

STANDARDS FOR MATHEMATICAL PRACTICE

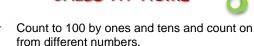
The following practices allow students to become successful in learning mathematics.

WHEN WORKING A MATH PROBLEM, STUDENTS...

- 1. Look for ways to solve problems and discuss how they solved them.
- Understand that numbers represent quantities and can be written with symbols.
- 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?"
- Represent problems in multiple ways including numbers, words, objects, pictures, etc.
- Consider available tools, including estimation, to solve a problem.
- Discuss answers with others and explain their own reasoning.
- Begin to understand number patterns such as recognizing 3+2=5 and 2+3=5.
- Continually check their work by asking "Does this make sense?"



HOW TO HELP YOUR CHILD AT HOME



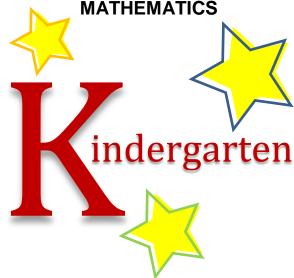
- Ask "how many?" with various objects up to 20 and count objects arranged in different ways.
- ★ Play "write the next number" where you write a number and your child writes the next number up to 20.
- ★ Act out addition and subtraction situations using words, pictures, fingers, or objects
- Look for "word problems" in real life. Some kindergarten examples might include:
 - I picked 5 apples. I ate 2 for lunch. How many apples do I have now?
 - I have 4 stuffed bears and 3 stuffed dogs. How many stuffed animals do I have?
- Practice addition & subtraction facts to 5 and work with number combinations that add up to 10.
- Sort lots of different objects.
- Compare who has more/less, who is taller/shorter, which is heavier/lighter, etc.
- Ask your child: Does that answer make sense? Tell me why?





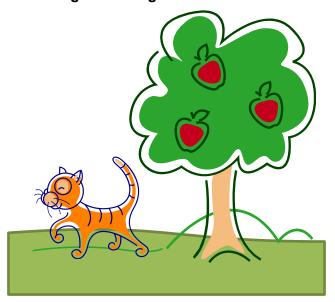
education service districts

THE COMMON CORE STATE STANDARDS FOR MATHEMATICS



In kindergarten your child will work on counting to 100, develop the ability to add and subtract small numbers, and use addition and subtraction to solve word problems.

Addition and subtraction will continue to be a very strong focus in math through second grade.





COUNTING AND CARDINALITY

Kindergartners know the number names and the counting sequence. They count to tell the number of objects and compare numbers. This lays the foundation they need for future addition and subtraction concepts.

EXAMPLES:

- ★ Saying the numbers from 1-100.
- ★ Counting a group of up to 20 items and state the number of objects in the group.
- Determining which of two groups of objects have more (greater), which have less, or if they have equal amounts.
- ★ Reading and writing numbers to 20.

OPERATIONS AND ALGEBRAIC THINKING & NUMBER AND OPERATIONS IN BASE TEN

Kindergartners understand addition as putting together or adding to, and understand subtraction as taking apart or taking from. Students begin working with small numbers to develop rapid recognition of combinations to 5.

EXAMPLES:

★ 3 bunnies sat on the grass. 2 more bunnies hopped there. How many bunnies are on the grass now?

3 + 2 =
$$\square$$

4 apples were on the table. I ate 1 apple. How many apples are on the table now?

4 – 1 =
$$\square$$

4 red apples and 1 green apple are on the table. How many apples are on the table?

4 + 1 =
$$\square$$

★ Grandma has 5 flowers. How many can she put in her red vase and how many in her blue vase?

Later in the year, students extend their addition and subtraction work to include numbers within 10. Being able to count and recognize numbers after 10 will help students begin to develop place value concepts.

EXAMPLES:

- Understanding that adding one to a number gets the next counting word or adding zero creates the same number.
- Using objects or drawings to make ten from any number from 1 to 9.

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$$2 + 8 = 10$$
; $3 + 7 = 10$

- ★ Representing addition and subtraction in different ways and by using symbols (+, -, =)
- Quickly adding and subtracting numbers up to 5 and have a strategy to add and subtract numbers up to 10.
- Stating how many ones and tens are in numbers from 11 to 19.

One Ten and One

e 12
One Ten and Two Ones

MEASUREMENT AND DATA

Kindergartners describe and compare measurable attributes and classify objects and count the number of objects in each category.

EXAMPLES:

- Sorting objects into categories in different ways, count the number in each pile, and sort them by which has more and which has less.
- Comparing objects by weight, size, height using words such as taller/shorter, more of/ less of, etc.
- Sorting objects into categories, and counting the number of objects in each category.

GEOMETRY

Kindergartners identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres) and analyze, compare, create and compose shapes.

EXAMPLES:

- Naming shapes in the environment.
- Describing locations using the words above, below, beside, in front of, behind and next to.
- Putting together shapes to make new shapes.
 - Two triangles make a rectangle.

