



## STANDARDS FOR MATHEMATICAL PRACTICE

The following practices allow students to become successful in learning mathematics.

### WHEN WORKING A MATH PROBLEM, STUDENTS...

1. Look for ways to solve problems and discuss how they solved them.
2. Understand that numbers represent quantities and can be written with symbols.
3. Participate in mathematical discussions by explaining their thinking to others and respond to others' thinking. They ask questions like "How did you get that?" and "Why is that true?"
4. Represent problems in multiple ways including numbers, words, objects, pictures, etc.
5. Consider available tools, including estimation, to solve a problem and decide which are most helpful.
6. Discuss answers with others and explain their own reasoning.
7. Look for number patterns such as fact families, doubles, and combinations to make 10.  $10 = 7 + 3$   $6 + 6 = 12$
8. Look for short cuts when adding and subtracting and continually check their work asking "Does this make sense?"

## HOW TO HELP YOUR CHILD AT HOME



- ★ Look for "word problems" in real life. Some 2nd grade examples might include:
  - If I need 1 dollar in pennies, how many pennies will I need?
  - Can you measure this picture for me so I know what size of frame to get?
- ★ Practice adding and subtracting up to 100.
- ★ Practice breaking a three digit number into hundreds, tens, and ones.
- ★ Have them tell you what time it is on either a digital or analog clock to the nearest five minutes.
- ★ Practice drawing shapes and tell you what shape it is and why.
- ★ Practice using a chart, line plot, or bar graph of a goal or something they have done. Ask them what it means.
- ★ Practice using money to pay for small items at the store. Allow them to try and count out the correct change.
- ★ Play "What's Bigger." For example, ask them to compare different objects or numbers asking which is larger? They could also arrange several objects from smallest to biggest.

## THE COMMON CORE STATE STANDARDS FOR MATHEMATICS

# 2<sup>nd</sup> GRADE



In 2nd grade your child will gain important new skills while continuing to build on last year's work.

They will add and subtract two-digit numbers quickly and accurately, solve addition and subtraction word problems, and understand what the digits mean in a three-digit number.

They will also gain skills in measuring and estimating lengths.

These important concepts are a foundation for third grade work with multiplication.



## OPERATIONS AND ALGEBRAIC THINKING

Second grade students develop fluency by solving addition and subtraction problems with numbers up to 100. They will use objects to determine if there is an even or odd number in the grouping.

### EXAMPLES:

- ★ If I have 10 oranges and 5 apples I know I have 15 pieces of fruit.

$$10+5=\square$$

- ◆ I can look at a group of objects and decide if they are even or odd and explain why.



- ★ If we have 20 crayons can you pair them into 10 groups of 2?

## NUMBER AND OPERATIONS IN BASE TEN

Second grade students will be able to break down a three-digit number into hundreds, tens, and ones. They will also use place value to add and subtract numbers within 1000.

### EXAMPLES:

- ★ I know that 706 is equal to 7 hundreds, 0 tens, and 6 ones.
- ★ I know that  $125 > 85$  because 85 has 0 hundreds and 125 has 1 hundred. Having 1 hundred is greater than having 0 hundreds.
- ★ I know  $820 - 10 = 810$  because I subtracted the 10 from the 20 in 820 because they have the same place value.



## MEASUREMENT AND DATA

Second grade students will use measurement to see which objects are bigger than the others. They will estimate lengths in inches, feet, centimeters, and meters and solve problems using time or money.

### EXAMPLES:

- ★ I can measure objects using a ruler, yardstick, meter stick, and measuring tape.
- ★ I know the length of the string is 3 inches because that is the length it measures on the ruler.
- ★ I know that by looking at the clock it is close to 12:55 pm. This is because the little hand is after the 12 and close to the 1 and the big hand is closest to the 11 which is 55 minutes.



- ★ I understand that in money 75¢ is either 75 pennies or it can also be 3 quarters or 7 dimes and a nickel....
- ★ I know that if I have 3 dollars and 2 dimes, I have \$3.20.

## GEOMETRY

Second grade students are able to recognize shapes by their features, like the number of angles or the number of faces. Students will know triangles, quadrilaterals, pentagons, hexagons, and cubes. They will also begin to break shapes into different equal parts of two, three, or four to start understanding the words halves, thirds, and fourths.

### EXAMPLES:

- ★ I can break a rectangle into equal parts and write how many pieces each one is broken into.



Halves

Thirds

Fourths

- ★ I know that a whole of an object broken into two pieces is two halves.



- ★ A shape that has 3 angles is a triangle because a triangle has 3 angles and 3 faces.

