




Related  
Junior  
Resources



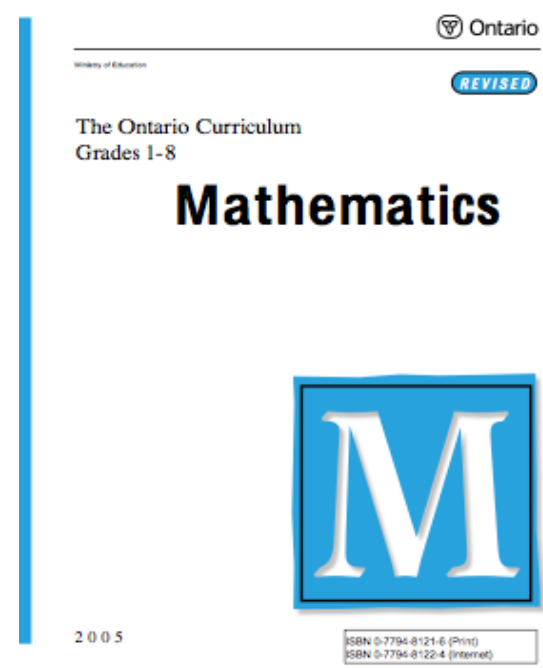
'Spatializing'  
Instruction  
and Learning

- Adding and Subtracting Decimals

# 'Spatializing' the Curriculum

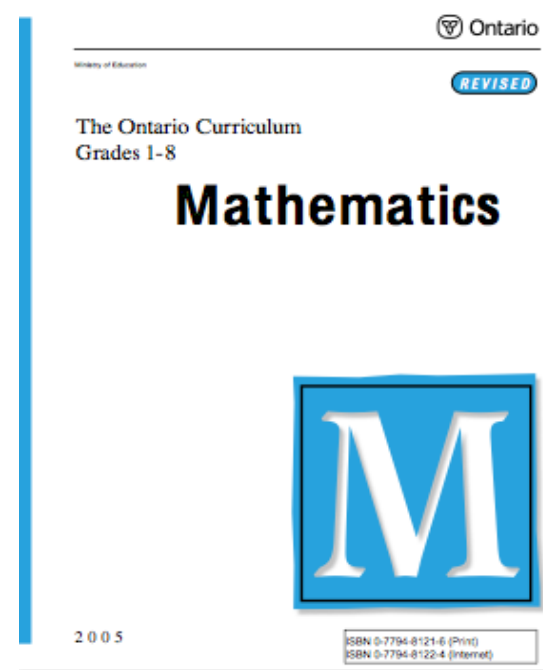
## Grade 4

- Add and subtract decimal numbers to tenths, **using concrete materials**, and student-generated algorithms
- Add and subtract money amounts by making simulated purchases and providing change for amounts up to \$100, **using a variety of tools**



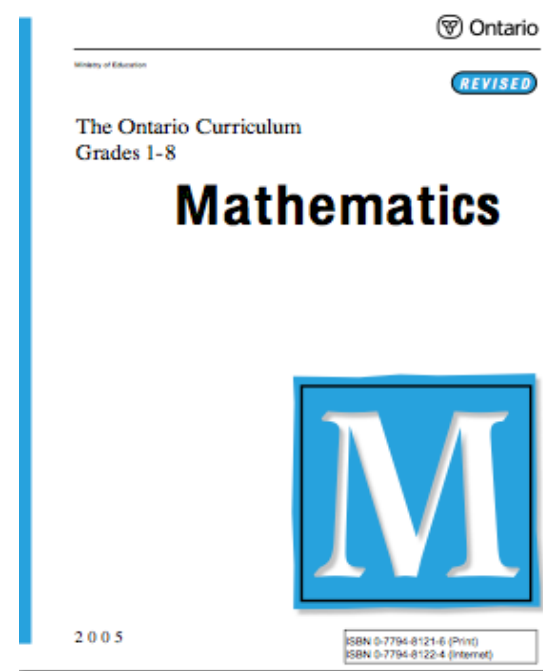
# 'Spatializing' the Curriculum Grade 5

- Add and subtract decimal numbers to hundredths, including money amounts, **using concrete materials**, estimation, and algorithms

