### **Counting Books**

City by Numbers Numerals 1-21 depicted in common city scenes. All ages will love it!

One Is a Snail, Ten Is a Crab Counting and adding the number of feet different animals have. (K - Grade 2)

<u>Olivia Counts</u> An adorable, spunky little pig makes teaching numbers 1-10 such fun! Part of the Olivia series. (Preschool-Grade 1)

<u>Chicka Chicka 123</u> 101 numbers climb up a tree, one at a time until 20, and then by 10s. (Preschool - Grade 1)

<u>How Much is a Million?</u> Ever wonder just what a million of something means? How about a billion? Or a trillion? This book knocks complex numbers down to size in a fun, humorous way, helping children conceptualize a difficult mathematical concept. (K-Grade 4)

<u>Museum 123</u> uses famous works of art from NYC's Metropolitan Museum of Art to teach numbers and counting (K-Grade 3)

Fish Eyes: A Book You Can Count On full of vibrantly colored fish and shapes. (Preschool-Grade 1)

<u>My Granny Went to Market</u> A Round-the-World Counting Rhyme about a jet-set granny who buys increasing # of items. (Preschool-Grade 3)

One Frog Sang An increasing frog chorus sings out one spring evening. (K-Grade 2)

<u>Five Creatures</u> A girl sorts & counts her family members based on various characteristics. (Grades 1-5)

My Little Sister Ate One Hare A girl eats delightfully gross items as part of a magic act. (Grades 1-4)

#### **Fractions**

<u>Apple Fractions</u> Author Jerry Pallotta and illustrator Rob Bolster use a variety of different apples to teach kids all about fractions in this innovative and enjoyable book. Playful elves demonstrate how to divide apples into halves, thirds, fourths, and more. (Kindergarten-Grade 3)

### **Addition Books**

Mall Mania The Parkside Mall is holding a "Mall Mania" day, and to celebrate, the 100th person to enter the mall will win a prize. It's the job of a group of friends to add up shoppers as they enter one of the four doors of the mall. Throughout the day, they share their numbers via walkie talkies, with each update using a range of addition strategies. (Grades 1-3)

<u>Grapes Of Math</u> Greg Tang, a lifelong lover of math, shares the techniques that have helped him solve problems in the most creative ways! Harry Briggs's vibrant & inviting illustrations create a perfect environment for these innovative games. (Grades 2-5)

<u>One Grain of Rice</u> Long ago in India, there lived a raja who believed that he was wise and fair. But every year he kept nearly all the people's rice for himself. Then a village girl named Rani devises a clever plan, using the surprising power of doubling to win more than one billion grains of rice from the raja. (Pre-Kindergarten-Grade 3)

### **Problem Solving**

Math-terpieces: The Art of Problem-Solving In his most ground-breaking book since THE BEST OF TIMES (Fall 2002), Greg Tang underscores the importance of four basic rules in problem-solving. Keeping an open mind, looking for unusual number combinations, using multiple skills (like subtracting to add) and looking for patterns, will guarantee any child success in math. In MATH-TERPIECES, Tang continues to challenge kids with his innovative approach to math, and uses art history to expand his vision for creative problem-solving. (Grades 1-5)

<u>Math Appeal</u> In this follow-up to *Grapes of Math* and *Math for All Seasons*, Greg Tang deals with four key rules for problem solving: have an open mind, look for unusual number combinations, use multiple skills, and look for patterns. With this new title, Tang continues to challenge kids with his innovative approach to math. (Grades 1-3)

## Geometry

<u>Changes</u> This wordless picture book portrays the adventures of two small wooden figurines as they arrange and rearrange a set of colored blocks to create what they need for different situations. The bright and colorful illustrations provide a wonderful opportunity for young children to interpret the scenes and create their own dialogue as they see how the same set of blocks can be used to make many different things. (Pre-Kindergarten-Grade 1)

<u>Mouse Shapes</u> Chased by a cat, three mice hide in a pile of shapes. Once the threat subsides they use the shapes to make an assortment of things including a house, a tree, a wagon, and a fish. But when the cat returns the mice use the shapes to scare it away by creating "three big scary mice." Just as visually appealing as Mouse Paint and Mouse Count, the simplicity of this book with its brightly colored pictures makes it an effective and fun introduction to shapes. (Preschool–Grade 1)

The Greedy Triangle In this lively introduction to shapes and polygons, a bored triangle is turned into a quadrilateral after a visit to the shapeshifter. Delighted with his new career opportunities--as a TV screen and a picture frame--he decides the more angles the better, until an accident teaches him a lesson. (K-Grades 5)

The Librarian Who Measured the Earth A perfect introduction to mathematical concepts for young readers, written by a Newbery honor-winning author! This colorfully illustrated biography of the Greek philosopher and scientist Eratosthenes, who compiled the first geography book and accurately measured the globe's circumference, is just right for budding mathematicians, scientists, historians, and librarians! (Grade 3-5)

