

MathStart®

Grizzly Gazette
Percentages
Level 3 Ages 7+

Activity Ideas

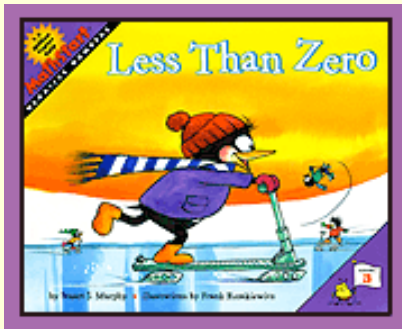
Learning how to describe a group of 100 in terms of percentages is the first step toward understanding this important concept.

It's election time at Camp Grizzly. Who will win the race to be the new mascot? Sophie's got the support of the all-important boat club. Daniel hands out flyers and candy bars. But with 50 out of 100 campers—50%—still undecided, Corey decides to throw her hat in the ring. As the race heats up, The Grizzly Gazette publishes polls showing how the percentages break down using a pie graph. Can Corey catch up? Illustrated by Steve Björkman.

- As you read the story, have your child or students find the sum of the percentages shown in each graph. It is important to understand that percentages represented in a circle graph will always add up to 100.
- Help your child or students draw a circle graph that shows one 50% segment and two 25% segments, and another circle graph that shows one 25% segment and one 75% segment. Talk about the language used to describe percentages. Equate 50% with one half of the circle, 25% with one quarter of the circle, and 75% with three quarters of the circle.
- Cut a stick of butter or a candy bar in half. Then cut one half into two pieces. Ask your child to name the fractions (halves and quarters). Then ask which piece is 25% of the whole. Point out the largest piece and ask what percentage of the whole stick it is. Put $\frac{1}{4}$ stick and $\frac{1}{4}$ stick together and ask what fraction and percentage the two pieces combined represent.

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Less Than Zero
Level 3 Ages 7+
Negative Numbers

Activity Ideas

The introduction of negative numbers extends a child's knowledge of the number system and is an important concept in algebra.

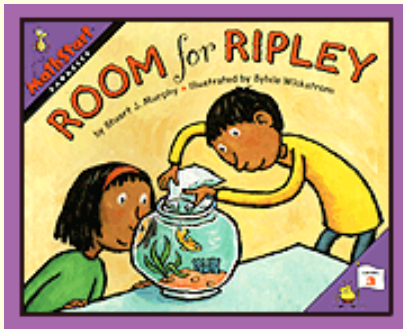
It is so much fun to be a penguin—especially when you can swirl around on your very own ice scooter. Perry really wants one, but they cost 9 clams and he doesn't have a clam to his name. Then mom pays him 4 clams to trim the ice in front of their house. Perry decides to make a chart to track his savings. So far, so good! But then he goes to the Ice Circus with Fuzzy and it costs 5 clams. Fuzzy lends him the extra clam and now Perry is in debt and has to mark his chart at “-1.” When Baldy loans him 2 clams for a Fishy Float, the total dips even further, to “-3.” Will Perry be able to climb out of negative number territory, pay back his friends, and make enough money for a scooter? Good thing there's always plenty of snow to shovel!
Illustrated by Frank Remkiewicz.

- After reading the story, return to the graphs. Have your child or class retell the story by looking at the graphs to see what happened to Perry's clams.
- Create a number line that includes numbers from -4 to 10 on a long sheet of paper. As you reread the story, keep track of Perry's clams by using a marker on the number line (a button or a penny will also work). Start with the marker on zero. When Perry gains some clams, move the marker to the right to reach the correct number. When Perry spends or loses his clams, move the marker to the left to change the number. After each move, ask, "How many clams does Perry have now?"
- Have your child or students write down the amount each receives for an allowance in a notebook. Then have them keep a running account of the money they spend. Discuss what could happen if they wanted to make a purchase after the allowance was all spent.

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Room for Ripley

Capacity

Level 3 Ages 7+

Activity Ideas

Children need to understand the relationships between the various units used to measure liquid capacity.

The guppy in the pet store ripples through the water as he swims, so Carlos names him Ripley. Carlos wants to buy Ripley, though first he needs to set up a fish bowl at home with a little help from big sister Ana. He pours a cup of water into the bowl, but it isn't nearly enough. Then another cup, which makes a pint. But he needs more. How many pints make a quart? How many quarts in a half-gallon? In a gallon? It sure takes a lot of water to keep a little fish happy! Illustrated by Sylvie Wickstrom.

