



Common Core

Standards for Mathematical Practice

Throughout the program, students at every grade level

- ✓ Make sense of problems and persevere in solving them.
- ✓ Reason abstractly and quantitatively.
- ✓ Construct viable arguments and critique the reasoning of others.
- ✓ Model with mathematics.
- ✓ Use appropriate tools strategically.
- ✓ Attend to precision.
- ✓ Look for and make use of structure.
- ✓ Look for and express regularity in repeated reasoning.

Common Core Domains

- 39 Counting and Cardinality**
(Grade K)
- 40 Operations and Algebraic Thinking**
(Grades K–5)
- 43 Expressions and Equations**
(Grade 6)
- 44 Number and Operations in Base Ten**
(Grades K–5)
- 47 Number and Operations—Fractions**
(Grades 3–5)
- 49 The Number System**
(Grade 6)
- 50 Ratios and Proportional Relationships**
(Grade 6)
- 51 Measurement and Data**
(Grades K–5)
- 55 Statistics and Probability**
(Grade 6)
- 56 Geometry**
(Grades K–6)

Domain Counting and Cardinality

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|-------------------------------------|---|---|---|---|---|---|
| Know number names and the count sequence. | | | | | | | |
| Count to 100 by ones. | K.CC.1 Topic 6 | | | | | | |
| Count to 100 by tens. | K.CC.1 Topic 6 | | | | | | |
| Count forward from a given number. | K.CC.2 Topics 4–6 | | | | | | |
| Write numbers from 0 to 20. | K.CC.3 Topics 1–3, 5 | | | | | | |
| Represent up to 20 objects with a written numeral. | K.CC.3 Topics 1–3, 5 | | | | | | |
| Count to tell the number of objects. | | | | | | | |
| Understand the relationship between numbers and quantities. | K.CC.4 Topics 1–3 | | | | | | |
| Connect counting to cardinality. | K.CC.4 Topics 1–3 | | | | | | |
| Count objects, saying the number names in the standard order. | K.CC.4.a Topics 1, 3 | | | | | | |
| Pair each object counted with one and only one number name and vice versa. | K.CC.4.a Topics 1, 3 | | | | | | |
| Connect the last number name said to the number of objects counted. | K.CC.4.b Topics 1–3, 5, 6 | | | | | | |
| Understand that the number of objects is the same regardless of how they were counted. | K.CC.4.b Topics 1, 5 | | | | | | |
| Understand that each successive number name represents one more. | K.CC.4.c Topics 2–4, 6 | | | | | | |
| Count up to 10 things in a scattered configuration. | K.CC.5 Topics 1, 6 | | | | | | |
| Count up to 20 things in a line, rectangular array, or circle. | K.CC.5 Topics 1, 6 | | | | | | |
| Count out up to 20 objects. | K.CC.5 Topics 1–3, 6 | | | | | | |
| Compare numbers. | | | | | | | |
| Compare the number of objects in two groups. | K.CC.6 Topics 2, 4 | | | | | | |
| Compare two numbers between 1 and 10. | K.CC.7 Topic 4 | | | | | | |

Scope and Sequence

Domain Operations and Algebraic Thinking

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|------------------------------|---------------------------------|---|------------------------------|---|---|---|
| Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. | | | | | | | |
| Represent addition using a variety of models. | K.OA.1 Topics 4, 7 | | | | | | |
| Represent subtraction using a variety of models. | K.OA.1 Topics 4, 8 | | | | | | |
| Add within 10 using objects and drawings. | K.OA.2 Topic 7 | | | | | | |
| Solve addition word problems within 10. | K.OA.2 Topic 7 | | | | | | |
| Subtract within 10 using objects and drawings. | K.OA.2 Topic 8 | | | | | | |
| Solve subtraction word problems within 10. | K.OA.2 Topic 8 | | | | | | |
| Decompose numbers less than or equal to 10. | K.OA.3 Topic 9 | | | | | | |
| Record decomposition of numbers less than or equal to 10. | K.OA.3 Topic 9 | | | | | | |
| Make 10 using objects and drawings. | K.OA.4 Topic 9 | | | | | | |
| Record how to make 10 using a drawing or equation. | K.OA.4 Topic 9 | | | | | | |
| Fluently add within 5. | K.OA.5 Topic 7 | | | | | | |
| Fluently subtract within 5. | K.OA.5 Topic 8 | | | | | | |
| Represent and solve problems involving addition and subtraction. | | | | | | | |
| Add within 20 to solve word problems. | | 1.OA.1 Topics 1, 4, 5 | | | | | |
| Subtract within 20 to solve word problems. | | 1.OA.1 Topics 2, 4, 6 | | | | | |
| Solve word problems within 20 with three addends. | | 1.OA.2 Topic 5 | | | | | |
| Add within 100 to solve one-step word problems. | | | | 2.OA.1 Topics 1–9 | | | |
| Add within 100 to solve two-step word problems. | | | | 2.OA.1 Topics 3, 9 | | | |
| Subtract within 100 to solve one-step word problems. | | | | 2.OA.1 Topics 1–9 | | | |
| Subtract within 100 to solve two-step word problems. | | | | 2.OA.1 Topics 3, 9 | | | |
| Understand and apply properties of operations and the relationship between addition and subtraction. | | | | | | | |
| Apply properties of operations as strategies to add. | | 1.OA.3 Topics 1, 4, 5 | | | | | |
| Apply properties of operations as strategies to subtract. | | 1.OA.3 Topics 2, 4, 6 | | | | | |
| Understand subtraction as an unknown-addend problem. | | 1.OA.4 Topics 2–4, 6 | | | | | |
| Add and subtract within 20. | | | | | | | |
| Relate counting to addition. | | 1.OA.5 Topics 3, 4 | | | | | |
| Relate counting to subtraction. | | 1.OA.5 Topics 3, 4 | | | | | |
| Add within 20. | | 1.OA.6 Topics 1, 4, 5 | | | | | |
| Subtract within 20. | | 1.OA.6 Topics 2, 4, 6 | | | | | |

