



Children's Literature and Mathematics



By Susan Howse and Courtney McGillis - PJ 4

Book Summary

Zimelman, Nathan. How the Second Grade got \$8,205.50 to Visit the Statue of Liberty. (Albert Whitman & Company: Illinois, USA), 1992. ISBN # 0-8075-3431-5

In this book, the Grade Two students from Newton Barnaby School are attempting to raise money to go visit the Statue of Liberty on a school trip. Through a series of several different amusing fundraising activities, the students record their profits and expenses. They collect paper for a paper drive, hold a lemonade stand, offer dog walking services and sell candy. Their final fundraising effort is holding a car wash.

During the car wash, the students splashed water on the principal and when he went to dry off, the students got in his car and accidentally released the breaks. The car backed into the bank across the street. At that moment, two bank robbers came running out of the bank and ran into the car. As a result, the second grade received an award of \$8,200 for capturing the bank robbers. In the end, the students raised more than enough money for the trip. But because it takes a long time for the police to process the money, their parents ended up paying for the trip.

Appropriate Grade Level and Strand

Grade Four* - Number Sense and Numeration.

* Although we chose to do this lesson with a Grade 4 classroom, the story is appropriate for Grades Two and up. Even we as adults enjoyed the humour and the ways the math concepts were presented!

Specific Curricular Expectations

Quantity Relationships: Read and represent money amounts to \$100

Counting: Add and subtract money amounts by making simulated purchases and providing change for amounts up to \$100, using a variety of tools (e.g., currency manipulatives, drawings).

Discussion Questions

Before Reading:

- Read the title of the book to the students and ask them the following question: “How do you think the second grade class in this story raised \$8,205.50 to go on their trip?” (Mind map)
- Introduce the terminology (profit and expense) and have the students try to brainstorm what each word means. (i.e. “We are going to be learning about profits and expenses throughout this story, let’s brainstorm what we think these words might mean.”)

During Reading:

- “What strategy or strategies might you use to keep track of all of your expenses and profits?”
- Ask students to explain different combinations of money found in the book (i.e. “The candy sale profit was seven and a half dollars. What combination of coins and bills could they have to make that?” “... Five dollar bill, two loonies, and two quarters”)

After Reading:

- Ask the students to describe each fundraising attempt. Make a list of the profits and expenses on the chalk board / chart paper.
- “What was the biggest expense for the grade two class in this story?”
- “What was the most profitable fundraising activity”?

Task / Activity

Arrangement: This activity is played in groups of four, either at the student’s table groups or on the floor (depending on space permitting). The students will be given a Task Card with the games rules listed on it.

Materials needed (per group):

- Spinner (separated into thirds, with the numbers 1, 2, and 3 written on it)
- Game pieces (can be erasers, toy manipulatives or even counting blocks)
- Pen and Paper
- Coin / Bill Manipulatives (.5 - \$100)
- Copy of Game board and Task Card per group

1. Spin the spinner and the highest spin goes first (if there is a tie, spin again).
2. The person to the left is the banker and this position rotates just like the player’s turns.
3. Players take turns spinning the spinner and moving around the game board accordingly.
4. The students must use their manipulatives to add and subtract their purchases and expenses as they land on each square.
5. Opponents will use the pen and paper to check and make sure that the player / banker gives the correct amount required.
6. If either the player or the banker makes a mistake, they will lose their next turn.
7. The player to reach the Finish with the most money wins!

Make Change – Task Card

Make Change Task Card

This activity will be played in groups of four, either at your table groups or on the floor

Materials needed (per group):














- Spinner (separated into thirds, with the numbers 1, 2, and 3 written on it)
- Game pieces (can be erasers, toy manipulatives or even counting blocks)
- Pen and Paper
- Coin / Bill Manipulatives (.5 - \$100)



Instructions:

1. Spin the spinner and the highest spin goes first (if there is a tie, spin again).
2. The person to the left is the banker and this position rotates just like the player's turns.
3. Players take turns spinning the spinner and moving around the game board accordingly.
4. The students must use their manipulatives to add and subtract their purchases and expenses as they land on each square.
5. Opponents will use the pen and paper to check and make sure that the player / banker gives the correct amount required.
6. If either the player or the banker makes a mistake, they will lose their next turn.
7. The player to reach the Finish with the most money wins!

