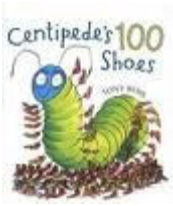
Book Title: Centipede's 100 Shoes by Tony Ross
Grade Levels: 2-3



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: Centipede's 100 Shoes by Tony Ross
- Shoe Partitioning Cards
- Story Problem Think Board
- Story Problem worksheets – grade specific
- Story Problems – grade specific

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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 shoes, 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.

3. Read the story, Centipede's 100 Shoes. Stop reading at the page where the centipede discovers he has 58 shoes left over.

4. Pose the problem (adjust numbers for the ability of your class):

   The centipede had 100 shoes.
   After he put his shoes on, he has 52 left over.
   How many feet does he have?

   Use a unifix cubes to represent the shoes. 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.

6. Repeat for:

   The centipede tied up 27 shoes before he took a break.
   He then tied up some more shoes.
   He tied up 42 shoes altogether.
   How many shoes did he tie up after his 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?'