities of compound events using organized lists, tables and tree diagrams.
Measurement and Data	7	Simulations of Compound Events	Design and use a simulation to observe frequencies of compound events.
Measurement and Data	8	Scatter Plots	•Construct a scatter plot with quantitative data from two variables. •Identify clusters and outliers in a scatterplot. •Determine if there is a linear or non-linear association in a scatterplot. •Determine if a linear association is positive or negative in a scatterplot.
Measurement and Data	8	Linear Models	•Use a straight line to model a relationship between two quantitative variables. •Informally evaluate the fit of the line by judging the closeness of data points to the line.
Measurement and Data	8	Problem Solving with Linear Models	Interpret the slope and intercepts of a given equation of a linear model to solve problems.
Measurement and Data	8	Associations Between Two Categorical Variables	•Construct and interpret a two-way table summarizing data for two categorical variables collected from the same subjects. •Use relative frequencies calculated for rows or columns to describe a possible association between the two variables.

Geometry

Domain	Grade Level	Lesson	Objectives
Geometry	K	Left and Right	Describe the position of objects using words "left" and "right."
Geometry	K	Cube	Identify cubes.
Geometry	K	Sphere	Identify spheres.
Geometry	K	Circle	Identify circles.
Geometry	K	Square	Identify squares.
Geometry	K	Triangle	Identify triangles.
Geometry	K	Identify Two-Dimensional Shapes	•Identify shapes as two-dimensional (flat) or three-dimensional (solid). •Identify squares, circles, triangles, rectangles, and hexagons.
Geometry	K	Practice: Identify Two-Dimensional Shapes	•Identify shapes as two-dimensional (flat) or three-dimensional (solid). •Identify squares, circles, triangles, rectangles, hexagons.
Geometry	1	Understand Attributes of Shapes	•Use defining attributes to describe, compare, sort, and identify shapes. •Distinguish between defining and non-defining attributes of two-dimensional shapes.
Geometry	1	Practice: Attributes of Shapes	•Use defining attributes to describe, compare, sort, and identify shapes. •Distinguish between defining and non-defining attributes of two-dimensional shapes.
Geometry	1	Divide Shapes into Two Equal Parts	•Divide circles and rectangles into two equal parts and name the parts as halves. •Describe one whole as two halves.
Geometry	1	Divide Shapes into Four Equal Parts	•Divide circles and rectangles into four equal parts and name the parts fourths, and quarters. •Describe one whole as four fourths, or four quarters. •Understand that the more equal parts a shape is divided into, the smaller each part is.
Geometry	1	Practice: Identify Two or Four Equal Parts	•Describe an equal share using language such as one half, one third, or one fourth. •Describe one whole as two halves, three thirds, or four fourths.

			•Understand that the more equal parts a shape is divided into, the smaller each part is.
Geometry	2	Recognize and Draw Shapes	•Identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides and angles they have. •Draw a shape based on specific attributes.
Geometry	2	Practice: Recognize Shapes	Identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides and angles they have.
Geometry	2	Divide Shapes Into Three Equal Parts	•Divide circles and rectangles into three equal parts, and name the parts as thirds. •Describe one whole as three thirds.
Geometry	2	Divide Shapes Into Two, Three, or Four Equal Parts	•Describe an equal share using language such as one half, one third, or one fourth. •Describe one whole as two halves, three thirds, or four fourths. •Understand that the more equal parts a shape is divided into, the smaller each part is. •Understand that equal shares of congruent wholes can have different shapes.
Geometry	2	Practice: Identify Two, Three, or Four Equal Parts	•Describe an equal share using language such as one half, one third, or one fourth. •Describe one whole as two halves, three thirds, or four fourths. •Understand that the more equal parts a shape is divided into, the smaller each part is.
Geometry	3	Understand Categories of Shapes	•Identify two-dimensional shapes and their attributes. •Use attributes to classify shapes into categories.
Geometry	3	Classify Quadrilaterals	•Recognize rhombuses, rectangles, and squares as being examples of quadrilaterals. •Compare and contrast attributes of quadrilaterals.
Geometry	3	Divide Shapes Into Parts with Equal Areas	•Partition a shape into equal areas. •Express the area of an equal part as a unit fraction of the area of the whole shape. •Partition the same shape in different ways.
Geometry	4	Identify Points, Lines, and Rays	Identify and name points, lines, line segments, and rays.

Geometry	4	Identify Angles	•Identify right, acute and obtuse angles in two-dimensional figures. •Identify perpendicular and parallel lines. •Identify perpendicular and parallel lines in two-dimensional figures.
Geometry	4	Classify Quadrilaterals	Classify two-dimensional figures based on parallel or perpendicular sides and on acute, obtuse, or right angles.
Geometry	4	Classify Triangles	•Recognize that triangles can be classified based on the lengths of their sides (isosceles, equilateral, scalene). •Name a triangle based on the kind of angles it has (acute, obtuse, right).
Geometry	4	Line Symmetry	Recognize and draw lines of symmetry in two-dimensional figures.
Geometry	5	Identify Two-Dimensional Figures	Classify two-dimensional figures based on parallel or perpendicular sides and/or right angles.
Geometry	5	Classify Two-Dimensional Figures	•Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. •Classify two-dimensional figures in a hierarchy based on properties.
Geometry	5	Understand the Coordinate Plane	•Understand the coordinate plane. •Identify and plot points in a coordinate plane. •Use and graph points to solve real world and mathematical problems.
Geometry	5	Analyze Patterns and Relationships	•Generate a numeric sequence given a rule. •Identify apparent relationships between corresponding terms of two sequences. •Graph ordered pairs on a coordinate plane.
Geometry	5	Practice: Analyze Patterns and Relationships	•Generate a numerical pattern given a rule. •Identify relationships between corresponding terms of two sequences.
Geometry	6	Polygons in the Coordinate Plane	•Draw polygons in the coordinate plane, given coordinates for the vertices. •Use coordinates to find the length of a side, joining two points with the same first coordinate or the same second coordinate. •Apply these techniques in the context of solving real-world and mathematical problems.

