



# The Making of a MathStart Book

by Stuart J. Murphy

I am often asked which comes first: the math concept or the story? The truth is that I'm not sure. Every story happens in a slightly different way.

## The Math

To get a good sense of what children at different grade levels are expected to learn, I follow the standards adopted by the National Council of Teachers of Mathematics (NCTM), as well as the "Scope and Sequence" plans developed by the major textbook publishers. I also talk to lots of teachers. Their insights are invaluable on ways to help prepare young kids for the math concepts that they will be exposed to in later grades. And, of course, I talk to a lot of kids.



I am especially interested in providing resources for students in areas where few other books have been published—topics such as probability, constructing and interpreting timelines, dealing with equivalent values and combinations, and understanding elapsed time. My list of mathematical concepts for story consideration is constantly growing and evolving. Teachers, in particular, are always suggesting new topics.

## The Stories



All of my stories are inspired by kids. I spend a lot of time with kids—and I take lots of notes! I always have plenty of bright colored markers and paper on hand because you just never know when a good idea is going to hit. I have to be ready to jot it down, make a sketch and record the thought, or it could be gone forever.



## The Magic

Whenever I ask kids to show me what they have in their backpacks, it isn't long before they start telling me all about their favorite things and what they like "best of all!" I often ask them to think about things that made them—or someone else they know—happy or sad, pleased or mad, laugh or cry. It is these emotional moments that often provide the spark for a really good story line. I also check out what kids are reading and what they like to watch on television. This kind of casual every-day research is invaluable because my goal is to develop stories based on the activities kids care about most.



When a mathematical concept and a storyline finally begin to merge in my mind, I start to write. The process typically begins with many hours spent sketching and jotting down key words. I am actually making a map—a kind of storyboard—of my idea. I tell children that writing without a map or an outline is kind of like driving out of your garage without knowing your destination. If you don't know where you're going, how can you ever hope to get there?

Once my map is pretty much the way I want it, I write up a short synopsis of the story to share with my editor and a special team of teacher-advisors. Once they add their thoughts and ideas, I'm finally ready to work on the manuscript.

## The Manuscript

As a MathStart story develops, it's important to make certain that the math content doesn't become so intrusive that it overwhelms the story, and that the story doesn't dominate to the point that the math gets lost. Achieving this balance is one of the most difficult parts of the process.

After the manuscript is complete, I add sketches to explain the math concept. These are often charts, graphs, or other visual models that demonstrate exactly how the math works. Later, an illustrator will use these to create diagrams within the text. Again, I share all this with my editor and advisor team, and we go back-and-forth a number of times trying to make everything

perfect. I also often read stories that are in development to children so that I can get a better feeling for the pacing and cadence of the narrative, as well as gauge their reactions.

## The Pictures

MathStart books are designed to be "stand-alone" stories, each with its own "look and feel." Since the series began in 1996, I have been fortunate to work with almost three dozen of the top children's book illustrators. Oddly enough, though, I have met only a few of them in person. But we work very, very closely together.

The illustrator is chosen only after the manuscript is complete. My editor sends me a complete set of sketches, which I review against the manuscript. Sometimes, I make changes to the story because the illustrator has come up with such a wonderful idea. Other times, the sketches have to be adjusted to fit the words. The goal is always to make certain that the relationship between the art and the text is just right. We go back and forth as many times as needed to achieve this result.

This visual/verbal synergy is extremely important. The illustrations, graphs, charts and diagrams are a visual translation of the story. They describe the characters, set the mood, and create a world in which the story can live. They also distill and present the math concepts in a way that kids can easily understand.

Creating this balance between the math and the story, the visual and the verbal, the art and the text, is the most challenging—and most exciting—aspect of my work. No wonder it takes over two years to develop a MathStart book! With three new books coming out each Spring and Fall, there are always at least nine books in some stage of development. It's an exciting, challenging process. And, like the books themselves, lots of fun.



## MathStart Illustrators

JoAnn **Adinolfi**

R.W. **Alley**

Renée **Andriani**

John **Bendall-Brunello**

Steve **Björkman**

Jon **Buller**

Lynne **Cravath**

Chris **Demarest**

Fiona **Dunbar**

Lois **Ehlert**

Brian **Floca**

Julia **Gorton**

Diane **Greenseid**

Cynthia **Jabar**

G. Brian **Karas**

Holly **Keller**

Bernice **Lum**

Pedro **Martin**

Edward **Miller**

Scott **Nash**

Kevin **O'Malley**

Valeria **Petrone**

Mike **Reed**

Frank **Remkiewicz**

Barney **Saltzberg**

Christopher **Santoro**

S.D. **Schindler**

Rémy **Simard**

Cat Bowman **Smith**

John **Speirs**

Tricia **Tusa**

George **Ulrich**

John **Wallace**

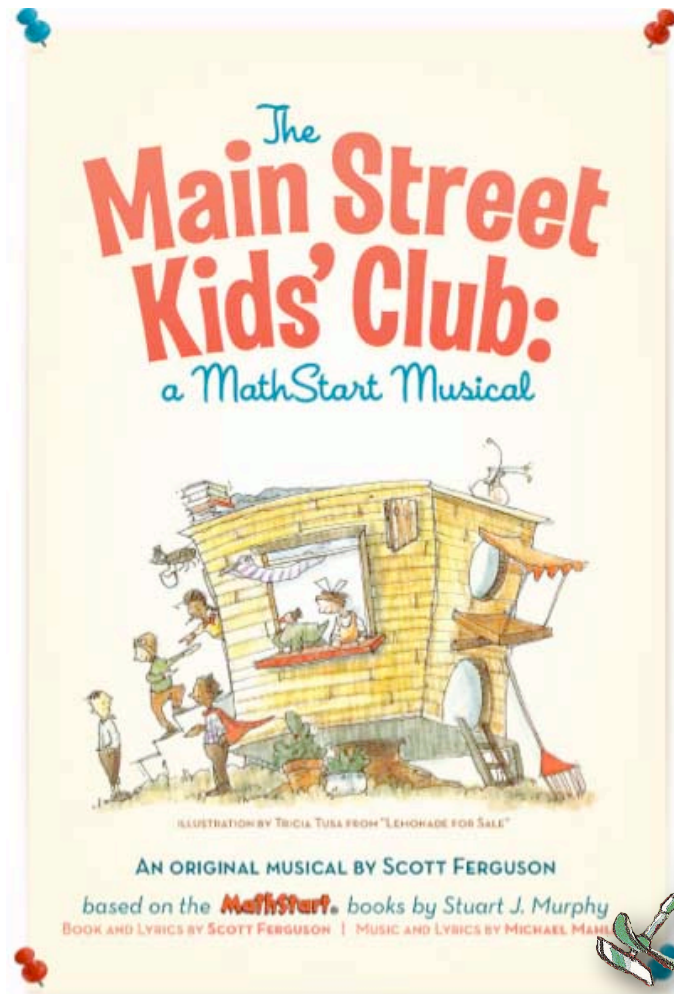
David T. **Wenzel**

Nadine Bernard **Westcott**

Sylvie **Wickstrom**

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