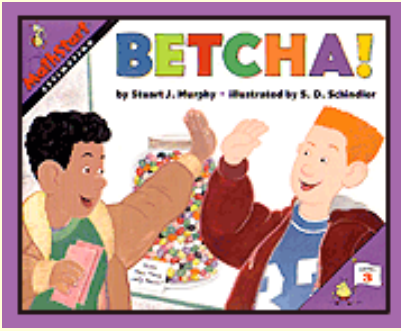
- Ask questions throughout the story, such as: "How much water is in the tank now?"
"Do you think that will be enough water for Ripley, or will Carlos have to add more?"
"Is a pint more or less than a quart?"
- Give your child or students measuring cups and large jars or other containers. Have them estimate how many cups of water it will take to fill the jar, and then keep track of the cups as the container is filled with water. After the container is filled, help them figure out the capacity of the container. Is it approximately a pint? A quart? A half gallon? A gallon?
- At home in your kitchen or at the supermarket, identify items such as milk, water, or cottage cheese that come in containers with different capacities. What comes in cups? In pints? In quarts? In half gallons? In gallons?

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Betcha

Estimating

Level 3 Ages 7+

Activity Ideas

Knowing how to estimate is an essential skill that helps children determine approximate totals as well as check the reasonableness of their solutions to problems.

At stake: two free tickets to the All-Star Game. And all you have to do is guess the correct number of jelly beans in a jar at the Planet Toys store. One particularly smart boy has an idea: Why guess when you can estimate? He plays a game with his buddy as they head over to the store on the bus. With four people per row, 10 rows, and a few folks standing in the aisle, he estimates that there are 43 people on the bus. "I didn't even need a pencil," he boasts. Illustrated by S.D. Schindler.

- Read the story together and ask your child or students to describe what is going on in each picture. Ask questions throughout the story, such as "What would you do to estimate how many people are on a bus?" and "How would you estimate the number of cars in a traffic jam?"
- Discuss real life situations that require estimations. For example, ordering enough pizza for the whole family, or deciding how many errands can be done before ballet class or soccer practice.
- Together, make up your own *Betcha!* game. Pick something that is difficult to count, such as people in a long line, cars in a parking lot, or cookies in a box. Help your child or students consider different strategies for making these estimates. Then check to see how close these estimates are to the real numbers.
- **TEACHER IDEA!** You can use the MathStart books to introduce a concept as well as to reinforce a concept. An example would be *Betcha!* I usually read the book at the beginning of the year because we do estimation activities all year long. The kids can see how the kids in the story use different strategies for estimating. My students have to bring in their own estimation jars at least once a year. Everybody gets a chance. So it can be container of whatever – rocks, candies, straws. I've even had grass. They bring in all kinds of stuff. One kid brought in shark teeth from Florida, which was really neat. Sometimes I'll give the winning estimator a pencil or a piece of candy, but mostly it's about the glory. Thanks Richard Callan, Bunker Hill Elementary School, Indianapolis, IN!

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**Dave's Down-to-Earth
Rock Shop**
Classifying
Level 3 Ages 7+

Activity Ideas

Classifying objects according to attributes is a skill used throughout mathematics and science.

Budding geologists Josh and Amy are crazy about collecting rocks. And with the help of local expert Dave, they learn how to sort rocks by different attributes: size, color, hardness and type. "We're kind of like rock detectives," says Amy. The story is filled with lots of rock facts. (Dave's shop is a real place, located in Evanston, Illinois, around the block from where Stuart used to live.) Illustrated by Cat Bowman Smith.

- Place a handful of blocks of different sizes and colors on the table and talk about the different ways that the blocks can be grouped.
- On sheets of different colored paper, draw a variety of shapes in different sizes: triangles, rectangles, squares, pentagons, etc. Help your child or students cut out the shapes then group them by size, color, shape or other attributes.
- With a deck of playing cards or a set of dominoes, explore all the different ways that the cards or dominoes can be grouped: by number, by suit, by color, or any other way you can think of!
- TEACHER IDEA! We do sorting for *Dave's Down to Earth Rock Shop*. We do nuts, bolts and screws and it really gets the kids going. You would be surprised at some of the language I get out of the children, such as, "I like the texture of this," or "We did this by shape," or "We did this by color."

