### Common Core State Standards for Mathematics, Kindergarten

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

- (1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as 5 + 2 = 7 and 7 2 = 5. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.
- (2) Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

### Kindergarten Overview

#### **Counting & Cardinality**

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.

#### **Operations & Algebraic Thinking**

 Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

#### Number & Operations in Base Ten

• Work with numbers 11–19 to gain foundations for place value.

#### Measurement & Data

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in categories.

#### Geometry

- Identify and describe shapes.
- Analyze, compare, create, and compose shapes.

#### **Mathematical Practices**

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

	COUNTING AND CARDINALITY K.CC				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment	
Know number names and the coun	t sequence.				
1. Count to 100 by ones and by tens.	Volume 1, Session 4 Volume 2, Sessions 57–59, 84, 85, 92, 94, 95, 97, 99 Volume 2, Work Places 2A, 2B, 2I, 2J, 2K, 2L, 2M, 2N Home Connections 15, 23	Sept-May Calendar Grid Sept Our Month in School Oct-May A Link Each School Day Dec/Jan Kid Count Dec/Jan Our Month in School Feb Our Month in School Feb Day 100 Activities May Our Month in School	Set A1, Number & Operations: Counting on the Number Line, Activities 1–3 Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern Bridges Practice Book, pp 1–7, 10, 11, 13–20, 27, 28, 30, 31, 32, 35–39, 45, 48, 49, 50, 51, 54, 59, 60, 61, 63, 67, 68	Formal Kindergarten Yearlong Assessment*, Tasks 1, 3  * The Kindergarten Yearlong Assessment can be accessed on the Bridges Gr K General Support page at www.mathlearningcenter.org/ resources/materials/kindergarten/ general	
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Volume 1, Sessions 25, 43, 50, 51, 55 Volume 1, Work Place 1P Volume 2, Sessions 57, 58, 61, 63, 64, 69, 79, 80, 84, 85, 92, 97 Volume 2, Work Places 2A, 2D, 2F, 2G, 2H, 2I, 2J, 2L, 2N	Dec/Jan Our Month in School Feb Our Month in School Feb–May A Link Each School Day	Set A1, Number & Operations: Counting on the Number Line, Activity 1 Set A4, Number & Operations: Addition & Subtraction, Activity 4 Bridges Practice Book, pp 27, 35, 50, 70	Informal S70 & 71 Observational Checklist: Ten & More (Bridges Blackline 2.4) S70 & 71 Observational Checklist: Sock Boxes & Coins: Beat You to 20¢ (Bridges Blackline 2.5)	
3a. Write numbers from 0 to 20.	Volume 1, Session 46 Volume 1, Work Place 10 Volume 2, Sessions 68, 69, 92 Volume 2, Work Places 2F, 2J, 2N Home Connections 10, 17	Sept. Our Month in School Nov Writing Today's Date Feb–April Calendar Grid	Bridges Practice Book, pp 1–11, 13–20, 22–28, 30–32, 35, 37, 38, 39, 41, 42, 44, 45, 48, 49, 50, 51, 54, 56, 60, 61, 62, 63, 68, 69	Formal Getting Started: Assessment Worksheet 5 (Patterning & Numeral Writing)	
3b. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	Volume 1, Sessions 23, 26, 30, 43, 55 Volume 2, Sessions 68, 69, 92 Volume 2, Work Places 2F, 2J, 2N Home Connections 3, 14, 15, 21	Dec/Jan Kid Count	Set A4, Number & Operations: Addition & Subtraction, Activities 1, 6–8 Bridges Practice Book, pp 1–7, 10, 11, 13, 14, 16, 18–20, 28, 30–32, 37, 38, 39, 48, 49, 60, 61, 63	Informal S70 & 71 Observational Checklist: Ten & More (Bridges Blackline 2.4) Formal Getting Started: Assessment Worksheet 3 (Matching Sets & Numerals)	

COUNTING AND CARDINALITY K.CC				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment
Count to tell the number of object	s.			
4. Understand the relationship between	en numbers and quantities; connect cour	nting to cardinality.		
a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	Volume 1, Session 55 Volume 2, Sessions 57–59, 63, 64, 84, 85, 92, 94, 95, 97 Volume 2, Work Places 2A, 2B, 2D, 2I, 2J, 2K, 2L, 2N Home Connections 3, 8, 14, 15	Dec,/Jan Our Month in School	Set A4, Number & Operations: Addition & Subtraction, Activities 1–8 Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern	Informal S70 & 71 Observational Checklist: Beat You to 20 (Bridges Blackline 2.3) S70 & 71 Observational Checklist: Ten & More (Bridges Blackline 2.4)  Formal Getting Started: Interview 1 Getting Started: Interview 2 Kindergarten Yearlong Assessment, Task 3
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	Home Connections 8, 15		Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern	Formal Kindergarten Yearlong Assessment, Task 3
c. Understand that each successive number name refers to a quan- tity that is one larger.	Volume 1, Sessions 19, 23, 27, 49 Volume 2, Sessions 61, 68  Home Connection 20	Oct-May A Link Each School Day Dec/Jan Our Month in School Feb Our Month in School May Our Month in School	Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern Bridges Practice Book, pp 22	Formal Getting Started: Interview 3 Kindergarten Yearlong Assessment, Tasks 2 & 3
5a. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration;	Volume 1, Sessions 4, 7, 10, 14, 16–18, 20, 23, 25, 26, 28–30, 40, 41, 43, 49, 50, 51, 55  Volume 1, Work Places 1F, 1J, 1M, 1P  Volume 2, Sessions 55, 57–59, 61, 63, 64, 68, 69, 80, 84, 85, 92, 94, 95, 97  Volume 2, Work Places 2A, 2B, 2D, 2F, 2H, 2J, 2K, 2L, 2N  Home Connections 3, 4, 6, 8, 14, 15, 21, 23	Dec/Jan Kid Count Dec/Jan Our Month in School Feb Our Month in School Mar/Apr Our Month in School May Here's When We Were Born	Set A1, Number & Operations: Counting on the Number Line, Activities 2, 3 Set A4, Number & Operations: Addition & Subtraction, Activities 1–8 Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern Bridges Practice Book, pp 2, 4–7, 10, 11, 13, 14, 16, 18, 19, 20, 28, 30, 32, 39, 48	Informal S70 & 71 Observational Checklist: Beat You to 20 (Bridges Blackline 2.3) S70 & 71 Observational Checklist: Ten & More (Bridges Blackline 2.4) S70 & 71 Observational Checklist: Sock Boxes & Coins: Beat You to 204 (Bridges Blackline 2.5)  Formal Getting Started: Interview 1 Getting Started: Interview 2 Getting Started: Assessment Worksheet 3 (Matching Sets & Numerals) Kindergarten Yearlong Assessment, Task 3

	COUNTING AND CARDINALITY K.CC				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment	
Count to tell the number of object	s.				
5b. given a number from 1–20, count out that many objects.	Volume 1, Sessions 25, 28, 29 Volume 1, Work Place 1J Volume 2, Session 57 Volume 2, Work Place 2A Home Connections 11, 16, 23		Set A1, Number & Operations: Counting on the Number Line, Activity 3 Set A4, Number & Operations: Addition & Subtraction, Act 1, 5–8 Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern (Extension 4) Bridges Practice Book, pp 7, 15, 36, 54, 67	Informal S70 & 71 Observational Checklist: Beat You to 20 (Bridges Blackline 2.3)  Formal Kindergarten Yearlong Assessment, Task 3	
Compare numbers.		·	·		
6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.)	Volume 1, Sessions 5, 7, 16–18, 20, 28, 29, 40, 41, 50, 51 Volume 1, Work Places 1F, 1J, 1M, 1P Volume 2, Sessions 57, 58, 63, 64, 68, 80, 84, 85, 92, 97 Volume 2, Work Places 2A, 2D, 2H, 2I, 2J, 2L Home Connections 4, 8, 18, 19	Mar/Apr Our Month in School May Here's When We Were Born	Set A4, Number & Operations: Addition & Subtraction, Activities 3, 6 Set A6, Number & Operations: One Dot, Many Dots Calendar Pattern Bridges Practice Book, pp 26, 28, 30, 31, 54, 67	Informal S70 & S71 Observational Checklist: Beat You to 20 (Bridges Blackline 2.3) S70 & 71 Observational Checklist: Sock Boxes & Coins: Beat You to 204 (Bridges Blackline 2.5)  Formal Getting Started: Assessment Worksheet 4 (Comparing More & Less) Kindergarten Yearlong Assessment, Task 5	
7. Compare two numbers between 1 and 10 presented as written nu- merals.		Nov. Writing Today's Date	Set A1, Number & Operations: Counting on the Number Line, Activities 2, 3 Set A4, Number & Operations: Addition & Subtraction, Activity 6 Set A6, One Dot, Many Dots Calendar Pattern		

	OPERATIONS AND ALGEBRAIC THINKING K.OA				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment	
Understand addition as putting to	gether and adding to, and understan	d subtraction as taking apart and tak	king from.		
1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	Volume 1, Sessions 31, 32 Volume 2, Sessions 73–80, 82, 83, 105–111 Volume 2, Work Places 2H, 2O Home Connection 6	Mar/Apr Our Month in School	Set A4, Number & Operations: Addition & Subtraction, Activities 1, 3–8 Bridges Practice Book, pp 22, 23, 24, 25, 40, 41, 44, 46, 53, 56, 57, 58, 62, 65, 69, 71	Formal Kindergarten Yearlong Assessment, Task 8	
Understand addition as putting to	gether and adding to, and understan	d subtraction as taking apart and tak	king from.		
2a. Solve addition and subtraction word problems.	Volume 2, Sessions 73–80, 82, 83, 105, 106, 109–111 Volume 2, Work Place 2O Home Connection 6	Dec/Jan Kid Count Feb/Mar Link Each School Day May Here's When We Were Born	Set A4, Number & Operations: Addition & Subtraction, Activities 4, 5, 7, 8 Bridges Practice Book, pp 43, 53, 54, 58, 59	Formal Kindergarten Yearlong Assessment, Task 8	
2b. Add and subtract within 10, e.g., by using objects or drawings to represent the problem.	Volume 1, Sessions 16, 17 Volume 1, Work Place 1F Volume 2, Sessions 74–80, 82, 83, 105, 106, 109–111 Volume 2, Work Place 2O	Mar/Apr Our Month in School	Set A4, Number & Operations: Addition & Subtraction, Activities 3–8 Bridges Practice Book, pp 22, 23, 24, 25, 40, 41, 42, 43, 44, 46, 53, 54, 56, 57, 58, 62, 65, 69, 70, 71	Formal Kindergarten Yearlong Assessment, Task 8	
3a. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings,	Home Connection 6  Volume 2, Sessions 115, 116	Mar/Apr Our Month in School	Set A4, Number & Operations: Addition & Subtraction, Activities 1, 3, 7, 8 Bridges Practice Book, pp 41, 44, 46, 53, 56, 57, 62, 65, 69		
3b. and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$ ).		Mar/Apr Our Month in School	Set A4, Number & Operations: Addition & Subtraction,, Activities 1, 7, 8 Bridges Practice Book, pp 41, 44, 46, 53, 56, 57, 62, 65, 69		
4a. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings,	Not Yet Addressed				
4b. and record the answer with a drawing or equation.	Not Yet Addressed	_		_	
5. Fluently add and subtract within 5.	Home Connection 20	March/April Our Month in School	Set A4, Number & Operations: Addition & Subtraction, Activities 1, 3–8 Bridges Practice Book, pp 41, 44, 53, 56, 57, 62, 69, 70, 71	Formal Kindergarten Yearlong Assessment, Tasks 6 & 7	

NUMBER AND OPERATIONS IN BASE TEN K.NBT				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment
Work with numbers 11–19 to gain fo	oundations for place value.			
1a. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by us- ing objects or drawings,	Volume 2, Sessions 61, 62, 65, 68, 69, 84, 85, 92, 97 Volume 2, Work Places 2C, 2E, 2F, 2H, 2I, 2J, 2L	Dec/Jan Our Month in School	Bridges Practice Book, pp 48, 49	
1b. and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8);	Volume 2, Sessions 84, 85, 92 Volume 2, Work Places 21, 2J			
1c. understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	Volume 2, Sessions 61, 62, 68, 69, 79, 84, 85, 97 Volume 2, Work Places 2C, 2F, 2G, 2I, 2L Home Connection 15	October–May Link a Day Dec/Jan Our Month in School	Set A1, Number & Operations: Counting on the Number Line, Activity 1 Bridges Practice Book, pp 48, 49	

MEASUREMENT AND DATA K.MD				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment
Describe and compare measurable	attributes.			
1a. Describe measurable attributes of objects, such as length or weight.	Volume 2, Sessions 94, 95, 113, 114 Volume 2, Work Places 2K, 2P		Set D1 Measurement: Length, Activities 1–3	
	Home Connections 21, 24		Set D2 Measurement: Weight, Activities 1–3 Set D8 Measurement: Measuring Tools Calendar Pattern Bridges Practice Book, pp 47, 66, 67	
1b. Describe several measurable attributes of a single object.	Not Yet Addressed			
2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	Volume 2, Sessions 113, 114 Volume 2, Work Place 2P		Set D1 Measurement: Length, Activities 1–3 Set D2 Measurement: Weight, Activities 1–3 Bridges Practice Book, pp 29, 30, 66, 67	

MEASUREMENT AND DATA K.MD					
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment	
Classify objects and count the num	ber of objects in each category.				
3a. Classify objects into given categories;	Volume 1, Sessions 1, 5, 7, 10, 11, 18, 20 Volume 2, Session 72 Volume 2, Work Place 2B Home Connection 2	Oct/Nov Our Month in School Mar/April Our Month in School May Here's When We Were Born	Set C1 Geometry: 3-D Shapes, Activities 2, 3 Bridges Practice Book, p 47		
3b. count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)	Volume 1, Sessions 5, 7, 10, 18, 20 Volume 2, Session 72 Volume 2, Work Place 2B	Oct/Nov Our Month in School Mar/April Our Month in School May Here's When We Were Born			

GEOMETRY K.G				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment
Identify and describe shapes (squ	ares, circles, triangles, rectangles, he	xagons, cubes, cones, cylinders, ar	nd spheres).	
1a. Describe objects in the environ- ment using names of shapes,	Volume 1, Sessions 2, 14, 15, 33, 35, 36, 38, 39, 44, 45 Volume 1, Work Places 1B, 1C, 1N Volume 2, Sessions 117–120 Volume 2, Work Places 2Q, 2R Home Connections 7, 9, 12, 22, 26	September Calendar Grid	Set C1 Geometry: 3-D Shapes, Activities 1–3 Set C6 Geometry: 3-D Shapes in the World Calendar Pattern	
1b. and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.			Set C2 Geometry: Locations, Activities 1–3 Set C3 Geometry: Flying Butterflies Calendar Pattern Set C4 Geometry: Teddy Bear & Box Calendar Pattern	
2. Correctly name shapes regardless of their orientations or overall size.	Volume 1, Sessions 7, 10, 14, 35, 36, 44, 45, 53, 54  Volume 1 Work Places 1L, 1N  Volume 2, Sessions 118–120  Volume 2, Work Place 2S  Home Connections 1, 2, 13, 22, 26	Sep Calendar Grid Dec Calendar Grid	Set C1 Geometry: 3-D Shapes, Activities 1–3 Set C5 Geometry: Growing Shapes Calendar Pattern Set C6 Geometry: 3-D Shapes in the World Calendar Pattern	Formal Getting Started: Interview 1 Kindergarten Yearlong Assessment, Task 4
3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").	Not Yet Addressed			

	GEOMETRY K.G				
Standard	Bridges (Sessions, WP, HC)	Number Corner	Supplement	Assessment	
Analyze, compare, create, and com	npose shapes.				
4a. Analyze and compare two-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	Volume 1, Sessions 1, 10–12, 44, 45 Volume 1, Work Place 1N Volume 2, Sessions 119, 120 Volume 2, Work Place 2S Home Connections 1, 2, 13	September Calendar Grid	Set C5 Geometry: Growing Shapes Calendar Pattern Bridges Practice Book, pp 8, 9, 33, 34	Formal Getting Started: Interview 3 Getting Started: Assessment Worksheet 1 (Shape Sorting) Kindergarten Yearlong Assessment, Task 4	
4b. Analyze and compare three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).			Set C1 Geometry: 3-D Shapes, Activities 1–3 Set C6 Geometry: 3-D Shapes in the World Calendar Pattern		
5a. Model shapes in the world by building shapes from components (e.g., sticks and clay balls)	Volume 1, Sessions 14, 15, 33–35, 38, 39, 44  Volume 1, Work Places 1B, 1C, 1K, 1L, 1N  Volume 2, Session 117  Volume 2, Work Place 2Q  Home Connections 7, 9, 12, 26		Set C1 Geometry: 3-D Shapes, Activity 2 Set C6 Geometry: 3-D Shapes in the World Calendar Pattern (Extension 3)		
5b. and drawing shapes.  6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	Volume 1, Sessions 14, 33, 35, 36, 44, 45 Volume 1, Work Places 1B, 1C, 1L Volume 2, Sessions 117, 118 Volume 2, Work Places 2Q, 2R Home Connections 7, 9, 12, 26		Bridges Practice Book, pp 12, 15, 17, 52  Set C5 Geometry: Growing Shapes Calendar Pattern		