Common Core Math Standards for First Grade
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.

Number and Operations in Base Ten — 1.NBT

Extend the counting sequence.

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

   a. 10 can be thought of as a bundle of ten ones — called a "ten."

   b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

   c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Use place value understanding and properties of operations to add and subtract.

4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

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 120 and to match numbers with objects. Let her see both digits (1, 2, 3) and written numerals (one, two, three).

- Show your child how to think of numbers as representing ones and tens. For example, the number ten can be seen as ten one, or a "ten", and numbers from 11 to 19 can be seen as a "ten" and one, two, three, four, five, six, seven, eight, or nine "ones". This is called place value.

- Similarly, the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 can be seen as one, two, three, four, five, six, seven, eight, or nine "tens" (and 0 ones).

- Show your child what these symbols mean: > is more than; < is less than, and + means the same as. Compare numbers and use those symbols. For example, which symbol would we use to compare 20 and 30? 20 < 30; or 30 > 20 are both correct answers

- Help your child practice adding numbers up to 100. Add two digit numbers and one digit numbers. Help her to see and understand the place value of the numbers – ones or tens, that we add ones together, and tens together, and that sometimes it is necessary to convert ones into a ten and ones when adding numbers. For example, 15 + 16 can be shown as:

	tens	ones
15	1	5
+16	1	6
	2	11
31	3	1

- Help your child practice adding 10 to numbers and subtracting 10 from numbers in her head, explaining how it changes the number in the tens column by one. For example, adding 10 to 20 changes the 2 to 3, and subtracting 10 from 20 changes the 2 to 1.

Common Core Math Standards for First Grade
Algebra and Patterns

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Operations and Algebraic Thinking   1.OA

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]

2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract.[3] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*

4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.*

8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.*

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

- Use blocks or coins to show your child what word problems look like. Show him how to take apart and put together items to show adding and subtracting. Then show him what that looks like using symbols and numbers on paper. For example, if you have 20 blocks and you take away 6 blocks, the equation is: 20 – 6 = 14.
- Now use those blocks or coins to show your child how to add three numbers, and what the equation would look like. 5 + 3 + 2 = 10.
- Help your child understand that numbers that are being added can switch places and still equal the same sum. For example, 5 + 2 is the same sum as 2 + 5.
- Help your child understand that finding numbers that add up to 10 makes addition easier. For example, in the equation 2 + 6 + 4, 6 = 4 = 10, so we can also think of the equation as: 2 + 10.
- Show your child that subtraction is simply finding what number you need to add to a number to get the other number. For example, in the equation 10 – 8, what number do we need to add to 8 to get 10?
- Explain to your child that addition is just counting on (counting on or counting up 2 is adding 2), and subtraction is counting down (subtracting 2 is counting down 2).
- Practice with your child adding and subtracting numbers up to 20, helping him become more fluent in those equations. Remind him to think of numbers as ones and tens to make it easier.
- Show your child equations and ask him if they are equal (=). For example, is 3 + 3 = 6 a true statement? How about 5 + 2 = 9?
- Help your child practice finding the unknown whole number in an addition or subtraction equation. 7 + ? = 12. ? – 3 = 6.

Common Core Math Standards for First Grade
Measurement and Data

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   1.MD

Measure lengths indirectly and by iterating length units.

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.

2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Tell and write time.

3. Tell and write time in hours and half-hours using analog and digital clocks.

Represent and interpret data.

4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

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

- Show your child how to put objects in order by length. Compare objects by using another object to measure them. For example, your child might use his shoe or a piece of string to measure objects, seeing which object is larger by how much space it takes on his shoe or string.

- Show your child how to measure how many lengths an object is by using another object. For example, use a rectangular block to measure how many lengths the table or sofa are.

- Practice telling time in hours and half hours. Use both an analog clock (hour and minute hands move) and a digital clock.

- Help your child understand that data (information) can be organized and represented. Help her make graphs of data: how many red, blue, and yellow blocks, how many neighbors have dogs and how many have cats, or what the weather is like each day for a week.

cat						
dog						

Common Core Math Standards for First Grade
# Geometry and Spatial Sense

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at home to support what children are learning in the classroom

## Geometry   1.G

Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[4]

3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
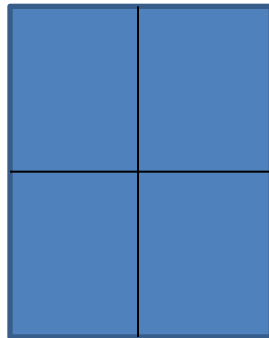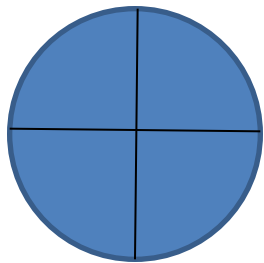
What does this mean and what can I do at home to help my child develop these skills?

- Help your child understand what defines a shape. For example, triangles have three closed sides, and rectangles have four sides with the sides that face each other being the same length. Show him that color, orientation, and overall size don't change the shape.
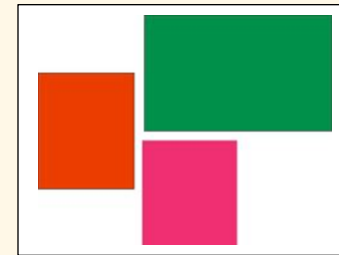
- Allow your child to play with shapes; use blocks or paper shapes. Help him put the shapes together to make new shapes.
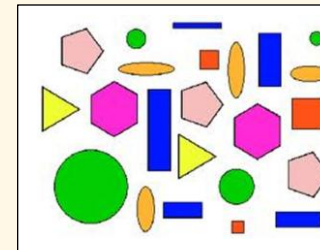
- Show your child what halves, fourths, and quarters of circles and rectangles look like. Use the words half of, fourth of , and quarter of to describe the pieces.