

Just The Ticket to Mathematical Understanding

Using Children's Literature to Introduce or Clarify Math Concepts

Key to Reading Levels:

L=Lexile Level
DRA = Developmental Reading Assessment
GR = Fontas Pinnell Guided Reading
RR = Reading Recovery
AR = Accelerated Reader
-- = No reading level available

Caution: The reading levels are close approximations which have been calculated from several online resources and should be used only as a guide, not as a defining grade level for children. Many times ranges are provided.

General Teacher Resources:

About Teaching Mathematics by Marilyn Burns

Writing in Math Class by Marilyn Burns

Math Through Children's Literature by Kathryn Braddon, Nancy Hall and Dale Taylor

Marvelous Math: A Book of Poems by Lee Bennett Hopkins and Karen Barbour

General Books to Share with Students:

Math for Smarty Pants by Marilyn Burns

(Reading Level: 740L; DRA 38; GR Q-R; RR 22; AR 4 . A common-sense approach to teaching mathematics fundamentals for those what are slightly terrified of numbers.)

The I Hate Mathematics Book by Marilyn Burns (Reading Level: --)

Sideways Arithmetic from Wayside School by Louis Sachar

(Reading Level: 670L; DRA 34-38; GR O-P; RR 22; AR 3. Solve the more than fifty math brainteasers along with the kids from Wayside School.)

Math Curse by Jon Scieszka

(Reading Level: 560L; DRA 28; GR M; RR 19-20; AR 2. A girl is caught in the relentless grip of math-mania as her whole world turns into a weird number problem. And then there is science...)

Arithmetic by Carl Sandburg, Illustrated by Tedd Rand (Reading Level: --)

The One that Got Away by Percival Everett

(Reading Level: --. An interesting play on words. Three cowboys and a dog round up "ones". Children reading this humorous book will enjoy being in on the joke.)

The Dot and the Line by Norton Juster

(Reading Level: 740L; DRA 40; GR R; RR 24; AR 4. Geometry in a love story.)

Suggested Books by Standard and Concept

Number, Number Sense and Operations

Counting Books:

12 Ways to Get to 11 by Eve Merriam

(Reading Level: 640L; DRA 30; GR N; RR 19-20; AR 3. Illustrates various combinations that = 11.)

Two Ways to Count to 10 by Ruby Dee

(Reading Level: --. A Liberian folktale provides the setting for this unique counting book.)

P. Bear's New Year's Party by Paul Owen Lewis

(Reading Level: --. This book combines counting and telling time as animals arrive at different times to Polar Bear's party.)

***Caps for Sale* by Esphyr Slobodkins**

(Reading Level: AD480L [DRA 20; GR K; RR 19-20; AR 2]. A charming folktale about a peddler of caps who runs into trouble when monkeys steal his caps for sale.)

***Only One* by Marc Harshman**

(Reading Level:--. Shows how multiples may collectively be one. For example, 12 eggs is 1 dozen.)

***Anno's Counting Book* by Mitsumasa Anno**

(Reading Level:--. An introduction to counting without words.)

***Knots on a Counting Rope* by Bill Martin, Jr.**

(Reading Level: 480L; DRA 20; GR K; RR 19-20; AR 2. Combines Native American tradition with a wonderful story that children will truly enjoy.)

***Count on Pablo* by Barbara duRupert**

(Reading Level: 190L; DRA 6-8, 10; GR E; RR 7-8; AR 1. Pablo demonstrates how good he is at counting as he helps his grandmother prepare her vegetables for market.)

***Rooster's Off to See the World* by Eric Carle**

(Reading Level: 510L; DRA 24; GR L; RR 19-20; AR 2. Counting up and counting down with Eric Carle's hallmark tissue paper illustrations.)

***Ten Black Dots* by Donald Crews**

(Reading Level: AD270L [DRA 12; GR G; RR 11-12; AR 1]. A counting book which shows what can be done with ten black dots: one can make a sun, two can be fox's eyes, and eight become the wheels of a train.)

***The Icky Bug Counting Book* by Jerry Pallotta**

(Reading Level: AD620L [DRA 30; GR N; RR 19-20; AR 3]. Beautiful illustrations and interesting, obscure bug facts make this a unique counting book.)

***Reese's Pieces Count by Five* by Jerry Pallotta**

(Reading Level: AD420L [DRA 18; GR J; RR 17-18; AR 2. Eatable manipulatives...what could be better to help children learn to count?)

***M&M's Counting Book* by Barbara Barbieri McGrath**

(Reading Level: AD120L [DRA 4; GR D; RR 5-6; AR 1]. Includes demonstrations using candy counters for numbers 1-12. Teaches colors, basic shapes, simple math concepts such as sets.)

***1 Hunter* by Pat Hutchins**

(Reading Level: NP. One hunter walks blindly through the forest observed first by two elephants, then by three giraffes, etc.)

***One Moose, Twenty Mice* by Clare Beaton**

(Reading Level: NP. Young readers learn the numbers one through twenty while trying to spot the cat hiding in each picture.)

***Mouse Count* by Ellen Walsh**

(Reading Level: AD490L [DRA 20; GR K; RR 19-20; AR 2]. A small band of mice learn to mix colors and count.)

***Counting Crocodiles* by Judy Sierra**

(Reading Level: NP. By using her ability to count, a clever monkey outwits ten hungry crocodiles that stand between her and a banana tree on another island across the sea.)

***Among the Odds and Evens* by Priscilla Turner**

(Reading Level: AD560L [DRA 24-28; GR L-M; RR 19-20; AR 2]. Adventurers, X and Y, discover a land of numerals [0-9] and note various interesting mathematical characteristics.)

