



Stuart J. Murphy's
MathStart

Give Me Half!
Level 2 / Ages 6+
Understanding Halves



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."

Teacher Idea: We act out the MathStart stories. For "Give Me Half!," we cut out a circle for a pizza. We use juice boxes and cookies. Then we share them by halves and thirds. 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.
—Michelle Collins, Goodnoe Elementary School, Newtown, PA

Teacher Idea: I go into classrooms as a kind of coach/mentor/math guru. We try to tie math concepts and lessons to literature and it's so easy with the MathStart books. The kids can relate to the stories. "Give Me Half!" is one of my favorites. I always start out by asking: "Does anybody have a brother or sister that doesn't like to share with them?" You have that hook and the kids are thinking it's the coolest thing. They start to ask all kinds of questions like, "I have two brothers and so we cut it into threes and so what do you call that one?" It is just such a natural springboard for fractions.

—Tracy Keegan, Topeka Public Schools, Topeka, KS

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Stuart J. Murphy's
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Let's Fly a Kite
Level 2 / Ages 6+
Symmetry



Symmetry is a geometric property that helps children classify shapes.

Story Description

It's a good thing that Hannah and Bob have such a nice, smart babysitter. When Laura suggests that they make a kite to fly at the beach, the kids immediately start arguing over whether it should be decorated with a lightning bolt or a whale. Laura draws a line down the length of the kite, so they each have exactly the same size and shape to draw on. Later, the children divide the back seat of the car, the beach blanket, and even their sandwiches into two equal parts. Symmetry is a geometric property that helps children classify shapes.

Illustrated by Brian Floca.

Activities

- Look for symmetrical objects throughout the illustrations. See how many symmetrical objects your child (or class) can find in the book.
- Together with your child (or class), make a paper snowflake by folding a square sheet of paper into fourths and cutting out small designs along the folds and edges. Find all the different ways the snowflake has symmetry
- Have your child (or students) cut out pictures of symmetrical shapes from magazines. Fold the shapes, then find and draw the line of symmetry on each.





Stuart J. Murphy's
MathStart

Mall Mania
Level 2 / Ages 6+
Addition Strategies



Addition strategies are important skills for adding more than two numbers.

Story Description

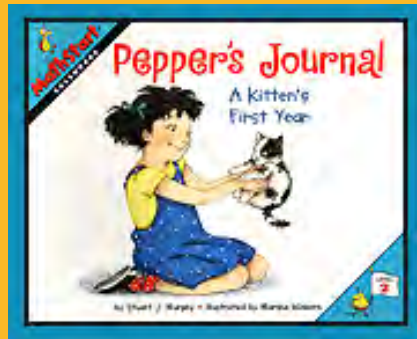
It's "Mall Mania" Day at the Parkside Mall. To celebrate, the 100th shopper to enter the mall will win all kinds of cool gifts. Jonathon, Nicole, Gabby and Steven—members of the Wilson Elementary chess club—are adding up the number of shoppers to come through each of the mall's four doors, sharing the data via walkie-talkie. Club captain Heather and advisor Mr. Grant are coordinating efforts. "How many shoppers so far?" asks Heather. Nicole counts 7, Gabby 4, Steve 3, and Jonathon 2: That's $7 + 4 + 3 + 2$. Nicole adds the numbers one by one: first, $7 + 4 = 11$; next, $11 + 3 = 14$; and then, $14 + 2 = 16$. Who ends up the lucky 100th shopper? Let's just say it's someone who never expected to be counted at all! Addition strategies are important skills for adding more than two numbers.

Illustrated by Renée Adriani.

Activities

- While running errands, have your child count how many cars in a parking lot are silver. How many are white? green? tan? red? Try different ways to add the totals together. How many cars are there in all? At home, count how many hats, gloves, coats and boots are in the closet. How many different ways can you find to add the totals together?
- Domino Addition Game: Lay all the dominoes face down. The first player chooses two dominoes and finds the sum of the four numbers shown. The second player does the same. The person with the highest total is the winner. As a variation, add the totals from three rounds. The person with the higher combined total is the winner.
- Counting Cards: Three to five players. The dealer takes four cards from the deck and places them face up. The other players must add up the totals. The first one with the correct answer wins the round. Play until all the cards are used up. The one who wins the most rounds is the champ!