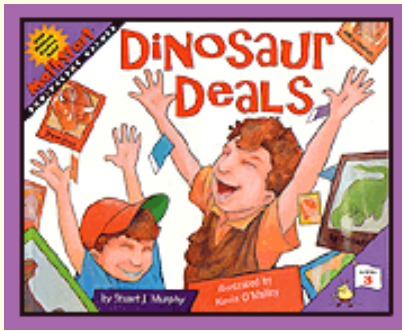
A great activity for Party Day or Halloween involves candy. I divide the kids into groups and give each group a bunch of candy. They have to sort and classify it and graph their data however they choose. Then they have to present their observations to the class. Afterwards, they have sort and share the candy among their group. And then – finally -- they get to keep it! *Thanks Richard Callan, Bunker Hill Elementary School, Indianapolis, IN!*

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Dinosaur Deals

Equivalent Values

Level 3 Ages 7+

Activity Ideas

Helping children to comprehend the concept of equivalent values is key to their understanding of equations.

For dino-lovers Mike and his little brother Andy, there's nothing as exciting as the Dinosaur Card Trading Fair. Andy's in heaven on his 7th birthday when Mom lets Mike take him for the very first time. Mike really wants a T. Rex card, but to get it he's going to have to trade. He needs three Allosaurus cards to get a T. Rex, but has only one. This is going to take some wheeling and dealing. Illustrated by Kevin O'Malley.

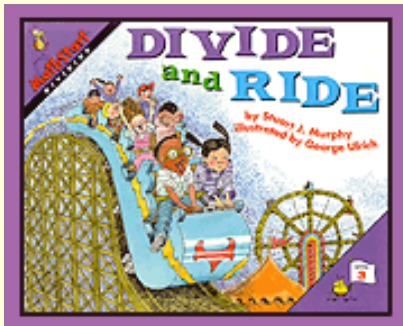
- Read the story with your child or students and use the diagrams to discuss each of the trades that are made. Ask questions such as, "How many Allosaurus does it take to equal 1 Tricerotops?"
- Cut out rectangles of different colored construction paper and use them to represent each of the dinosaur cards in the story. Reread the story and have your child or students act out the trading of the cards.
- On 16 index cards draw different groups of coins. Each card should have a match that shows the same amount of money in different coins (for example, two quarters would match five dimes). Turn the cards face down. On alternating turns each player exposes 2 cards. If the cards match, the player keeps them and gets another turn. The player with the most cards wins.

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Divide & Ride

Dividing

Level 3 Ages 7+

Activity Ideas

Understanding the meaning of remainders in simple division problems is a precursor to solving more difficult division problems.

In order to ride the Dare-Devil roller coaster at the Carnival, there must be two kids in each seat. But what if you're part of a group of 11 best friends? Ten kids will fit in five seats, but what do you do about the one who's "left over"? Meanwhile, chairs on the Satellite Wheel seat three, which means two best friends will be left over. Every ride presents a problem. Can the kids figure out how to fill all the seats so that everybody gets to ride? Illustrated by George Ulric

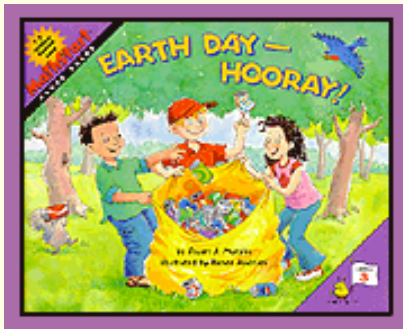
- Encourage your child or class to tell the story using math vocabulary: number of kids "per" seat, "divide," and "left over." Introduce words such as "groups of," "sets of," and "remainder."
- Draw stars to represent the 11 best friends as shown on the math summary pages of the text, or use pennies or pebbles to represent the friends. Together, practice grouping the "friends" into sets of 2s, 3s and 4s. Are there any friends left over? How many?
- Take another look at the story. What if the group of 14 new best friends went to the carnival together? How many seats would they fill on each ride? Would there be any friends "left over"?