***Counting Wildflowers* by Bruce McMillan**

(Reading Level: NP. Counting book that integrates math, science, and art with numbers from 1-20.)

***How Many Twos* by Judy Hindley**

(Reading Level: --. Simple counting book for young children.)

***A Bag Full of Pups* by Dick Gackenbach**

(Reading Level: 390L; DRA 16; GR I; RR 15-16; AR 1. A man has 12 puppies to give away.)

***Count* by Denise Fleming**

(Reading Level: BR. Counting numbers 1-10 and by tens to 50; beautifully illustrated, bright colors.)

Fish Eyes by Lois Ehlert

(Reading Level: NP. Stylized fish in vivid colors with die-cut eyes swim through this wonderful counting book, numbers 1-10.)

From One to One Hundred by Teri Sloat

(Reading Level: --. On each page are multiple examples of the number being illustrated, numbers 1-10 and tens through 100.)

How Many Snails? by Paul Giganti, Jr.

(Reading Level: --. A simple counting book for young children.)

Numbears by Kathleen Hague

(Reading Level: NP. A quaint counting book of teddy bears in "antique" settings.)

One Bear All Alone by Caroline Bucknall

(Reading Level: --. One little bear and his gathering number of friends help children count from 1-10.)

One Hungry Monster by Susan O'Keefe

(Reading Level: NP. 1-10 is counted twice in this funny little book.)

Shoes in Twos by Rosemary R. Irons (Reading Level: --)

Ten Silly Sheep by Rosemary R. Irons (Reading Level: --)

When Sheep Can Not Sleep by Satoshi Kitamura

(Reading Level: 450L; DRA 20; GR k; RR 19-20; AR 2. A insomniac [sheep], instead of counting sheet, goes for a walk and counts all the things that he sees, numbers 1-22.)

Ordinal Numbers:

Where's Harley by Carol and Amanda Felton (Reading Level: --)

One...Two...Three...Sassafras! By Stuart J. Murphy

(Reading Level: --. Lining up for the family reunion photos, everyone smiles for the camera and says "one, two, three,..sassafras!" But invariable something goes wrong.)

Rabbit's Pajama Party by Stuart J. Murphy

(Reading Level: 290L; DRA 12; GR G; RR 11-12; AR 1. A group of animal friends have fun at a pajama party while demonstrating activities that happen in a particular sequence.)

Henry the Fourth by Stuart J. Murphy

(Reading Level: 150L; DRA 6-8; GR E; RR 7-8; AR 1. An introduction of ordinal numbers 1st, 2nd, 3rd, 4th, 5th.)

Addition:

Animals on Board by Stuart J. Murphy

(Reading Level: 270L; DRA 10-12; GR G; RR 11-12; AR 1. While driving her truck which carries a very special load, Jill counts and then adds the number of animals that she sees on other trucks as they pass her on the road.)

Hershey's Kisses Addition Book by Jerry Pallotta

(Reading Level: AD370L [DRA 16; GR I; RR 15-16; AR 1]. Miniature clowns introduce addition concepts using Hershey's Kisses.)

A Collection for Kate by Barbara deRubertis

(Reading Level: 210L; DRA 10; GR F; RR 9-10; AR 1. As she adds up items in collections that her classmates have brought for class, Kate tries to come up with a collection of her own that has enough items to share.)

Mission Addition by Loreen Leedy

(Reading Level: 410L; DRA 18; GR J; RR 17-18; AR 2. Miss Prime and her animal students explore addition by finding examples in the world around them.)

The \$1.00 Word Riddle Book by Marilyn Burns

(Reading Level: 800L; DRA 44; GR T; RR 26; AR 4. Recommended for grades K-5; figure out riddles by thinking mathematically and using addition.)

Domino Addition by Lynette Long

(Reading Level: --. Introduces the concept of addition using a game format.)

Dealing with Addition by Lynette Long

(Reading Level: --. Introduces addition with whole numbers, 1-10, using regular playing cards.)

Subtraction:

Hershey's Kisses Subtraction Book by Jerry Pallotta

(Reading Level: AD340L [DRA 14; GR H; RR 13-14; AR 1]. Clowns teach basic subtraction using chocolate candy kisses.)

Subtraction Action by Loreen Leedy

(Reading Level: --. Various stories reinforce subtraction concepts.)

Lights Out by Lucille Penner

(Reading Level: 70L; DRA 2-3; GR B-C; RR 2-4; AR K-1. Hoping to be the last person awake, a little girl tries to count as each light goes out at the apartment across the street.)

One Less Fish by Kim Toft and Allan Sheather

(Reading Level: --. Shimmering fish demonstrate subtraction by "disappearing from the fragile Great Barrier Reef ecosystems; numbers 12-0.)

Monster Musical Chairs by Stuart J. Murphy

(Reading Level: 170L; DRA 6-8; GR E; RR 7-8; AR 1. As six monsters play a wild game of musical chairs, young readers learn to subtract, one chair at a time.)

Elevator Magic by Stuart J. Murphy

(Reading Level: 240L; DRA 10; GR F; RR 9-10; AR 1. Explains the concept of subtraction through a rhyming text about a descending elevator.)

Shark Swim-a-thon by Stuart J. Murphy

(Reading Level: 380L; DRA 16; GR I; RR 15-16; AR 1. As members of a swim team do laps, readers can practice subtracting two-digit numbers to see how many laps are left to go.)

