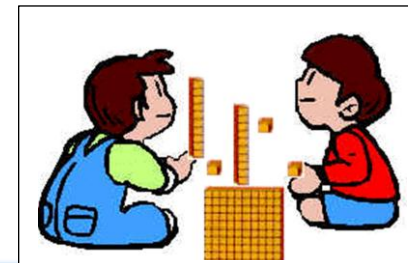# Common Core Math Standards for Kindergarten
Numbers and Operations

The standards explain what children should be able to understand and do by the end of each grade. The box on the left lists the standards teachers are using, and the box on the right is what you can do at home to support what children are learning in the classroom.

Counting and Cardinality   K.CC

Know number names and the count sequence.

1. Count to 100 by ones and by tens.

2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

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).

Count to tell the number of objects.

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.

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.

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.[1]

7. Compare two numbers between 1 and 10 presented as written numerals.

Number and Operations in Base Ten   K.NBT

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

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.

What does this mean and what can I do at home to help my child develop these skills?

- Help your child learn to count forward from 1 to 100. Don't always begin at 1; start at other numbers sometimes.
- Show your child how to write numbers from 0 to 20, and let him match objects like coins or blocks to the number so he how many items a number represents.
- Help your child understand that the last number spoken when counting indicates the number of items, and it doesn't matter what order was used – starting at the top, bottom, left, or right –you still get the same number.
- Arrange items in different ways – line, circle, or square – to show your child that the count is the same no matter how things are grouped. Items arranged in a line are easier to count, so give him practice using other configurations.
- Help him understand that each successive number name refers to a quantity that is one higher; six is one more than five.
- Tell your child a number and ask him to count out that many items – blocks, raisins, coin, etc.
- Arrange two groups of items and ask your child to tell you which group has more or less, or they are the same (equal).
- Write numbers up to 20 two ways on index cards – in digits (1, 2, 3…), and as written numerals (one, two, three…). Let your child match the cards.
- Show your child how to illustrate number groups in drawings. For example, if he has 12 blocks and removes 3 blocks, he has 9 blocks left. Show him that 12 is a ten and two ones, and that 9 is 9 ones.

Common Core Math Standards Kindergarten
Algebra and Patterns

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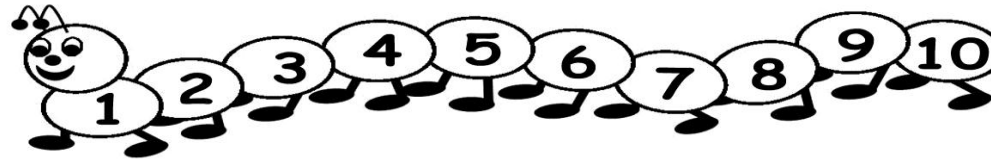
Operations and Algebraic Thinking   K.OA

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

1. Represent addition and subtraction with objects, fingers, mental images, drawings², sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

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).

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.

5. Fluently add and subtract within 5.

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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.)

What does this mean and what can I do at home to help my child develop these skills?

- Use many different ways to show your child how to add and subtract. Let her use real items such as blocks, raisins, or cheerios. Help her draw items on paper. Show her how to clap once for each successive number – 6 claps equals six items. Let her "see" the numbers in her mind.

- Help your child to act out the situations by moving items around –so that she can see that taking two blocks away from a pile of 10 blocks leaves 8 blocks. Ask her to add 3 more blocks and see how many she has.

- Show her how to use the numbers and symbols in equations to represent what she is doing. For example, if she has 5 blocks and adds 2, she can show that with 5 + 2 = 7.

- Help her understand that numbers can be deconstructed in more than one way. For example, 7 can be 0 + 7, 6 + 1, 5 + 2, 4 + 3, and the number can be moved around – 7 + 0, 1 + 6, 2 + 5, 3 + 4.

- Help your child understand the equations that make ten of anything – how many do we need to add to get 10 if we have 1, 2, 3…

Common Core Math Standards Kindergarten
Data and Measurement

The standards explain what children should be able to understand and do by the end of each grade. The box on the left lists the standards teachers are using, and the box on the right is what you can do at home to support what children are learning in the classroom.

Measurement and Data — K.MD

Describe and compare measurable attributes.

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.*

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

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[1]

What does this mean and what can I do at home to help my child develop these skills?

- Help your child understand how to describe the measurement of items, such as length, height, and weight.
- Help him find different words that describe the measurements (small/tiny, large/enormous, heavy/overweight, etc....)
- Help your child compare items by attributes, for example, which one is larger, who is shorter?
- Ask your child to classify objects into categories. For example, put all the square blocks in one pile and all the rectangular blocks in another pile. Then sort the blocks by color.
- Think of other items to sort: laundry (by who it belongs to, type of clothing, etc.), toy vehicles (airplanes, trucks, cars), kitchen utensils (forks, knives, spoons). Make it fun!

Speaking and Listening Standards Kindergarten
Geometry and Spatial Sense

The standards explain what children should be able to understand and do by the end of each grade.
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Geometry   K.G

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

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").

Analyze, compare, create, and compose shapes.

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?"

What does this mean and what can I do at home to help my child develop these skills?

- Help your child learn various words to describe objects she sees in her world. For example, when she describes a dog, it could be large, furry, soft, and friendly. When she describes where her shoes are, they might be next to, under, behind, or on top of the bed.

- Let your child see that shapes (circle, square, rectangle, triangle) remain the same shape no matter how large or small they are.

- Help your child practice naming shapes she sees in her surroundings.

- Show your child the difference between two-dimensional shapes (flat, like a piece of paper) and three-dimensional shapes (solid, like a cereal box).

- Talk with your child about how shapes differ – kind of edge (straight or curved), number of corners, number and length of sides.

- Show your child how to use clay, play doh, string, or yarn to make different shapes. Help her draw the shapes on paper with pencils, crayons, markers, or paint.

- Help your child see that putting two shapes together might make different shapes. For example, putting two triangles together might make a square, or putting two squares together might make a rectangle.

- Help your child see shapes in her world: ask what shape she sees in windows, car tires, sections of sandwiches, etc.