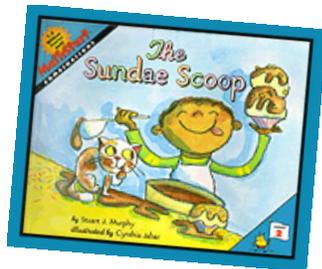


Stuart J Murphy 

Back to School at Macy's! MathStart Activities for Teachers & Parents!





MathStart[®]



MathStart®



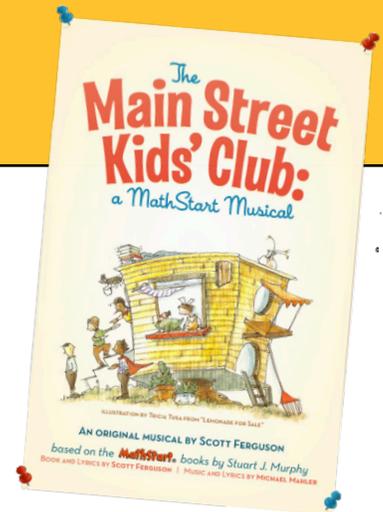
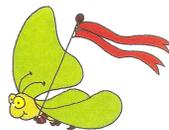
The **MathStart** series—63 storybooks that each teach a different mathematical skill—began with one story: *The Best Bug Parade*, a celebratory tale of comparing sizes. The parade has been going on now for almost 20 years, with over 10 million books sold and translated into several languages including Chinese, Spanish, Korean and Arabic!

My background is in visual learning, which is about how we make sense of information from illustrations, photos, diagrams, graphs, symbols, icons and other visual models. I thought that if I could combine stories that children love with visual learning strategies they understand intuitively, it would help them master mathematical concepts more easily. Children would see that they “do” math all the time and that math skills really are life skills.

I am so excited to have **MathStart** story circles included in the roster of Macy’s Back-to-School events being held at stores across the country.

Have a fabulous New School Year everybody!
In fact, let’s have a parade!

Start



IT’S SHOWTIME!

A musical based on **MathStart** books?! YES!

The amazingly talented playwright Scott—*Schoolhouse Rock Live!*—Ferguson has woven together six stories to create an original tale of adventure, mystery, friendship and, of course, math.

Story + Music + Math = **The Main Street Kids’ Club**, where cool is the rule, and every day is an adventure!

As one second-grader put it “It’s rad!” giving the show two thumbs up!

For more information about how to bring a production of the MSKC to your school or community visit:

MainStreetKidsClub.com



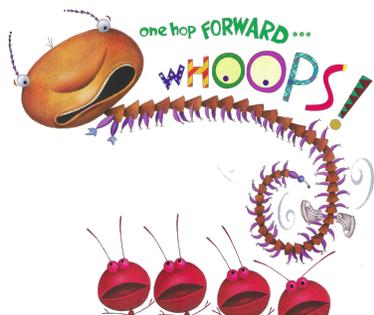
While learning basic directions, children also gain a foundation in important mapping skills.

Story Description

The bugs in Coach Caterpillar's gym class are learning a dance, but Centipede keeps tripping over his own feet! Two steps to the left, two steps to the right. One hop forward, one hop backward. Turn right! Wiggle left. Wiggle right. Do the Bug Dance every night! In addition to learning basic directions, children gain a foundation in important mapping skills.

Illustrated by Christopher Santoro.

DC Standard 4.4, Geometry and Spatial Sense: Children will begin to demonstrate an understanding of shape, size, position, direction, and movement, and they will describe and classify real objects by shape. 4.4.5: Describe, name and interpret position in space; understand and use positional words.



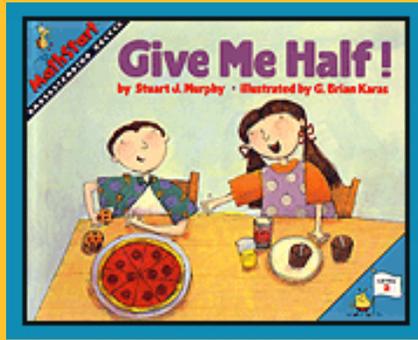
Activities

Have your child or class wiggle left hands, then right hands, and then left and right feet. Face the same direction as the children and have them identify your left and right hands and feet. To help them remember, you can place a string or a loose rubber band on each child's right hand. Also point out that the thumb and the forefinger of the left hand form the letter "L."