A Remainder of One by Elinor Pinczes

(Reading Level: 570L; DRA 24-28; GR L-M; RR 19-20; AR 2. The author applies and explains division using the number 25.)

Five Little Monkeys Jumping on the Bed by Eileen Christelow

(Reading Level: 310L; DRA 14; GR H; RR 13-14; AR 1. One by one the little monkeys fall off the bed.)

Multiplication:

Each Orange Had 8 Slices by Paul Giganti, Jr.

(Reading Level: 400L; DRA 18; GR J; RR 17-18; AR 2. An illustrated introduction to counting and simple addition.)

Hershey's Multiplication Book by Jerry Pallotta

(Reading Level: AD560L [DRA 24-28; GR L-M; RR 19-20; AR 2]. Hershey's candy bars are arrays with 3 horizontal rows and 4 vertical columns; perfect for illustrating multiplication.)

Six Dinner Sid by Inga Moore

(Reading Level: AD690L [DRA 38; GR P; RR 22; AR 3]. A very wise cat who has six names, six homes, six families who love him.)

Anno's Mysterious Multiplying Jar by Mitsumasa and Masaichiro Anno

(Reading Level: AD380L [DRA 16; GR I; RR 15-16; AR 1]. Explores the concept of factorials.)

The Best of Times by Greg Tang

(Reading Level: AD130L [DRA 4; GR D; RR 5-6; AR 1]. Simple rhymes offer hints on how to multiply any number by zero through ten without memorizing the multiplication table.)

2 x 2 = Boo by Loreen Leedy

(Reading Level: --. A funny introduction to multiplication, numbers from 0 to 5, with witches, cats and monsters...perfect for Halloween.

Amanda Bean's Amazing Dream by Cindy Neuschwander

(Reading Level: AD290L [DRA 12; GR G; RR 11-12; AR 1]. Amanda loves to count everything, but not until she has an amazing dream does she finally realize that being able to multiply will help her count things faster.)

Stacks of Trouble by Martha Brenner

(Reading Level: --. Math Matters Series, exploring data analysis and predicting outcomes.)

Created and provided free of charge to educators for use in classrooms

by Kay Freeman, www.dragonladybooks.com

Anno's Magic Seeds by Mitsumasa Anno

(Reading Level: --. In a delightful story format, Jack's seeds and plants provide interesting math problems: 2 sprouts produces 4 seeds; 3 plants produce 6 seeds; 5 yield 10, etc.)

The King's Commissioners by Aileen Friedman

(Reading Level: 560L; DRA 24-28; GR L-M; RR 19-20; AR 2. The king's daughter teaches her father how to count his royal commissioners.)

Spunky Monkeys on Parade by Stuart J. Murphy

(Reading Level: 90L; DRA 3; GR C; RR 3-4; AR 1. In the Monkey Day Parade, monkey majorettes, cyclists, tumblers, and band members create a spectacle as they move along in groups of two, three, and four.)

Time Tables the Fun Way by Dave and Judy Rodriguez

(Reading Level: --. A colorful and clever book filled with pictures to teach children painless ways to memorize multiplication tables. Proven system to increase scores on standardized tests.)

One Grain of Rice by Demi

(Reading Level: AD830L [DRA 44; GR T-U; RR 28; AR 5]. Exquisitely detailed art, inspired by traditional Indian miniature paintings, combine with a simple retelling to convey the heart and wisdom of this mathematical folktale.)

Sea Squares by Joy Hulme

(Reading Level: --. Doubling numbers associated with the sea. For example, 8 octopi have 8 legs each for a total of 64 legs.)

Power of Ten by Philip and Phylis Morrison

(Reading Level: --. Demonstrates and explains through photographs and text the world from 18 billion light years out and incrementally moves closer, zooms toward Earth. In 25 steps the view includes people having a picnic and finally after 40 steps the reader enters the world of subatomic particles and quantum physics.)

Division:

Everybody Wins! by Sheila Bruce

(Reading Level: --. Math Matters Series: demonstrates that sharing is a matter of division.)

Divide and Ride by Stuart J. Murphy

(Reading Level: 660L; DRA 30-34; GR N-O; RR 22; AR 3. Teaches division as a group of friends goes on different carnival rides.)

One Hundred Hungry Ants by Elinor Pinczes

(Reading Level: AD650L [DRA 30-34; GR N-O; RR 22; AR 3]. Kids will learn the art of division as a group of enterprising ants divides and subdivides in search of a picnic.)

The Doorbell Rang by Pat Hutchins

(Reading Level: 340L; DRA 14; GR H; RR 13-14; AR 1. Each time the doorbell rings, the cookies must be re-divided among more children.)

Multiple Processes:

M&M's Brand Chocolate Math by Barbara Barbieri McGrath

(Reading Level: --. Topics covered include estimation, graphing, factoring, multiplication, problem solving, division and simple fractions.)

A Million Fish More or Less by Patricia McKissack

(Reading Level: 690L; DRA 34; GR O; RR 22; AR 3. A bayou tale about a youngster who repeatedly shares his catch of one million fish with various interesting animals and finally what he ends up with when he finally gets home.)

Math Potatoes by Greg Tang

(Reading Level: NP. Includes visual tricks to make arithmetic faster and easier.)

Math Fables by Greg Tang

(Reading Level: NP. A book of poetry telling wonderful stories about grouping numbers.)

Math for all Seasons by Greg Tang

(Reading Level: NP. A collection of rhyming math puzzles that encourage creative problem solving.)

