MAKING MATH COUNT: Exploring Math through Stories

Great stories are a wonderful way to get young people of all ages excited and interested in mathematics. The annual Mathical Book Prize recognizes the most inspiring math-related fiction and nonfiction books that bring to life the wonder of math in our lives. This guide will help you use this Mathical award-winning title to inspire curiosity and explore math in daily life with the youth you serve.

For more great books and resources, including STEM books and hands-on materials, visit the First Book Marketplace at fbmarketplace.org. For more Mathical titles for youth ages 2-18, see mathicalbooks.org.



ABSOLUTELY ONE THING FEATURING CHARLIE AND LOLA



Written by Lauren Child

Charlie and Lola have a lot of numbers to explore. Mom says they can get one thing at the store. Is that one thing each, or one thing to share? How many ducks do they pass on their walk? And, how many leaves are on that tree? These numbers and more are played with and explored in a way that makes operations, estimation, comparing, and other early math concepts an adventure that is both concrete and far-reaching.

KEY MATH CONCEPTS

Absolutely One Thing focuses on:

- Counting, measuring, and estimating
- Comparing
- Imagination as a mathematical skill

The Mathical Book Prize is presented by the Mathematical Sciences Research Institute (MSRI) in partnership with the National Council of Teachers of English (NCTE) and the National Council of Teachers of Mathematics (NCTM), and in coordination with the Children's Book Council (CBC). The Mathical Prize recognizes the most inspiring math-related fiction and nonfiction books for young people of all ages. The award winners were selected by a diverse panel of mathematicians, teachers, librarians, early childhood experts, and others.



This reading guide was created by First Book with the generous support of the Firedoll Foundation and MSRI.



TALK AND ASK QUESTIONS AS YOU READ

Before reading

Charlie and Lola will encounter measures and quantities in many ways as they go on a trip to the store. ASK: Imagine going to your favorite store. How many things would you buy? You just estimated a number! Can you count to that number too? How else do we use numbers and math in an ordinary day?

While you're reading

Charlie and Lola come up with both practical and playful math questions on their way to the store. They ask a lot of "how many" and "how much" questions about the things they see. ASK: *What are some questions you can ask about the price of things you like? What about size or speed? How about time?*

Lola wonders if "a million is more than the rain." ASK: What else can you think of that exists in such large numbers? What's the biggest number you can think of? How can you measure or count it? Can you think of something that there is only one of in the whole world?

Draw connections after you read

Lola isn't afraid to wonder out loud about the math she sees around her. She asks questions like "How many shoes would fifty or twentyseventeen ladybugs need?" ASK: *What is the silliest math question you can think of? What is a really hard math question? What do you and your friends do when you don't know or can't find the answer to a question?*



Illustration courtesy of New South Wales Department of Education and Communities, http://www.curriculumsupport.education. nsw.gov.au/primary/mathematics/



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HOW MUCH TIME?

Use this activity to experience estimating, measuring, and comparing.

- 1. Select two or three simple, daily activities you do in your class or program, such as lining up at the door, eating lunch or a snack, or packing up to go home.
- 2. Invite the class to estimate how long they think it takes to do these tasks. This can be done individually or in small groups.
- 3. Use a timer and time how long it actually takes to complete the tasks. Record the results.
- 4. Invite students to compare their estimates to the actual results. What was surprising to them from this activity?



MULTIPLE MEASURES!

There are lots of different ways to measure and explore numbers. Ask students to select one item they see in the room, or an item from their school supplies. Have them come up with three ways to express a measurement for that item. Let students get creative with their definition of measurement. For example, a student who selects a desk or tabletop may measure that item by finding:

- 1. The desktop measures "five hands" high (meaning the height is 5 hand lengths tall)
- 2. The desktop is two backpacks wide
- 3. There are 4 corners on the desktop



After completing the exercise above, use the same process to describe how you might measure something a little more creatively. For example, how could you measure the softness of a teddy bear? How about the excitement of a song?



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