# NCSM 2016 NCTM 2016

## Marilyn Burns



## Overview

- A Teaching Bridge between Math and Reading
- One-on-One Interviews
- Number Talks
- Instructional Strategies
- Differentiating Instruction



#### When teaching reading, we want our students to:

- read fluently
- love reading
- develop good word attack skills
- comprehend what they read
- make predictions about what might come next in a story
- retell a story in their own words
- *identify what's important and what's not as important in what they read*
- experience shared reading, guided reading, independent reading, and read alouds

About Teaching Mathematics, p. 119–121



#### When teaching math, we want our students to:

- read fluently ------have fluency with basic facts
- love reading ------love math
- develop good word attack skills ------understand word problems
- comprehend what they read -----understand concepts
- make predictions about what -----*interpret and use patterns* might come next in a story
- retell a story in their own words -----explain in their own words
- identify what's important & what's ----identify what's important & not as important in what they read not in word problems
- experience shared reading, guided -----work in groups and reading, independent reading, and independently read alouds

About Teaching Mathematics, p. 119–121



## **Goldilocks & the Three Bears**

- Once upon a time, there was a little girl named Goldilocks.
- Once upon a time there were three bears who lived together in a house of their own in a wood.
- Once upon a time, Goldilocks was playing in the woods near her home.
- Once upon a time, there was a little girl named Goldilocks who was very, very good, except that sometimes she forgot to do things that her mother told her to.

http://marilynburnsmathblog.com/wordpress/goldilocks-the-threebears-and-teaching-math/ Math Solution

### **One-on-One Interviews**

#### **General practice for reading**

#### Why not for math?





instruction more effective. Learn More

from intervention, and communicate with parents. Learn More

accordingly."

- Diana Jones Grade 6 Teacher SLCUSD, California

**Read blog: http://marilynburnsmathblog.com/** wordpress/we-ask-we-listen-we-learn/

Learn more

## **Place Value Interview**

- On a sheet of paper, put out 16 cubes. "Here are 16 cubes."
- Ask the student to write the number 16.
- Gather 6 of the cubes next to the 6 in the 16. "These cubes show what the "6" in the number 16 means?"
- Ask the student: "Show with the cubes what the '1' in the number 16 means?"

To see videos: http://marilynburnsmathblog.com/ wordpress/place-value-how-to-assess-studentsunderstanding/















### **Subtraction Interview Questions**



50 30 for 8  $\nabla$ \* 3<sub>0</sub> 50 11

Nomar, Grade 3

#### Ariana, Grade 3

#### Number Talks

- Develop new understanding
- Provide practice with computation
- Build flexibility & number sense
- Cement or extend ideas
- Support the mathematical practices

Using 99 + 17 for a number talk: http://marilynburnsmathblog.com/wordpress/a-mental-math-lesson/



# 5 + 8 + 5



### **Connecting Number Talks & Writing**

- What did you do first?
- What did you do second?
- Why did you do it that way?

http://rfsdmath.blogspot.com/2015/10/strategy-5.html



# 4 + 3 + 6



did First I took the G and the I add them together and I got 10. - did second I thad 3 spillater so added the 10 and the 3 together and my answer was 13. I did it in that order beduse making 10s is more easy for me to make, then you could add the spittater.

je.



4+3+6=3 What I did was I took away 1 from the) the six then I gave that to the four, since I took away the one and gave it to the four that 5+5 which equals 10. So tot 3=13. I think) I was efficient because I made a ten there added to ten which is easy to do. SWER Math Solutions.

4+3+6=13 What I did First I did 1 took away from the four and add 3+3=6 Second I add the 6+6=12 so I had one more left out so I added that last one to 12 and got 13. I thoght It will be probly faster by doing 6+6=12 so added I and that = 13 and got that anwer.



4+3+6=13 first I stared from the six and split the six into two 3 blc 3+3=6 then I counted by three in my head so 3-6 then I added the 3 and it will be 3-6-9 the I took the 3 away from the 4 and then it will come to 3-6-9-12 and 12+1=13 the strategie I used was repeated addition I did it in that order because I know how threes really good.





# Our teaching goal is not to *cover* the Standards . . .



# Our teaching goal is not to *cover* the Standards . . .

## but to uncover them.





http://marilynburnsmathblog.com/wordpress/



https://mathreasoninginventory.com/

### www.mathsolutions.com