The Grapes of Math by Greg Tang

(Reading Level: NP. Illustrated riddles introduce strategies for solving a variety of math problems in using visual clues.)

Math Appeal by Greg Tang

(Reading Level: NP. Illustrates the strategy of grouping as a method of solving addition problems.)

Germs Make Me Sick by Melvin Berger

(Reading Level: 530L; DRA 24; GR L; RR 19-20; AR 2. Explain how bacteria and viruses multiply inside the human body.)

Ready, Set, Hop by Stuart J. Murphy

(Reading Level: 580L; DRA 28; GR M; RR 19-20; AR 2. Two frogs problem solve using addition and subtraction.)

Moira's Birthday by Robert Munsch

(Reading Level: 540L; DRA 24-28; GR L-M; RR 19-20; AR 2. Moira is told she may invite six friends to her birthday party...but she invites the entire school.)

Estimation:

The Long Wait by Annie Cobb

(Reading Level: 140L; DRA 4-8; GR D-E; RR 5-8; AR 1. Two friends try to estimate how long they will have to wait to get on a fantastic ride.)

Comparing Numbers/Sizes:

Just Enough Carrots by Stuart J. Murphy

(Reading Level: 330L; DRA 14; GR H; RR 13-14; AR 1. While a bunny and his mother shop in a grocery store for lunch guests, the reader may count and compare the amounts of carrots, peanuts, and worms in the grocery carts of other shoppers.)

Best Bug Parade by Stuart J. Murphy

(Reading Level: 200L; DRA 10; GR F; RR 9-10; AR 1. Concept book that compares and contrasts sizes.)

How Much is a Million? by David M. Schwartz

(Reading Level: AD760L [DRA 40; GR ; RR ; AR]. Text and pictures try to make possible the conceptualization of numerals, such as a million, a billion, and a trillion.)

Which is Biggest? by Mary Brewer (Reading Level: --)

Is It Larger? Is It Smaller? by Tana Hoban

(Reading Level: --. Uses colorful photographs of common real-life situation to illustrate the idea of size relativity.)

Angus Thought He Was Big by A. Graham (Reading Level: --)

The Mysterious Tadpole by Steven Kellogg

(Reading Level: 650L; DRA 34; GR O; RR 22; AR 3. It soon becomes clear that a pet tadpole is not turning into an ordinary frog.)

Fractions:

Hershey's Fraction Book by Jerry Pallotta

(Reading Level: AD710L [DRA 38; GR Q; RR 24; AR 4]. Since a Hershey's candy bar is made up of 12 little pieces, all the same size and a shape, they provide the perfect opportunity to explore fractions.)

Apple Fractions by Jerry Pallotta

(Reading Level: AD490L [DRA 20; GR K; RR 19-20; AR 2]. Describes a variety of apples and uses them to introduce fractions.)

Twizzler's Percentage Book by Jerry Pallotta

(Reading Level: AD590L [DRA 28; GR M; RR 19-20; AR 2]. Shows percentage using the candy. For example, 100% = 90 red Twizzlers and 10 black Twizzlers.)

Skittles Riddle Math by Barbara Barbieri McGrath

(Reading Level: AD440L [DRA 18-20; GR J-K; RR 17-20; AR 2]. Uses Skittles to illustrate "greater than", "less than", addition, subtraction, negative numbers, fractions and pie charts.)

Fraction Action by Loreen Leedy

(Reading Level: 330L; DRA 14; GR H; RR 13-14; AR 1. Miss Prime and her animal students explore fractions by finding many examples in the world around them.)

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Clean Sweep Campers by Lucille Penner

(Reading Level: --. Math Matters Series: fractions and cooperation are learned at summer camp.)

Give Me Half by Stuart J. Murphy

(Reading Level: AD430L [DRA 18; GR J; RR 17-18; AR 2]. Siblings unable to share finally realize that half is better than all when they must clean up after a food fight.)

Jump, Kangaroo, Jump! by Stuart J. Murphy

(Reading Level: 380L; DRA 16; GR I; RR 15-16; AR 1. Kangaroo and friends divide themselves up into groups for various field day events at camp.)

Piece = Part = Portion: Fractions = Decimals = Percents by Scott Gifford

(Reading Level: --. Illustrates the idea that fractions, decimals and percents are different ways of saying the same thing.)

Eating Fractions by Bruce McMillan

(Reading Level: --. Photographs of two children sharing various food illustrate the concept of fractions.)

Money:

Benny's Pennies by Pat Brisson

(Reading Level: 360L; DRA 14-16; GR H-I; RR 13-16; AR 1. A story of how a little boy spends his five pennies.)

Pigs Go to Market by Amy Axelrod

(Reading Level: AD540L [DRA 24-28; GR L-M; RR 19-20; AR 2]. Concepts of price and quantity enter the picture when Mrs. Pig wins a five-minute shopping spree at the supermarket.)

Pigs Will Be Pigs by Amy Axelrod

(Reading Level: 490L; DRA 20-24; GR K-L; RR 19-20; AR 2. The hungry Pig family learns about money and buying power as they turn the house upside down looking for enough money to buy dinner at the local restaurant.)

Alexander Who Used to be Rich Last Sunday by Judith Viorst

(Reading Level: AD570L [DRA 28; GR M; RR 19-20; AR 2]. Alexander has problems holding on to his money as told in this story about how easy is it to spend rather than save allowances.)

Deena's Lucky Penny by Barbara deRubertis

(Reading Level: 160L; DRA 6-8; GR E; RR 7-8; AR 1. While trying to figure out how to buy her mother a present, Deena finds a lucky penny and learns how money adds up.)