Stuart J. Murphy's
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Pepper's Journal
Level 2 / Ages 6+
Calendars



Events in people's lives are measured by time, so it is important that children understand the relationships between days, weeks, months, and

Story Description

Grandma's cat Snowy is about to have kittens, and Lisa and her little brother Joey will get to keep one. Little Pepper, whose white fur is dotted with black spots, has a very busy first year. Lisa keeps track of the highlights using a calendar. Her journal is also filled with lots of nifty information about cats. Events in people's lives are measured by time, so it is important that children understand the relationships between days, weeks, months, and years.

Illustrated by Marsha Winborn.

Activities

After reading the story, make a list of family or class events that occur on a weekly, monthly, and yearly basis. Help your child (or class) record the events on the calendar.

Teacher Idea: Inspired by "Pepper's Journal: A Kitten's First Year," the first graders at my school, Schyulkill Elementary, charted the progress of Bandit, a kitten adopted from the SPCA by a family in the school district. On the first Friday of every month, Bandit went to school. The kids started out trying to estimate how long his tail was. Then they measured it. They did the same for his left leg, width-of-body, and length from head-to-tail, practicing first on their favorite stuffed animals brought in from home. Over the school year, little Bandit was also weighed and his growth recorded on a line graph. The kids even figured out how to measure the right amount of food to put in Bandit's bowl. Each child created a "Bandit's Journal," using all the data that had been gathered over the year, along with their wonderful drawings. We also used Stuart's books "Mighty Maddie" to learn about comparing weights, "Get Up and Go!" to understand elapsed time, and "A House for Birdie" to introduce the concept of capacity.

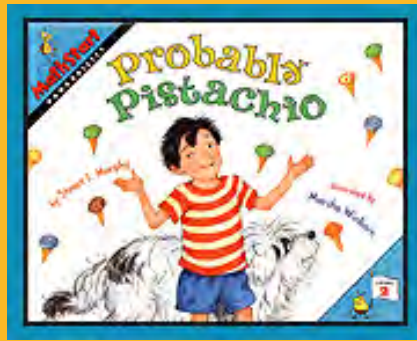
—Virginia Salava, Schyulkill Elementary School,
Phoenixville, PA

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Stuart J. Murphy's
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Probably Pistachio
Level 2 / Ages 6+
Probability



Learning to make astute predictions helps children analyze data to make informed decisions.

Story Description

Ever have one of those days? First, Jack wakes up late and trips over his dog Pirate. Then Dad makes tuna-fish sandwiches for lunch. Yuck. But Jack remembers that Emma's mom usually gives her pastrami—four out of five days last week. Maybe he can trade. What are the chances that she'll have pastrami today? And what's the probability that Jack's day will improve? Learning to make astute predictions helps children analyze data to make informed decisions.

Illustrated by Marsha Winborn.

Activities

- Read the story together and ask your child (or students) to predict what they think will happen and why. Ask questions such as: "Do you think Emma will have pastrami for lunch? Why do you think that?" As their understanding of probability grows, ask questions such as: "Why didn't Jack's predictions come true? What question could Jack have asked Emma so that he might have made a better prediction?"
- Ask your child (or students) to decide if certain events are likely, possible or unlikely. Suggest events such as: "You will go to bed at 8:30 tonight." "We will all go swimming on Saturday." "No one in your class will be absent tomorrow."
- Keep track of local weather reports for one week. Make a list of the predictions and then record the actual weather. Have your child (or class) decide how accurate the weather reports were.





Stuart J. Murphy's
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Racing Around
Level 2 / Ages 6+
Perimeter



Perimeter—the distance around a shape—is an important measurement concept for children to understand.