<u>Sir Cumference and the First Round Table: A Math Adventure</u> Join Sir Cumference, Lady Di of Ameter, and their son Radius for wordplay, puns, and problem solving in this geometry-packed math adventure. King Arthur was a good ruler, but now he *needs* a good ruler. What would you do if the neighboring kingdom were threatening war? Naturally, you'd call your strongest and bravest knights together to come up with a solution. (Grades 3-5)

<u>The Fly on the Ceiling</u> The coordinate system we commonly use, the Cartesian Coordinate System, was developed in the 17th century by the French mathematician and philosopher René Descartes. Based on one of math's myths, this math reader describes how a very untidy Descartes invented this ingenious system in order to keep track of his possessions after wondering how best to describe a fly's location on the ceiling. (Grades 4-6)

### **Multiplication and Division**

<u>The Best of Times</u> The Best of Times gives kids an intuitive understanding of multiplication, encouraging them to arrive at answers on their own rather than memorizing the times tables. A child who can multiply by two, for instance, can multiply by four and even eight! Likewise, times six builds on times two and times three. (Grades 2-3)

<u>A Remainder of One</u> Hup, two, three, four! We're in the 25th Army Corps. Queen's count! Two, three! We are the marching infantry! Poor Joe! He wants to march in the parade, but every time the lines are uneven, he must stand aside. What's a poor bug to do? Joe is determined. He studies the problem, relining the twenty-five bugs in his squadron from two lines to three lines to four lines, until inspiration and fortitude result in five lines of five -- and Joe fits in the last one. (Grades 1-3)

<u>Multiplying Menace: The Revenge of Rumpelstiltskin</u> Rumpelstiltskin is back! This time he's making mischief with his multiplying stick. Can Peter unlock the secret of the stick in time to save the kingdom? Whimsical illustrations bring fun to multiplying whole numbers and fractions. (3rd-5th grades)

2 x 2 = Boo!: A Set of Spooky Multiplication Stories Multiplication is made frightfully fun. A table is included. (Graded 3-4)

<u>Too Many Cooks</u> In this funny Level 3 Math Reader, two siblings figure out how to measure and multiply to make a delicious soup. Meanwhile, their younger brother is adding his own outrageous ingredients! (1st - 3rd grades)

<u>Midnight Math</u> In comic-book style, three mouse-like critters have a good time playing math games while the household sleeps. Each game is simple enough for basic arithmetic skills: addition, subtraction, and multiplication, and the games are mildly amusing. An Answers page is included with further suggestions for math games. (Grades 1-5)

#### Measurement

<u>Arithme-Tickle</u> This colorfully illustrated collection of brain-teasing riddles challenges even the best math student. Among other adventurous activities, the reader is asked to measure a horse, compute miles flown by a polka-dotted bird, and subtract cats' lives from inches in a yardstick. (Grades 3-5)

<u>How Big is a Foot?</u> Once upon a time a king decided to give his wife a bed for her birthday. The queen did not have a bed because at that time beds had not been invented. The Chief Carpenter's apprentice was ordered to make a bed that was 6 feet long and 3 feet wide. However, the bed he made was much too small. Why was the bed too small for the queen? How could the apprentice solve the problem? This measurement read aloud provides a fun introduction to the need for standard units of measurement. (Grades 1-4)

Jim and the Beanstalk In this amusing variation of the classic children's story, when Jim climbs up the beanstalk he discovers a castle and meets a somewhat depressed giant in need of glasses for reading, false teeth for chewing, and a wig for his bald head. Jim must take the giant's measurements to help him. Humorous illustrations, which alternate between black and white spreads and muted watercolors, complement this heartwarming story. (Grades 1-4)

<u>Inch by Inch</u> This measurement read aloud tells the story of a green inchworm who is proud of his skill at measuring anything – a robin's tail, a flamingo's neck, a toucan's beak and a heron's legs. Then one day a nightingale threatens to eat him if he cannot measure his song. Young children enjoy the inch worm's solution and delight in finding the inchworm on every page. After reading this Caldecott Honor book have students explore measuring objects to the nearest inch. (K-Grade 4)

#### Time

<u>Clocks and More Clocks</u> Mr. Higgins finds a clock in his attic and suddenly finds himself surrounded by more and more clocks, as he tries to keep track of time. (K- Grade 2)

# Money

<u>Those Shoes</u> Everyone at school has purchased a pair of "those shoes" – black high tops with white stripes. But Jeremy's family can't afford a new pair of shoes, let alone "those shoes", even though his are worn out. This story has a touching twist at the end that illustrates the message "it's better to give than to receive." (K-Grade 2)

**Rock, Brock and the Savings Shock** Rock and Brock are twin brothers who have been given a gift from their grandfather: each gets a dollar a week and if that dollar and any savings are kept throughout the week, that amount is doubled. One twin does well, the other not so much. A good illustration of the benefits of saving, compound interest, and why spending on a whim can be foolish. (Grades 1-4)

References: Transforming Teaching and Learning K5 Math website; Top Rated Educational Math Books for Children by GoodReads.com; The Best Children's Books Math for Teaching; 28 Children's Books about Money