Tightwad Tod by Daphne Skinner

(Reading Level: --. Tod spends all his time counting his money and ignoring his friends. Tod's older brother cuts a deal to help Tod move beyond his greed.)

How the Second Grade Got \$8,205.50 to Visit the Statue of Liberty by Nathan Zimelman

(Reading Level: AD1070L [DRA 44; GR Z; RR 32-34; AR 7+]. Chronicles the triumphs and setbacks of the second grade as they attempt to raise money for a class trip.)

The Penny Pot by Stuart J. Murphy

(Reading Level: 240L; DRA 10; GR F; RR 9-10; AR 1. The face painting booth at the school fair provides plenty of opportunities to count combinations of coins adding up to fifty.)

Arthur's Funny Money by Lillian Hoban

(Reading Level: 490L; DRA 20; GR K; RR 19-20; AR 2. Arthur is trying to earn money.)

The Go-Around Dollar by Barbara Adams

(Reading Level: 680L; DRA 34-38; GR N-O; RR 22; AR 3. Describes how a single dollar changes hands, combines with general information about the one-dollar bill.)

The Hundred Penny Box by Sharon Bell Mathis

(Reading Level: 700L; DRA 38; GR Q; RR 24; AR 4. Michael must make sure that his great-great aunt's treasure box is not thrown away.)

The Toothpaste Millionaire by Jean Merrill

(Reading Level: 820L; DRA 44; GR T-U; RR 26-28; AR 4-5. A student makes over a million dollars by creating and marketing a cheaper and better toothpaste.)

If You Made a Million by David Schwartz

(Reading Level: AD840L [DRA 44; GR U; RR 28; AR 5]. The magician and his band of kids sows money equivalencies, relationship between work and pay, saving and spending as well as interest, borrowing money and check writing.)

MEASUREMENT

Calendars:

Pepper's Journal by Stuart J. Murphy

(Reading Level: 510L; DRA 24; GR L; RR 19-20; AR 2. Lisa keeps a journal of her kitten's first year.)

Play Date by Rosa Santos (Reading Level: --. Math Matter Series: addresses calendar concepts.)

The Very Busy Spider by Eric Carle

(Reading Level: 130L; DRA 4; GR D; RR 5-6; AR 1. The story of a spider's busy day.)

Turtle in July by Marilyn Singer

(Reading Level: NP. A collection about activities of particular animals each month of the year.)

A Year in the Country by Douglas Florian

(Reading Level: --. A month-by-month depiction of a year in the country.)

Thirteen Moons on Turtle's Back by Joseph Bruchac and Jonathan London

(Reading Level: 960L; DRA 44; GR X; RR 30; AR 6. Native Americans' Year of Moons)

Time:

Bats Around the Clock by Kathi Appelt

(Reading Level: AD570L [DRA 28; GR M; RR 19-20; AR 2]. Click Dark, host of American Batstand, leads a 12-hour dance program.)

It's About Time, Max! by Kitty Richards

(Reading Level: 170L; DRA 6-8; GR E; RR 7-8; AR 1. When Max loses his digital watch, he replaces it with an analog that he doesn't know how to use.)

Game Time by Stuart J. Murphy

(Reading Level: 390L; DRA 16; GR I; RR 15-16; AR 1. Calendars and clocks keep track of time as the Huskies prepare for their championship game.)

Clocks and More Clocks by Pat Hutchins

(Reading Level: 440L; DRA 18; GR ;J RR ;17-18 AR .2 Mr. Higgins checks the many clocks in his house for the correct time.)

Telling Time with Big Mama Cat by Dan Harper

(Reading Level: 440L; DRA 18-20; GR J-K; RR 17-20; AR 2. Big mama cat describes her activities at various times throughout the day from morning to night.)

All in a Day by Anno

(Reading Level: --. Ten artists illustrate similarities and differences of children and their activities in 8 countries during a 24-hour period.)

The Grouchy Ladybug by Eric Carle

(Reading Level: 560L; DRA 28; GR M; RR 19-20; AR 2. During the course of a day, a ladybug learns to better get along with others.)

Elapsed Time:

Only Six More Days by Marissabina Russo

(Reading Level: --. Ben and Molly count the days to their birthdays.)

Thunder Cake by Patricia Polacco

(Reading Level: 630L; DRA 30; GR N; RR 19-20; AR 3. How far away is the storm? Listen to the thunder and count the seconds, enough time to a make cake.)

Slow Poke by Lucille Penner

(Reading Level: --. Math Matters Series: Teddy begins running and keeping track of his times [data collection], preparing for the big race.)

Linear Measures:

Jim and the Beanstalk by Raymond Biggs

(Reading Level: 560L; DRA 28; GR M; RR 19-20; AR 2. Jim meets a sad and aging giant who complains that some boy once climbed up the beanstalk and robbed his father. Jim tries to improve the giant's lot.)

Keep Your Distance by Gail Herman

(Reading Level: 260L; DRA 12; GR G; RR 11-12; AR 1. Math Matters Series: Jen learns about linear measurement when she has to share a room with her sister.)

Super Sand Castle Saturday by Stuart J. Murphy

(Reading Level: 410L; DRA 18; GR J; RR 17-18; AR 2. Introduces the concept of nonstandard measurement.)

Inch By Inch by Leo Lionni

(Reading Level: 210L; DRA 10; GR F; RR 9-10; AR 1. An inch worm measures everything under the sun.)

How Big is a Foot? by Rolf Myller

(Reading Level: NC660L; DRA 30; GR N; RR 19-20; AR 3. Explains the reason for standard measurement.)