Story Description

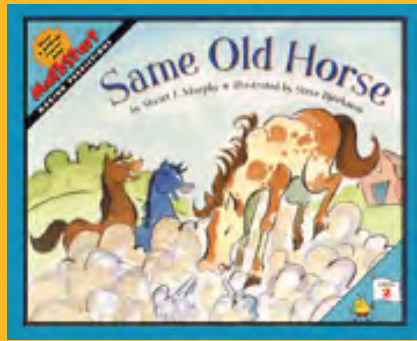
Mike loves riding his bicycle. This year he wants to ride in the annual 15-kilometer race around Perimeter Park, just like Justin and Marissa and all the other big kids. His practice ride around the athletic field was only 6 km, while the ride around the zoo was just 9 km. It's going to be a tough race. Good thing Bingo the dog is there to cheer him on. Perimeter—the distance around a shape—is an important measurement concept for children to understand.

Illustrated by Mike Reed.

Activities

- As you are reading the story, trace the perimeter around the athletic field, the zoo, and Perimeter Path using your fingers. Have your child (or class) figure out the perimeter by adding up the lengths of the sides.
- Using a ruler, help your child (or students) find the distance around familiar objects in the home or classroom such as picture frames, tabletops, or computer screens. Make a drawing of each object and write the length of each side on the drawing. Then calculate the perimeter.
- Use one of your child's (or students') favorite pictures and measure its perimeter. Using construction paper, make a frame for the picture and then measure the perimeter of the frame.





Stuart J. Murphy's
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Same Old Horse
Level 2 / Ages 6+
Making Predictions



Making predictions based on the observation of patterns is an important part of logical thinking.)).

Story Description

Poor Hankie the horse is allergic to hay! And every 20 minutes he sneezes. But that's only the beginning of his boring predictability, of which pasture-mates Jazz and Majesty waste no time making fun. "Just watch," says Jazz to Majesty. "Hankie will come out of the barn at exactly ten o'clock." They know that Hankie's owner Susan takes him out about an hour after she arrives at the barn, and she arrived at nine o'clock. They also know which week Hankie will wear a blue saddle pad, and when he likes to roll in the grass and take a long cool drink. Hankie's buddy Spark Plug assures him that predictability isn't always such a bad thing. Still, Hankie may have a surprise in store for everyone. Making predictions based on the observation of patterns is an important part of logical thinking.

Illustrated by Steve Björkman.

Activities

Change the patterns in the charts in the book. For example, change the chart on page 11 that notes when Hankie's owner Susan arrives at the barn, and when she takes Hankie outside to read:

	Mon.	Tues.	Wed.	Thrs.	Fri.	Sat.
Susan Arrived:	9:00	9:15	9:30	9:00	9:15	9:30
Hankie Outside:	9:30	9:45	10:00	9:30	9:45	?

Have your child or class examine each new chart and predict what Hankie will do now. Ask them to explain their thinking.

For three or four days, have your child (or students) keep a chart of certain activities each one does every day. For example:

Activity	Mon.	Tues.	Wed.	Thrs.	Fri.	Sat.
Time I got up:						
What I had for breakfast:						
Color shirt I wore:						
Time I got home from school:						

Ask the children if they see patterns. Are their classmates predictable, like Hankie?





Stuart J. Murphy's
MathStart[™]

Spunky Monkeys on Parade
Level 2 / Ages 6+
Counting by 2s, 3s and 4s



Counting by 2s, 3s and 4s is called skip-counting and is an important step in the development of multiplication skills.

Story Description

The "Monkey Day" parade is a very big deal. The crowd loves to watch the Monkey Cyclists who cycle two by two (2, 4, 6, 8...). They're followed by the Monkey Tumblers, who travel in groups of three (3, 6, 9, 12...). Finally there's the Monkey Band lined up four across (4, 8, 12, 16...). Counting by 2s, 3s and 4s is called skip-counting and is an important step in the development of multiplication skills.

Illustrated by Lynne Cravath.