Domain Operations and Algebraic Thinking *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---------------------------------|--------------------------|---------------------------------------|---|---|---|
| Use the relationship between addition and subtraction. | | 1.OA.6 Topics 2, 4, 6 | | | | | |
| Fluently add within 20 using mental strategies. | | | 2.OA.2 Topic 2 | | | | |
| Fluently subtract within 20 using mental strategies. | | | 2.OA.2 Topic 3 | | | | |
| Work with addition and subtraction equations. | | | | | | | |
| Understand the meaning of the equal sign. | | 1.OA.7 Topics 1, 2 | | | | | |
| Determine if equations involving addition are true or false. | | 1.OA.7 Topics 4, 5 | | | | | |
| Determine if equations involving subtraction are true or false. | | 1.OA.7 Topics 2, 6 | | | | | |
| Determine the unknown whole number in an addition equation. | | 1.OA.8 Topics 1, 4–6 | | | | | |
| Determine the unknown whole number in a subtraction equation. | | 1.OA.8 Topics 2, 4, 6 | | | | | |
| Work with equal groups of objects to gain foundations for multiplication. | | | | | | | |
| Work with even and odd numbers. | | | 2.OA.3 Topic 5 | | | | |
| Express an even number as a sum of two equal addends. | | | 2.OA.3 Topic 5 | | | | |
| Use addition to find the total number of objects in rectangular arrays. | | | 2.OA.4 Topic 4 | | | | |
| Represent and solve problems involving multiplication and division. | | | | | | | |
| Interpret products of whole numbers. | | | | 3.OA.1 Topic 4 | | | |
| Interpret whole-number quotients of whole numbers. | | | | 3.OA.2 Topic 7 | | | |
| Use multiplication within 100 to solve word problems. | | | | 3.OA.3 Topics 4–6 | | | |
| Use division within 100 to solve word problems. | | | | 3.OA.3 Topics 7, 8 | | | |
| Determine the unknown whole number in a multiplication equation. | | | | 3.OA.4 Topics 7, 8 | | | |
| Determine the unknown whole number in a division equation. | | | | 3.OA.4 Topics 7, 8 | | | |
| Understand properties of multiplication and the relationship between multiplication and division. | | | | | | | |
| Apply properties of multiplication. | | | | 3.OA.5 Topics 4, 6 | | | |
| Apply properties of division. | | | | 3.OA.5 Topic 8 | | | |
| Understand division as an unknown-factor problem. | | | | 3.OA.6 Topic 7 | | | |
| Multiply and divide within 100. | | | | | | | |
| Fluently multiply within 100. | | | | 3.OA.7 Topic 5 | | | |
| Fluently divide within 100. | | | | 3.OA.7 Topic 8 | | | |
| Solve problems involving the four operations, and identify and explain patterns in arithmetic. | | | | | | | |
| Solve two-step word problems. | | | | 3.OA.8 Topics 2, 3, 5, 6, 8 | | | |
| Assess the reasonableness of answers to two-step word problems. | | | | 3.OA.8 Topics 2, 3, 5, 6, 8 | | | |

Scope and Sequence

Domain **Operations and Algebraic Thinking** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|------------------------------------|--------------------------------------|---------------------------------|---|
| Identify and explain arithmetic patterns. | | | | 3.OA.9 Topics 2, 4, 5, 7 | | | |
| Use the four operations with whole numbers to solve problems. | | | | | | | |
| Relate multiplication equations to multiplicative comparison. | | | | | 4.OA.1 Topic 1 | | |
| Distinguish multiplicative comparison from additive comparison. | | | | | 4.OA.2 Topics 1, 9 | | |
| Multiply to solve word problems involving multiplicative comparison. | | | | | 4.OA.2 Topics 1, 9 | | |
| Divide to solve word problems involving multiplicative comparison | | | | | 4.OA.2 Topics 1, 9 | | |
| Solve multi-step word problems. | | | | | 4.OA.3 Topics 1, 4–10 | | |
| Assess the reasonableness of answers to multi-step word problems. | | | | | 4.OA.3 Topics 1, 4–10 | | |
| Use algebraic equations to represent multi-step word problems. | | | | | 4.OA.3 Topics 1, 4–10 | | |
| Write and interpret numerical expressions. | | | | | | | |
| Use parentheses, brackets, or braces in numerical expressions. | | | | | | 5.OA.1 Topics 3, 8 | |
| Evaluate numerical expressions with parentheses, brackets, or braces. | | | | | | 5.OA.1 Topics 3, 8 | |
| Write numerical expressions that record calculations. | | | | | | 5.OA.2 Topics 3, 4, 8 | |
| Interpret numerical expressions. | | | | | | 5.OA.2 Topics 3, 4, 8 | |
| Gain familiarity with factors and multiples. | | | | | | | |
| Find factor pairs. | | | | | 4.OA.4 Topics 1, 11 | | |
| Recognize that a whole number is a multiple of each of its factors. | | | | | 4.OA.4 Topics 1, 11 | | |
| Determine whether one number is a multiple of another. | | | | | 4.OA.4 Topics 1, 11 | | |
| Identify prime or composite numbers. | | | | | 4.OA.4 Topic 11 | | |
| Generate and analyze patterns. | | | | | | | |
| Generate a number pattern that follows a given rule. | | | | | 4.OA.5 Topics 1, 2, 11, 16 | | |
| Generate a shape pattern that follows a given rule. | | | | | 4.OA.5 Topic 2 | | |
| Describe features of a pattern. | | | | | 4.OA.5 Topic 2 | | |
| Analyze patterns and relationships. | | | | | | | |
| Generate two numerical patterns using two given rules. | | | | | | 5.OA.3 Topics 8, 16 | |
| Identify relationships between corresponding terms in two numerical patterns. | | | | | | 5.OA.3 Topics 8, 16 | |
| Form ordered pairs from two numerical patterns. | | | | | | 5.OA.3 Topic 16 | |
| Graph ordered pairs generated by two patterns. | | | | | | 5.OA.3 Topic 16 | |

Domain Expressions and Equations

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---|---|---|
| Apply and extend previous understandings of arithmetic to algebraic expressions. | | | | | | | |
| Write numerical expressions with exponents. | | | | | | | 6.EE.1 Topic 1 |
| Evaluate numerical expressions with exponents. | | | | | | | 6.EE.1 Topic 1 |
| Read and write algebraic expressions. | | | | | | | 6.EE.2 Topic 2 |
| Evaluate algebraic expressions. | | | | | | | 6.EE.2 Topic 2 |
| Write algebraic expressions that record operations. | | | | | | | 6.EE.2.a Topic 2 |
| Identify parts of an expression using mathematical terms. | | | | | | | 6.EE.2.b Topic 2 |
| View one or more parts of an expression as a single entity. | | | | | | | 6.EE.2.b Topic 2 |
| Evaluate expressions at specific values of their variables. | | | | | | | 6.EE.2.c Topics 2, 3, 17 |
| Evaluate expressions that arise from formulas. | | | | | | | 6.EE.2.c Topic 17 |
| Evaluate expressions using Order of Operations. | | | | | | | 6.EE.2.c Topics 2, 3, 17 |
| Generate equivalent expressions. | | | | | | | 6.EE.3 Topics 2, 4 |
| Identify when two expressions are equivalent. | | | | | | | 6.EE.4 Topic 4 |
| Reason about and solve one-variable equations and inequalities. | | | | | | | |
| Determine the values from a specified set that make an equation true. | | | | | | | 6.EE.5 Topics 3, 4 |
| Determine the values from a specified set that make an inequality true. | | | | | | | 6.EE.5 Topics 3, 15 |
| Solve problems by using variables to represent numbers and write expressions. | | | | | | | 6.EE.6 Topics 2–4 |
| Understand how variables are used. | | | | | | | 6.EE.6 Topics 2–4 |
| Write and solve equations of the form $x + p = q$. | | | | | | | 6.EE.7 Topics 4, 9, 15, 17 |
| Write and solve equations of the form $px = q$. | | | | | | | 6.EE.7 Topics 4, 9, 15, 17 |
| Write an inequality of the form $x > c$ or $x < c$. | | | | | | | 6.EE.8 Topic 15 |
| Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions. | | | | | | | 6.EE.8 Topic 15 |
| Represent solutions of inequalities on number lines. | | | | | | | 6.EE.8 Topic 15 |
| Represent and analyze quantitative relationships between dependent and independent variables. | | | | | | | |
| Use variables to represent two quantities that change in relationship to one another. | | | | | | | 6.EE.9 Topics 11, 12, 15 |
| Analyze relationships between dependent and independent variables. | | | | | | | 6.EE.9 Topics 11, 12, 15 |

