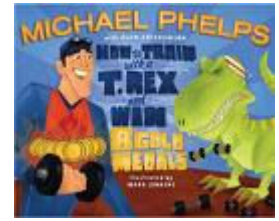


# Book Title: How to Train with a T.Rex and Win 8 Gold Medals *by Michael Phelps*

## Grade Levels: 2-4

---



### 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.

#### Grade 4

A3 Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals) by:

- (a) using personal strategies for adding and subtracting
- (b) estimating sums and differences
- (c) solving problems involving addition and subtraction.

### Materials:

- Bags of base-10 blocks and place value mats as needed
- Book: [How to Train with a T.Rex and Win 8 Gold Medals](#) by Michael Phelps
- Story Problem Think Board
- Story Problem worksheets – grade specific
- Story Problems – grade specific

## Lesson Focus 'Start Unknown' Problems:

1. Discuss learning intention: "I can write an equation that matches the problem in the story and an equation that shows how I solved the story problem."
2. Warm-up students with a matching/concentration game – see sheets with stories and matching equations. Post the equations – overhead/board/chart – read the story and have the class find the equation that matches the semantics of the problem. Do lots of turn and talk with this.
3. Read the story, How to Train with a T.Rex and Win 8 Gold Medals by Michael Phelps.
4. Explain to the class that you have some swimming problem sfor them to solve.

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

You practiced every day for 54 days.  
You took a break from swimming.  
You returned to practice on day 87.  
How many days did you take a break?

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 or the mat at the carpet) a picture and an equation that represents the way the problem is written and the way you solved the problem.
6. Have pairs or small groups of students take the problem papers (have available the adapted versions depending on abilities – one at a time to solve. A variety of addition and subtraction problems are purposefully included – mixed start unknown, change unknown and result unknown.
7. Independent practice – complete attached sheet – recording equation and solution on the sheet but completing the work on the story board. Be prepared to use larger or smaller numbers depending on the level of ability.
8. 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. Finish reading the book.
9. Ticket out the door: 'Which type of problem did they find easier to solve – a subtraction or an addition?'