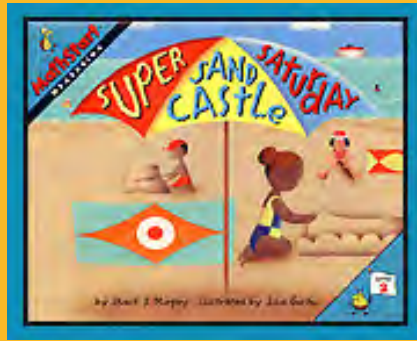
Activities

- Read the story with your child (or students) and talk about what is going on in each picture. Encourage the children to interact with the illustrations and count the monkeys aloud as you read.

- While shopping in the supermarket, help your child find objects that are packaged in 2s, 3s, or 4s, such as light bulbs, paper towels, or sticks of margarine or butter. Skip count to find the total number of items on the shelf.

- Stringing Beads: You will need beads of two different colors (for example, red and yellow) and three strings. On the first string, have each child string 2 red beads, 1 yellow, 2 red, and so on. On the second string, arrange 3 red beads, 1 yellow, 3 red, and so on. On the third string, arrange 4 red beads, 1 yellow, 4 red, and so on. Compare the three strings. Which has more red beads?





Stuart J. Murphy's
MathStart

Super Sand Castle Saturday
Level 2 / Ages 6+
Measuring



Children learn that it is helpful to use standard units of measure to make accurate comparisons.

Story Description

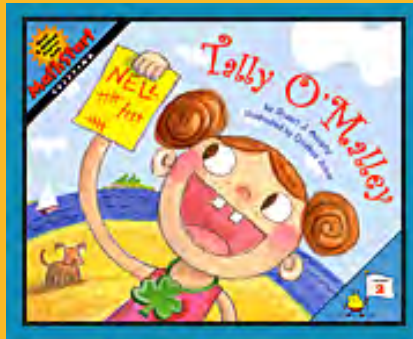
Juan, Sarah and Laura are building sand castles. But which one's tallest? Juan's is only two shovels high, while Sarah's is three. Laura's moat is one big spoon deep, while Juan's is two little spoons deep. Too bad their shovels and spoons aren't the same size. But "an inch is always an inch," says Larry 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 with your child (or class) 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?
- Have your students 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 child in terms of different units of measurement.





Stuart J. Murphy's
MathStart

Tally O'Malley
Level 2 / Ages 6+
Tallying



Tally marks are a useful tool for children to keep track as they count, and for data collection. Grouping tally marks also reinforces counting by fives.

Story Description

The O'Malleys are driving to the beach for vacation. Eric, Bridget, and little Nell are getting bored in the back seat, so Mom suggests a Tally game. They decide to count cars on the highway. Each of the kids picks a color—silver for Eric, blue for Bridget, and red, as always, for Nell—while Mom sets the timer. Eric trounces the competition and gets to wear the Shamrock medal. And his sister dubs him "Tally O'Malley!" But will he be able to hang on to the title when they tally t-shirt colors while waiting in line for ice cream, or tally train cars? Tally marks are a useful tool for children to keep track as they count, and for data collection. Grouping tally marks also reinforces counting by fives.

Illustrated by Cynthia Jabar.

Activities

- Reread the story and have your child (or students) keep track of the data with their own tally marks. Make a chart with each of the characters' names, the colors they choose, and their tallies. See how the children's tally marks compare with the marks in the book.
- Say a number between 10 and 25 and ask your child (or students) to make tally marks to represent that number.
- Pizza Survey: Have your child (or students) take a survey, asking ask family, friends and neighbors, "What kind of pizza do you like best?" Then work together to tally the responses. What kind of pizza is most popular? Least popular?





Recognizing and classifying three-dimensional shapes is an important part of geometry

Story Description

Sam—a.k.a. "Captain Invincible"—and his trusty space pooch Comet have their hands and paws full trying to navigate through the universe.

Meteor showers, flying saucers, and a "galactic beast" are some of the dangers lurking among the stars.

They have to push the right button—the cube, pyramid, cylinder, cone, sphere or rectangular prism—in order to land safely in...Sam's bedroom!

Illustrated by Rémy Simard.