Scope and Sequence

Domain Number and Operations in Base Ten

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---------------------------------|---------------------------------|-----------------------------------|---|--------------------------------|---|---|
| Work with numbers 11–19 to gain foundations for place value. | | | | | | | |
| Compose and decompose numbers from 11 to 19 into ten ones and some further ones. | K.NBT.1 Topics 10, 11 | | | | | | |
| Record composition or decomposition. | K.NBT.1 Topics 10, 11 | | | | | | |
| Understand that numbers from 11 to 19 are composed of ten ones and one to nine ones. | K.NBT.1 Topics 10, 11 | | | | | | |
| Extend the counting sequence. | | | | | | | |
| Count to 120 from a given number. | | 1.NBT.1 Topic 7 | | | | | |
| Read and write numerals to 120. | | 1.NBT.1 Topic 7 | | | | | |
| Represent up to 120 objects with a written numeral. | | 1.NBT.1 Topic 7 | | | | | |
| Understand place value. | | | | | | | |
| Understand that the two digits of a two-digit number represent amounts of tens and ones. | | 1.NBT.2 Topics 7–9 | | | | | |
| Understand that 10 can be thought of as a bundle of ten ones — called a “ten.” | | 1.NBT.2.a Topics 7, 8 | | | | | |
| Understand that numbers from 11 to 19 are composed of ten ones and one to nine ones. | | 1.NBT.2.b Topic 7 | | | | | |
| Understand that the numbers 10, 20, ... 90 refer to one to nine tens (and 0 ones). | | 1.NBT.2.c Topics 7, 8 | | | | | |
| Compare two two-digit numbers and use the symbols $>$, $=$, and $<$. | | 1.NBT.3 Topic 9 | | | | | |
| Understand that the digits of a three-digit number represent amounts of hundreds, tens, and ones. | | | 2.NBT.1 Topic 10 | | | | |
| Understand that 100 can be thought of as a bundle of ten tens — called a “hundred.” | | | 2.NBT.1.a Topic 10 | | | | |
| Understand that the numbers 100, 200, ... 900 refer to one to nine hundreds (and 0 tens and 0 ones). | | | 2.NBT.1.b Topic 5 | | | | |
| Count within 1000. | | | 2.NBT.2 Topics 5, 6, 10 | | | | |
| Skip-count by 5s, 10s, and 100s. | | | 2.NBT.2 Topic 10 | | | | |
| Read and write base-ten numerals to 1000. | | | 2.NBT.3 Topics 5, 10 | | | | |
| Read and write number names to 1000. | | | 2.NBT.3 Topics 5, 10 | | | | |
| Use expanded form for numbers to 1000. | | | 2.NBT.3 Topic 10 | | | | |
| Compare two three-digit numbers and use the symbols $>$, $=$, and $<$. | | | 2.NBT.4 Topics 5, 10 | | | | |
| Generalize place value understanding for multi-digit whole numbers. | | | | | | | |
| Recognize that a digit in one place represents ten times what it represents in the place to its right. | | | | | 4.NBT.1 Topics 3, 10 | | |
| Read and write base-ten numerals for multi-digit numbers. | | | | | 4.NBT.2 Topic 3 | | |
| Read and write number names for multi-digit numbers. | | | | | 4.NBT.2 Topic 3 | | |
| Use expanded form for multi-digit numbers. | | | | | 4.NBT.2 Topic 3 | | |
| Compare two multi-digit numbers and use the symbols $>$, $=$, and $<$. | | | | | 4.NBT.2 Topic 3 | | |

Domain **Number and Operations in Base Ten** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|--------------------------------|------------------------------------|---|------------------------------|----------------------------------|---|
| Round multi-digit whole numbers to any place. | | | | | 4.NBT.3 Topics 3–7 | | |
| Understand the place value system. | | | | | | | |
| Understand how the value of a digit in one place compares to the value in the place to its right or left. | | | | | | 5.NBT.1 Topics 1, 6, 7 | |
| Explain patterns of zeros when multiplying a number by powers of 10. | | | | | | 5.NBT.2 Topics 3, 6 | |
| Use exponents to denote powers of 10. | | | | | | 5.NBT.2 Topics 3, 6, 7 | |
| Explain patterns in the placement of the decimal point when a decimal is multiplied by a power of 10. | | | | | | 5.NBT.2 Topic 6 | |
| Explain patterns in the placement of the decimal point when a decimal is divided by a power of 10. | | | | | | 5.NBT.2 Topic 7 | |
| Read and write decimals to thousandths. | | | | | | 5.NBT.3 Topic 1 | |
| Compare decimals to thousandths. | | | | | | 5.NBT.3 Topic 1 | |
| Read and write decimals to thousandths using base-ten numerals and number names. | | | | | | 5.NBT.3.a Topic 1 | |
| Use expanded form for decimals. | | | | | | 5.NBT.3.a Topic 1 | |
| Compare decimals to thousandths using the symbols $>$, $=$, and $<$. | | | | | | 5.NBT.3.b Topic 1 | |
| Round decimals to any place. | | | | | | 5.NBT.4 Topic 2 | |
| Use place value understanding and properties of operations to add and subtract. | | | | | | | |
| Add a two-digit number and a one-digit number. | | 1.NBT.4 Topics 9, 10 | | | | | |
| Add a two-digit number and a multiple of 10. | | 1.NBT.4 Topics 9, 10 | | | | | |
| Understand place-value concepts involved in adding two-digit numbers. | | 1.NBT.4 Topics 9, 10 | | | | | |
| Mentally find 10 more than a given number. | | 1.NBT.5 Topics 9, 10 | | | | | |
| Mentally find 10 less than a given number. | | 1.NBT.5 Topics 9, 11 | | | | | |
| Subtract multiples of 10. | | 1.NBT.6 Topic 11 | | | | | |
| Fluently add within 100. | | | 2.NBT.5 Topics 1–3, 5–9 | | | | |
| Fluently subtract within 100. | | | 2.NBT.5 Topics 1–3, 5–9 | | | | |
| Add up to four two-digit numbers. | | | 2.NBT.6 Topics 5, 8, 9 | | | | |
| Understand written methods for adding within 1000. | | | 2.NBT.7 Topics 7, 11 | | | | |
| Understand place-value concepts for addition within 1000. | | | 2.NBT.7 Topics 7, 11 | | | | |
| Subtract within 1000. | | | 2.NBT.7 Topics 7, 11 | | | | |
| Understand place-value concepts for subtraction within 1000. | | | 2.NBT.7 Topics 7, 11 | | | | |
| Mentally add 10 or 100. | | | 2.NBT.8 Topics 6, 10, 11 | | | | |

