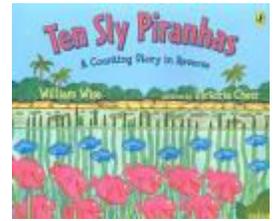# Book Title: Ten Sly Piranhas *A* *Counting Story in Reverse* by William Wise
Grade Levels: 2-3

Learning Outcomes:

Grade 2

A9 Demonstrate an understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by:

    (a) using personal strategies for adding and subtracting with and without the support of manipulatives

    (b) creating and solving problems that involve addition and subtraction

Grade 3

A9 Demonstrate an understanding of addition & subtraction of numbers with answers to 1000 (limited to 1, 2 and 3-digit numerals) by:

    (a) using personal strategies for adding and subtracting with & without manipulatives

    (b) creating and solving problems in context that involve addition and subtraction of numbers concretely, pictorially and symbolically.

Materials:

- Bags of counters as needed (50 units cubes for 2 and 3)
- Book: Ten Sly Piranhas by William Wise
- Partitioning Cards (I used the 'pig partitioning cards' as a warm up or dot cards)
- Story Problem Think Board
- Story Problem worksheets – grade specific
- Story Problems – grade specific

Lesson Focus 'Change Unknown' Problems:

1. Discuss learning intention: "I can write an equation that shows how I solved a story problem."

2. Warm-up students with a game – using images of dots, pigs or piranhas, and a number and have them determine the number of missing shoes. Give time for students to share their strategies. Could do this as well in gym. Children put shoes in a pile, cover some with a blanket or a mat and have children determine the covered quantity. An example of the language I use for this, using the Part Part Whole Cards – holding up a card with the number 23 visible- 18 and 5 under the doors. Mrs. Smith had 23 pet fish, a piranha ate some of them. She had 18 left. How many did the piranhas eat. Record it as 23- ? = 18. Discuss strategies, then repeat with a different card – (Whole – 21 parts 12 and 9) Mrs. Smith had 12 fish – open flap (number folded back) then she bought some more. Now she has 21. Show top number. How many did she buy? Record after discussion 12 + ? = 21.

3. Read the story, Ten Sly Piranhas. Stop reading after the pattern has become obvious.

4. Pose the problem (adjust numbers for the ability of your class):
   The pond had 26 piranhas.
   After I caught some there were 18 left over.
   How many piranhas did I catch?

   Use a unifix cubes to represent the fish. Brainstorm ways to model the problem.

5. Give the children an opportunity to discuss their strategies, then record their thinking on the Think Board (electronically or on an overhead) an equation that represents the way they solved the problem as well as one done semantically.

6. Repeat for:
   27 piranhas were moved into the lake before I took a break.
   I then move some more.
   I moved 42 piranhas altogether.
   How many piranhas did I move after my break?

7. Have pairs or small groups of students take the problem papers – one at a time to solve. A variety of addition and subtraction problems are purposefully included – all change unknown.

8. Independent practice – complete attached sheet – recording equation and solution on the sheet but completing the work on the story board.

9. Have students debrief, first with a turn and talk and then whole group, the strategies they used to help them decide how to solve the problems.

10. Ticket out the door: 'Which type of problem did they find easier to solve – a subtraction or an addition?'