Teacher Idea! My kindergarten students love the Bug Dance story. It not only teaches math but helps build vocabulary, which is important since English Language Learners make up over half my class. After reading the book and acting out the dance steps, my students asked to do the dance over and over again, so I decided to create a Bug Dance Learning Center.

- I made a mat with outlines of feet going in all four directions. The students could then follow the dance steps in the book.
- I created word cards that said: "Hop," "Turn," "Left," "Right," "Forward," "Backward" and "Two Steps." I put several of each into the stack. The instructions for the kids were first to pick 6 cards, then read the cards and put them in some order to create their own dances, and finally, to enjoy the dance!

—Julie Heron, kindergarten teacher



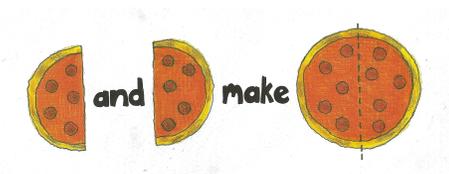
Recognizing that half means one of two equal parts leads to understanding fractions.

Story Description

When a boy tries to eat a whole pizza without sharing half with his sister, it's not pretty. Of course, she isn't too keen on sharing her juice or cupcakes. With a little adult prodding, however, they soon learn the benefits of sharing and split everything in half, including clean-up chores.

Recognizing that half means one of two equal parts leads to understanding fractions.

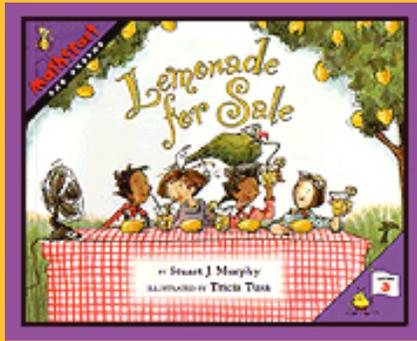
Illustrated by G. Brian Karas.



Activities

- Encourage your child or class to tell the story using math vocabulary: "Half," "Whole," "Share," etc. Introduce the word "divide" by saying that each item is "divided equally."
- Gather up pieces of paper in a variety of sizes and shapes. Work together to find different ways to fold the pieces in half.
- Teacher Idea! "We act out the stories. For *Give Me Half!*, we cut out a circle for a pizza. And we use juice boxes and cookies. Then we share them by halves and thirds. My partner and I can pretend to be the mother and act it out. The kids need to clean up! I send home books during the year for kids and parents to read and share. We rotate them through the classroom.

— from Michelle Collins, Goodnoe Elementary School, Newtown, PA



Gathering, charting and comparing data is an important skill for assessing progress and making predictions

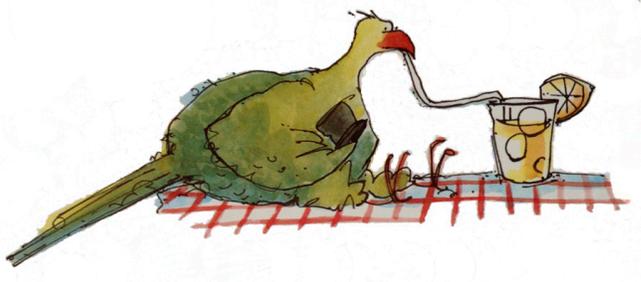
Story Description

When members of the Elm Street Kids' Club decide to sell lemonade to raise money to fix up their clubhouse, they do it in style.

Dressed in special "lemon hats," with Petey the Parrot, the club mascot squawking, "Lemonade for Sale!," business booms at first. Sheri keeps track on a bar graph, plotting the number of cups sold against the days of the week. But sales drop quickly when Jed the Juggler comes to town.

What will the Elm Street kids do?

Illustrated by Tricia Tusa.

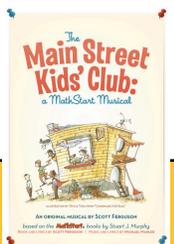


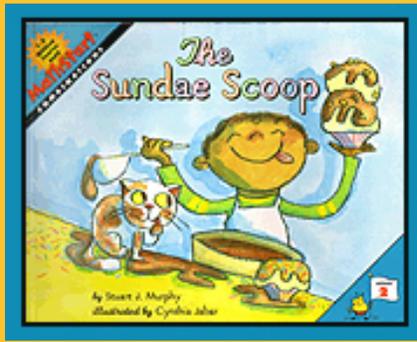
Activities

Read the story with your child or class and describe what is going on in each picture. Talk about the graphs that accompany the story. Ask questions such as: "On which day were more cups sold, Monday or Tuesday?" and "How many cups were sold on Wednesday?"