Scope and Sequence

Domain **Number and Operations in Base Ten** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|------------------------------|--------------------------------|----------------------------------|---|
| Mentally subtract 10 or 100. | | | 2.NBT.8 Topics 7, 10, 11 | | | | |
| Explain why addition strategies work. | | | 2.NBT.9 Topics 2, 5, 8, 11, 14 | | | | |
| Explain why subtraction strategies work. | | | 2.NBT.9 Topics 3, 5, 7, 9, 11, 14 | | | | |
| Use place value understanding and properties of operations to perform multi-digit arithmetic. | | | | | | | |
| Round whole numbers to the nearest 10. | | | | 3.NBT.1 Topics 1–3 | | | |
| Round whole numbers to the nearest 100. | | | | 3.NBT.1 Topics 1–3 | | | |
| Fluently add within 1000. | | | | 3.NBT.2 Topics 1–3 | | | |
| Fluently subtract within 1000. | | | | 3.NBT.2 Topics 1–3 | | | |
| Fluently subtract within 1000 using the relationship between addition and subtraction. | | | | 3.NBT.2 Topics 1–3 | | | |
| Multiply one-digit whole numbers by multiples of 10. | | | | 3.NBT.3 Topic 5 | | | |
| Fluently add multi-digit whole numbers using the standard algorithm. | | | | | 4.NBT.4 Topic 4 | | |
| Fluently subtract multi-digit whole numbers using the standard algorithm. | | | | | 4.NBT.4 Topic 4 | | |
| Multiply up to a four-digit number by a one-digit number. | | | | | 4.NBT.5 Topics 5–10 | | |
| Multiply two two-digit numbers. | | | | | 4.NBT.5 Topics 7–10 | | |
| Model multi-digit multiplication. | | | | | 4.NBT.5 Topics 5–10 | | |
| Divide up to four-digit dividends by one-digit divisors. | | | | | 4.NBT.6 Topics 9, 10 | | |
| Model division of up to four-digit dividends by one-digit divisors. | | | | | 4.NBT.6 Topics 9, 10 | | |
| Perform operations with multi-digit whole numbers and with decimals to hundredths. | | | | | | | |
| Fluently multiply multi-digit whole numbers using the standard algorithm. | | | | | | 5.NBT.5 Topic 3 | |
| Divide up to four-digit dividends by two-digit divisors. | | | | | | 5.NBT.6 Topic 5 | |
| Model division of up to four-digit dividends by two-digit divisors. | | | | | | 5.NBT.6 Topics 4, 5 | |
| Add decimals to hundredths. | | | | | | 5.NBT.7 Topic 2 | |
| Subtract decimals to hundredths. | | | | | | 5.NBT.7 Topic 2 | |
| Subtract decimals using the relationship between addition and subtraction. | | | | | | 5.NBT.7 Topic 2 | |
| Multiply decimals to hundredths. | | | | | | 5.NBT.7 Topic 6 | |
| Divide decimals to hundredths. | | | | | | 5.NBT.7 Topic 7 | |
| Explain strategies used to perform decimal operations. | | | | | | 5.NBT.7 Topics 2, 6, 7 | |

Domain Number and Operations—Fractions

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|-------------------------------|-----------------------------|---|---|
| Develop understanding of fractions as numbers. | | | | | | | |
| Interpret proper fractions. | | | | 3.NF.1 Topic 9 | | | |
| Relate fractions to numbers on the number line. | | | | 3.NF.2 Topics 9, 10 | | | |
| Interpret and show unit fractions on the number line. | | | | 3.NF.2.a Topic 9 | | | |
| Interpret and show fractions of the form a/b on the number line. | | | | 3.NF.2.b Topic 9 | | | |
| Explain equivalence of fractions. | | | | 3.NF.3 Topic 10 | | | |
| Compare fractions by reasoning about their size. | | | | 3.NF.3 Topic 10 | | | |
| Relate fraction equivalence to size. | | | | 3.NF.3.a Topic 10 | | | |
| Relate fraction equivalence to the number line. | | | | 3.NF.3.a Topic 10 | | | |
| Generate and model equivalent fractions. | | | | 3.NF.3.b Topic 10 | | | |
| Relate whole numbers and fractions. | | | | 3.NF.3.c Topic 10 | | | |
| Compare two fractions with the same numerator or same denominator and use the symbols $>$, $=$, or $<$. | | | | 3.NF.3.d Topic 10 | | | |
| Extend understanding of fraction equivalence and ordering. | | | | | | | |
| Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$. | | | | | 4.NF.1 Topic 11 | | |
| Recognize and generate equivalent fractions. | | | | | 4.NF.1 Topic 11 | | |
| Compare two fractions with different numerators and different denominators and use the symbols $>$, $=$, or $<$. | | | | | 4.NF.2 Topic 11 | | |
| Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. | | | | | | | |
| Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. | | | | | 4.NF.3 Topic 12 | | |
| Interpret addition of fractions. | | | | | 4.NF.3.a Topic 12 | | |
| Interpret subtraction of fractions. | | | | | 4.NF.3.a Topic 12 | | |
| Decompose fractions. | | | | | 4.NF.3.b Topic 12 | | |
| Add mixed numbers with like denominators. | | | | | 4.NF.3.c Topic 12 | | |
| Subtract mixed numbers with like denominators. | | | | | 4.NF.3.c Topic 12 | | |
| Solve word problems involving addition of fractions with like denominators. | | | | | 4.NF.3.d Topic 12 | | |
| Solve word problems involving subtraction of fractions with like denominators. | | | | | 4.NF.3.d Topic 12 | | |
| Multiply a fraction by a whole number. | | | | | 4.NF.4 Topic 13 | | |
| Understand a fraction a/b as a multiple of $1/b$. | | | | | 4.NF.4.a Topic 13 | | |
| Understand that $n \times (a/b) = (n \times a)/b$. | | | | | 4.NF.4.b Topic 13 | | |
| Solve word problems involving multiplication of a fraction by a whole number. | | | | | 4.NF.4.c Topic 13 | | |
| Understand decimal notation for fractions, and compare decimal fractions. | | | | | | | |
| Express a fraction with denominator 10 as an equivalent fraction with denominator 100. | | | | | 4.NF.5 Topic 13 | | |