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Earth Day - Hooray!
Place Value
Level 3 Ages 7+

Activity Ideas

Understanding place value is key to working easily with large numbers.

Members of Maple Street Save-the-Planet Club are cleaning up Gilroy Park when Ryan has a brainstorm: Instead of throwing aluminum cans in the garbage, why not bring them to the Recycling Center and use the money to buy flowers to decorate the park for Earth Day? Mrs. Watson, the club's advisor, figures out that they're going to need 5,000 cans, so the kids start a big collection campaign at school. Cans are grouped in bags of 10, 100 and 1,000. Recycling facts are sprinkled throughout the illustrations. Illustrated by Renée Adriani.

- As you read the story with your child or students, point out how the cans are bundled together in groups of 10s, 100s, and 1,000s. Discuss how 10 ones equal 10, 10 tens equal 100, and 10 hundreds equal 1,000.
- Write down a three-digit number and have your child or students draw bundles of cans to represent the number.
- Discuss with your child or students items that they can recycle, such as newspapers or cans. Set a goal for the number of items to recycle, perhaps 100 newspapers or 1,000 cans. Have your child or students keep track of the number collected and how many items are still needed to meet the goal.
- TEACHER IDEA! *Earth Day- Hooray!* was an April selection for our PTA-funded “Book-of-the-Month” program. Every teacher, K – 5, as well as all the intervention specialists, was given a copy of the book, along with a activities packet with suggestions for how to use the book to develop Reading, Writing, and Math skills. We also included relevant web links. Earth Day, of course, is April 22, but April is “Mathematics Awareness” month, too, so *Earth Day – Hooray!* was a perfect choice.

One suggested activity was to have kids take up a collection of recyclable cans, just like the kids in the story. Could they predict how long it would take for their collection to grow to 100 cans to 1,000? From a 1,000 to 10,000? We also had activities based on the factoids in the stories. For example: “Americans use more than 80,000,000,000 (80 billion) aluminum cans per year.” Who counts the cans? How do they know? Do they recycle in other countries? Do you recycle at home? How many cans on average per week? Thanks Mary Wheeler, literacy coach, Bunker Hill Elementary School, Houston, TX!

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Hamster Champs
Angles
Level 3 Ages 7+

Activity Ideas

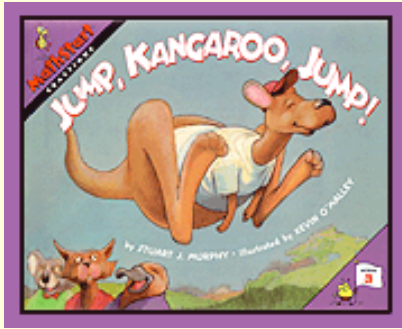
Learning about angles helps children identify and describe different geometric shapes.

The car drives away and suddenly it's just Hector the cat and three clever hamsters: Pipsqueak, Chuckles and Moe. The hamster champs offer to show Hector their new stunt, which requires they leave the safety of their cage, but only if Hector promises not to chase them. "All right," he says, "But if I get bored...watch out!" Using a protractor to measure a 30-degree angle, the hamsters set up a ramp made out of a board supported by blocks. Then they get in a toy car, parked on the couch, and race down another ramp—this one made of pillows—which gives them enough speed to climb up the board and briefly fly in the air. Wheee! Hector's not impressed. So they try again with a 45-degree angle. Then a 60-degree angle, which is too steep. Hector's getting bored! He wants a larger angle. Guess what happens when the champs try a 180-degree angle? Illustrated by Pedro Martin.

- Read the story with your child or students and point out how to read the angles on the protractor as the hamsters make the ramp steeper. Explain that angles are measured in degrees, and that a right angle is 90-degrees, while a straight line is 180-degrees.
- Have three kids use a piece of string 6-feet in length to make angles. Have one child hold one end, the second child the other end, and the third child hold the string in the middle. Have them make 45-degree, 90-degree, and 180-degree angles.
- Help your child or students fold a sheet of paper into a paper airplane, or any origami shape. After each fold, point out the angle or angles that were formed. Estimate and then measure the angles.

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Jump Kangaroo, Jump!

Fractions

Level 3 Ages 7+

Activity Ideas

Seeing the relationship between division and fractions is an important step in understanding fractions.

