

# **Math Strategies We Use in Kindergarten**



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This booklet will show you some of the strategies I have learned to be more successful at solving problems. As I become a stronger mathematician, I learn how and why problems can be solved in different ways. The more I learn and use these different strategies, the more efficient and accurate I will become.

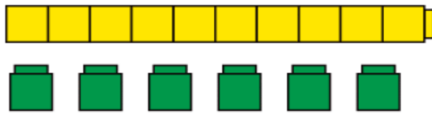
# Tools

Here are some of the tools I use at school to help me count, add, and subtract in Kindergarten.

## Fingers



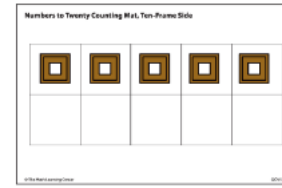
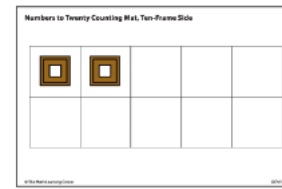
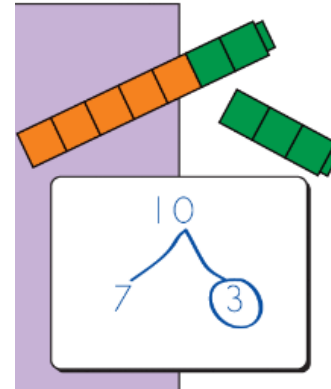
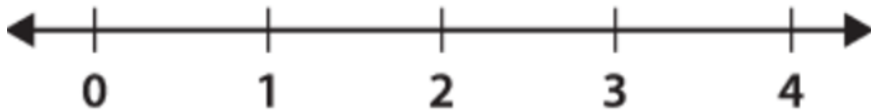
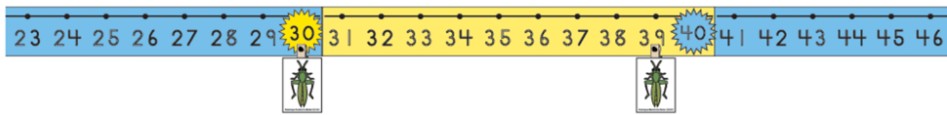
## Unifix Cubes



## Coins



## Number Lines



5

3      2

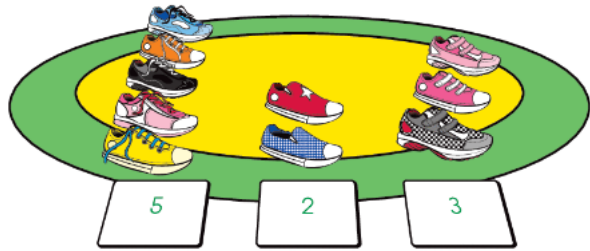
$5 - 3 = 2$

$2 + 3 = 5$

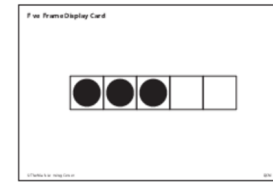
6 - 1 = 5

8 + 1 = 9

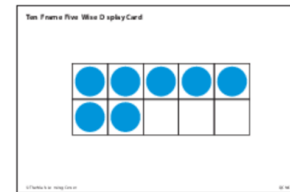
Here are some examples of students using different strategies:



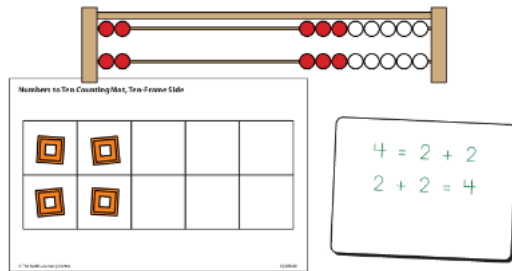
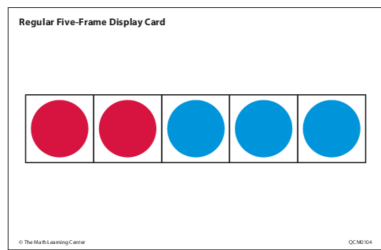
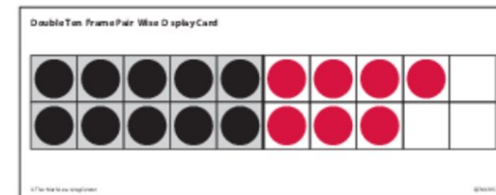
### Five Frame