Scope and Sequence

Domain **Number and Operations—Fractions** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---------------------------|-------------------------------|---|
| Use equivalent fractions to add two fractions with respective denominators 10 and 100. | | | | | 4.NF.5 Topic 13 | | |
| Use decimal notation for fractions with denominators 10 or 100. | | | | | 4.NF.6 Topic 13 | | |
| Use decimal notation to describe length. | | | | | 4.NF.6 Topic 13 | | |
| Show decimals on a number line. | | | | | 4.NF.6 Topic 13 | | |
| Compare two decimals to hundredths and use the symbols $>$, $=$, and $<$. | | | | | 4.NF.7 Topic 13 | | |
| Use equivalent fractions as a strategy to add and subtract fractions. | | | | | | | |
| Add fractions with unlike denominators. | | | | | | 5.NF.1 Topic 9 | |
| Add mixed numbers with unlike denominators. | | | | | | 5.NF.1 Topic 10 | |
| Subtract fractions with unlike denominators. | | | | | | 5.NF.1 Topic 9 | |
| Subtract mixed numbers with unlike denominators. | | | | | | 5.NF.1 Topic 10 | |
| Solve word problems involving addition of fractions. | | | | | | 5.NF.2 Topics 9, 10 | |
| Solve word problems involving subtraction of fractions. | | | | | | 5.NF.2 Topics 9, 10 | |
| Estimate mentally and assess the reasonableness of a fraction sum or difference. | | | | | | 5.NF.2 Topics 9, 10 | |
| Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | | | | | | | |
| Interpret a fraction as division. | | | | | | 5.NF.3 Topic 11 | |
| Solve word problems involving division of whole numbers with answers that are fractions or mixed numbers. | | | | | | 5.NF.3 Topic 11 | |
| Multiply a whole number by a fraction. | | | | | | 5.NF.4 Topic 11 | |
| Multiply a fraction by a fraction. | | | | | | 5.NF.4 Topic 11 | |
| Interpret the product of a fraction and a whole number. | | | | | | 5.NF.4.a Topic 11 | |
| Relate multiplication of fractions and the area of a rectangle with fractional side lengths. | | | | | | 5.NF.4.b Topic 11 | |
| Interpret multiplication as scaling (resizing). | | | | | | 5.NF.5 Topic 11 | |
| Predict the size of a product compared to the size of one factor on the basis of the size of the other factor. | | | | | | 5.NF.5.a Topic 11 | |
| Explain the effect of multiplying a given number by a fraction greater than 1, less than 1, or equal to 1. | | | | | | 5.NF.5.b Topic 11 | |
| Solve real-world problems involving multiplication of fractions. | | | | | | 5.NF.6 Topic 11 | |
| Solve real-world problems involving multiplication of mixed numbers. | | | | | | 5.NF.6 Topic 11 | |
| Divide whole numbers and unit fractions. | | | | | | 5.NF.7 Topic 11 | |
| Interpret division of a unit fraction by a whole number. | | | | | | 5.NF.7.a Topic 11 | |
| Interpret division of a whole number by a unit fraction. | | | | | | 5.NF.7.b Topic 11 | |
| Solve real-world problems involving division of fractions and whole numbers. | | | | | | 5.NF.7.c Topic 11 | |

Domain The Number System

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---|---|-------------------------------|
| Apply and extend previous understandings of multiplication and division to divide fractions by fractions. | | | | | | | |
| Divide fractions. | | | | | | | 6.NS.1 Topic 9 |
| Solve word problems involving division of fractions by fractions. | | | | | | | 6.NS.1 Topic 9 |
| Compute fluently with multi-digit numbers and find common factors and multiples. | | | | | | | |
| Fluently divide multi-digit numbers using the standard algorithm. | | | | | | | 6.NS.2 Topics 3, 4 |
| Fluently add multi-digit decimals using the standard algorithm. | | | | | | | 6.NS.3 Topics 3, 6 |
| Fluently subtract multi-digit decimals using the standard algorithm. | | | | | | | 6.NS.3 Topics 3, 6 |
| Fluently multiply multi-digit decimals using the standard algorithm. | | | | | | | 6.NS.3 Topics 3, 6 |
| Fluently divide decimals using the standard algorithm. | | | | | | | 6.NS.3 Topics 3, 6 |
| Find the greatest common factor of two numbers. | | | | | | | 6.NS.4 Topic 5 |
| Find the least common multiple of two numbers. | | | | | | | 6.NS.4 Topic 7 |
| Use the distributive property. | | | | | | | 6.NS.4 Topic 5 |
| Apply and extend previous understandings of numbers to the system of rational numbers. | | | | | | | |
| Interpret positive and negative numbers. | | | | | | | 6.NS.5 Topic 10 |
| Show rational numbers on the number line. | | | | | | | 6.NS.6 Topics 9, 10 |
| Show points on the number line with negative number coordinates. | | | | | | | 6.NS.6 Topic 10 |
| Graph points with negative number coordinates. | | | | | | | 6.NS.6 Topic 10 |
| Interpret opposites of numbers. | | | | | | | 6.NS.6.a Topic 10 |
| Relate signs of numbers in ordered pairs to quadrants of the coordinate plane. | | | | | | | 6.NS.6.b Topic 10 |
| Relate signs of numbers in ordered pairs to reflections in the coordinate plane. | | | | | | | 6.NS.6.b Topic 10 |
| Find and position integers on a horizontal or vertical number line. | | | | | | | 6.NS.6.c Topic 10 |
| Find and position pairs of integers on a coordinate plane. | | | | | | | 6.NS.6.c Topic 10 |
| Find and position pairs of rational numbers on a coordinate plane. | | | | | | | 6.NS.6.c Topic 10 |
| Order rational numbers. | | | | | | | 6.NS.7 Topic 10 |
| Understand absolute value. | | | | | | | 6.NS.7 Topic 10 |
| Relate inequalities to number lines. | | | | | | | 6.NS.7.a Topic 10 |
| Write, interpret, and explain ordering of rational numbers in real-world contexts. | | | | | | | 6.NS.7.b Topic 10 |
| Interpret the absolute value of a rational number. | | | | | | | 6.NS.7.c Topic 10 |
| Relate absolute value and order. | | | | | | | 6.NS.7.d Topic 10 |
| Graph points in the coordinate plane. | | | | | | | 6.NS.8 Topic 10 |
| Find distances between points with the same first coordinate or the same second coordinate. | | | | | | | 6.NS.8 Topic 10 |

Domain Ratios and Proportional Relationships

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|----------------------------------|
| Understand ratio concepts and use ratio reasoning to solve problems. | | | | | | | |
| Understand and apply the concept of a ratio. | | | | | | | 6.RP.1 Topics 7, 12 |
| Understand the concept of a unit rate. | | | | | | | 6.RP.2 Topics 12, 13 |
| Use rate language. | | | | | | | 6.RP.2 Topics 12, 13 |
| Solve problems involving ratios. | | | | | | | 6.RP.3 Topics 12–14 |
| Solve problems involving rates. | | | | | | | 6.RP.3 Topics 12–14 |
| Make tables of equivalent ratios. | | | | | | | 6.RP.3.a Topic 13 |
| Find missing values in tables of equivalent ratios. | | | | | | | 6.RP.3.a Topic 13 |
| On the coordinate plane, plot pairs of values given in tables of equivalent ratios. | | | | | | | 6.RP.3.a Topic 13 |
| Use tables to compare ratios. | | | | | | | 6.RP.3.a Topic 13 |
| Solve unit rate problems. | | | | | | | 6.RP.3.b Topics 12, 13 |
| Find a percent of a quantity. | | | | | | | 6.RP.3.c Topic 14 |
| Find the whole, given a part and the percent. | | | | | | | 6.RP.3.c Topic 14 |
| Convert measurement units. | | | | | | | 6.RP.3.d Topic 16 |
| Transform measurement units when multiplying or dividing quantities. | | | | | | | 6.RP.3.d Topic 16 |