Make Change - Game Board

 <p>You lost your Umbrella, Mom's mad, and you need to pay \$7.00</p>	<p>One day at the amusement park cost you \$50.00</p> 	<p>Weekly Allowance! \$8.50! Yay!</p> 	<p>You earn \$10.00 for dog walking.</p> 
<p>You got \$15.40 for mowing the lawn</p> 	<div style="background-color: #00AEEF; color: black; padding: 20px;"> <h1 style="font-size: 4em; margin: 0;">M a k e C h a n g e</h1>     </div>		<p>You have a sweet tooth. Candy costs \$2.60</p> 
<p>Bake Sale</p>  <p>You earn \$20.55</p>	<p>Broken window from a baseball!</p>  <p>You owe Grandma \$35.80</p>		<p>Yikes! You broke your bike! That will be \$15.45</p> 
<p>You sold all your comic books for \$40.35</p> 	<p>How much money do you have?</p> <h1 style="font-size: 3em; margin: 0;">FINISH</h1>		<p>Weekly Allowance! \$8.50! Yay!</p> 
<p>Start With \$100 →</p>	<p>You're hungry! Buy an ice-cream cone for: \$3.75</p> 	<p>You helped the environment by recycling pop cans! You earn \$5.00</p> 	<p>The latest video game costs you \$40.30</p> 

Critique

<p>Accuracy Represents mathematics and information accurately, correct terminology and principles, depicts relationships correctly</p>	<p>Score: 6</p> <p>Rationale: Uses the terminology “expenses” and “profits” correctly and with accurate examples. The addition and subtraction operations are correct. Each new amount that the students made / lost was accurately represented.</p>
<p>Visual Appeal Format and presentation are visually and verbally appealing (not overpowered by mathematics or a "modified textbook") -</p>	<p>Score: 6</p> <p>Rationale: There are strong visuals in this book. The colours jump off the page and are pleasing to look at. The images accurately describe what is going on. There is a lot of detail in the pictures and show real life scenarios. There is also humour drawn in the images that can be noticed on a closer read through. The language was descriptive and expressive. There was strong use of alliteration, which added to the whimsical nature of the book. It was a “fun” and “funny” way to learn math!</p>
<p>Connections Context for learners to make meaningful connections between math and their own experiences</p>	<p>Score: 5</p> <p>Rationale: The students in the book participate in fundraising activities that students in our own classroom could easily participate in as well. The situations they face are relatable and students can see the benefits of knowing how to add and subtract money. They are not unrealistic situations and students can identify with them (i.e. For babysitting, the book states that “no one trusts a second grader to babysit anybody, even baby brothers and sisters”). The only thing that we felt the students may not identify with was the actual trip. The students may not know or relate to visiting the Statue of Liberty.</p>
<p>Audience Presents concepts in a way that appeals to a range of audiences and abilities (no specific target audience) -</p>	<p>Score: 5</p> <p>Rationale: We felt that this book had a lot of multicultural students (as evidenced by the illustrations) but there was no general emphasis on different cultural values /experiences. It was rather generic in that sense. There was an equal display of males and females and no gender bias.</p>
<p>“Wow” Factor Offers layers of richness beyond the predictable or expected, presents new views or ideas (does not contain little or nothing beyond the expected, no surprises)</p>	<p>Score: 6</p> <p>Rationale: This book was a page turner! We did not predict what would happen in each fundraising scenario and the outcomes were very humorous. The twist at the end was unexpected and offered a different route for the story to take.</p>

Self – Assessment

19 / 20

We worked together incredibly well on this assignment. After finding the book, we were able to think of many different lessons that would pertain to this story. We divided the work evenly and met on a regular basis to collaborate and discuss our ideas. We gave ourselves one mark off because there’s always room for improvement.