Inchworm and a Half by Elinor Pinczes

(Reading Level: --. Introduction to linear measurement in inches and fractions using half inches.)

Carrie Measures Up by Linda Aber

(Reading Level: --. Math Matters Series: Carrie helps her grandmother with her knitting project by measuring things.)

Ten Beads Tall by Pam Adams

(Reading Level: --. Concrete application of measurement, graphing, and patterning through multiple learning modes...early childhood.)

Capacity:

Pigs in the Pantry by Amy Axelrod

(Reading Level: AD650L [DRA 34; GR O; RR 22; AR 3]. When Mrs. Pig gets sick, the little ones want to cook up her favorite dish. Mostly they just create a terrible mess.)

Lulu's Lemonade by Barbara deRubertis

(Reading Level: 120L; DRA 4; GR D; RR 5-6; AR 1. On a hot summer day, three children squabble over which ingredients should go into their extra special lemonade.)

Room for Ripley by Stuart J. Murphy

(Reading Level: 570L; DRA 28; GR M; RR 19-20; AR 2. Uses a story about a young boy who is getting a fish bowl ready for his new pet to introduce various units of liquid measure.)

Hershey's Milk Chocolate Weights and Measures by Jerry Pallotta

(Reading Level: --. Uses Hershey's Kisses, Twizzlers and Hershey's candy bars to teach weights and measurements.)

Who Sank the Boat? by Pamala Allen

(Reading Level: AD470L [DRA 20; GR K; RR 19-20; AR 2]. It is fun to guess who causes the boat to sink when five animals of varying size decide to share a ride.)

Mr. Archimedes Bath by Pamala Allen

(Reading Level: --. Demonstrates displacement through a logical process and measurement.)

Linear and Capacity:

Millions to Measure by David Schwartz

(Reading Level: 470L; DRA 20; GR K; RR 19-20; AR 2. The magician explains the history of measurement in kid-friendly format.)

Area/Perimeter:

Spaghetti and Meatballs for All by Marilyn Burns

(Reading Level: 420L; DRA 18; GR J; RR 17-18; AR 2. Area and perimeter are investigated when 32 dinner guests alter the original seating arrangements of 8 tables.)

Sam's Sneaker Squares by Nat Gabriel

(Reading Level: --. Sam learns to measure the lawns he mows.)

Chickens on the Move by Pam Pollack and Meg Belviso

(Reading Level: 270L; DRA 12; GR G; RR 11-12; AR 1. Tome, Anne, and Gordon can't seem to find the right place for their new chickens' home. So they keep moving the fence. Each time they make a move, it changes shapes.)

General Measurement/Statistics:

Measuring Penny by Loreen Leedy

(Reading Level: AD500L [DRA 24; GR L; RR 19-20; AR 2]. Lisa has a math homework assignment to measure something in as many ways as possible.)

If you Hopped Like a Frog by David M. Schwartz

(Reading Level: AD990L [DRA 44; GR Y; RR 30; AR 6]. Introduces the concept of ration by comparing what humans would be able to do if they had bodies like different animals.)

What's Smaller than a Pygmy Shrew? by Robert E. Wells

(Reading Level: --. Compare size relativity.)

Is a Blue Whale the Biggest Thing There Is? by Robert E. Wells

(Reading Level: AD850L [DRA 44; GR U-V; RR 28; AR 5]. Compare size relativity.)

The Stingy Baker by Janet Greeson

(Reading Level: --. A story about "a dozen".)

The Glorious Flight by Alice and Martin Provensen

(Reading Level: 460L; DRA 20; GR K; RR 19-20; AR 2. About the first successful flight in 37 minutes over the English Channel in the early 1900s.)

GEOMETRY

Location Words:

Where's that Bone? by Lucille Penner

(Reading Level: 170L; DRA 6-8; GR E; RR 7-8; AR 1. Jill uses a map to help keep track of the places where her dog has been burying his bones.)

The Greatest Gymnast of All by Stuart J. Murphy

(Reading Level: 110L; DRA 4; GR D; RR 5-6; AR 1. While performing an energetic exercise routine, Zoe demonstrates such spatial opposites as on and off, inside and outside, and over and under.)

2-D Shapes and Figures:

Circles, Squares, Triangles by Tana Hoban

(Reading Level: --. Demonstrates geometric shapes with photographs of everyday objects.)

Shapes and Things by Tana Hoban (Reading Level: --)

Shape Up! By David Adler

(Reading Level: 560L [DRA 24-28; GR L-M; RR 19-20; AR 2]. Introduces various polygons by using cheese slices, pretzel sticks, slices of bread and graph paper.)

Twizzlers: Shapes and Patterns by Jerry Pallotta

(Reading Level: AD390L [DRA 16; GR I; RR 15-16; AR 1]. Gives examples of different shapes and patterns using Twizzlers.)

The Greedy Triangle by Marilyn Burns

(Reading Level: A dissatisfied triangle keeps asking the local shape shifter to add more lines and angles to it until it doesn't know which side is up.)

Circus Shapes by Stuart J. Murphy

(Reading Level: 140L; DRA 4-8; GR D-E; RR 5-8; AR 1. Circus animals put on a show and display basic shapes to be identified.)

Math Fair Blues by Sue Kassirer

(Reading Level: 300L; DRA 14; GR H; RR 13-14; AR 1. Math Matters Series: A rock band performing at a math fair becomes on the prize winners.)

