

# Math + Children's Literature: A Perfect Pairing

Grades 3-5  
Sue O'Connell

## Wisconsin State Reading Association Annual Meeting 2023

### What do we want students to know and be able to do in mathematics?

- Flexible computations
- Conceptual understanding
- Number sense
- Model mathematics in varied ways
- Communicate their mathematical thinking
- Mathematical reasoning
- Problem solving

### How do we want students to feel in our math classrooms?

- Safe
- Sense of Belonging
- Curious
- Confident
- Math Joy

### Instructional Strategies to Build Math Understanding

- **Step back** and let students do the thinking.
- Use **models** to make sense of math ideas.
- Ask deep questions to promote **math talk**.
- Show math in **context**.

### What are the benefits of teaching math through literature?

- Engages students
- Purpose to learn: "When are we ever going to use this?"
- Supports problem-solving skills by exploring story situations
- Encourages talk and collaboration
- Shared reading experience leads to equitable practice
- Helps students make sense of skills and concepts
- Makes math memorable
- Energizes the classroom

"As students solve problems related to story characters and events, their focus extends beyond just *how* to do math and turns to *what math to do*."

*Math by the Book*

“After reading or listening to a good story, we can’t resist talking about it. We want to share our thinking and hear the thinking of others. Collaboration and reflection are critical ways that students make sense of math.”

*Math by the Book*

To download 120 book titles paired with K-5 math topics, go to: [www.MathbytheBook.com](http://www.MathbytheBook.com)

To explore the *Math by the Book* series and download sample lessons, go to: [www.MathbytheBook.com](http://www.MathbytheBook.com)

To explore more math + literature pairings, try these padlets!

Padlet of Grades 3-5 Children’s Literature Related to Math Skills/Concepts

<https://padlet.com/sueoc46/who7w8089bm6r6k2>

Padlet of K-5 Culturally Diverse Children’s Literature with Math Connections

<https://padlet.com/georginarivera123/2ygfo12jusaomm7s>

Some websites to search for diverse literature to use in your lessons:

- <https://www.mathsthroughstories.org/>
- <https://www.colorincolorado.org/books-authors/books-kids>
- <https://diversebooks.org/resources-old/where-to-find-diverse-books/>
- <https://earlymath.erikson.edu/the-best-childrens-books-for-early-math-learning/>
- <https://boricuareads.wordpress.com/2020/08/31/r9-or-the-fall-latinx-reads-list-featuring-cemetery-boys-finally/>

**To interact with colleagues or gather more ideas:** Join our Math in Practice/Math by the Book Facebook community focusing on teaching K-5 math

Explore Sue’s website: <https://www.qualityteacherdevelopment.com/>

Follow Sue on Twitter @SueOConnellMath

## Teacher Resource Books by Sue O'Connell featuring Math + Literature

Published by Heinemann ([www.heinemann.com](http://www.heinemann.com))

### ***Math by the Book series***, Sue O'Connell and colleagues

This k-5 series shows ways to teach mathematics through the context of children's literature. It is filled with lessons that show the power of teaching mathematics through models and math talk. It includes games to practice the math skills, word problems, and lots of talk/writing prompts, along with online resources and video coaching. To learn more, or to download a list of children's literature, visit the website at

[www.mathbythebook.com](http://www.mathbythebook.com)

### ***Math in Practice series***, Sue O'Connell and colleagues

This series is filled with lesson ideas, instructional strategies, practice tasks, and many online printable resources to make teaching K-5 math more meaningful and more fun. There is a book for each grade level K-5 that contains a wealth of grade-specific activities, as well as a *Guide for Teachers* filled with instructional strategies to support greater understanding of math concepts. A *Guide for Administrators* offers tips and strategies for math coaches/administrators. Visit the website at [www.mathinpractice.com](http://www.mathinpractice.com) to view samplers, see videos, and learn more about the series.

### ***Mastering the Basic Math Facts for Addition and Subtraction***

### ***Mastering the Basic Math Facts for Multiplication and Division***

Sue O'Connell and John SanGiovanni

Through investigations, discussions, visual models, children's literature, and hands-on explorations, students explore the math operations, and through engaging, interactive practice achieve fluency with basic facts.

Online resources are included with customizable activities, templates, recording sheets, and teacher tools simplifies your planning and preparation. Over 450 pages of reproducible forms are included in English and

Spanish translation. <https://www.heinemann.com/products/e07476.aspx>

<https://www.heinemann.com/products/e05965.aspx>