

NUMBER TALKS

WELCOME



NUMBER

TALKS

☞ NUMBER TALKS HELP TO PREVENT
THIS TYPE OF RESPONSE!

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NUMBER TALKS

WHAT IS A NUMBER TALK?

- ∞ A 5-15 MINUTE CLASSROOM CONVERSATION AROUND PURPOSELY CRAFTED COMPUTATION PROBLEMS THAT ARE SOLVED MENTALLY.
- ∞ THE BEST PART OF A TEACHER AND STUDENT'S DAY.

NUMBER TALKS

GOALS OF A NUMBER TALK:

ACCURACY

FLEXIBILITY

EFFICIENCY



Common Core Standards/AKS

Kindergarten

15.OA.3 **decompose** numbers less than or equal to 10 into pairs in more than one way (e.g., by using objects or drawing), and record each **decomposition** by a drawing or equations (e.g., $5 = 2 + 3$ and $5 = 4 + 1$)

3rd Grade

7.OA.7 fluently multiply and divide within 100, **using strategies** such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers)

2nd Grade

16.NBT.8 **use mental math strategies** to add and subtract 10 or 100 to a given number between 100-900

4th Grade

16.NBT.6 find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, **using strategies based on place value**, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models

1st Grade

19.NBT.5 **using mental math strategies** identify one more than, one less than, 10 more than, or 10 less than a given two-digit number explaining strategy used

5th Grade

10.NBT.6 find whole number quotients of whole numbers with up to four digit dividends and two digit divisors, **using strategies based on place value**, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models

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TALKS

- ☞ UNDERSTAND ADDITION AS PUTTING TOGETHER AND ADDING TO, AND UNDERSTAND SUBTRACTIONS AS TAKING APART AND TAKING FROM
- ☞ **MCCK.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- ☞ **MCCK.OA.2** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- ☞ **MCCK.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
- ☞ **MCCK.OA.4** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
- ☞ **MCCK.OA.5** Fluently add and subtract within 5

NUMBER TALKS

FROM:

MATHEMATICS : KINDERGARTEN:

UNIT 4: INVESTIGATING ADDITION AND SUBTRACTION

GEORGIA DEPARTMENT OF EDUCATION DR. JOHN D. BARGE, STATE
SCHOOL SUPERINTENDENT

MAY 2012

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TALKS

STRATEGIES FOR TEACHING AND LEARNING

Provide contextual situations for addition and subtraction that relate to the everyday lives of kindergarteners. A variety of situations can be found in children's literature books. Students then model the addition and subtraction using a variety of representations such as drawings, sounds, acting out situations, verbal explanations and numerical expressions. Manipulatives, like two-color counters, clothespins on hangers, connecting cubes and stickers can also be used for modeling these operations. Kindergarten students should see addition and subtraction equations written by the teacher. Although students might struggle at first, teachers should encourage them to try writing the equations. Students' writing of equations in Kindergarten is encouraged, but it is not required.

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Create written addition or subtraction problems with sums and differences less than or equal to 10 using the numbers 0 to 10. It is important to use a problem context that is relevant to kindergarteners. After the teacher reads the problem, students choose their own method to model the problem and find a solution. Students discuss their solution strategies while the teacher represents the situation with an equation written under the problem. The equation should be written by listing the numbers and symbols for the unknown quantities in the order that follows the meaning of the situation. The teacher and students should use the words *equal* and *is the same as* interchangeably.

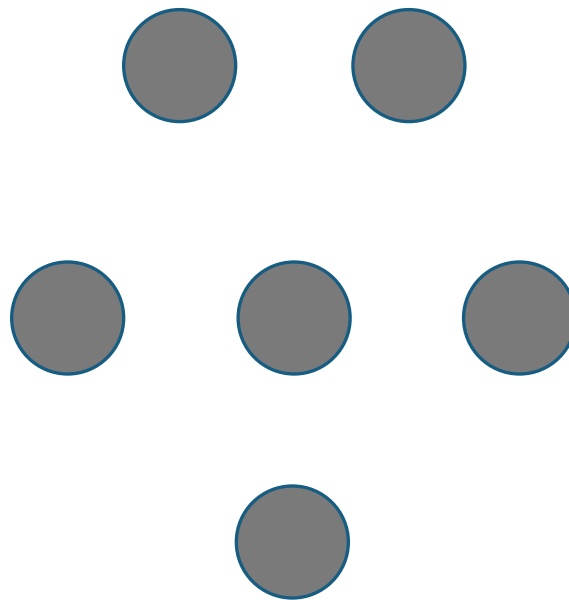
NUMBER

TALKS

WHAT ARE DOT
CARDS?

NUMBER

TALKS



HOW MANY DO YOU SEE?
HOW DO YOU SEE THEM?