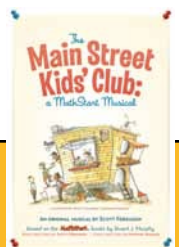


Activities

Ask your child or students: "How is the square different from the other shapes in the same row on the instrument panel?" Then discuss the similarities and differences of all the shapes in the square row. Continue by discussing the circle row.

Have your child or students create their own spaceship using the six shapes found in the story. Shapes can be made out of construction paper, or use shapes found around the house to construct the spaceship (for example, a paper towel roll is a cylinder).

Make up riddles about the attributes of the various space shapes. For example: "I have six faces and they are all the same. Who am I?" (answer: A cube!) Let your child or students try to guess the answers. Encourage them to create their own for others to answer.





Stuart J. Murphy's
MathStart

More or Less
Level 2 / Ages 6+
Comparing Numbers



Comparing numbers is an important part of the understanding the mathematical concepts of "greater than" and "less than," and for developing skills for making logical guesses

Story Description

Mr. Shaw, the principal of Bayside School is retiring, so all the students and teachers, and family and friends are having a picnic in his honor.

There are lots of game booths, and the most popular is "Let Eddie Guess Your Age!" Eddie, blind-folded and sitting on a chair over a large tub of water, can figure out how old someone is by asking a few key questions: "Is your age less than 10?" "Yes." "More than 7?" "Yes." "It is an even number?" "No." "Then you're 9 years old," says Eddie triumphantly.

If Eddie has to ask more than 6 questions, he gets dunked.

Find out whether Eddie can swim!

Illustrated by David T. Wenzel.



Activities

Tell your child or students that you are thinking of a number between 10 and 20. As the children make guesses, indicate whether each guess is more than or less than the correct answer. Encourage them to find the number in three guesses. Then trade places: Have your child, or one of your students, think of a number and have everyone else make guesses. Have the child say whether each guess is more than or less than the correct number.

Write out clues for a specific number. For example: "More than 50; less than 60; more than 55; less than 58; an odd number.) Give your child or students the first two clues and ask them write down all the possible numbers. One by one, give more clues. Have the children cross out numbers that are no longer possible until they find the secret number.

Number Sequence Card Game: Make 12 cards, each with a number and the "greater than" or "less than" sign (for example, " < 12 ", " > 14 "), and another 12 cards that have only a number on them. Mix up each set of cards into two separate stacks and turn them face down. The first player turns up two cards, one from each stack. If the player can arrange them to make a true number sentence, such as $14 < 30$, the player gets to keep the cards and goes again. If not, the cards are put back face down and the next player takes a turn. The player with the most cards at the end wins.

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Stuart J. Murphy's
MathStart

The Sundae Scoop
Level 2 / Ages 6+
Combinations



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

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

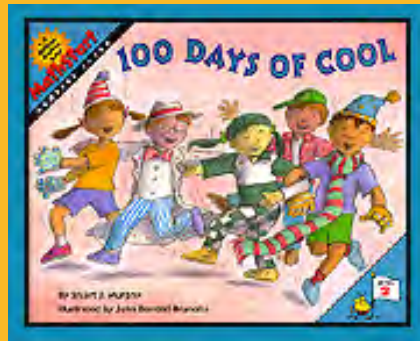
Create your own sundae scoop story. Have your child (or students) think of several different flavors of ice-cream, sauces and toppings and write them down. Help them draw diagrams similar to those in the story to determine the number of different sundaes they could create with their imaginary ingredients.

Teacher Idea: When we read "The Sundae Scoop," we discuss the different combinations. 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. 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 they add up the combinations. For homework, they can use food. For example, a dinner at McDonalds: You can get a cheeseburger, a hamburger or a chicken McNuggets, with French 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





Stuart J. Murphy's
MathStart

100 Days of Cool
Level 2 / Ages 6+
Numbers 1–100



Understanding the concept of 100 is a benchmark for children as they become familiar with percentages and place value.