Geometry	6	Concepts of Area and Perimeter	•Find the area of rectangles, squares, and right triangles. •Analyze the differences between perimeter and area.
Geometry	6	Area of Parallelograms, Quadrilaterals, and Polygons	•Discover the formula for the area of parallelograms, triangles, and trapezoids •Find the area of parallelograms, triangles, and trapezoids •Find the area of special quadrilaterals and complex polygons by composing and decomposing into simpler polygons.
Geometry	6	Nets and Surface Area	•Identify or draw 2D nets made up of rectangles and triangles that represent 3D objects. •Use nets of three-dimensional figures to find the surface area of rectangular and triangular prisms and pyramids. •Apply knowledge of nets of three-dimensional figures to solve real-world and mathematical problems involving spatial representation and surface area.
Geometry	6	Volume with Fractional Length	•Find the volume of a right rectangular prism with fractional edge lengths by filling the prism with unit cubes of the appropriate unit fraction edge lengths. •Apply the formulas $V = lwh$ or $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
Geometry	7	Scale Drawings	•Given a model and a scale, find the side lengths of the real image as well as the area. •Reproduce a scale drawing at a different scale. •Given the side lengths of the model and the real image, calculate the scale.
Geometry	7	Construction of Triangles	•Construct triangles from three measures of angles or sides. •Recognize when the given measures form a unique triangle. •Recognize when the given measures cannot be used to form a triangle.

Geometry	7	Problem Solving with Angles	•Identify complementary, supplementary, adjacent and vertical angles. •Use the relationship between angles to set up and solve a simple equation for an unknown angle in a figure.
Geometry	7	Area and Circumference of a Circle	•Understand the relationship between circumference and area of a circle. •Use the formulas for area and circumference of a circle to solve problems.
Geometry	7	Area of Composed Figures	•Find the area of two-dimensional objects composed of triangles and quadrilaterals. •Apply formulas to solve real-world mathematical problems.
Geometry	7	Surface Area of Composed Figures	•Find the surface area of three-dimensional objects composed of cubes and right prisms. •Apply formulas to solve real-world mathematical problems.
Geometry	7	Volume of Composed Figures	•Find the volume of three-dimensional shapes composed of cubes and right prisms. •Apply formulas to solve real-world problems.
Geometry	7	Cross-sections of Prism and Pyramids	•Describe the intersection of a plane and a right rectangular prism. •Describe the intersection of a plane and a right rectangular pyramid. •Intersections may be parallel, perpendicular or neither to the base(s).
Geometry	8	Properties of Translations and Reflections	•Describe the effect of translations on two-dimensional figures using coordinates. •Describe the effect of reflections on two-dimensional figures using coordinates. •Describe a sequence of reflections and translations that demonstrates the congruence between two figures in a coordinate plane.

Geometry	8	Properties of Rotations	•Describe the effect of rotations on two-dimensional figures using coordinates. •Describe a sequence of reflections, translations and rotations that demonstrates the congruence between two figures in a coordinate plane.
Geometry	8	Properties of Dilations	•Describe the effect of dilations on two-dimensional figures using coordinates. •Determine if two two-dimensional figures are similar. •Describe the sequence of rotations, reflections, translations, and dilations that demonstrates similarity between two figures in a coordinate plane.
Geometry	8	Geometric Properties involving Angles	•Given two parallel lines cut by a transversal •a. Identify alternate interior angles and know that they are congruent •b. Identify alternate exterior angles and know that they are congruent •c. Identify corresponding angles and know that they are congruent •d. Identify linear pairs and know that the sum of the angles is 180 degrees
Geometry	8	Angle Sums Properties	•Make a conjecture about the sum of the interior angles of a triangle. •Use parallel lines and alternate interior angles to confirm the sum of the interior angles of a triangle. •Make a conjecture about the relationship between an exterior angle of a triangle and its two non-adjacent interior angles. •Use parallel lines and alternate interior angles to confirm the relationship between an exterior angle of a triangle and its two non-adjacent interior angles.

Geometry	8	The Pythagorean Theorem	•Show and explain an informal proof of the Pythagorean Theorem. •Understand the converse of the Pythagorean Theorem. •Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in two and three dimensions.
Geometry	8	Applications of the Pythagorean Theorem	•Use absolute value to find the distance between two points in the coordinate plane with the same x-coordinates or the same y-coordinates. •Use the Pythagorean Theorem to find the distance between two points that have different x-coordinates and different y-coordinates. •Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in two and three dimensions.
Geometry	8	Volume of Cylinders, Cones, and Spheres	•Understand the formula for the volume of a cylinder by comparing it to the volume of a prism. •Understand the formula for the volume of a cone by comparing it to the volume of a cylinder. •Understand the formula for the volume of a sphere by comparing it to the volume of a cylinder. •Use the formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems.