**Kindergarten**

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| **Counting and Cardinality** | **K.CC** |

**Know number names and the count sequence.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 1. Count to 100 by ones and by tens. | Counting to 100 by ones.  Counting to 100 by tens. | FNWS  5ish  FNWS  No Level | Green Book:  5.1.1 Copying and Saying Short FNWSs  \*5.1.2 Copying and Saying Short BNWSs  \*5.1.3 Saying Alternate Number Words Forwards and Backwards  5.1.4 Saying the Next Number Word Forwards  \*5.1.5 Saying the Next Number Word Backwards  5.1.6 Saying the Number Word After  \*5.1.7 Saying the Number Word Before  6.1.1 Saying Short FNWSs  \*6.1.2 Saying Short BNWSs  \*6.1.3 Saying Alternate Number Words Forwards and Backwards  6.1.4 Saying the Next One, Two or Three Number Word Forwards  \*6.1.5 Saying the Next One, Two or Three Number Word Backwards  6.1.6 Saying the Number Word After  \*6.1.7 Saying the Number Word Before  7.1.1 Saying Short FNWSs  \*7.1.2 Saying Short BNWSs  7.1.3 Saying One, Two or Three Numbers After a Given Number  \*7.1.4 Saying One, Two or Three Numbers Before a Given Number  \*7.1.5 Saying the Next One, Two or Three Number Word Backwards  Purple Book:  A3.1 Forward Number Word Sequence  A3.2 Number Word After  A3.7 Sequencing Numerals  A3.8 Ordering Numerals  IA3.1 Count Around  IA3.2 Numbers on the Line  IA3.3 Stand in Line  IA3.8 Choir Counting  Green Book:  \*7.1.7 Forwards and Backwards Using the Sequence of Decade Numbers from 10 to 100  Purple Book:  IA3.1 Count Around  IA3.7 The Joke Is On You  A8.1 Forward and backwards Number Word Sequence by 10s, on and off the Decade (Forwards by 10s on the Decade)  A8.4 Incrementing and Decrementing by 10s on and off the Decades (Incrementing by 10s on the Decade)  IA8.8 Target Number  IA8.9 Walk-about Sequences  A10.1 Counting by 2s, 5s, 10s, and 3s (Count By 10s) | F  F |
| 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). | 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). | FNWS  5ish | Green Book:  5.1.1 Copying and Saying Short FNWSs  \*5.1.2 Copying and Saying Short BNWSs  \*5.1.3 Saying Alternate Number Words Forwards and Backwards  5.1.4 Saying the Next Number Word Forwards  \*5.1.5 Saying the Next Number Word Backwards  5.1.6 Saying the Number Word After  \*5.1.7 Saying the Number Word Before  6.1.1 Saying Short FNWSs  \*6.1.2 Saying Short BNWSs  \*6.1.3 Saying Alternate Number Words Forwards and Backwards  6.1.4 Saying the Next One, Two or Three Number Word Forwards  \*6.1.5 Saying the Next One, Two or Three Number Word Backwards  6.1.6 Saying the Number Word After  \*6.1.7 Saying the Number Word Before  7.1.1 Saying Short FNWSs  \*7.1.2 Saying Short BNWSs  7.1.3 Saying One, Two or Three Numbers After a Given Number  \*7.1.4 Saying One, Two or Three Numbers Before a Given Number  \*7.1.5 Saying the Next One, Two or Three Number Word Backwards  Purple Book:  A3.1 Forward Number Word Sequence  A3.2 Number Word After  A3.7 Sequencing Numerals  A3.8 Ordering Numerals  IA3.1 Count Around  IA3.2 Numbers on the Line  IA3.3 Stand in Line  IA3.8 Choir Counting | F |
| 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). | Write numbers from 0 to 20.  Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). | None  Add/Subt.  1 | None  Purple Book:  A4.3 Establishing Numerosity of a Collection  A4.4 Establishing a Collection of a Specified Numerosity  A4.5 Establishing Numerosity of Two Collection | N  P |

**\*F is Full; P is Partial; N is None**

\* While the BNWS is not addressed in the standards, it is a foundational skill that supports subsequent learning.

**Count to tell the number of objects.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 4. Understand the relationship between numbers and quantities; connect counting 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.  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.  c. Understand that each successive number name refers to a quantity that is one larger. | 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.  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.  c. Understand that each successive number name refers to a quantity that is one larger. | Add/Subt.  1  Add/Subt.  1  Add/Subt.  1 | Green Book:  5.3.1 Counting Items in One Collection  5.3.2 Establishing a Collection of a Given Numerosity  5.3.4 Counting Items of Two Collections  5.3.5 Counting Items of Two Rows  Purple Book:  A4.3 Establishing Numerosity of a Collection  A4.4 Establishing a Collection of a Specified Numerosity  A4.5 Establishing Numerosity of Two Collection  Green Book:  5.3.1 Counting Items in One Collection  5.3.2 Establishing a Collection of a Given Numerosity  5.3.4 Counting Items of Two Collections  5.3.5 Counting Items of Two Rows  Purple Book:  A4.3 Establishing Numerosity of a Collection  A4.4 Establishing a Collection of a Specified Numerosity  A4.5 Establishing Numerosity of Two Collection  Purple Book:  A4.1 Comparing Small Collections | F  P  P |
| 5. 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; given a number from 1–20, count out that many objects. | 5. 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; given a number from 1–20, count out that many objects. | Add/Subt.  1 | Green Book:  5.3.1 Counting Items in One Collection  5.3.2 Establishing a Collection of a Given Numerosity  5.3.4 Counting Items of Two Collections  5.3.5 Counting Items of Two Rows  Purple Book:  A4.3 Establishing Numerosity of a Collection  A4.4 Establishing a Collection of a Specified Numerosity  A4.5 Establishing Numerosity of Two Collection | F |