It's Field Day at camp. The 12 campers—a kookaburra, an emu, two platypuses, three koalas, four dingoes and Kangaroo—can't wait for the games to start. The group divides into halves, then thirds and finally fourths to make equal-sized teams (6, 4 and 3 each) for the big competitions. But it's each camper for himself in the long jump, which is Kangaroo's personal favorite. Illustrated by Kevin O'Malley.

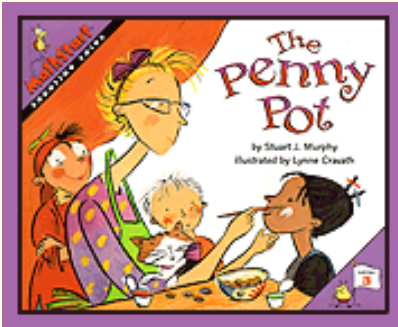
- Ask questions throughout the story such as: "How many teams are needed?" "When the group is split so that each team has the same number of campers, how many are on each team?" "What fraction of the total number of campers is that?"
- Talk about fractions of groups. Give your child or each of your students 12 bottle caps or buttons and pretend that each one is a "camper." Have them divide the campers into 2 equal teams and ask what fraction of the group each team is. Try this with 3 and 4 teams.
- Divide 24 toothpicks into groups of 8 toothpicks each. How many groups are there? What fraction of the total is each group? What is $\frac{1}{3}$ of 24? Use the same 24 toothpicks and try groups of 6 and 4.

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The Penny Pot
Counting Coins
Level 3 Ages 7+

Activity Ideas

Learning what different coins are worth and adding up change are important life skills.

Art teacher Fran is painting kids' faces at the school fair for 50 cents each. But Jessie has only three dimes, a nickel and four pennies, which is just 39 cents. So Fran puts out a "penny pot" for spare change. Miguel has a quarter, a nickel, two dimes and three pennies: 53 cents. He adds three cents to the penny pot. All the other kids contribute, too. Soon there's more than enough for Jessie. Illustrated by Lynne Cravath.

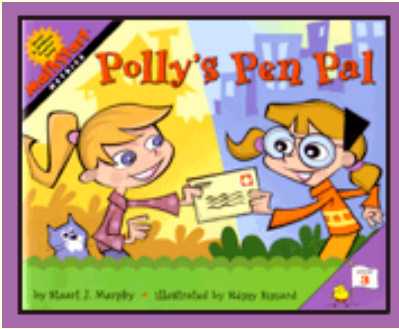
- Place a handful of coins on the table and talk about the value of each. Ask questions such as: "Which coin is a dime?" "How many pennies equal a dime?" "How many nickels?" "Can you combine pennies and nickels to make a dime?"
- Reread the story together and ask your child or class to identify the different coins in the story and tell how much each is worth.
- Practice using coins in everyday situations: Help your child or students choose the coins needed to buy a magazine or a toy. Find the correct change needed to ride the bus, buy a stamp, or purchase a gumball from a machine.
- **TEACHER IDEA!** Before we read *The Penny Pot*, I ask my kids, "How many different combinations can you make using 25 cents?" The answer is 13 different ways. The kids can use money if they choose to and write out how they came to the answer. A lot of them can do it in their heads. When I read the book, they can see the computations. Thanks Richard Callan, Bunker Hill Elementary School, Indianapolis, IN!

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Polly's Pen Pal

Metrics

Level 3 Ages 7+

Activity Ideas

The use of rough equivalents in terms of familiar objects and distances helps kids become familiar and comfortable with the metric system.

Polly's new pen-pal, Ally, lives in Montreal, Canada, where they use the metric system. Polly and Ally have lots in common: They both have cats, like the color purple, and are just about the same size and weight. But when Ally writes that she is 125 centimeters tall, Polly needs to ask her Dad for help to figure out how tall that really is. Dad uses a baseball bat about 1 meter—100 centimeters—long as a reference, and shows Polly that one centimeter is about the width of his little finger. Dad helps Polly figure out grams and kilograms, and meters and kilometers, also by using every day references she can relate to. Illustrated by Rémy Simard.