Talk about the different types of bar graphs that children may see. Those with bars that touch (A), or that show picture of the items being counted (B) are often included in school books. Those with space between the bars (C) often appear in magazines and newspapers. Collect examples of as many bar graphs as you can find and together discuss what information is being expressed.

Make graphs of things in the real world-children playing at the park, dogs that walk past your house, cars parked on the street, etc.-by counting them each day for a week. Do more children play at the park on the Monday or Saturday? How many cars are parked on the street on Tuesday morning? How many on Sunday morning? Does the number go up or down from day to day?



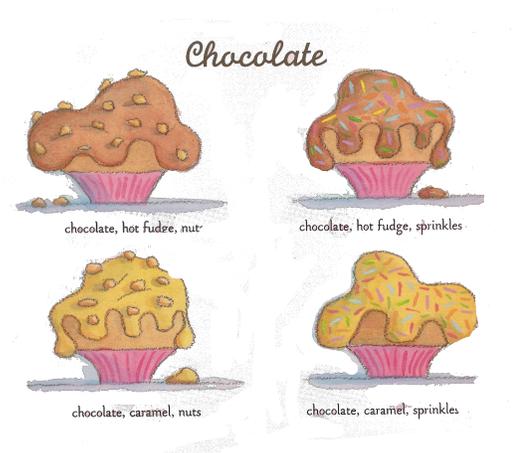


Determining how many different combinations can be made from given sets of items is an important first step in understanding

Story Description

Winnie, the nice lady in charge of the cafeteria, has a stupendous idea for the school picnic: "Let's make sundaes!" Lauren, James, and Emily help out and are amazed by how many different kinds of sundaes you can make with just two ice-cream flavors, two sauces, and two types of toppings. But when supplies run low, the number of combinations changes. Determining how many different combinations can be made from given sets of items is an important first step in understanding probability.

Illustrated by Cynthia Jabar.



Activities

As you read the story, ask questions such as: "How many flavors of ice-cream are there?" "How many different sauces?" "How many toppings?" and "How many different sundaes could the kids make?"

Teacher Idea! When we read *The Sundae Scoop*, we discuss the different combinations. And then we'll do combinations with something else, like clothing. For example, you have three t-shirts to pick from, and two pairs of pants and shoes. Or we can do t-shirts and shorts, or skirts for girls. If you want to add on shoes, it makes the problem even harder. So I give them a choice. They are amazed they have so many outcomes.

They can sketch the clothes and show colors and stripes. We make the combinations tree, like the one in the book. And then they add up the combinations. For homework, they can use food. For example... You can get a cheeseburger, a hamburger or a chicken nuggets. You can get fries, a cookie or apple dippers. And you can get fruit punch or orange juice or milk. What are all the different combinations you can have?

—Jennifer Hong, Punahou School, Honolulu, HI



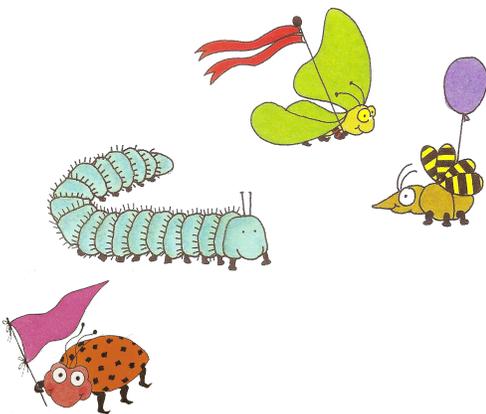
Comparing sizes is a simple form of classification and is necessary for the development of measurement skills.

Story Description

In Ladybug's garden, everything is relative. Who's big? Bigger? Biggest? Long, longer, longest? Short, shorter, shortest? Line up! It's time for the best bug parade of all. Comparing sizes is a simple form of classification and is necessary for the development of measurement skills.