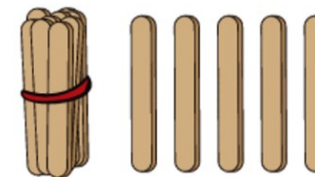
### Ten Frame



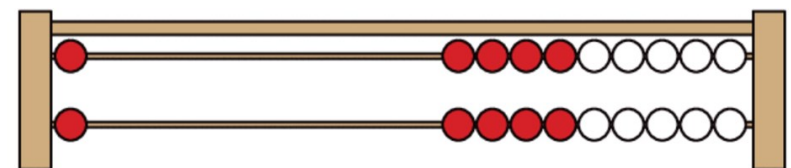
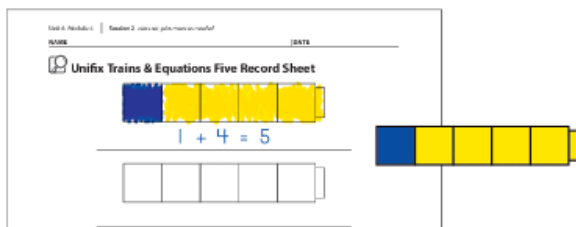
### Double Ten Frame



### Bundles & Sticks



### Number Rack



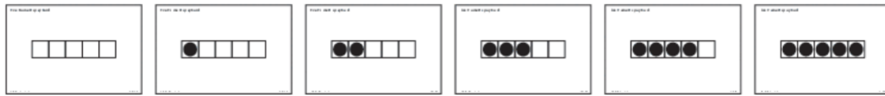
## Counting

I can count to 100 using ones and tens.

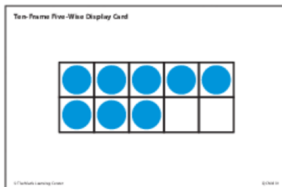
### Fingers



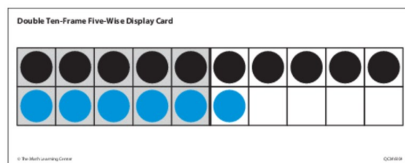
### Five Frames



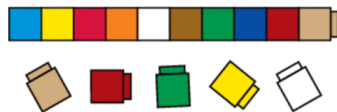
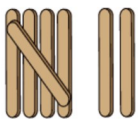
### Ten Frame



### Double Ten Frame



### Objects



## End of the Year Expectations

- Count to 100 by ones and tens
- Count on from a given number
- Write numbers 0-20
- Fluently add and subtract within 5
- Add and subtract within 10 using strategies

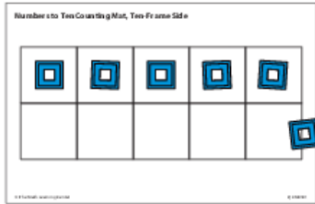
# Subtraction

I can subtract fluently within 5. I can subtract using strategies within 10. The same strategies that are used in addition are used in subtraction. Here are some others:

## Counting by Ones (three times)

$$9-4=5$$

I counted out 9. 1, 2, 3, 4, 5, 6, 7, 8, 9. Then I took away 4. 1, 2, 3, 4. And then I counted to see how many were left. 1, 2, 3, 4, 5.



## Counting Down From

$$9-4=5$$



I took away 4 bugs: 9, 8, 7, 6. There are 5 left. I can see them on this one hand.

or

I took away the 9, then I took away the 8, then the 7, and the 6. There are 5 left.

## Thinking About the Difference

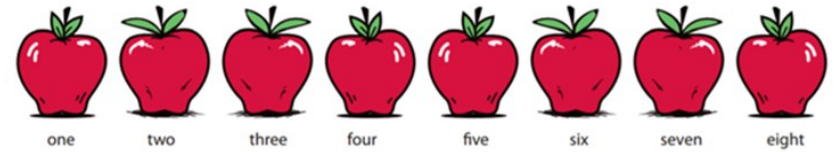
$$9-4=5$$



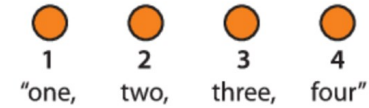
I see these 4 on the bottom that flew away. The ones on the top are the ones that are left. That's 1, 2, 3, 4, 5 bugs that are left.