Draw Me a Star by Eric Carle

(Reading Level: 170L; DRA 6-8; GR E; RR 7-8; AR 1. Describes a dream of stars and drawing.)

The Village of Round and Square Houses by Ann Grifalconi

(Reading Level: AD850L [DRA 44; GR U; RR 28; AR 5]. This is a story of an African village with different shaped houses for different people.)

Circles:

Sir Cumference and the First Round Table by Cindy Neuschwander

(Reading Level: AD600L [DRA 30; GR N; RR 19-20; AR 3]. Assisted by his knight, Sir Cumference, King Arthur finds the perfect shape for his table.)

Sir Cumference and the Dragon of Pi by Cindy Neuschwander

(Reading Level: AD510L [DRA 24; GR L; RR 19-20; AR 2]. Sir Cumference's son, Radius, searches for the magic number know as pi which swill restore his father to his former shape.)

3-D Shapes and Solids:

Sir Cumference and the Sword in the Cone by Cindy Neuschwander

(Reading Level: 630L; DRA 30-34; GR N-O; RR 19-22; AR 3. Sir Cumference, Radius and Sir Vertex search for Edgecalibur, the sword that King Arthur has hidden in a geometric solid.)

Kitten Castle by Mel Friedman and Ellen Weiss

(Reading Level: 280L; DRA 12; GR G; RR 11-12; AR 1. Four newborn kittens are creating havoc at Anna's house. Is a kitten castle the answer?)

Angles and Protractors:

Sir Cumference and the Great Knight of Angleland by Cindy Neuschwander

(Reading Level: AD450L [DRA 20; GR K; RR 19-20; AR 2]. Radius must find and rescue a missing king by using a protractor to find his way through a maze made of angles.)

Coordinate Graphs:

"X" Marks the Spot! By Lucille Penner

(Reading Level: 190L; DRA 6-8; GR E; RR 7-8; AR 1. Jake and Leo wish their family didn't have to move into Grandpa's old house until they find some old maps in the attic.)

A Fly on the Ceiling: A Math Myth by Julie Glass

(Reading Level: 560L; DRA 28; GR M; RR 19-20; AR 2. A humorous myth about René Descartes and the Cartesian system of coordinates.)

Symmetry:

Let's Fly a Kite by Stuart J. Murphy

(Reading Level: 470L; DRA 20; GR K; RR 19-20; AR 2. Two squabbling siblings learn about symmetry when their babysitter helps them build and fly a kite.)

Tangrams:

Grandfather Tang's Story by Ann Tompert

(Reading Level: AD660L [DRA 34; GR O; RR 22; AR 3]. Grandfather tells a story about tangram, shape-changing fox fairies who try to best each other by becoming various animals. The game almost has a disastrous end.)

The Warlord's Puzzle by Virginia Walton Pilegard

(Reading Level: AD620L [DRA 30; GR N; RR 19-20; AR 3]. After breaking a beautiful tile, a gift for the warlord, an artist suggests that the warlord hold a contest to see who can put the tile back together.)

The Ancient Mystery of Tangrams by Running Press

(Reading Level: --. Includes magnetic tangram shapes, the history of tangrams, and lots of different patterns to recreate.

PATTERNS, FUNCTIONS AND ALGEBRA

Patterns:

M&M's Color Pattern Book by Barbara Barbieri McGrath

(Reading Level: --. Moves children from simple to more complex patterns using candy as manipulative. Develops number sense.)

A Pair of Socks by Stuart J. Murphy

(Reading Level: AD440L [DRA 18-20; GR J-K; RR 17-20; AR 2]. Introduces pattern recognition as a sock searches the house fir its lost mate.)

Beep, Beep, Vroom, Vroom by Stuart J. Murphy

(Reading Level: AD360L [DRA 14-16; GR H-I; RR 13-16; AR 1]. Basic math, pattern recognition for pre-school and first grade.)

People by Spier

(Reading Level: 440L; DRA 18-20; GR J-K; RR 17-20; AR 2. Represents all the rich differences among peoples of the world.)

How Many Bugs in a Box by David A. Carter

(Reading Level: --. Inside each box are a number of bugs to count from 1-10.)

The King's Chessboard by David Birch

(Reading Level: --. Measuring through multiplication.)

A Three Hat Day by Laura Geringer

(Reading Level: 370L; DRA 16; GR I; RR 15-16; AR 1. Gentle introduction to combinations.)

Counting books can also be used to demonstrate a growing pattern:

One Wide River to Cross by Barbara Emberley

(Reading Level: --. Counting by twos.)

Ten Little Rabbits by Virginia Grossman and Sylvia Long

(Reading Level: --. Simple counting book that uses Native American culture to illustrate the concept of 1-10.)

What Comes in 2's, 3's, & 4's? by Suzanne Aker

(Reading Level: 470L; DRA 20; GR K; RR 19-20; AR 2. Introduces the numbers two, three and four by enumerating the ways in which they occur in everyday life.

Ten, Nine, Eight by Molly Bang

(Reading Level: NP. Numbers from one to ten are part of a lullaby.)

17 Kings and 42 Elephants by Margaret Mahy

(Reading Level: NP. 17 kings and 42 elephants romp with a variety of jungle animals during their journey through the night.)

DATA ANALYSIS AND PROBABILITY

Collecting Data:

The Best Vacation Ever by Stuart J. Murphy

(Reading Level: 30L; DRA 2; GR B; RR 2; AR K. A girl uses data-collecting and problem solving skills to decide where her family should go on vacation.)

Organizing Data:

Grandma's Button Box by L Linda Aber

(Reading Level: --. Math Matters Series: Demonstrates different ways to sort a collection of items.)