Domain **Measurement and Data**

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---------------------------|---------------------------|--------------------------------|---------------------------|---|---|---|
| Describe and compare measurable attributes. | | | | | | | |
| Describe length as a measurable attribute of objects. | K.MD.1 Topic 12 | | | | | | |
| Describe weight as a measurable attribute of objects. | K.MD.1 Topic 12 | | | | | | |
| Describe several measurable attributes of a single object. | K.MD.1 Topic 12 | | | | | | |
| Directly compare and describe two objects with a measurable attribute in common. | K.MD.2 Topic 12 | | | | | | |
| Measure lengths indirectly and by iterating length units. | | | | | | | |
| Order three objects by length. | | 1.MD.1 Topic 12 | | | | | |
| Compare the lengths of two objects indirectly by using a third object. | | 1.MD.1 Topic 12 | | | | | |
| Understand and use length units. | | 1.MD.2 Topic 12 | | | | | |
| Measure and estimate lengths in standard units. | | | | | | | |
| Use rulers, yardsticks, meter sticks, and measuring tapes. | | | 2.MD.1 Topic 15 | | | | |
| Use and analyze different length units for the same object. | | | 2.MD.2 Topic 15 | | | | |
| Estimate lengths using inches or feet. | | | 2.MD.3 Topic 15 | | | | |
| Find how much longer one object is than another in standard units. | | | 2.MD.4 Topic 15 | | | | |
| Relate addition and subtraction to length. | | | | | | | |
| Use addition to solve word problems involving lengths. | | | 2.MD.5 Topic 15 | | | | |
| Use subtraction to solve word problems involving lengths. | | | 2.MD.5 Topic 15 | | | | |
| Represent whole numbers as lengths on a number line. | | | 2.MD.6 Topics 8, 9 | | | | |
| Show sums and differences within 100 on a number line. | | | 2.MD.6 Topics 8, 9 | | | | |
| Tell and write time. | | | | | | | |
| Tell and write time in hours. | | 1.MD.3 Topic 13 | | | | | |
| Tell and write time in half-hours. | | 1.MD.3 Topic 13 | | | | | |
| Work with time and money. | | | | | | | |
| Tell and write time to the nearest five minutes. | | | 2.MD.7 Topic 16 | | | | |
| Use a.m. and p.m. | | | 2.MD.7 Topic 16 | | | | |
| Solve word problems involving dollars and cents. | | | 2.MD.8 Topics 13, 14 | | | | |
| Use \$ and ¢ symbols. | | | 2.MD.8 Topics 13, 14 | | | | |
| Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. | | | | | | | |
| Tell and write time to the nearest minute. | | | | 3.MD.1 Topic 12 | | | |
| Measure time intervals in minutes. | | | | 3.MD.1 Topic 12 | | | |
| Solve word problems involving addition and subtraction of time intervals in minutes. | | | | 3.MD.1 Topic 12 | | | |

Scope and Sequence

Domain **Measurement and Data** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|----------------------|-------------------------|--------------------|---|
| Represent a time problem on a number line. | | | | 3.MD.1 Topic 12 | | | |
| Measure and estimate liquid volumes using standard units of liters (l). | | | | 3.MD.2 Topic 15 | | | |
| Solve one-step word problems involving liquid volumes. | | | | 3.MD.2 Topic 15 | | | |
| Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. | | | | | | | |
| Know relative sizes of measurement units within one system of units. | | | | | 4.MD.1 Topic 14 | | |
| Know relative sizes of units of length. | | | | | 4.MD.1 Topic 14 | | |
| Know relative sizes of units of mass. | | | | | 4.MD.1 Topic 14 | | |
| Know relative sizes of units of weight. | | | | | 4.MD.1 Topic 14 | | |
| Know relative sizes of units of liquid volume. | | | | | 4.MD.1 Topic 14 | | |
| Know relative sizes of units of time. | | | | | 4.MD.1 Topic 14 | | |
| Convert from larger units to smaller units. | | | | | 4.MD.1 Topics 13, 14 | | |
| Make a table of measurement equivalents. | | | | | 4.MD.1 Topics 13, 14 | | |
| Solve word problems involving distances. | | | | | 4.MD.2 Topics 13–15 | | |
| Solve word problems involving intervals of time. | | | | | 4.MD.2 Topics 14, 15 | | |
| Solve word problems involving liquid volumes. | | | | | 4.MD.2 Topics 14, 15 | | |
| Solve word problems involving masses of objects. | | | | | 4.MD.2 Topics 14, 15 | | |
| Solve word problems involving money. | | | | | 4.MD.2 Topics 13–15 | | |
| Use the four operations to solve measurement word problems involving simple fractions. | | | | | 4.MD.2 Topics 13–15 | | |
| Represent measurement quantities on number line diagrams. | | | | | 4.MD.2 Topics 13–15 | | |
| Use the area formula for rectangles. | | | | | 4.MD.3 Topic 15 | | |
| Use the perimeter formula for rectangles. | | | | | 4.MD.3 Topic 15 | | |
| Convert like measurement units within a given measurement system. | | | | | | | |
| Convert measurement units. | | | | | | 5.MD.1 Topic 13 | |
| Use conversions to solve real-world problems. | | | | | | 5.MD.1 Topic 13 | |
| Geometric measurement: understand concepts of area and relate area to multiplication and to addition. | | | | | | | |
| Recognize area as an attribute of plane figures. | | | | 3.MD.5 Topic 14 | | | |
| Understand concepts of area measurement. | | | | 3.MD.5 Topic 14 | | | |
| Understand the concept of square unit. | | | | 3.MD.5.a Topic 14 | | | |
| Relate n unit squares to an area of n square units. | | | | 3.MD.5.b Topic 14 | | | |
| Measure areas by counting in square inches and feet. | | | | 3.MD.6 Topic 14 | | | |