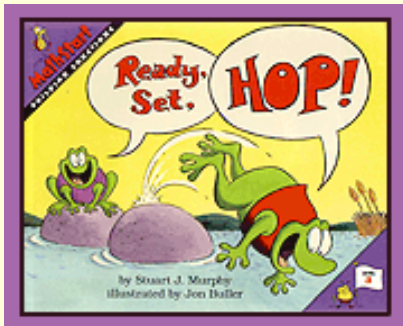
- A large grapefruit is the rough equivalent of a kilogram. Have your child or students take turns holding a grapefruit, feeling its weight. Then have them pick up other objects (a book, a bag of candy, Mom's purse) and decide whether each object weighs more or less than a kilogram.
- Have your child or students lie down on butcher paper or newspaper. Trace around their bodies with a marker. Measure, in centimeters, height and the length of an arm, leg and little finger.
- Cut several strings into 10-centimeter lengths. Give your students the strings and ask them to find objects that measure about 10 centimeters. The first child to find five objects is the winner.

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Ready, Set, Hop!
Building Equations
Level 3 Ages 7+

Activity Ideas

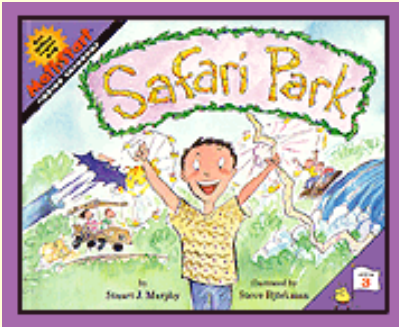
Knowing how equations are built is central to children's learning how to interpret and write number sentences.

Who's the better hopper? Matty, the tall frog? Or Moe, who's just plain big? Only a hopping contest can settle the matter. It takes Moe only five hops to make it to the big rock. Matty needs two more hops. So how many hops did Matty take? ($5 \text{ hops} + 2 \text{ hops} = ?$). The happy hoppers keep going until—splash!—they're in the pond. Illustrated by Jon Buller.

- Identify the clues that suggest operations: "More" suggests addition. "Less" suggests subtraction.
- Gather some crayons, buttons, or keys. Ask, "How many are in the pile?" Add a few more. Ask, "How many are in the pile now?" Take away several and ask, "Now how many are there?"
- Look at things in the real world and work together to create addition and subtraction problems. Examples could include fruit: 3 apples plus 2 oranges equals 5 pieces of fruit. Or you could use pets: 3 dogs minus 1 dog equals 2 dogs. Draw pictures of these examples and write the equations under the pictures.
- **TEACHER IDEA!** For *Ready, Set, Hop!*, we used a strip of oaktag and paper muffin wrappers to create lily pad number lines. We glued 21 muffin wrappers on the strip of oaktag and wrote the numbers from 0 to 20 in the center of them. Each participant was given a plastic frog. As we build each equation, the frog hopped along the number line. We used this book in conjunction with a song from Hap Palmer's Math Readiness CD called *Jumping*. They are a perfect set. Thanks Carol Hartrey, bookseller, The Learning Tree Store, Stoneham, NH!

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Safari Park
Finding Unknowns
Level 3 Ages 7+

Activity Ideas

An essential part of early algebraic thinking is understanding a "number sentence" with a missing element ($8 + ? = 20$), and the process for figuring out the unknown.

Grandpa's taking all the grandkids to the neatest amusement park ever: Safari Park. All the Jungle King rides cost 4 tickets. Rhino Rides are just two tickets. Monkey Games and Tiger Treats are a bargain at one ticket each. But a ride on the "spectacular, amazing, heart-pounding Terrible Tarantula" costs six tickets! Each of the kids has 20 tickets and has to figure out the best combination to have the most fun. Which would you choose? Illustrated by Steve Björkman.

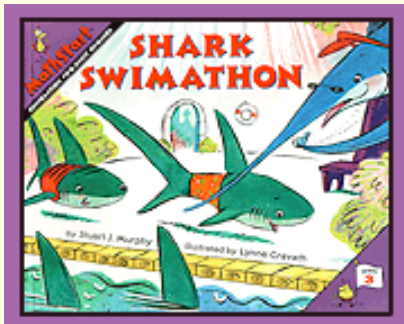
- Before reading the story, give your child, or each of your students, 20 pieces of paper to use as tickets. Work with them to solve each number sentence, solving for the unknown using the tickets to help work out the problem.
- Look at the large sign showing all the rides and the number of tickets needed for each. Have your child or students think of several different ways to use the 20 tickets. Write a number sentence for each one. Do the same thing using 15 tickets, 18 tickets, or 10 tickets.
- Think of a number and offer a clue, such as "8 plus this number equals 12." When your child or one of your students gets the answer correct, he or she thinks of a number and offers a clue for the next round.

