bridges in mathematics

GRADE K

Bridges & Number Corner Third Edition

CORRELATIONS

Virginia Mathematics Standards of Learning

number corner

K Number and Number Sense

Standard	Descriptor	Citations	
K.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 100. The student will:			
K.NS.1.a	Use one-to-one correspondence to determine how many are in a given set containing 30 or fewer concrete objects (e.g., cubes, pennies, balls), and describe the last number named as the total number of objects counted.	**Bridges in Mathematics** Unit 1: M1–S3, M1–S4, M1–S5 Unit 2: M1–S4, M1–S5; M2-–S2: M3–S6	**Number Corner** September: Calendar Collector
K.NS.1.b	Recognize and explain that the number of objects remains the same regardless of the arrangement or the order in which the objects are counted.	**Bridges in Mathematics** Unit 1: M2–S1, M2–S3, Unit 2: M1–S1; M3–S5 Unit 3: M1–S5	**Number Corner** October: Computational Fluency November: Calendar Collector January: Computational Fluency
K.NS.1.c	Represent forward counting by ones using a variety of tools, including five-frames, ten-frames, and number paths (a prelude to number lines).	**Bridges in Mathematics** Unit 2: M1–S2, M1–S3; M2–S1, M2–S3, M2–S4, M2–S5	**Number Corner** September: Number Path October: Number Path
K.NS.1.d	Count forward orally by ones from 0 to 100.	**Bridges in Mathematics** Unit 6: M1–S2 (Assessment) Unit 7: M4–S5 (Home Connection) Unit 8: M1–S1 (Assessment), M1–S4	**Number Corner** February: Days in School March: Days in School April: Days in School

Standard	Descriptor	Citations	
K.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 100. The student will:			
K.NS.1.e	Count forward orally by ones, within 100, starting at any given number.	**Bridges in Mathematics** Unit 4: M3–S2 Unit 5: M3–S1; M4–S3 Unit 6: M1–S5 Unit 7: M1–S3; M3–S4 Unit 8: M3–S4	**Number Corner** November: Number Path
K.NS.1.f	Count backward orally by ones when given any number between 1 and 20.	**Bridges in Mathematics** Unit 6: M2–S2; M3–S3 Unit 7: M2–S2 Unit 8: M1–S2	**Number Corner** October: Number Path November: Number Path December: Days in School
K.NS.1.g	State the number after, without counting, when given any number between 0 and 30.	**Bridges in Mathematics** Unit 3: M2–S4 Unit 4: M1–S3, M1–S4	**Number Corner** November: Number Path
K.NS.1.h	State the number before, without counting, when given any number between 1 and 20.	**Bridges in Mathematics** Unit 3: M2–S5 Unit 4: M1–S3, M1–S4	**Number Corner** November: Number Path
K.NS.1.i	Use objects, drawings, words, or numbers to compose and decompose numbers 11-19 into a ten and some ones.	**Bridges in Mathematics** Unit 6: M3–S1 Unit 7: M1–S4, M1–S5; M2–S1; M4–S2 Unit 8: M3–S3, M3–S5	**Number Corner** January: Calendar Collector

Standard	Descriptor	Citations	
K.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 100. The student will:			
K.NS.1.j	Group a collection of up to 100 objects (e.g., counters, pennies, cubes) into sets of ten and count by tens to determine the total (e.g., there are 3 groups of ten and 6 leftovers, 36 total objects)	**Bridges in Mathematics** Unit 7: M2–S3; M4–S1 Unit 8: M3–S1, M3–S2	**Number Corner** January: Calendar Collector February: Calendar Collector March: Calendar Collector April: Calendar Collector
K.NS.2 The student will identify, represent, and compare quantities up to 30. The student will:			
K.NS.2.a	Read, write, and identify the numerals 0 through 30.	**Bridges in Mathematics** Unit 6: M3–S1, M3–S2, M3–S4 Unit 7: M4–S1 Unit 8: M1–S2; M2–S4	**Number Corner** November: Calendar Collector January: Calendar Collector
K.NS.2.b	Construct a set of objects that corresponds to a given numeral within 30, including an empty set.	**Bridges in Mathematics** Unit 2: M3–S6 Unit 4: M2–S1 Unit 8: M1–S1	**Number Corner** January: Calendar Grid March: Computational Fluency
K.NS.2.c	Determine and write the numeral that corresponds to the total number of objects in a given set of 30 or fewer concrete objects or pictorial models.	**Bridges in Mathematics** Unit 1: M2–S5; M3–S3 Unit 5: M1–S3 Unit 6: M3–S1, M3–S2, M3–S4	**Number Corner** September: Number Path October: Number Path
K.NS.2.d	Given a set of up to 30 objects, construct another set which has more, fewer, or the same number of objects using concrete or pictorial models.	**Bridges in Mathematics** Unit 1: M2–S2 Unit 2: M1–S2; M2–S3; M3–S2 Unit 7: M2–S1	**Number Corner** September: Computational Fluency December: Computational Fluency