Domain **Measurement and Data** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|--------------------------------------|-----------------------------|-----------------------------|---|
| Measure areas by counting unit squares in improvised units. | | | | 3.MD.6 Topic 14 | | | |
| Relate area to the operation of multiplication. | | | | 3.MD.7 Topic 14 | | | |
| Relate area to the operation of addition. | | | | 3.MD.7 Topic 14 | | | |
| Find the area of a rectangle by tiling it. | | | | 3.MD.7.a Topic 14 | | | |
| Show that the area of a rectangle can be found by multiplying the side lengths. | | | | 3.MD.7.a Topic 14 | | | |
| Multiply side lengths to find areas of rectangles. | | | | 3.MD.7.b Topic 14 | | | |
| Represent whole-number products as rectangular areas in mathematical reasoning. | | | | 3.MD.7.b Topic 14 | | | |
| Use tiling to show that the area of a rectangle with side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. | | | | 3.MD.7.c Topics 6, 14 | | | |
| Use area models to represent the distributive property. | | | | 3.MD.7.c Topic 14 | | | |
| Find areas of rectilinear figures by decomposing them into non-overlapping rectangles. | | | | 3.MD.7.d Topics 6, 14 | | | |
| Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. | | | | | | | |
| Solve perimeter problems. | | | | 3.MD.8 Topics 6, 13, 14 | | | |
| Solve perimeter problems involving finding an unknown side length. | | | | 3.MD.8 Topic 13 | | | |
| Exhibit rectangles with the same perimeter and different areas. | | | | 3.MD.8 Topic 13 | | | |
| Exhibit rectangles with the same area and different perimeters. | | | | 3.MD.8 Topic 14 | | | |
| Geometric measurement: understand concepts of angle and measure angles. | | | | | | | |
| Understand how angles are formed. | | | | | 4.MD.5 Topic 16 | | |
| Understand concepts of angle measurement. | | | | | 4.MD.5 Topic 16 | | |
| Relate angle measurement in degrees to circles. | | | | | 4.MD.5.a Topic 16 | | |
| Relate one-degree angles to n -degree angles. | | | | | 4.MD.5.b Topic 16 | | |
| Measure angles using a protractor. | | | | | 4.MD.6 Topic 16 | | |
| Sketch angles of specified measure. | | | | | 4.MD.6 Topic 16 | | |
| Recognize angle measure as additive. | | | | | 4.MD.7 Topic 16 | | |
| Solve addition and subtraction problems to find unknown angles on a diagram. | | | | | 4.MD.7 Topic 16 | | |
| Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. | | | | | | | |
| Recognize volume as an attribute of solid figures. | | | | | | 5.MD.3 Topic 12 | |
| Understand concepts of volume measurement. | | | | | | 5.MD.3 Topic 12 | |
| Understand the concept of cubic unit. | | | | | | 5.MD.3.a Topic 12 | |
| Relate n unit cubes to a volume of n cubic units. | | | | | | 5.MD.3.b Topic 12 | |

Scope and Sequence

Domain **Measurement and Data** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|------------------------|--------------------|---------------------|--------------------|--------------------|----------------------|---|
| Measure volumes by counting in cubic inches and feet. | | | | | | 5.MD.4 Topic 12 | |
| Measure volumes by counting unit cubes in improvised units. | | | | | | 5.MD.4 Topic 12 | |
| Relate volume to the operations of multiplication and addition. | | | | | | 5.MD.5 Topic 12 | |
| Solve real-world and mathematical problems involving volume. | | | | | | 5.MD.5 Topic 12 | |
| Show that the volume of a right rectangular prism can be found by multiplying the edge lengths. | | | | | | 5.MD.5.a Topic 12 | |
| Show that the volume of a right rectangular prism can be found by multiplying the height by the area of the base. | | | | | | 5.MD.5.a Topic 12 | |
| Represent threefold whole-number products as volumes. | | | | | | 5.MD.5.a Topic 12 | |
| Use the formulas $V = \ell \times w \times h$ and $V = b \times h$ for rectangular prisms. | | | | | | 5.MD.5.b Topic 12 | |
| Find volumes of solid figures composed of two non-overlapping right rectangular prisms. | | | | | | 5.MD.5.c Topic 12 | |
| Classify objects and count the number of objects in each category. | | | | | | | |
| Classify objects into given categories. | K.MD.3 Topics 9, 13 | | | | | | |
| Count the numbers of objects in a category. | K.MD.3 Topics 9, 13 | | | | | | |
| Sort categories by count. | K.MD.3 Topics 9, 13 | | | | | | |
| Represent and interpret data. | | | | | | | |
| Organize, represent, interpret, and compare data with up to three categories. | | 1.MD.4 Topic 14 | | | | | |
| Measure objects to generate whole-number length data. | | | 2.MD.9 Topic 16 | | | | |
| Make repeated measurements of the same object to generate length data. | | | 2.MD.9 Topic 16 | | | | |
| Draw a picture graph to represent a data set with up to four categories. | | | 2.MD.10 Topic 16 | | | | |
| Draw a bar graph with up to four categories. | | | 2.MD.10 Topic 16 | | | | |
| Solve problems using data presented in a bar graph. | | | 2.MD.10 Topic 16 | | | | |
| Draw a scaled picture graph to represent a data set with several categories. | | | | 3.MD.3 Topic 16 | | | |
| Draw a scaled bar graph to represent a data set with several categories. | | | | 3.MD.3 Topic 16 | | | |
| Solve problems using information presented in scaled bar graphs. | | | | 3.MD.3 Topic 16 | | | |
| Find lengths involving halves and fourths of a unit and display them in a line plot. | | | | 3.MD.4 Topic 16 | | | |
| Solve problems involving addition and subtraction of fractions by using measurement data in line plots. | | | | | 4.MD.4 Topic 15 | | |
| Make a line plot to display measurements involving halves, fourths, and eighths of a unit. | | | | | 4.MD.4 Topic 15 | | |
| Solve problems involving fraction operations by using measurement data in line plots. | | | | | | 5.MD.2 Topic 14 | |

Domain **Statistics and Probability**

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|---|---|-----------------------------|
| Develop understanding of statistical variability. | | | | | | | |
| Understand statistical questions. | | | | | | | 6.SP.1 Topic 19 |
| Understand how data are described by a measure of center. | | | | | | | 6.SP.2 Topic 19 |
| Understand how data are described by their spread. | | | | | | | 6.SP.2 Topic 19 |
| Understand how data are described by the overall shape. | | | | | | | 6.SP.2 Topic 19 |
| Understand how a measure of center describes the data values. | | | | | | | 6.SP.3 Topic 19 |
| Understand how a measure of variability describes how the data values in a set vary. | | | | | | | 6.SP.3 Topic 19 |
| Summarize and describe distributions. | | | | | | | |
| Display numerical data in plots on a number line. | | | | | | | 6.SP.4 Topic 19 |
| Display numerical data in dot plots. | | | | | | | 6.SP.4 Topic 19 |
| Display numerical data in histograms. | | | | | | | 6.SP.4 Topic 19 |
| Display numerical data in box plots. | | | | | | | 6.SP.4 Topic 19 |
| Summarize numerical data in relation to their context. | | | | | | | 6.SP.5 Topic 19 |
| For numerical data, report the number of observations. | | | | | | | 6.SP.5.a Topic 19 |
| For numerical data, describe the nature of the attribute under investigation. | | | | | | | 6.SP.5.b Topic 19 |
| For numerical data, describe how the investigated attribute was measured and its units of measurement. | | | | | | | 6.SP.5.b Topic 19 |
| Find the median of a set of data. | | | | | | | 6.SP.5.c Topic 19 |
| Find the mean of a set of data. | | | | | | | 6.SP.5.c Topic 19 |
| Find the interquartile range and/or mean absolute deviation of a data set. | | | | | | | 6.SP.5.c Topic 19 |
| Describe overall patterns or deviations in a data set. | | | | | | | 6.SP.5.c Topic 19 |
| Relate a measure of center to the shape of the data distribution and context of data collection. | | | | | | | 6.SP.5.d Topic 19 |
| Relate a measure of variability to the shape of the data distribution and context of data collection. | | | | | | | 6.SP.5.d Topic 19 |