I can count to tell the number of objects in a group within 20.

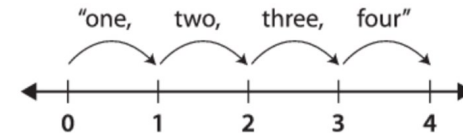
I understand the number name tells the quantity in a group.



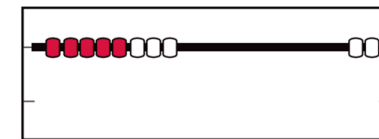
## Objects



## Number line



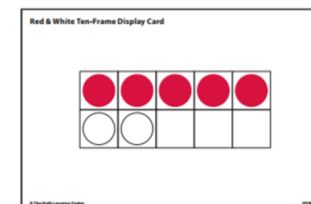
## Number Rack



"1, 2, 3, 4, 5, 6, 7, 8. That's 8."

I can count on in numbers.

a sequence of



"I see 5, then 6, 7."

# Addition

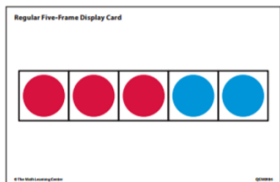
I can add fluently within 5. I can add within 10 using strategies.

## Fingers



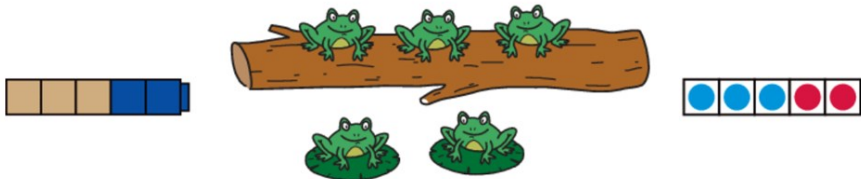
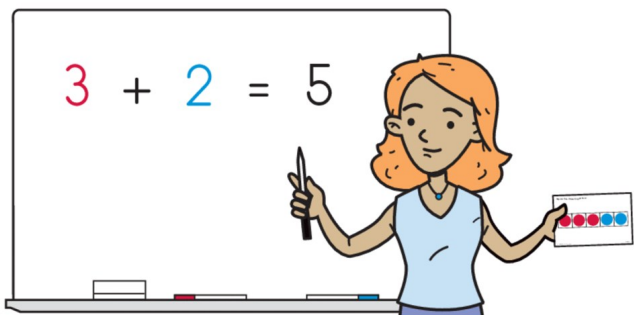
$$4 + 2 = 6$$

## Five Frame



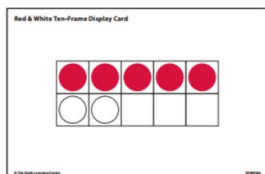
$$3 + 2 = 5$$

## Equation/ Number Sentence

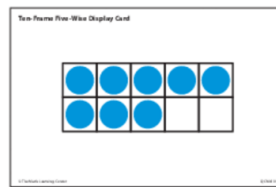


The equation  $3 + 2 = 5$  can be used to describe all three representations.

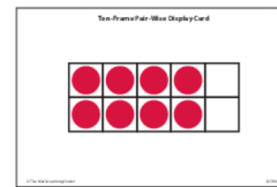
## Ten Frame



"I see 5 and 2, and I know that's 7 in all."

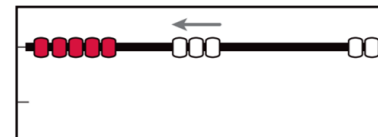


8 shown on a five-wise ten-frame  
 $8 = 5 + 3$



8 shown on a pair-wise ten-frame  
 $8 = 4 + 4$

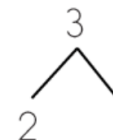
## Number Rack



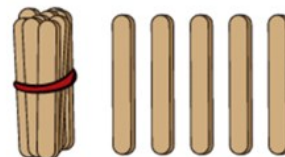
"First slide 5, and then 3 more makes 8."

I can build, compose, and decompose numbers.

## Number Bond



## Building 15 using different strategies



$$15 = 10 + 5$$

15