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Shark Swimathon
Subtracting 2-Digit
Numbers
Level 3 Ages 7+

Activity Ideas

Learning to subtract 2-digit numbers with and without regrouping prepares children for subtracting larger numbers.

The Ocean City Sharks swim team—Gill, Fin, Stripes, Tiny, and the hammerhead twins, Flip and Flap—really want to go the state swim meet, but they're short on funds. If they can swim 75 laps over the next four days, the local newspaper will sponsor them. The first day they swim a total of 14 laps ($75 - 14 = 61$). The next day they do a little better with 17 laps ($61 - 17 = 44$) But will they make their goal? Illustrated by Lynne Cravath.

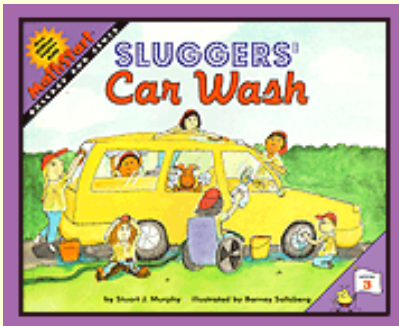
- Read the story together and ask your child or students to describe what is going on in each picture. Discuss what Coach Blue writes on the sign at the end of each practice. Ask, "How many laps did the whole team swim?" and "How many more laps does the team have to swim?"
- At the start of a car trip, have your child write down the miles on the odometer. Then periodically calculate the number of miles traveled during the trip.
- Card Game: Provide 8 dimes for each player, 50 pennies for the "bank," and create a set of cards numbered 1 through 15. Each player starts with 8 dimes. Mix up the cards and place them face down in a pile. Taking turns, players draw a card and give the amount shown to the bank. If a player does not have exact change, he or she must exchange one of their dimes for 10 pennies. The first player to get rid of all his or her money wins.

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Sluggers' Car Wash

Dollars and Cents

Level 3 Ages 7+

Activity Ideas

Counting change is an important skill needed for everyday life.

The 21st Street Sluggers have a problem: Their t-shirts are all worn and dirty. And that won't do at all for playing against the 7th Avenue Spitfires. How can they raise some money fast? A car wash! First, the Sluggers pool their money to buy supplies. Then they set up an assembly line. CJ keeps track of the money. That's easy when the man in the convertible gives him 2 dollar bills, 4 quarters, 4 dimes and 2 nickels: \$3.50 is the exact amount. But then Will's Mom gives him a \$5 bill. Can he figure out the correct change? Illustrated by Barney Saltzberg.

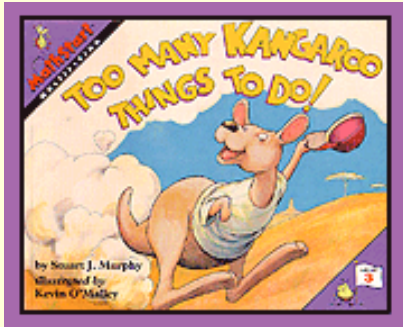
- As you read the story, help your child or students understand what is happening on the clipboard. Cover up the totals and ask questions such as "How much was spent on supplies?" or "How much did the children have after they washed Will's mother's car?"
- Using catalog or a newspaper inserts, have your child or students pretend to go shopping. Give each child 10 dollars either in real bills and coins, or in play money. Let them select items to "buy." After "buying" each item, have them set aside the money spent and count up how much remains.
- When you go out to eat, have your child make a selection from the menu and then calculate how much it will cost. Name an amount higher than the meal's total and ask what the change should be.

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MathStart®

**Too Many Kangaroo
Things To Do**
Multiplying
Level 3 Ages 7+

Activity Ideas

By learning how to multiply by 1, 2, 3, and 4, children are introduced to multiplication, one of the four basic arithmetic operations.