Standard	Descriptor	Citations	
K.NS.2 The student will identify, represent, and compare quantities up to 30. The student will:			
K.NS.2.e	Given a numeral up to 30, construct a set which has more, fewer, or the same number of objects using concrete or pictorial models.	**Bridges in Mathematics** Unit 3: M4–S3, M4–S5 Unit 8: M3–S1	**Number Corner** March: Computational Fluency April: Computational Fluency
K.NS.2.f	Compare two sets containing up to 30 concrete objects or pictorial models, using the terms *more*, *fewer*, or the *same as* (*equal to*).	**Bridges in Mathematics** Unit 2: M1–S4, M1–S5; M3–S6	**Number Corner** October: Calendar Collector January: Calendar Collector April: Calendar Collector
K.NS.2.g	Compare numbers up to 30, to the benchmarks of 5 and to the benchmark of 10 using various models (e.g., five-frames, ten-frames, number paths [a prelude to number lines], beaded racks, hands) using the terms *greater than*, *less than*, or the *same as* (*equal to*).	**Bridges in Mathematics** Unit 2: M1–S4, M1–S5 Unit 6: M1–S3 Unit 7: M2–S3	**Number Corner** October: Calendar Collector

K Computation and Estimation

Standard	Descriptor	Citations	
K.CE.1	The student will model and solve single-step contextual problems using addition and subtraction with whole numbers within 10. The student will:		
K.CE.1.a	Use objects, drawings, words, or numbers to compose and decompose numbers less than or equal to 5 in multiple ways.	**Bridges in Mathematics** Unit 1: M3–S4, M3–S5 Unit 2: M1–S1, M1–S2 Unit 3: M3–S1; M4–S4	**Number Corner** September: Computational Fluency February: Calendar Collector
K.CE.1.b	Recognize and describe with fluency part-part-whole relationships for numbers up to 5 in a variety of configurations.	**Bridges in Mathematics** Unit 2: M1–S1, M1–S2 Unit 3: M1–S3; M3–S2	**Number Corner** October: Computational Fluency December: Calendar Grid February: Calendar Grid
K.CE.1.c	Model and identify the number that makes 5 when added to a given number less than or equal to 5.	**Bridges in Mathematics** Unit 2: M1–S1; M2–S5 Unit 3: M4–S4	**Number Corner** October: Computational Fluency November: Computational Fluency December: Computational Fluency
K.CE.1.d	Use objects, drawings, words, or numbers to compose and decompose numbers less than or equal to 10 in multiple ways.	**Bridges in Mathematics** Unit 2: M3–S6 Unit 6: M4–S2, M4–S3, M4–S5 Unit 8: M2–S5; M4–S1	**Number Corner** January: Calendar Grid
K.CE.1.e	Model and identify the number that makes 10 when added to a given number less than or equal to 10.	**Bridges in Mathematics** Unit 3: M3–S5 Unit 7: M3–S4 Unit 8: M2–S5	**Number Corner** October: Days in School November: Days in School January: Days in School February: Computational Fluency March: Calendar Grid

Standard	Descriptor	Citations	
K.CE.1	The student will model and solve single-step contextual problems using addition and subtraction with whole numbers within 10. The student will:		
K.CE.1.f	Model and solve single-step contextual problems (join, separate, and part-part-whole) using 10 or fewer concrete objects.	**Bridges in Mathematics** Unit 3: M1–S3; M2–S2; M3–S2 Unit 4: M2–S4, M2–S5 Unit 6: M4–S1, M4–S4	**Number Corner** May: Calendar Grid

