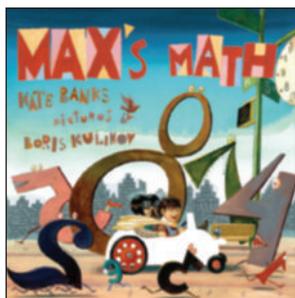


MAKING MATH COUNT: Exploring Math through Stories

Mathical
Books for Kids from Tots to Teens

Great stories are a wonderful way to get young people of all ages excited and interested in mathematics. The Mathical Book Prize recognizes the most inspiring math-related fiction and nonfiction books that bring to life the wonder of math in the world around us. This guide will help you use this 2016 Mathical award-winning title to inspire curiosity and explore math-related topics with the youth you serve.

For more great books and resources, including STEM books and hands-on materials, visit the First Book Marketplace at www.fbmarketplace.org.



MAX'S MATH

Written by Kate Banks &
Illustrated by Boris Kulikov

In this whimsical story, young Max builds a car and he and his two brothers decide to go look for problems to solve. The trio head to Shapeville and encounter single digits along the side of the road. In Shapeville, they learn that the town has lost all of its squares. Max and his brothers show the town that putting together two triangles will solve their problem. They then head to Count Town, where they help locate missing numbers for the big countdown, and then blast a rocket into outer space! The busy day ends with Max back at home, counting sheep to fall asleep.

GRADES
K-2
WINNER

KEY MATH CONCEPTS

- Math problems are all around
- Solving math problems is fun

The adventure of searching for numbers, shapes and problems in our everyday surroundings is an experience many children can enjoy. This book focuses on the joy of discovery, and the fun of noticing various math concepts as we go about each day. The ability to see that math is “all around us” can make learning the subject more fun, interesting, and relatable.

The Mathical: Books for Kids from Tots to Teens book prize, presented by the Mathematical Science Research Institute (MSRI) in partnership with the National Council for Teachers of English (NCTE) and the National Council for Teachers of Mathematics (NCTM), 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, authors and others.



This tip sheet was created by First Book
with generous support from MSRI.



TALK AND ASK QUESTIONS AS YOU READ

Before reading

Max is a curious boy. He builds a car and goes on a hunt for math problems. Share a time when you went looking for something. What did you see?

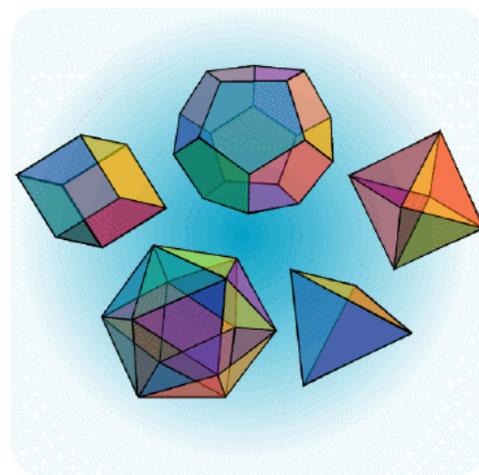
While you're reading

Max's Math is full of vibrant artwork featuring many shapes, colors and numbers. As you read this book with your students, ask questions like:

1. What shapes do you see on this page? How many?
2. Max went to Shapeville and saw a 6 (or was it a 9?) lying in the grass. Why was Max unsure of what number it really was? How can you tell the difference? Do you know any letters like this?
3. How many colors do you see on this page?
4. Which numbers do you see on this page?

Draw connections after you read

Max counted all the way through the story and solved many problems too! What are some sets (groups, bunches, collections) of things you can count right where you are? Do you see a set with only one object? Can you find a collection with 10 things or more?



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



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BRING YOUR FAVORITE NUMBER TO LIFE!

Max and his brothers met interesting numbers with personalities on their adventure. They had eyes, arms, legs and could even talk! Ask your students to draw their favorite number, and give it some personality! Once they are finished, ask them to give their number a name, and show their drawing to the class.

MATERIALS NEEDED

- Paper
- Crayons, pencils or pens



ACTIVITY 1

LET'S COUNT!

Max and his brothers passed many sets of items during their adventure. They saw two buses, three trucks, and five motorcycles. Later they saw five clouds, three birds, and one airplane. They found numbers everywhere! With your students, count the total number of items in your group. For example, if you have 10 students, and everyone is wearing a shirt, there are 10 shirts in your group. For additional practice, see what items students can count by 2s, by 5s and by 10s.

- How many socks are students wearing? (Count by 2s)
- How many dresses are in your group?
- How many pair of pants?
- How many hair bows?
- How many girls?
- How many boys?
- How many fingers (count by 5s or 10s)
- How many ears (count by 2s)
- How many noses?



ACTIVITY 2



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WHAT DO YOU SEE?

Shapes are all around us. Whether it is a table, the door knob, or the clock, geometric shapes are everywhere! In this activity, ask your students to count the number of the following shapes they see in the room. For added fun, break students into teams and see who can find the most....

- Triangles
- Circles
- Rectangles
- Squares
- Spheres (balls)
- Cubes
- Rectangular blocks

ACTIVITY 3



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