Story Description

When Mrs. Lopez tells her class that they're going to celebrate "100 Days of School," Maggie hears "100 of Days of Cool" instead. Mrs. Lopez thinks that's a great idea, too. So for the next 100 days, Maggie, along with her buddies Nathan, Yoshi, and Scott, come up with 100 different ways to be cool. They wear funny glasses, fancy socks, decorate their bikes, even dress up in cloths from the wacky 1970s.

A number line is used to keep track of their progress.

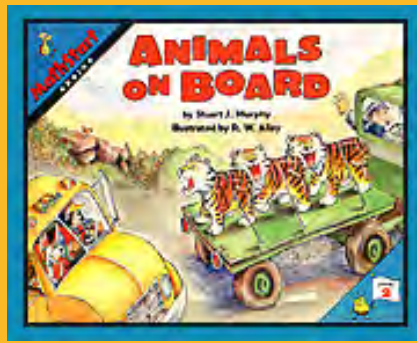
Illustrated by John Bendall-Brunello.



Activities

- Make a number line similar to the one shown in the book on a long, thin sheet of paper. Fold the number line in half and in half again. Use the folds to show how day 25 is $\frac{1}{4}$ of the way to 100, day 50 is halfway, and day 75 is $\frac{3}{4}$ of the way.
- Look at a calendar with your child or students. Starting on January 1, find the 100th day of the year. Together, make a guess in which month the day will fall. What day of the week will it be? Then see if you got it right. Try the same thing again, this time counting from today's date or from a child's birthday to find the 100th day.
- Give your child or a group of students a set of dominos. Have them try to make "trains" (lines of matching dominos) with exactly 100 dots. How many trains can they make?





Stuart J. Murphy's
MathStart

Animals on Board
Level 2 / Ages 6+
Adding



Simple addition equations help children to understand basic arithmetical operations.

Story Description

Wow! It's a caravan of trucks, each carrying an exotic load. There are three tigers on the first truck, followed by two more on the next truck. How many tigers in all? Then come trucks filled with different numbers of swans, frogs, horses and even pandas. How many are there of each animal? And where are they headed? And what's hidden under the tarp of driver Jill's extra-wide truck? Simple addition equations help children to understand basic arithmetical operations.

Illustrated by R.W. Alley.

Activities

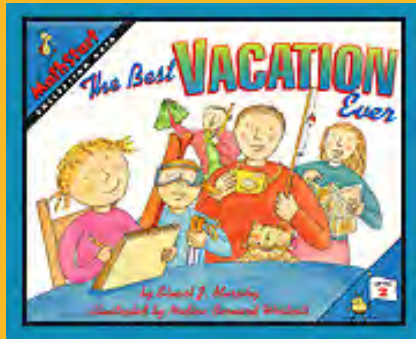
- Ask your child (or students) to point to each animal as you count them together. Ask questions throughout the story, such as: "If there are six swans and one more is added, how many swans will there be in all?"
- Look at things when you take trips outside home or classroom. Add up the toys in a sandbox, items in a shopping cart or doughnuts on a bakery shelf.
- Ask your child (or students) to write her name using toothpicks. How many toothpicks does it take to make the first two letters? The first three? How many toothpicks does it take to make your whole name?
- Teacher Idea:** For "Animals on Board," we make circus train cars out of index cards. I cut out circles for wheels that are then glued on. All the students have little circus trains in front of them. Then we take animal crackers and recreate the story. It's very tasty but you can't eat it until you're totally done with the story! Once you've done all of the math, then you can go and eat your animal crackers.
—Cathy Kuhns, Country Hills Elementary School, Coral Springs, FL

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Stuart J. Murphy's
MathStart

Best Vacation Ever
Level 2 / Ages 6+
Collecting Data



Learning to organize and interpret data develops the ability for critical thought.

Story Description

The family needs a break. Everybody's always so busy. But where should they go? A very smart and practical little girl asks some key questions and charts the answers. Mom wants to go some place quiet and cool. Grandma and brother Charlie are looking for fun. And everybody but Dad wants Fluffer the cat to come along. Is there any place that'll make everyone happy? Learning to organize and interpret data develops the ability for critical thought.

Illustrated by Bernard Westcott.