K Measurement and Geometry

Standard	Descriptor	Citations	
K.MG.1 The student will reason mathematically by making direct comparisons between two objects or events using the attributes of length, height, weight, volume, and time. The student will:			
	K.MG.1.a Use direct comparisons to compare, describe, and justify the:		
K.MG.1.a.i	lengths of two objects using the terms longer or shorter;	**Bridges in Mathematics** Unit 4: M3–S1, M3–S2, M3–S3, M3–S4, M3–S5 Unit 7: M1–S4, M1–S5	**Number Corner** October: Calendar Collector
K.MG.1.a.ii	heights of two objects using the terms taller or shorter;	**Bridges in Mathematics** Unit 3: M3–S3 Unit 8: M2–S4	
K.MG.1.a.iii	weights of two objects using the terms heavier or lighter;	**Bridges in Mathematics** Unit 7: M1–S1, M1–S2, M1–S3	
K.MG.1.a.iv	volumes of two containers using the terms more or less; and	**Bridges in Mathematics** Unit 6: M1–S3, M1–S4	
K.MG.1.a.v	amount of time spent on two events using the terms longer or shorter.	*The grade 1 curriculum addresses K.MG.1.a.v in the following section:* **Bridges in Mathematics** Unit 8: M1–S1	
K.MG.2 The student will identify, describe, name, compare, and construct plane figures (circles, triangles, squares, and rectangles). The student will:			
K.MG.2.a	Identify and name concrete and pictorial representations of circles, triangles, squares, and rectangles regardless of their orientation in space.	**Bridges in Mathematics** Unit 2: M4–S3 Unit 5: M2–S1, M2–S2, M2–S3; M4–S2, M4–S3, M4–S4	**Number Corner** September: Calendar Grid
K.MG.2.b	Describe triangles, squares, and rectangles to include the number of sides and number of vertices.	**Bridges in Mathematics** Unit 2: M4–S3 Unit 5: M1–S4; M2–S1, M2–S2, M2–S3, M2–S4	**Number Corner** September: Calendar Grid

Standard	Descriptor	Citations	
K.MG.2 The student will identify, describe, name, compare, and construct plane figures (circles, triangles, squares, and rectangles). The student will:			
K.MG.2.c	Describe a circle using terms such as *round* and *curved*.	**Bridges in Mathematics** Unit 5: M1–S2; M2–S1, M2–S2, M2–S3	**Number Corner** September: Calendar Grid
K.MG.2.d	Distinguish between examples and nonexamples of identified plane figures (circles, triangles, squares, and rectangles).	**Bridges in Mathematics** Unit 5: M2–S4 Unit 6: M1–S1	
K.MG.2.e	Compare and contrast two plane figures using characteristics to describe similarities and differences.	**Bridges in Mathematics** Unit 5: M1–S1, M1–S2; M2–S1, M2–S2, M2–S3, M2–S4	**Number Corner** September: Calendar Grid
K.MG.2.f	Construct plane figures (circles, triangles, squares, and rectangles) using a variety of materials (e.g., straws, sticks, pipe cleaners).	**Bridges in Mathematics** Unit 5: M2–S5; M3–S1, M3–S2, M3–S3, M3–S4; M4–S5 Unit 6: M1–S4: M2–S3	
K.MG.3 The student will describe the units of time represented in a calendar. The student will:			
K.MG.3.a	Identify a calendar as a tool used to measure time.	**Number Corner** September: Calendar Grid October: Calendar Grid November: Calendar Grid December: Calendar Grid	**Number Corner (cont.)** January: Calendar Grid February: Calendar Grid March: Calendar Grid April: Calendar Grid
K.MG.3.b	Name the days of the week and state that there are seven days in one week.	**Number Corner** September: Calendar Grid October: Calendar Grid November: Calendar Grid December: Calendar Grid	**Number Corner (cont.)** January: Calendar Grid February: Calendar Grid March: Calendar Grid April: Calendar Grid

Standard	Descriptor	Citations	
K.MG.3 The student will describe the units of time represented in a calendar. The student will:			
K.MG.3.c	Determine the day before and after a given day (e.g., yesterday, today, tomorrow).	**Number Corner** September: Calendar Grid October: Calendar Grid November: Calendar Grid December: Calendar Grid	**Number Corner (cont.)** January: Calendar Grid February: Calendar Grid March: Calendar Grid April: Calendar Grid
K.MG.3.d	Name the twelve months of the year and state that there are twelve months in one year.	*The grade 1 curriculum addresses K.MG.3.d in the following section:* **Number Corner** Calendar Grid: December	
K.MG.3.e	Distinguish between days of the week and months of the year.	**Number Corner** October: Calendar Grid November: Calendar Grid December: Calendar Grid January: Calendar Grid	**Number Corner (cont.)** February: Calendar Grid March: Calendar Grid April: Calendar Grid

