Kindergarten

Math Foundational Skills	Student-Friendly I Can Statements
Counting & Cardinality	
Know number names and the count sequence. (K.CC.A) **K.CC.A.1:** Count to 100 by ones and by tens. **K.CC.A.2:** Count forward beginning from a given number within the known sequence (instead of having to begin at 1). **K.CC.A.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).	▪ I can count to 10 by ones. ▪ I can count to 20 by ones. ▪ I can count to 100 by ones. ▪ I can count to 100 by tens. ▪ I can count on from a number other than 1 up to 100. ▪ I can write numbers 1-10. ▪ I can write numbers 11-20. ▪ I can represent a group of objects with a written numeral 0-20.
Count to tell the number of object. (K.CC.B) **K.CC.B.4:** Understand the relationship between numbers and quantities; connect counting to cardinality. **K.CC.B.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.	▪ I can count object in a group correctly (each object is counted only once) regardless of arrangement and order. ▪ I can say "how many" are in a group after counting all the objects. ▪ If I already know how many are in a group, I ca n say how many there are (without recounting the whole group) when one more object is added to the group. ▪ I can explain my counting strategy. ▪ I can count objects up to 20 in a variety of arrangements. ▪ I can show the correct number of objects when I am told a number up to 20.
Compare numbers (K.CC.C) **K.CC.C.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. **K.CC.C.7:** Compare two numbers between 1 and 10 presented as written numerals.	▪ I can say which group has more by matching or counting the number of objects in both groups. ▪ I can say which group has less by matching or counting the number of objects in both groups. ▪ I can say when groups are equal (same as) by matching or counting. ▪ I can read numerals to 10. ▪ I can tell the values of numbers to 10. ▪ I can compare two numerals between 1 and 10 and say which numeral has a greater value.

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Operations and Algebraic Thinking	
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. (K.OA.A) **K.OA.A.1:** Represent addition and subtraction with objects, fingers, mental images, drawings[1], sounds (e.g., claps), and acting out situations, verbal explanations, expressions, or equations. **K.OA.A.2:** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. **K.OA.A.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) **K.OA.A.5:** Fluently add and subtract within 5.	▪ I can explain addition (putting together and adding to). ▪ I can explain subtraction (taking apart or taking from). ▪ I can identify the mathematical symbols used to show addition and subtraction. ▪ I can show addition and subtraction using objects, fingers, sounds, acting out, situations, expressions, and equations. ▪ I can add and subtract numbers within 10. ▪ I can solve addition and subtraction word problems using objects and drawings. ▪ I can decompose (break apart) numbers to 10 using objects or drawings. ▪ I can record the answer using a drawing or equation. ▪ I can easily add numbers that add up to 5 or less. ▪ I can easily subtract numbers when the starting number is 5 or less.
Numbers and Operations in Base Ten	
Work with numbers 11–19 to gain foundations for place value. (K.NBT.A) **K.NBT.A.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.	▪ I can count to 20. ▪ I can use number 1-9 to make 10 using objects or drawings (e.g. ten frame, base ten blocks). ▪ I can compose (put together) numbers 11-19 using a ten and some ones, and show my work with a drawing or an equation. ▪ I can decompose (break apart) numbers 11-19 into a ten and some ones, and show my work with a drawing or an equation.

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Geometry	
Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). (K.G.A) **K.G.A.2:** Correctly name shapes regardless of their orientations or overall size.	▪ I can name shapes correctly. ▪ I can name shapes correctly even when their size and orientation is unusual or different.

The Standards for Mathematical Practice

The standards for mathematical practice are really about teaching students to think and act like mathematicians and problem solvers:

1. Make sense of problems and persevere in solving them.
   What it means: Understand the problem, find a way to attack it, and work until it is done. Basically, you will find practice standard #1 in every math problem, every day. The hardest part is pushing students to solve tough problems by applying what they already know and to monitor themselves when problem-solving.

2. Reason abstractly and quantitatively
   What it means: Get ready for the words *contextualize* and *decontextualize*. If students have a problem, they should be able to break it apart and show it symbolically, with pictures, or in any way other than the standard algorithm. Conversely, if students are working a problem, they should be able to apply the "math work" to the situation.

3. Construct viable arguments and critique the reasoning of others.
   What it means: Be able to talk about math, using mathematical language, to support or oppose the work of others.

4. Model with mathematics.
   What it means: Use math to solve real-world problems, organize data, and understand the world around you.

5. Use appropriate tools strategically.
   What it means: Students can select the appropriate math tool to use and use it correctly to solve problems. In the real world, no one tells you that it is time to use the meter stick instead of the protractor.

6. Attend to precision
   What it means: Students speak and solve mathematics with exactness and meticulousness.

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7. Look for and make use of structure
   What it means: Find patterns and repeated reasoning that can help solve more complex problems. For young students this might be recognizing fact families, inverses, or the distributive property. As students get older, they can break apart problems and numbers into familiar relationships.

8. Look for and express regularity in repeated reasoning.
   What it means: Keep an eye on the big picture while working out the details of the problem. You don't want kids that can solve the one problem you've given them; you want students who can generalize their thinking.

   To hear an explanation of the importance of these standards for mathematical practices, watch this video from the Hunt Institute:
   https://www.youtube.com/watch?v=m1rxkW8ucAI&list=PLD7F4C7DE7CB3D2E6