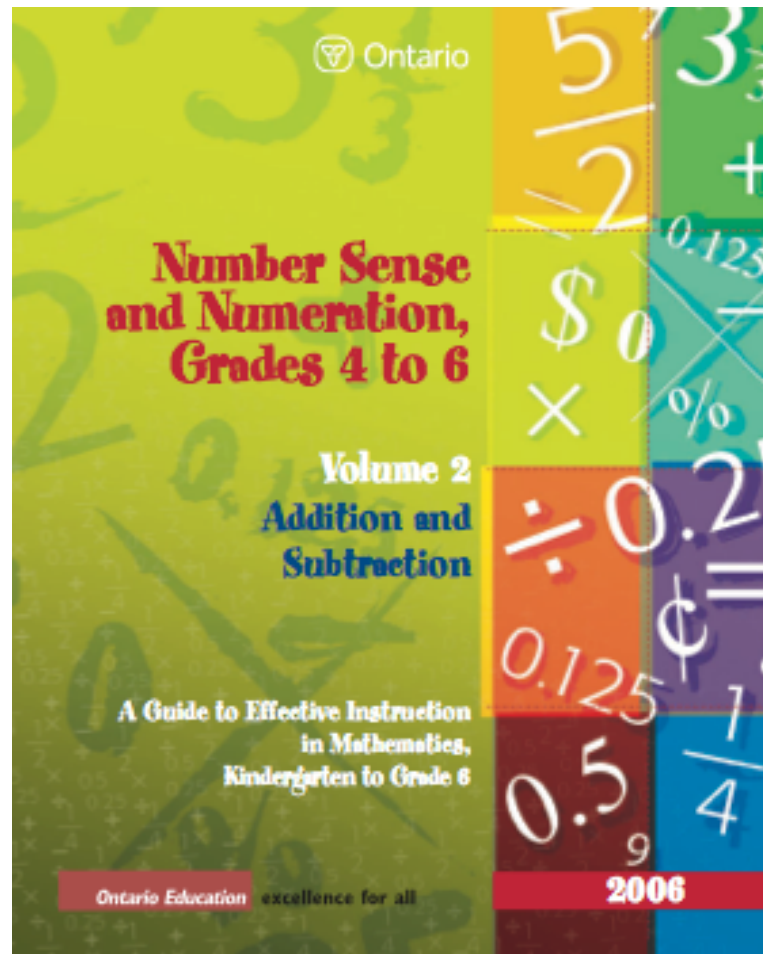


# 'Spatializing' the Curriculum Grade 6

- Add and subtract decimal numbers to thousandths, **using concrete materials,** algorithms, and calculators



# Highlights of Spatial Reasoning in Junior Resource



# Challenge with Adding and Subtracting Decimals

- Adding and subtracting decimals that do not have the same 'end point.'  
(e.g., 6.3 and 5.15)