Who's Got Spots by Linda Aber

(Reading Level: 250L; DRA 12; GR G; RR 11-12; AR 1. Kip takes a survey and organizes his data using tallies and graphs to forecast whether chicken pox will keep him and his friends out of the Autumn Fest.)

Dave's Down-to-Earth by Stuart J. Murphy

(Reading Level: 400L; DRA 18; GR J; RR 17-18; AR 2. As they consider sorting their rock collection by color, size, type, and hardness, Josh and Amy learn that the same objects can be organized in many ways.)

The Button Box by Margarett Reid (Reading Level: --)

Wilma Unlimited by Kathleen Krull

(Reading Level: AD730L [DRA 40; GR R; RR 24; AR 4]. Dramatic story of runner Wilma Rudolf.)

The Day that Henry Cleaned his Room by Sarah Wilson (Reading Level: 560L)

Mean, Median, Mode, Range:

Tikki Tikki Tembo by Arlene Mosel

(Reading Level: 1090L; DRA 44; GR Z; RR 32-34; AR 7+. Chinese folktale about a boy named Chang who has a speech impediment.)

Graphing:

Lemonade for Sale by Stuart J. Murphy

(Reading Level: 380L; DRA 16; GR I; RR 15-16; AR 1. The Elm Street Kids' Club decides to sell lemonade to earn money to fix up their clubhouse. They use a graph to keep track of their sales.)

Probability:

Bad Luck Brad by Gail Herman

(Reading Level: --. Math Matters Series: what are the "chances" that Brad's bad luck will change?)

Pigs at Odds by Amy Axelrod

(Reading Level: 390L; DRA 16; GR I; RR 15-16; AR 1. The Pig family go the county fair and play games to win prizes, but the odds seem to be against them.)

Martha Blah Blah by Susan Meddaugh (Reading Level: AD390L)

Expanding Student Thinking and Developing Reasoning Skills

Seven Blind Mice by Ed Young

(Reading Level: AD350L [DRA 16; GR I; RR 15-16; AR 1]. Indian fable, blind men have difficulty identifying an elephant until they put all their perceptions together. Includes ordinal numbers, colors, days of the week.)

Counting on Frank by Rod Clement

(Reading Level: --. A boy and his dog, Frank, discover amusing situations concerning counting, size comparison and math facts.)

The Napping House by Audrey Wood

(Reading Level: NP. One by one the sleepy household piles on Granny's be to nap until a flea begins waking them.)

Ship of Dreams by Dean Morrissey

(Reading Level: --. Beautifully illustrated and very imaginative.)

Stellaluna by Jannelle Cannon

(Reading Level: 550L; DRA 28; GR M; RR 19-20; AR 2. A fruit bat's adventure relates a tale of survival and friendship.)

Jumanji by Chris Van Allsburg

(Reading Level: AD620L [DRA 30; GR N; RR 19-20; AR 3]. Two bored children find more excitement than they bargained for when they play a mysterious and mystical jungle adventure board game.)

The Phantom Tollbooth by Norton Jester

(Reading Level: 1000L; DRA 44; GR Z; RR 32-34; AR 7+. A boy travels through time and space to the lands beyond.)

Math-terpieces by Greg Tang

(Reading Level: NP. Develops problem solving skills using the artwork of 12 famous painters.)

The Eleventh Hour: A Curious Mystery by Graeme Base

(Reading Level: --. A beautifully illustrated mystery in verse.)

Quilt Books:

(Can be used to help students understand: 2-D shapes, transformations, patterns, fractions, symmetry, and congruence as well as using to emphasize aspects of social studies which include the Underground Railroad and family histories.)

Sweet Clara and the Freedom Quilt by Deborah Hopkins

(Reading Level: AD680L [DRA 34; GR O; RR 22; AR 3]. A story of a young slave who creates a quilt that is a map to the underground railroad.)

A Cloak for the Dreamer by Aileen Friedman

(Reading Level: AD740L [DRA 38-40; GR Q-R; RR 24; AR 4]. A tailor asks each of his three sons to make a cloak for the archduke.)

Sam Johnson and the Blue Ribbon Quilt by Lisa Campbell Ernst

(Reading Level: AD790L [DRA 40; GR S; RR 26; AR 4]. The county fair and the quilt competition has an interesting entry this year.)

The Keeping Quilt by Patricia Polacco

(Reading Level: 920L; DRA 44; GR W-X; RR 28-30; AR 5-6. A homemade quilt ties together the lives of four generations of an immigrant Jewish family.)

The Quilt Story by Tony Johnston and Tomie dePaola

(Reading Level: 400L; DRA 18; GR J; RR 17-18; AR 2. A quilt done by a pioneer mother is handed down through generations to warm others.)

A Color Sampler by Kathleen Westray

(Reading Level: --. Uses geometric design to present primary, secondary, intermediate and complementary colors.)

The Seasons Sewn: A Year in Patchwork by Ann Whitford Paul

(Reading Level: --. Two dozen traditional quilt blocks illustrate pioneer life through the seasons.)

Sewing Quilts by Ann Turner (Reading Level: --)

The Patchwork Quilt by Valerie Flournoy

(Reading Level: AD520L [DRA 24; GR L; RR 19-20; AR 2]. Tanya helps her grandmother make a beautiful quilt that tells the story of her family.)

Eight Hands Round by Ann Whitford Paul

(Reading Level: 980L; DRA 44; GR X-Y; RR 30; AR 6. An alphabet of quilting patterns and their origins.)