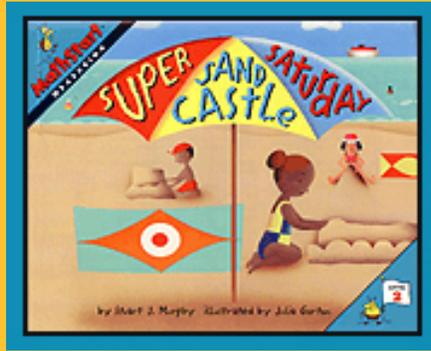
Illustrated by Holly Keller

DC Standard 4.3, Measurement: Children use a variety of nonstandard and standard tools to measure and use appropriate language terms to describe size, length, weight and volume.



Activities

- Read the story with your child or students and describe what is going on in each picture. Ask questions throughout the story, such as "Do the bugs look the same or different?" and "How do they look different?"
- Together with your child or students, draw and color some of your own imaginary bugs. Then cut them out and help the child to arrange them in order of size. Line them up for your own best bug parade!
- Look at things in the real world, for example, family members, pets, furniture, plates, flowers. Discuss their size relationships. "Who is bigger?" "Which is smallest?" Extend the concept by asking such questions as "Who is older?" "Who is youngest?" "Which is darker?" "Which is lightest?"
- Nature Walk: Go for a walk together in a nearby park and bring along a tape measure or ruler. Measure and compare plants. "Which is taller?" "Which has wider leaves?" "Which has the smallest flower?"

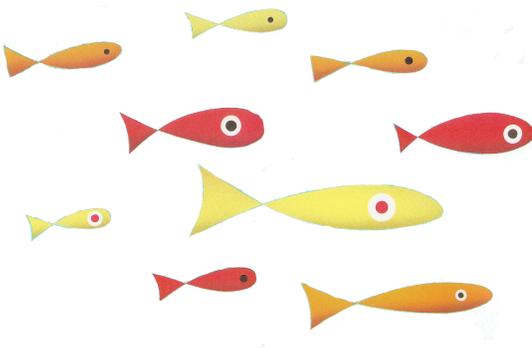


It is important for children to learn why it is important to use standard units of measure to make accurate comparisons.

Story Description

Juan, Sarah and Laura are building sand castles. But which one's tallest? Juan's is only two shovels high, while Sarah's is three. Laura's moat is one big spoon deep, while Juan's is two little spoons deep. Too bad their shovels and spoons aren't the same size. But "an inch is always an inch," says Larry the Lifeguard, using a tape measure to determine the winners. Children learn that it is helpful to use standard units of measure to make accurate comparisons.

Illustrated by Julia Gorton.



Activities

- Ask questions throughout the story, such as: "Do you think that using a shovel would be a good way to measure the tower of the castle? and "Is a spoon a good way to measure the depth of the moat?" Explain that these tools can be used for measuring, but that tools of the same length must be used consistently.
- Pick distances around the house or classroom and measure them using "baby steps" and "giant steps." Is the hallway more baby steps or giant steps long? Are there more baby steps or giant steps between the couch and the computer? Explain.
- Have friends take turns lying down on the floor and measuring each other from head to toe using straws, and then a ruler. Make a chart that shows the length of each person in terms of different units of measurement.

—Jennifer Hong, Punahou School, Honolulu, HI



Understanding that area is a two-dimensional measurement of space is a basic concept of geometry.

Story Description

Jill can't believe it. Her older sister Jenny and older brother Jeff are at it again, arguing over who's got the better backpack and better book. But their biggest battle is over who has the best bedroom in their new house. To measure the area of their windows, they use sheets of paper. Yet even though their windows are different shapes, they both need the same number of sheets — 12—to cover the glass. Their windows have the exact same area! Sheets of newsprint come in handy for measuring floor space. Meanwhile, Jill's just happy that her little room is way down the hall. Understanding that area is a two-dimensional measurement of space is a basic concept of geometry. Illustrated by Marsha Winborn.

Activities

- As you read the story, have your child or students count the number of pieces of paper needed to cover the windows and the floor in the illustrations. Explain that the children in the story are finding the area of the windows and the floor.
- Have your child draw a shape on a piece of graph paper. Together, count the squares inside the shape to find the area. Then help the child draw another shape that has the same area.
- Use newspaper to help your child or students find the area of a room at home or in school. Compare the area of the room with other rooms in the building. Remember to use the same size paper when comparing rooms.



Read all 63 Books!