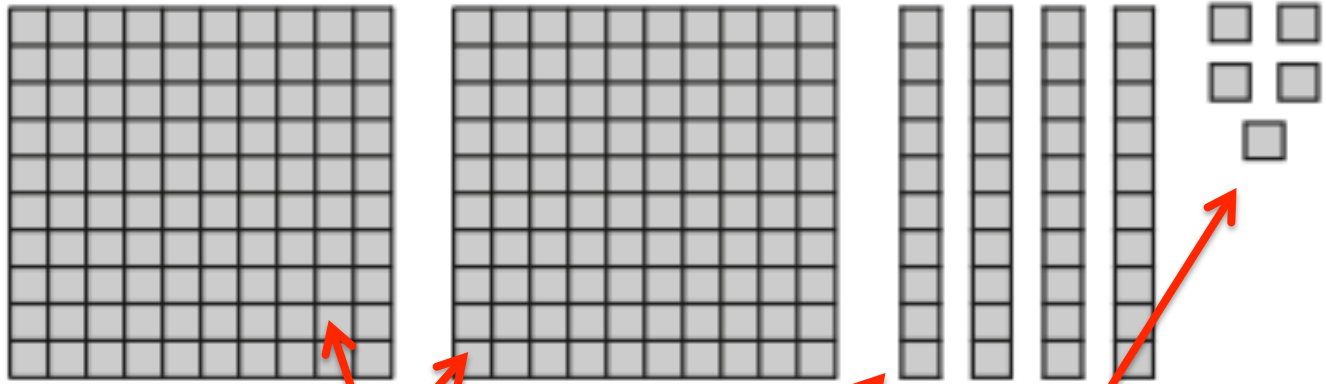
## **Using Spatial Reasoning**

- Emphasize that like-units must be added or subtracted (e.g., tenths to and from tenths, hundredths to and from hundredths)
- Represent like-units with concrete materials and visual representations

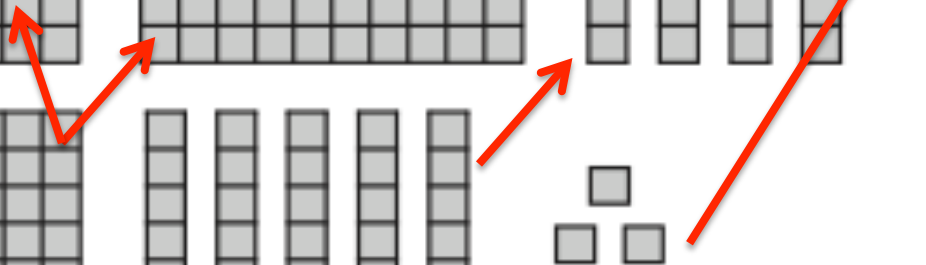
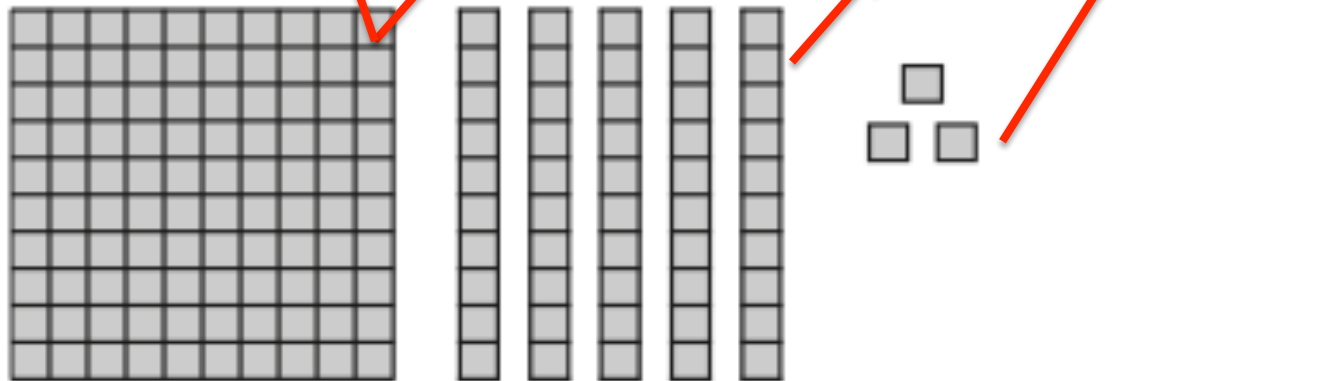
# Add like-units to like-units

$$2.45 + 1.53$$

2.45



1.53



# Money Problems to Provide Context and Encourage the Use of Concrete Materials

*“Aaron needs to buy movie tickets for \$8.25, popcorn for \$3.50, and a drink for \$1.75. About how much money should Aaron bring to the movies?”*



