

# MATH NEWS



Second Grade Newsletter

Summer/Fall 2019

Math Tips for Families

Unit 1: Strategies to +/- within 20

## Unit 1: Strategies to add and subtract within 20.

Students will work to master sums and differences to 20. Using models (counters, number lines, drawings, part-part whole diagrams) and story problem structures. Students will develop a deep understanding of addition and subtraction and even how they are related to each other.

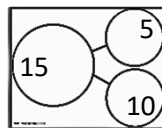
## Before Now:

In first grade, students worked with sums and differences to 10. They solved word problems using addition and subtraction through 10. They also focused a great deal on visual representations like number bonds and ten frames. We refer to these as part-part whole diagrams.

## Key Terms

- **Addend** one of the numbers being added in an addition problem  $5 + 3 = \underline{\quad}$
- **Sum** the total or answer to an addition problem
- **Difference** the answer to a subtraction problem

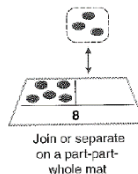
### Number Bond



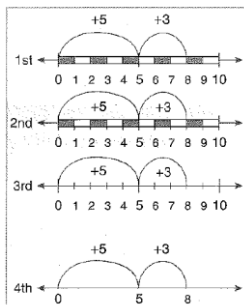
### Ten Frame



### Tape Diagram



### Number lines



## How You Can Help

Play games and fun question games that require making the value of ten in different ways:  $3+7=10$ ,  $4+6=10$ , etc.

Students need lots of exposure to teen numbers, too. We try to get the students to think of them as "10 plus some more." For instance, 19 is 10 plus nine more. They practiced this in first grade with double ten frames and number bonds.

With a box of cards, you can do the following:

- **Play War:** each player turns over two cards. The player with the highest sum wins and keeps the cards.
- Another version can be played the same way, but instead of adding the two numbers- subtract.



## Using Questions

- What mathematical model can you use to represent an addition or subtraction problem?
- What can you add to 6 to have 10 altogether?
- If you have 10 stickers and I give you 9 more, how many will you have?
- $13 + \underline{\quad} = 20$

Cara has 9 crayons at school and 5 at home. Charlie has 7 crayons at school and 8 at home. How many markers does Cara have? Cara has 14 crayons.

$$\begin{array}{r} 9 + 5 \\ \phantom{9} \wedge \phantom{5} \\ \phantom{9} 1 \phantom{5} 4 \\ 9 + 1 = 10 \\ 10 + 4 = 14 \end{array}$$

How many crayons does Charlie have? Charlie has 15 crayons.

$$\begin{array}{r} 8 + 7 \\ \phantom{8} \wedge \phantom{7} \\ \phantom{8} 2 \phantom{7} 5 \\ 10 + 5 = 15 \end{array}$$

## Key California Content Standards for this Unit

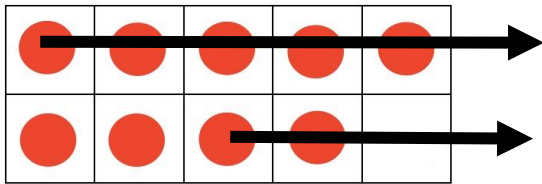
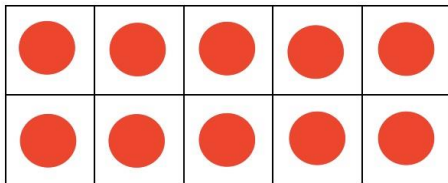
2.OA.2 Fluently add and subtract within 20 using mental strategies by the end of grade two, know from memory all sums of two one-digit numbers

2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.

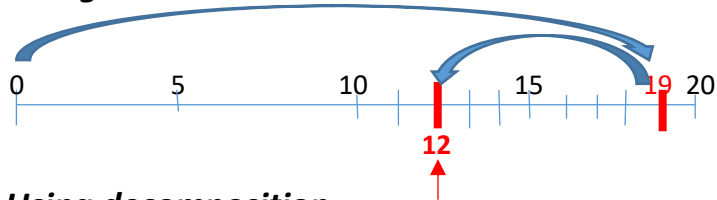
### Some ways to represent and a word problem:

Katie has 19 marbles. She gives Megan 7 marbles. How many marbles does she have left?

#### Using a double ten frame



#### Using a number line



#### Using decomposition

$$\begin{array}{l} 19 - 7 = 12 \\ \swarrow \quad \searrow \\ 10 + 9 \\ \phantom{10} 9 - 7 = 2 \\ 10 + 2 = 12 \end{array}$$

#### Reframe as an addition problem with a missing addend

$$7 + \underline{\quad} = 19$$

#### Sources Used in this Newsletter:

- California Mathematics Content Standards
- California Mathematics Framework
- Eureka Math Tips for Parents
- Lafayette Parish School System: "All Hands on Deck with Math" Topic Newsletters  
<https://www.lpssonline.com/site5579.php>



TUSD ~

Supporting community & family understanding