MathStart.net

Stuart J Murphy 

Level 1 Books / Ages 3+

Beep Beep, Vroom Vroom!
Pattern Recognition

The Best Bug Parade
Comparing Sizes

Bug Dance
Directions

Circus Shapes
Recognizing Shapes

Double the Ducks
Doubling Numbers

Every Buddy Counts
Counting

The Greatest Gymnast of All
Opposites

Henry the Fourth
Ordinals

A House for Birdie
Understanding Capacity

It's About Time
Hours

Jack the Builder
Counting On

Just Enough Carrots
Comparing Amounts

Leaping Lizards
Counting by 5s and 10s

Mighty Maddie
Comparing Weights

Missing Mittens
Odd and Even Numbers

Monster Musical Chairs
Subtracting One

One...Two...Three...Sassafras!
Number Order

A Pair of Socks
Matching

Rabbit's Pajama Party
Sequencing

Seaweed Soup
Matching Sets

3 Little Firefighters
Sorting

Level 2 Books / Ages 6+

Animals on Board
Adding

The Best Vacation Ever
Collecting Data

Bigger, Better, Best!
Area

Captain Invincible & the Space Shapes
3-Dimensional Shapes

Coyotes All Around
Rounding

Elevator Magic
Subtracting

A Fair Bear Share
Regrouping

Get Up and Go!
Timelines

Give Me Half!
Understanding Halves

Let's Fly a Kite
Symmetry

Mall Mania
Addition Strategies

More or Less
Comparing Numbers

100 Days of Cool
Numbers 1 - 100

Pepper's Journal
Calendars

Probably Pistachio
Probability

Racing Around
Perimeter

Same Old Horse
Making Predictions

Spunky Monkeys on Parade
Counting by 2s, 3s, 4s

The Sundae Scoop
Combinations

Super Sand Castle Saturday
Measuring

Tally O'Malley

Level 3 Books / Ages 7+

Betcha!
estimating

Dave's Down to Earth Rock Shop
Classifying

Dinosaur Deals
Equivalent Values

Divide and Ride
Dividing

Earth Day Hooray!
Place Value

Game Time!
Time

The Grizzly Gazette
Percentage

Hamster Champs
Angles

Jump, Kangaroo, Jump!
Fractions

Lemonade for Sale
Bar Graphs

Less Than Zero
Negative Numbers

The Penny Pot
Counting Coins

Polly's Pen Pal
Metrics

Ready, Set, Hop!
Building Equations

Rodeo Time
Reading a Schedule

Room for Ripley
Capacity

Safari Park
Solving for Unknowns

Shark Swimathon
Subtracting 2-digit Numbers

Sluggers' Car Wash
Dollars and Cents

Too Many Kangaroo Things to Do!
Multiplying

Treasure Map
Mapping



MATH = FUN!

Stuart J Murphy 



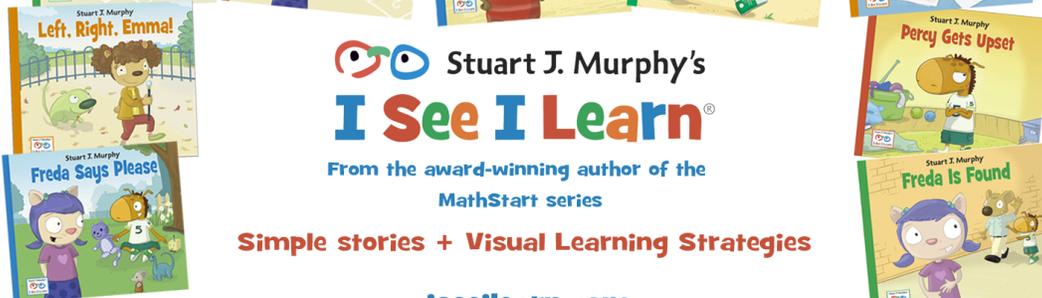
Hello,

Did you know I have another children's series? Just like MathStart, **Stuart J. Murphy's I See I Learn** books combine simple stories and visual learning strategies. The focus is on teaching social, emotional, health and safety, and cognitive skills to children in Pre-K, Kindergarten and First Grade.

Come meet Freda, Percy, Emma, Ajay, Camille, Carlos and their wonderful teacher, Miss Cathy. And don't forget to give Pickle a pat on the head!

Woof!

Start



Charlesbridge