

A tropical beach scene with a clear blue sky, white clouds, and a turquoise ocean. In the background, there are green, rocky mountains. A palm tree trunk is visible on the right side of the frame, and its fronds hang down from the top left.

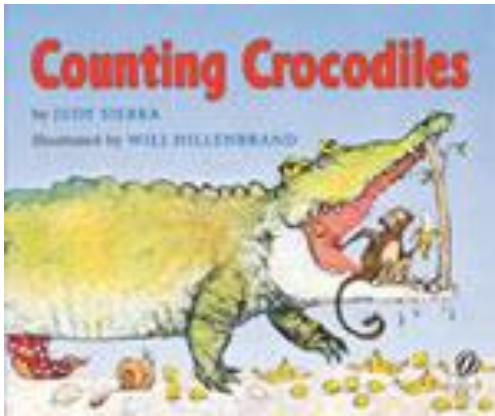
*Math Alliance  
Summer 2009  
Van de Walle Session*

*Welcome Back!*



A wide, horizontal photograph of a tropical beach. In the foreground, a large palm tree trunk leans from the right side towards the center. The water is a clear, light blue, and the sky is a deeper blue with scattered white clouds. In the background, there are green, rolling hills and a prominent, flat-topped mountain. The title 'Solving Story Problems' is written in a green, cursive font across the middle of the image.

# *Solving Story Problems*



What is the math in this  
book?



# *Solving Story Problems*



## Examples of Strategies

Find a pattern

Draw a picture

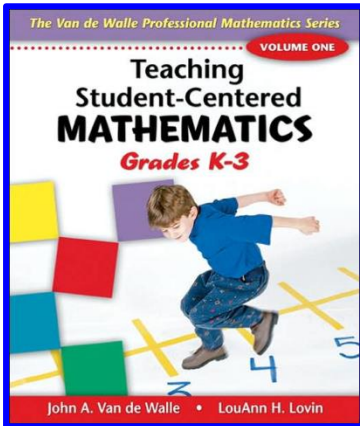
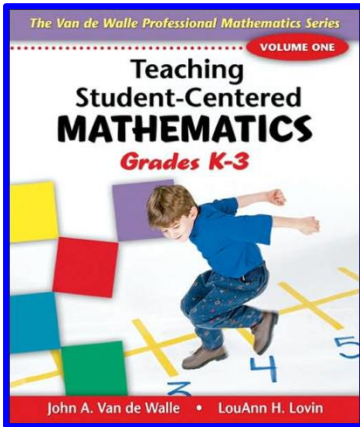
Use manipulatives

Write a number sentence

## Developing meaning for the operations and solving story problems.

Van de Walle says the big idea is...

Addition and subtraction are connected. Addition names the whole in terms of the parts, and subtraction names a missing part



Aidan had 7 marbles in her marble bag. After School, she found some more marbles that she misplaced and put them in her bag. When she Counted all of her marbles there were 15 in all. How many extra marbles did Aidan find and put In her bag?

Maggie had a large collection of stuffed animals. She gave away 6 of her favorite animals to her little sister, Grace. Maggie still has 15 stuffed Animals left in her collection. How many did she have before she gave the animals to Grace?

One of these problems is a joining or put together. The other is a separate or take away action. Which is which?

If you had a calculator how would you solve the 1<sup>st</sup> one?

How about the 2<sup>nd</sup> one?

# Are these your definitions?

## Addition

- Addition is used to name the whole when the parts of the whole are known.

## Subtraction

- Subtraction is used to name a part when the whole and the remaining part are known.

Now let's go back and identify the parts and the whole.



# *Structures for Addition and Subtraction*

*Divide into 4 groups*

*Read pages 65-66*

- Group 1 – Join Problems*
- Group 2 – Separate Problems*
- Group 3 – Part-Part-Whole Problems*
- Group 4 – Compare Problems*

Put your problems on chart paper.

Go back through and match the numbers in the problems with the components in figure 3.1

First, use a set of counters and solve like your children might solve.

Second, write either an addition or subtraction equation that you think best represents the problem as you did it with counters.



# Reflection

Do you see addition and subtraction the same way?

What problem solving strategies have you taught your children?

Where are you going now with your Van de Walle book? What is your next step?