Activities

- Discuss what the girl learns from each of the charts she makes. Ask questions throughout the story, such as: "Do more people want to go somewhere warm or cool?" and "Do more people want to stay near or go far?"
- Look around your neighborhood and note what categories of things are more popular than others. For example: What cars do more people drive-big or small? Red or blue? What do more kids like to wear to school-running shoes or sandals? Bright colors or light colors? Help your child (or students) record this information. Then discuss the answers to the questions.
- Plan a picnic with your child (or class). What questions would you ask to find out each person's favorite foods? How would you chart the information? Can you figure out a menu that most people would like?





Stuart J. Murphy's
MathStart

Bigger, Better Best
Level 2 / Ages 6+
Area



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

Story Description

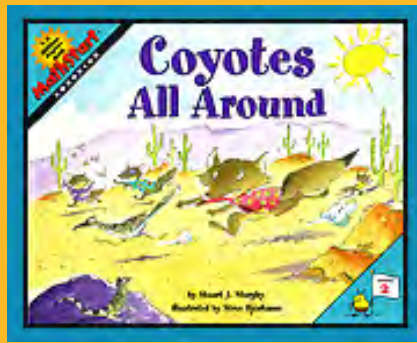
Jill can't believe it. Her older sister Jenny and older brother Jeff are at it again, arguing over who's got the better backpack and better book. But their biggest battle is over who has the best bedroom in their new house. To measure the area of their windows, they use sheets of paper. Yet even though 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 (or students) draw a shape on a piece of graph paper. Together, count the squares inside the shape to find the area. Then help your child draw another shape that has the same area (uses the same number of squares).
- Use newspaper to help your child (or students) find the area of a room. Compare the area of that room with other rooms in the building. Remember to use the same size paper when comparing rooms!





Stuart J. Murphy's
MathStart

Coyotes All Around
Level 2 / Ages 6+
Rounding



The story is also filled with lots of coyote factoids. Rounding and then computing are necessary skills for making sound estimates.

Story Description

It's another fine desert day for the counting coyotes: Clumsy, Clever, Cool, Careful and Little One. Clumsy thinks there must be hundreds of roadrunner birds, but Clever thinks that's a little high and encourages the other four coyotes to take a count. When it comes time to add up the totals, Clever says she can do it in her head by using rounding. Instead of adding $21+12+17+8$, Clever rounds the numbers and adds $20+10+20+10$, estimating the total will be 60. The actual total is 58, so she's pretty close. The coyotes then try counting lizards and grasshoppers. Clever's fast estimating amazes her friends. The story is also filled with lots of coyote factoids. Rounding and then computing are necessary skills for making sound estimates.

Illustrated by Steve Björkman.

Activities

- Reread the story and point out how Clever Coyote uses the number line to round each of the numbers.
- Make up an addition problem consisting of three 2-digit numbers (for example, $14+37+23$). Then ask your child (or students) to round each number ($10+40+20$) and find the sum. Compare that answer to the estimate.
- Card Game: Take the face cards out of a deck of cards and place the deck face down between two or more players. Each player takes a turn drawing two cards and uses them to make a double-digit number (for example, a 5 and a 2 would be 52). The players round their numbers (52 would be 50), and the player with the highest number wins.
- Teacher Idea: For "Coyotes All Around," we play "Rounding Bingo." The kids write tens—"10, 20, 30, 40"—on their bingo boards. Then I call out a number, for example, "58." They need to put a bingo chip on "60" because that's the nearest number. It reinforces the topic.
—Jennifer Hong, Punahou School, Honolulu, HI





Stuart J. Murphy's
MathStart

Elevator Magic
Level 2 / Ages 6+
Subtracting



Learning how to subtract using a simplified "number line" helps children understand the concept of subtraction.