Domain **Geometry**

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|-------------------------------|--------------------------|--------------------------|-------------------------------|---|---|---|
| Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). | | | | | | | |
| Describe shapes in the environment. | K.G.1 Topic 15 | | | | | | |
| Describe position. | K.G.1 Topic 15 | | | | | | |
| Correctly name shapes regardless of their orientations. | K.G.2 Topics 14, 16 | | | | | | |
| Correctly name shapes regardless of their overall size. | K.G.2 Topics 14, 16 | | | | | | |
| Identify two-dimensional shapes as flat. | K.G.3 Topics 14, 16 | | | | | | |
| Identify three-dimensional shapes as solid. | K.G.3 Topics 14, 16 | | | | | | |
| Analyze, compare, create, and compose shapes. | | | | | | | |
| Analyze and compare two- and three-dimensional shapes in different sizes. | K.G.4 Topic 16 | | | | | | |
| Analyze and compare two- and three-dimensional shapes in different orientations. | K.G.4 Topic 16 | | | | | | |
| Build and draw shapes to model shapes in the world. | K.G.5 Topic 16 | | | | | | |
| Compose simple shapes to form larger shapes. | K.G.6 Topic 16 | | | | | | |
| Reason with shapes and their attributes. | | | | | | | |
| Distinguish between defining attributes versus non-defining attributes. | | 1.G.1 Topic 15 | | | | | |
| Build and draw shapes with defining attributes. | | 1.G.1 Topic 15 | | | | | |
| Compose two- and three-dimensional shapes. | | 1.G.2 Topic 15 | | | | | |
| Compose new shapes from composite shapes. | | 1.G.2 Topic 15 | | | | | |
| Partition circles and rectangles into two equal shares and use related vocabulary. | | 1.G.3 Topic 16 | | | | | |
| Partition circles and rectangles into four equal shares and use related vocabulary. | | 1.G.3 Topic 16 | | | | | |
| Recognize that decomposing shapes into more equal shares creates smaller shares. | | 1.G.3 Topic 16 | | | | | |
| Recognize and draw two- and three-dimensional shapes having specified attributes. | | | 2.G.1 Topic 12 | | | | |
| Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. | | | 2.G.1 Topic 12 | | | | |
| Partition a rectangle into rows and columns of same-size squares and count the squares. | | | 2.G.2 Topic 12 | | | | |
| Partition circles and rectangles into two, three, or four equal shares, and use related vocabulary. | | | 2.G.3 Topic 12 | | | | |
| Recognize that equal shares of identical wholes need not have the same shape. | | | 2.G.3 Topic 12 | | | | |
| Understand that shapes in different categories may share attributes. | | | | 3.G.1 Topic 11 | | | |
| Understand that shared attributes of shapes can define a larger category. | | | | 3.G.1 Topic 11 | | | |
| Recognize rhombuses, rectangles, and squares as examples of quadrilaterals and draw quadrilaterals that are non-examples. | | | | 3.G.1 Topic 11 | | | |
| Partition shapes into parts with equal areas. | | | | 3.G.2 Topics 11, 14 | | | |
| Express the area of each equal part of a shape as a unit fraction of the whole. | | | | 3.G.2 Topics 11, 14 | | | |

Domain **Geometry** *cont.*

| | K | 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|---|---|---|--------------------------|--------------------------|----------------------------------|
| Draw and identify lines and angles, and classify shapes by properties of their lines and angles. | | | | | | | |
| Draw and identify points, lines, line segments, and rays. | | | | | 4.G.1 Topic 16 | | |
| Draw and identify parallel and perpendicular lines. | | | | | 4.G.1 Topic 16 | | |
| Draw and identify angles. | | | | | 4.G.1 Topic 16 | | |
| Draw and identify right, acute, and obtuse angles. | | | | | 4.G.1 Topic 16 | | |
| Use parallel or perpendicular lines to classify figures. | | | | | 4.G.2 Topic 16 | | |
| Use angle measure to classify figures. | | | | | 4.G.2 Topic 16 | | |
| Categorize and identify right triangles. | | | | | 4.G.2 Topic 16 | | |
| Understand line symmetry. | | | | | 4.G.3 Topic 16 | | |
| Identify line-symmetric figures. | | | | | 4.G.3 Topic 16 | | |
| Draw lines of symmetry. | | | | | 4.G.3 Topic 16 | | |
| Classify two-dimensional figures into categories based on their properties. | | | | | | | |
| Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. | | | | | | 5.G.3 Topic 15 | |
| Classify two-dimensional figures in a hierarchy based on properties. | | | | | | 5.G.4 Topic 15 | |
| Graph points on the coordinate plane to solve real-world and mathematical problems. | | | | | | | |
| Understand a coordinate system. | | | | | | 5.G.1 Topic 16 | |
| Graph points in the first quadrant of the coordinate plane. | | | | | | 5.G.2 Topic 16 | |
| Interpret coordinate values of points in the first quadrant of the coordinate plane. | | | | | | 5.G.2 Topic 16 | |
| Solve real-world and mathematical problems involving area, surface area, and volume. | | | | | | | |
| Find area by composing a figure into rectangles. | | | | | | | 6.G.1 Topics 8, 11, 17 |
| Find area by decomposing a figure into triangles and other shapes. | | | | | | | 6.G.1 Topics 8, 11, 17 |
| Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths. | | | | | | | 6.G.2 Topic 18 |
| Show that the volume of a right rectangular prism with fractional edge lengths can be found by multiplying the edge lengths of the prism. | | | | | | | 6.G.2 Topic 18 |
| Apply the formulas $V = \ell w h$ and $V = b h$ to find volumes of right rectangular prisms with fractional edge lengths. | | | | | | | 6.G.2 Topic 18 |
| Draw polygons in the coordinate plane. | | | | | | | 6.G.3 Topics 10, 11 |
| Find the length of a side of a polygon drawn in the coordinate plane. | | | | | | | 6.G.3 Topic 11 |
| Represent three-dimensional figures using nets. | | | | | | | 6.G.4 Topics 17, 18 |
| Use nets to find the surface area of three-dimensional figures. | | | | | | | 6.G.4 Topic 18 |