STANDARDS FOR MATHEMATICAL PRACTICE

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

WHEN WORKING A MATH PROBLEM…

1. Look for ways to solve problems, make a plan, and discuss how I solved them. I listen to different strategies and use another method to check my answer. I ask myself "Does this make sense?"

2. Understand that numbers represent quantities (how many) and can be written with symbols to represent addition and subtraction.

3. Explain my thinking and the thinking of others using objects, drawings, and mathematical words. I ask questions like "How did you get that?" and "Why is that true?"

4. Show different ways to solve a problem and I check my answer to see if it makes sense.

5. Consider available tools, including estimation, to solve a problem and decide which are most helpful.

6. Solve problems accurately and efficiently and use mathematical vocabulary to explain my thinking.

7. Discover patterns and rules as I begin to multiply and divide.

8. Recognize patterns in numbers and these patterns help me take short cuts. I continually check my work by asking "Does this make sense?"

HOW TO HELP YOUR CHILD AT HOME

★ Look for "word problems" in real life. Some third grade examples might include:

- How many days there are in four weeks?
- How many candies each child will get if 36 candies are shared equally among nine children at a party.
- How many six-inch lengths can be cut from a string 18 inches long.

★ Practice single-digit multiplication facts.

★ Practice mentally multiplying one digit numbers by multiples of 10 (10-90).

  2 x 10   3 x 20

★ Find the perimeter and area of different objects around the house.

★ Practice using analog and digital clocks to tell time to the minute including determining elapsed time.

- You got home from school at 4:24 and began working on your homework right away. It is 5:12 and you just finished your homework. How much time did you spend on your homework?

★ Practice measuring and estimating the size and weight of objects using a liter, gram and kilogram.

- Help measure the liquid and solid ingredients for a recipe using liters, grams and kilograms.

★ Play "draw the shape." For example, ask your child to draw a quadrilateral that is NOT a rhombus, rectangle or square.

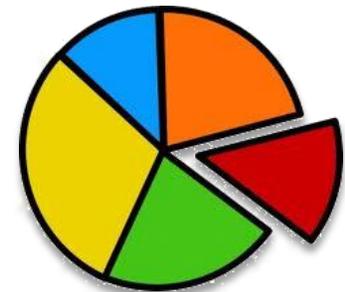# THE COMMON CORE STATE STANDARDS FOR MATHEMATICS

1/2 1/5 1/3

3rd GRADE

In 3rd grade students will gain important new skills while continuing to build on last year's work.

Important topics this year are multiplication, division, and fractions.

These are the building blocks for many life skills that students will learn in later grades.

OPERATIONS AND ALGEBRAIC THINKING

Third grade students develop fluency with multiplication and division within 100 and can solve problems using +, -, X and ÷. They will rely on these skills in future grades when they learn to multiply and divide multi-digit numbers and work with fractions and decimals.

EXAMPLES:

★ There are 7 boxes. Each box holds 5 packs of paper. So there are 35 packs of paper.

★ There are 56 children on 8 teams so there are 7 children on each team.

★ I know that each multiplication fact has a related division fact.

   Ex: Find 32 ÷ 8 by solving 8 x □ =32

NUMBER AND OPERATIONS IN BASE TEN

Third grade students learn to multiply one-digit number by numbers between 10 and 90 and add and subtract within 1000.

★ I know that if 9 x 4 = 36; then 9 x 40 = 360

★ I know 100 – 94 = 6; because 94 + 6 = 100

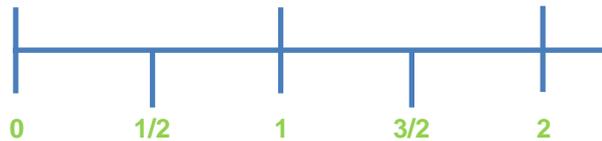## NUMBER AND OPERATIONS- FRACTIONS

Third grade students understand that there are numbers between 0 and 1 that are called fractions. A whole can be divided into equal parts and the parts are fractions.
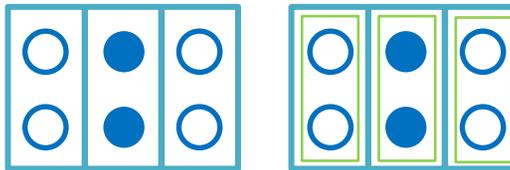
EXAMPLES:

★ I can divide a whole into equal parts to form fractions.

1/2   1/3

★ I can show fractions on a number line.

0   1/2   1   3/2   2

★ I can find equivalent fractions if they are the same size or at the same point on a number line.

2/6 = 1/3

MEASUREMENT AND DATA

Third grade students draw bar graphs, line plots, and picture graphs to represent data. They will begin to apply their knowledge of fractions and use rulers to take measurements.

EXAMPLES:

I can solve problems using time, weight, length, liquid measurement and area.

★ I can find the area of a rectangle by covering it with tiles or by multiplying the sides (length x width) and know this is the same.

★ I can measure objects using a ruler with halves and fourths of an inch.

★ I can solve word problems by breaking apart shapes and adding the pieces to determine the area.
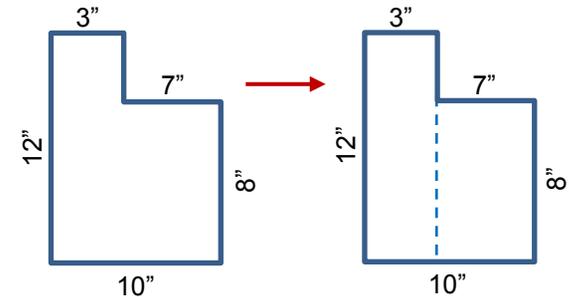
area is 12 x 3 = 8 x 7 + 92 sq inches

GEOMETRY

Third grade students support their understanding of fractions using area models and recognize different examples of quadrilaterals.

EXAMPLES:

★ I can break shapes into equal parts and write the area of each part as a fraction of the whole.

| 1/4 | 1/4 |
| 1/4 | 1/4 |

1/4 1/4 1/4 1/4

| 1/4 |
| 1/4 |
| 1/4 |
| 1/4 |
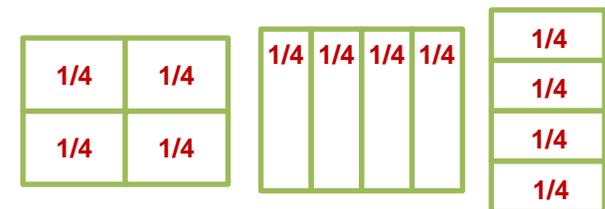
★ I can recognize quadrilaterals in a group of shapes.