# Using Mathies Money Tool to Represent the Problem

123 \$/¢



\$8.25



\$3.50



\$1.75

# Using Mathies Money Tool to Solve the Problem

The screenshot displays the Mathies Money Tool interface. At the top left, there are control buttons: a blue circle with '123', a '\$/¢' symbol, a checkmark icon, and two blue arrows (left and right). A green circle with a pencil icon is at the top right. The main area shows a selection of Canadian currency: a 5-dollar bill, a 10-dollar bill, a 20-dollar bill, a 50-dollar bill, and a 100-dollar bill in a row. Below them are various coins: a 1-cent coin, a 5-cent coin, a 10-cent coin, a 25-cent coin, a 50-cent coin, a 1-dollar coin, and a 2-dollar coin. A yellow outline highlights a selection of coins: one 1-dollar coin, one 2-dollar coin, and three 25-cent coins. To the right of the highlighted coins are three price tags in orange boxes: '\$8.25', '\$3.50', and '\$1.75'. A grey arrow points from the coin selection area towards the price tags.

# Using Mathies Money Tool to Connect Visual and Numeric Representations

123 \$/¢

← →



\$8.25

\$3.50

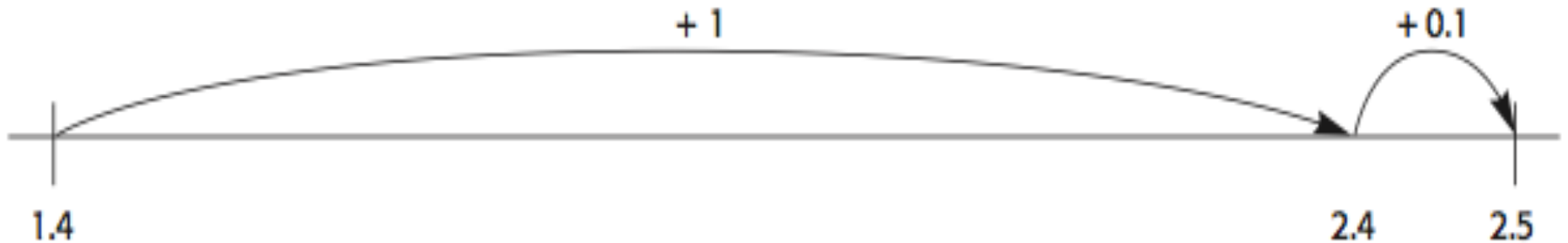
\$1.75

$$\$5 + \$4 + \$3 + \$1 + \$0.50 = \$13.50$$

# Using Number Lines to Represent Strategies

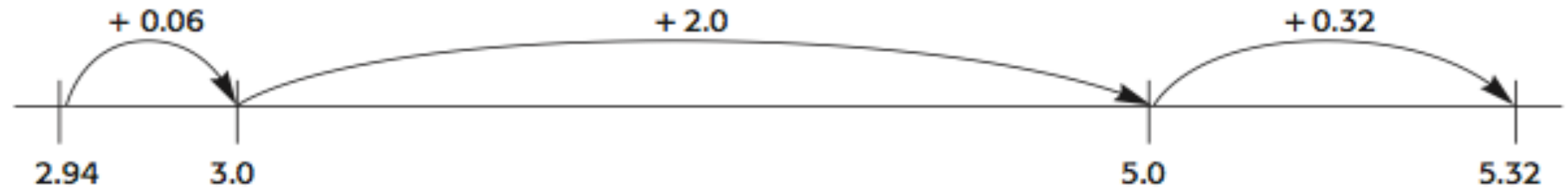
Adding on Strategy

$$1.4 + 1.1$$



Solving a subtraction question by adding on

$$5.32 - 2.94$$



# Junior Learning Activities for Adding and Subtracting Decimals

**Grade 4:** Rising Waters

**Grade 5:** Reaching a Goal

**Grade 6:** A Weighty Matter