K Probability and Statistics

Standard	Descriptor	Citations	
K.PS.1	The student will apply the data cycle (pose questions; collect or acquire data; organize and represent data; and analyze data and communicate results) with a focus on object graphs and picture graphs. The student will:		
K.PS.1.a	Sort and classify concrete objects into appropriate subsets (categories) based on one attribute (e.g., size, shape, color, thickness).	**Bridges in Mathematics** Unit 1: M1–S1, M1–S2, M1–S3, M1–S4 Unit 5: M2–S1, M2–S2, M2–S3 Unit 6: M1–S1	
K.PS.1.b	Describe and label attributes (e.g., size, color, shape) of a set of objects (e.g., coins, counters, buttons) that has been sorted.	**Bridges in Mathematics** Unit 1: M1–S1, M1–S2, M1–S3, M1–S4 Unit 5: M2–S1, M2–S2, M2–S3 Unit 6: M1–S1	
K.PS.1.c	Pose questions, given a predetermined context, that require the collection of data (limited to 25 or fewer data points for no more than four categories).	*The grade 2 curriculum addresses K.PS.1.c in the following section:* **Number Corner** December: Calendar Collector	
K.PS.1.d	Determine the data needed to answer a posed question, and collect the data using various methods (e.g., counting objects, drawing pictures).	**Bridges in Mathematics** Unit 5: M1–S2, M1–S3; M2–S2 Unit 7: M1–S2 Unit 8: M3–S4, M3–S5	**Number Corner** March: Calendar Collector April: Calendar Collector

Standard	Descriptor	Citations	
K.PS.1	The student will apply the data cycle (pose questions; collect or acquire data; organize and represent data; and analyze data and communicate results) with a focus on object graphs and picture graphs. The student will:		
K.PS.1.e	Organize and represent a data set (vertically or horizontally) by sorting concrete objects into organized groups to form a simple object graph.	**Bridges in Mathematics** Unit 1: M1–S3, M1–S4, M1–S5 Unit 5: M1–S2	**Number Corner** January: Calendar Collector March: Calendar Collector
K.PS.1.f	Organize and represent a data set (vertically or horizontally) using pictures to form a simple picture graph.	**Bridges in Mathematics** Unit 5: M2–S1, M2–S2, M2–S3	**Number Corner** December: Calendar Collector January: Calendar Collector
	K.PS.1.g Analyze data represented in object graphs and picture graphs and communicate results:		
K.PS.1.g.i	ask and answer questions about the data represented in object graphs and picture graphs (e.g., how many in each category, which categories have the greatest, least, or the same amount of data); and	**Bridges in Mathematics** Unit 1: M1–S4, M1–S5 Unit 5: M1–S2; M2–S1, M2–S2, M2–S3	**Number Corner** January: Calendar Collector March: Calendar Collector
K.PS.1.g.ii	draw conclusions about the data and make predictions based on the data.	**Bridges in Mathematics** Unit 1: M1–S4, M1–S5 Unit 5: M2–S1, M2–S2, M2–S3	**Number Corner** December: Calendar Collector January: Calendar Collector March: Calendar Collector

K Patterns, Functions, and Algebra

Standard	Descriptor	Citations	
K.PFA.1 The student will identify, describe, extend, and create simple repeating patterns using various representations. The student will:			
K.PFA.1.a	Identify and describe the core found in repeating patterns.	**Bridges in Mathematics** Unit 1: M4–S1, M4–S2, M4–S3, M4–S4	**Number Corner** September: Calendar Grid October: Calendar Grid November: Calendar Grid December: Calendar Grid
K.PFA.1.b	Extend a repeating pattern by adding at least two complete repetitions of the core to the pattern.	**Bridges in Mathematics** Unit 1: M4–S1, M4–S2, M4–S3, M4–S4	**Number Corner** September: Calendar Grid October: Calendar Grid
K.PFA.1.c	Create and describe a repeating pattern using objects, colors, sounds, movements, or pictures.	**Bridges in Mathematics** Unit 1: M4–S3, M4–S3	**Number Corner** October: Calendar Grid