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**Compare numbers.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 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.1 | 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.1 | Add/Subt.  1 | Green Book:  5.4.1 Ascribing Numerosity to Patterns and Random arrays  Purple Book:  A4.1 Comparing Small Collections |  |
| 7. Compare two numbers between 1 and 10 presented as written numerals. | 7. Compare two numbers between 1 and 10 presented as written numerals. | Add/Subt.  1 | Green Book:  5.4.1 Ascribing Numerosity to Patterns and Random arrays  Purple Book:  A3.7 Sequencing Numerals  A4.1 Comparing Small Collections |  |

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| **Operations and Algebraic Thinking** | **K.OA** |

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

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 1. Represent addition and subtraction with objects, fingers, mental images, drawings2, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. | 1. Represent addition and subtraction with objects, fingers, mental images, drawings2, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. | Add/Subt.  1 | Green Book:  5.4.2 Making Spatio-Motor Patterns to Match Spatial Patterns  5.4.3 Making Auditory Patterns to Match Spatial Patterns  7.4.3 Combining 5 and a Number in the Range 1 to 5  7.4.4 Using 5 to Partition Numbers in the Range 6 to 10  Purple Book:  A5.2 Making Finger Patterns for Numbers in the Range 6 to 10  A5.3 Naming and Visualizing Domino Patterns 1 to 6  A5.4 Naming and Visualizing Pair-wise Patterns on a Ten Frame  A5.5 Naming and Visualizing Five-wise Patterns on a Ten Frame  A5.6 Partitions of 5 and 10  A5.7 Addition and Subtraction in the Range 1 to 10  IA5.1 Bunny Ears  IA5.4 Make Five Concentration | P |
| 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. | 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. | None | None | N |
| 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). | 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). | Add/Subt.  1 | Green Book:  7.4.3 Combining 5 and a Number in the Range 1 to 5  7.4.4 Using 5 to Partition Numbers in the Range 6 to 10  7.5.1 Describing and Recording Partitions of a Number  Purple Book:  A5.2 Making Finger Patterns for Numbers in the Range 6 to 10  A5.3 Naming and Visualizing Domino Patterns 1 to 6  A5.4 Naming and Visualizing Pair-wise Patterns on a Ten Frame  A5.5 Naming and Visualizing Five-wise Patterns on a Ten Frame  A5.6 Partitions of 5 and 10  A5.7 Addition and Subtraction in the Range 1 to 10  IA5.1 Bunny Ears  IA5.4 Make Five Concentration | P |
| 4. 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, and record the answer with a drawing or equation. | 4. 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, and record the answer with a drawing or equation. | Add/Subt.  1 | Green Book:  7.4.3 Combining 5 and a Number in the Range 1 to 5  7.4.4 Using 5 to Partition Numbers in the Range 6 to 10  7.5.1 Describing and Recording Partitions of a Number  Purple Book:  A5.2 Making Finger Patterns for Numbers in the Range 6 to 10  A5.3 Naming and Visualizing Domino Patterns 1 to 6  A5.4 Naming and Visualizing Pair-wise Patterns on a Ten Frame  A5.5 Naming and Visualizing Five-wise Patterns on a Ten Frame  A5.6 Partitions of 5 and 10  A5.7 Addition and Subtraction in the Range 1 to 10  IA5.1 Bunny Ears  IA5.4 Make Five Concentration | P |
| 5. Fluently add and subtract within 5. | 5. Fluently add and subtract within 5. | Structuring  1 | Green Book:  5.4.2 Making Spatio-Motor Patterns to Match Spatial Patterns  5.4.3 Making Auditory Patterns to Match Spatial Patterns  6.4.1 Partitioning Visible Patterns to 6  7.4.1 Combining Numbers to 5  7.4.2 Partitioning 5  Purple Book:  A5.1 Making Finger Patterns for Numbers in the Range 1 to 5  A5.6 Partitions of 5 and 10  IA5.1 Bunny Ears  IA5.4 Make Five Concentration | P |

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| **Number and Operations in Base Ten** | **K.NBT** |

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

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. | 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. | None | Purple Book:  IA3.6 Make and Break Numbers | N |

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| **Measurement and Data** | **K.MD** |

**Describe and compare measurable attributes.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. |  |  |  |  |
| 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.* |  |  |  |  |

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**Classify objects and count the number of objects in each category.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.3 |  |  |  |  |

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| **Geometry** | **K.G** |

**Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*. |  |  |  |  |
| 2. Correctly name shapes regardless of their orientations or overall size. |  |  |  |  |
| 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). |  |  |  |  |

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**Analyze, compare, create, and compose shapes.**

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| **Common Core Standard** | **Components of the standard** | **Teaching Towards Construct / Level** | **Activities that Support the Standard** | **AVMR**  **Support**  **F/P/N\*** |
| 4. Analyze and compare two- and 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). |  |  |  |  |
| 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) 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?”* |  |  |  |  |

**\*F is Full; P is Partial; N is None**

1Include groups with up to ten objects.

2Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

3Limit category counts to be less than or equal to 10.