Poor Kangaroo! It's his birthday but everybody's too busy to play with him. Emu has to bake one cake (1×1), spread two colors of frosting (1×2), decorate the cake with three flowers (1×3) and add four big candles (1×4). That's 10 Emu things to do when you add them up. The two platypuses, three koalas and four dingoes are likewise occupied with multiple tasks. Multiply each group's tasks, then add the totals together and it equals...a party! Illustrated by Kevin O'Malley.

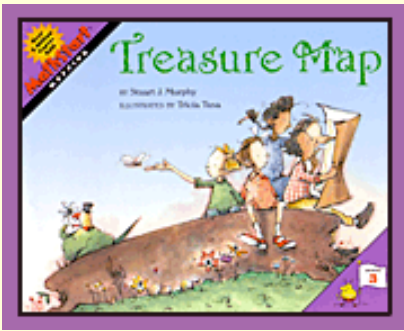
- Review the math summary pages and encourage your child or students to talk about the number of activities each animal has to do and the total number of activities that have to be done.
- Make some cookies. Arrange the dough on each baking sheet differently. For example, in rows of 2s, 3s or 4s. While the cookies are baking, practice multiplying. Ask: "How many cookies are on the sheet?" and "After three sheets, how many cookies will we have?"
- Draw on cards pictures of insects with different numbers of legs: spiders, ants, beetles, mosquitoes, caterpillars, etc. Count the number of legs on each insect. How many legs are there altogether if you have two spiders, three ants, or four caterpillars?

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Treasure Map

Level 3 Ages 7+

Mapping

Activity Ideas

Map-reading uses several mathematical skills, including interpreting symbols and understanding scale and direction.

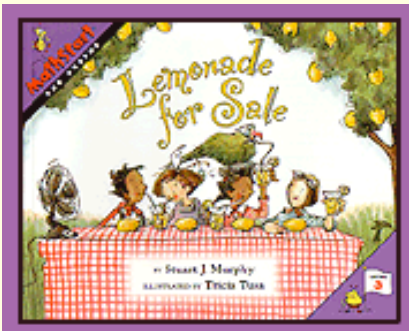
Buried treasure! Matthew can't wait to tell his friends in the Elm Street Kids' Club about the cool map he found. It's over 50 years old and filled with clues that lead them to the new Wonderland Park. Petey the Parrot cheers them on as they try to make sense of dated directions. The clues don't always match—a dirt path has now become a paved sidewalk and there's the mystery of what happened to the big old tree. But they finally find the "X" that marks the spot and start digging. It's a time capsule! The kids decide to add their own treasures to surprise the next group of friends that finds the map. Even Petey contributes a loose tail feather. Illustrated by Tricia Tusa.

- Help your child make a map of his or her room. The map should include a key that contains symbols or pictures of real items in the room. You can also make maps of your home, school, backyard, playground, or the neighborhood.
- On your next trip to the mall, help your child first locate where you are on the mall directory map. Then some favorite stores. Look at the key and discuss the meaning of various symbols. Ask your child to find the nearest restroom or restaurant using the map.
- Visit a site on the Internet that provides maps and directions. Help your child or students enter the school's address and that of a nearby park. Print the map and have the children trace the route. Do the directions show the same route the children usually use? What things other than street names does the map show?
- Ask the children in your class where they were born and note it on a map. How many were born in the same city? State? Country? Using an Internet map service, chart trips from school to each of the locations.

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Lemonade for Sale

Bar Graphs

Level 3 Ages 7+

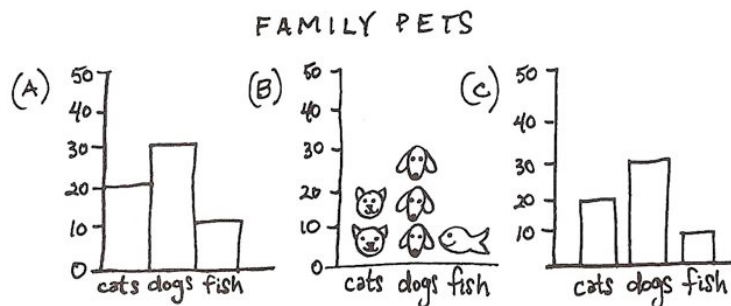
Activity Ideas

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

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.

- 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?
- Set up your own lemonade stand with a group of friends and create a graph to keep track of the sales. On which day did you sell the most? The least? Show when sales were going up or down.

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