NUMBER TALKS

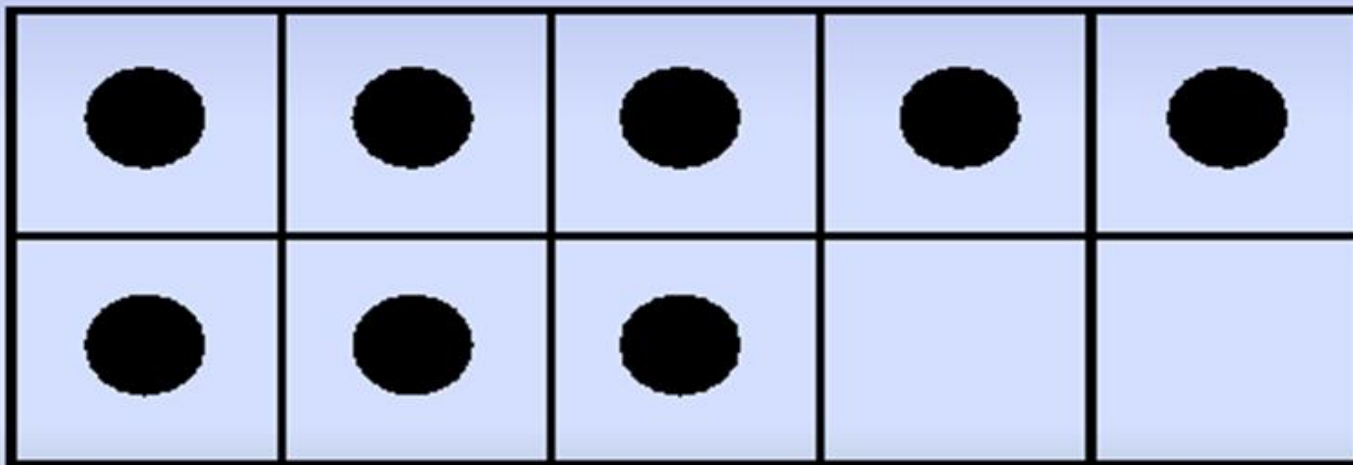
WHAT ARE TEN
FRAMES?

NUMBER

TALKS

Monday's Number Talk

- 🐝 How many dots do you see?
- 🐝 How do you see them?



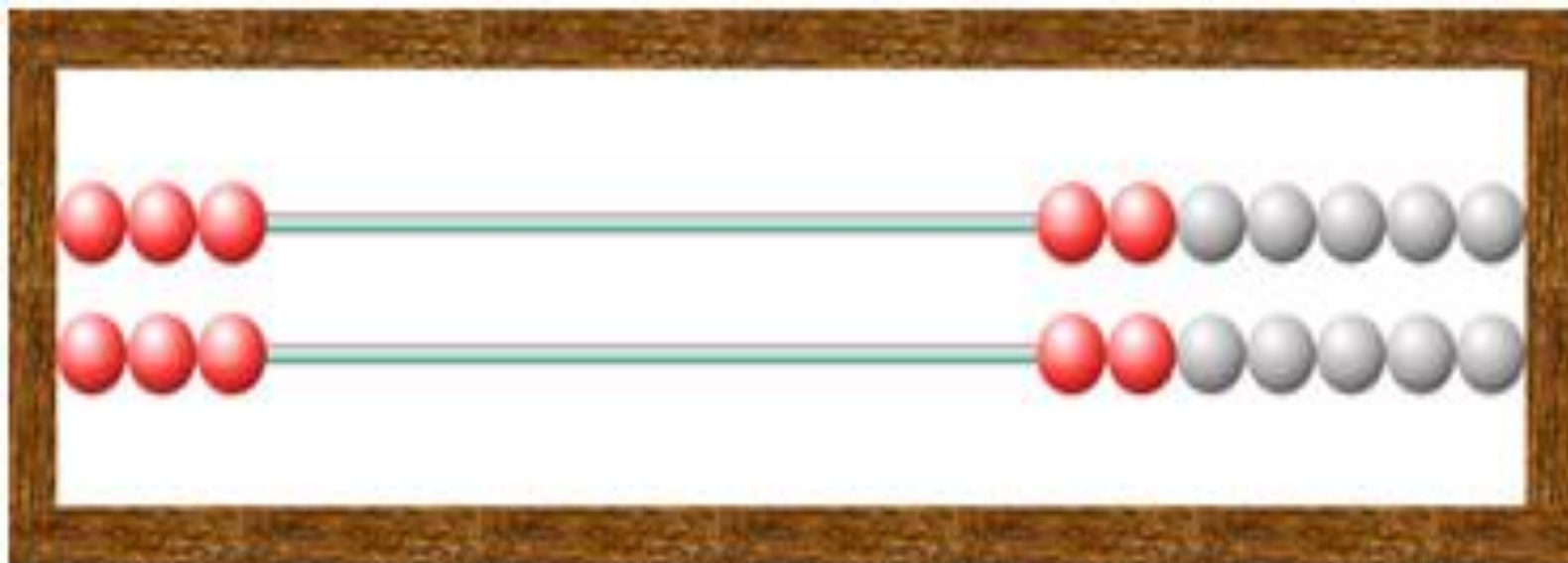
NUMBER

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WHAT IS A
REKENREK?

NUMBER

TALKS



HOW MANY DO YOU SEE?

HOW DO YOU SEE THEM?

NUMBER

TALKS

WHAT IS AN
EMPTY NUMBER
LINE?

NUMBER

TALKS



NUMBER

TALKS

$8+9$

COUNTING ON STRATEGY

8

9

10

11

12

13

14

15

16

17



NUMBER

TALKS

BRING ON THE
CHILDREN...