Story Description

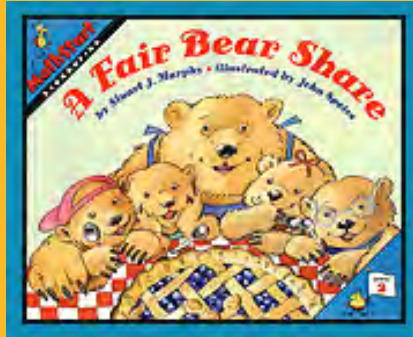
Who knew that riding an elevator could be such an adventure? Ben meets his Mom at her office on the 10th floor, then together they make several stops on their way down. They find cows and chickens at "Farm Bank and Trust" on the 8th floor, and a traffic jam at "Speedway Delivery" three floors below. As for the "Hard Rock Candy Store," you've got to see it to believe it. Learning how to subtract using a simplified "number line" helps children understand the concept of subtraction.

Illustrated by G. Brian Karas.

Activities

- Ask questions throughout the story, such as "Which floor is 2 floors down from the 10th floor?" and "If you go 3 floors down from the 8th floor, where will you be?"
- Give your child (or students) each a handful of grapes, jellybeans, or peanuts. How many are there? If you eat 2 how many will be left? If one more is munched, how many then?
- Look at things in the real world that require subtraction skills. For example: If you buy 6 apples and eat 3, how many apples will be left? If you have a book of 10 stickers, and give 2 to a friend, how many stickers will you still have?





Stuart J. Murphy's
MathStart

A Fair Bear Share
Level 2 / Ages 6+
Regrouping



Learning how to regroup numbers is essential for solving more advanced addition problems.

Story Description

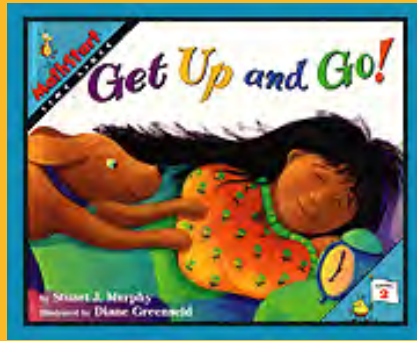
Mama Bear wants to make her special Blue Ribbon Blueberry Pie, but it's up to her four cubs to gather enough nuts, berries and seeds. Three of the cubs go at it with gusto, adding up their treasures by arranging them in groups of tens and ones. But they don't have enough! Will their little sister—the one who spent the afternoon skipping, running and turning cartwheels—come through and save the day? Learning how to regroup numbers is essential for solving more advanced addition problems.

Illustrated by John Speirs.

Activities

- Encourage your child (or students) to retell the story. Use check marks to record the nuts, berries and seeds that the cubs have collected. Circle the groups of 10.
- Collect crayons, markers, and colored pencils. Arrange each item into groups of tens and ones left over. How many are in each group? How many writing tools are there in all?
- The Regrouping Travel Game: When riding in the car (not driving!), put a check mark on a piece of paper for each car, truck, or bicycle that your child sees. Group the marks into tens and ones. At the end of your drive add them all up. How many did you see? How many of all three did you see?





Stuart J. Murphy's
MathStart

Get Up and Go!
Level 2 / Ages 6+
Timelines



Constructing and interpreting timelines helps children determine elapsed time using such skills as adding on to find sums.

Story Description

The puppy is worried. Will his Little Girl be ready to go to school on time? First there's a five-minute snuggle with Teddy. Then another three minutes spent washing up, and eight minutes for breakfast. And there's still so much more to do! Pup creates a colorful timeline to help keep track. Constructing and interpreting timelines helps children determine elapsed time using such skills as adding on to find sums.

Illustrated by Diane Greenfeld.

Activities

- Encourage your child (or students) to tell the story using math vocabulary such as "time," "minutes," "plus," and "equals." Talk about which activities take more time and which take less time. How can you tell which take more time by looking at timelines?
- Have your child (or students) draw and color pictures of their own morning routines. Time the minutes needed for each activity and use strips of paper, string, or yarn to create personal timelines. Tape the pictures to the appropriate segments.
- Plan a party that will take place in the afternoon from 2:00 to 4:00. What has to be done beforehand? What activities will take place during the party? What has to be done after the party is over? Make a timeline of these activities.

