DISCOVERING THE MATH: BOOK GUIDE



AUTHOR: Stuart J. Murphy

ILLUSTRATOR:

John Bendall-Brunello

A misunderstanding leads to 100 wild, weird, funny, and very cool days for four friends. Follow along as they keep coming up with new ideas to keep their classmates entertained, despite Toby who doesn't think they can do it.

Ages: 4 to 8 years

Lexile: 475L

ATOS Reading Level: 2.6

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100 Days of Cool

Can four friends stay "cool" for 100 days?

Topics: numbers 1 - 100, the number line, subtraction, fractions

Use *100 Days of Cool* to reinforce the concept of the numbers one to one hundred. You can also use it to show a practical use for a number line. Toby doesn't think the friends can be "cool" for 100 days and uses a number line to keep track of how many days they have left to earn a party.

Before reading the book:

- Ask your child if they have ever celebrated the 100th day of school. What did they do? How did they celebrate?
- Count to 100 with your child.
- Ask your child what they know about number lines. Where have they seen one? What was the number line used for?

While reading the book:

- Ask your child to point to a number along the number line. Start by asking them to find a number that is marked on the number line, such as 10, 50, or 100.
- Challenge your child to estimate the location of numbers that are *not* marked on the number line. For example, ask them to show you where the number 15 is located. For more of a challenge, ask them to estimate where other numbers that are not multiples of 5 or 10 are located, such as 22, 47, or 89.
- Ask your child to find out how many days the children have left to get to 100 at various points during the story. Some children may find it helpful to use the number line to figure this out.

When you have finished reading the book:

- Ask your child which day of cool was their favorite. Why?
- The number line shown in the story is marked by tens. You can use this to help your child practice counting by tens: "ten, twenty, thirty..." and so on.
- Ask your child if they would like to celebrate the first 100 days of school. How would they like to do this? How will they keep track?





Questions for Mathematical Thinking:

- 1. Why do you think the author did not describe all of the 100 days of cool? If he did describe all 100 days, estimate how many pages long the book would be.
- 2. On the number line, what comes after 100? How far can the number line go?
- 3. Why does the number line have arrows at both ends?
- 4. What are some other ways to mark a number line from zero to 100?
- 5. What do you think the kids should do on the 101st day of school to keep the fun going?

Early Math Project Resources:

Visit <u>100 Days of Cool</u> (countplayexplore.org/book/100-daysof-cool) to find activities and related Learning Foundations and California Mathematics Standards for this book.

Vocabulary

Math words found in the story: first, half, halfway, one hundred, one tenth

Related math words:

greater than, increment, infinity, less than, number line, numbers 1 - 100

Words to build reading

comprehension:

backfired, celebrate, sequin, sparkles, weird, whopping, wild

Related Books: 100

Bugs! A Counting Book by Katie Narita; 100 School Days by Anne Rockwell;

Click this link to the World Catalog or enter bit.ly/3USIBKU to find 100 Days of Cool in the public library.



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Math Connections:

The story of *100 Days of Cool* is rich in mathematical concepts. You can use the book to reinforce the counting sequence of 1 to 100 including skip counting, introduce the number line, explore the quantity of 100, practice subtraction, and discuss the meaning of fractions.

The counting sequence from 1 to 100 is full of patterns. One way to highlight these patterns is to use a 100 chart. The Early Math Project website has a printable or your chid can create one of their own. The 100 chart is a listing of the numbers from 1 to 100 arranged in rows of 10. Talk with your child about what patterns they notice; for example, the multiples of ten all line up on the left, all the numbers that end in 5 line up in the middle of the chart.

Your child can use the 100 chart to practice skip counting to 100. Skip counting is an introduction to multiplication. Your child can choose which number to skip count by. For example, your child may choose to skip count by 2. This would sound like: 2, 4, 6, 8 and so on.

Another math concept in the story is the number line. Toby used a number line to keep track of the 100 days that the children had vowed to be "cool". Toby's number line was marked in increments of 10. How else could a number line be marked? What are some useful tools that are marked like a number line?

Your child could use a number line to keep track of the first 100 days of school. What is another way to keep track of the first 100 days of school? It could be interesting for your child to use a calendar to number the school days, showing holidays, vacation days, early release days, and keep track of their attendance, showing any missed days.

Encourage your child to draw a number line using markers or crayons on large paper or several pieces of paper taped end to end. Ask them to mark it from zero to onehundred, in increments of ten. Before starting, ask your child what are some important things to consider when making a number line. Some things to talk about include: that the line is straight, the markings are equally spaced, and the line has arrows on each end indicating that the line continues to infinity in both directions.







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After marking the number line by tens, encourage your child to mark the same number line by fives, in a different color. This will help reinforce number patterns in the sequence from zero to one hundred. Then, take turns asking each other to point to the position of a number on the number line, using marked and unmarked numbers.

Encourage your child to practice addition and subtraction using the number line they created. Start with simpler problems like 5 + 5. Model for your child how to use the number line to show addition. Start by pointing at 5 and count up 5 to arrive at the answer of 10. Challenge your child to move on to two-digit addition and subtraction problems.

Throughout the book, the number line is shown on the pages. Sometimes, Toby will appear with a comment about how many days they have left, or sometimes saying what fraction of the 100 days they have gotten through. Discuss Toby's comments with your child. How does Toby know that half of the days have passed? On which day would one-fourth of the days have gone by? How do you know? Encourage your child to explore and mark other fractions of 100 on the number line they created.





