

# Once upon a time.....

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Mathematical activities which are linked to children's literature promote communication, logical thinking and reasoning. This integration of mathematics and children's literature enables young students to:

- make links between the world of mathematics and their own world;
- appreciate mathematics in a context other than drill and practice exercises;
- develop logical thought;
- provide an interesting context for problem solving;
- use their intuitive notions about mathematics;
- discuss, reflect, and increase their mathematical knowledge;
- use a mathematical vocabulary in a significant context.

Children's literature allows teachers to develop numerous mathematical concepts related to:

- problem solving;
- counting (forward and backward);
- ordinal numbers;
- basic operations (addition, subtraction, multiplication, division);
- correspondence (1 to 1, etc.);
- estimation;
- fractions;
- large numbers;
- sorting and classifying;
- order (increasing and decreasing);
- patterns;
- geometric shapes;
- spatial orientation;
- days of the week;
- seasons;
- months of the year;
- time;
- size;
- measure (recipes);
- money;
- age;
- etc.

## **Resources**

The following list is only a small selection of children's books which can be used to teach mathematics.

Anno, Masaichiro; Anno, Mitsumasa. *Anno's Mysterious Multiplying Jar*.

Anno, Mitsumasa. *Anno's Counting Book*. Thomas Crowell, 1977.

Aska, Warabé. *Who hides in the park = Les mystères du parc*. Tundra Books, 1986.

Birch, David. *The King's Chessboard*. 1988.

Bridwell, Norman. *Clifford the Big Red Dog*. Scholastic, 1963.

Burningham, John. *The Shopping Basket*. Harper Junior Books, 1980.

Carrier, Roch. *The Hockey Sweater*.

Dale, Penny. *Ten in the Bed*. 1988.

Gag, Wanda. *Millions of Cats*.

Gilman, Phoebe. *The Wonderful Pigs of Jillian Jiggs*. Scholastic, 1988.

Hoban, Tana. *A, B, see!* Greenwillow Books, 1982.

Hoban, Tana. *Dots, Spots, Speckles, and Stripes*. Greenwillow Books, 1987.

Hoban, Tana. *Exactly the Opposite*. Greenwillow Books, 1990.

Hoban, Tana. *Is It Larger? Is It Smaller?* Greenwillow Books, 1985.

Hoban, Tana. *Look Up, Look Down*. Greenwillow Books, 1992.

Hoban, Tana. *Round & Round & Round*. Greenwillow Books, 1983.

Hoban, Tana. *Shadows and Reflections*. Greenwillow Books, 1990.

Hoban, Tana. *Shapes, Shapes, Shapes*. Greenwillow Books, 1986.

Hutchins, Pat. *The Doorbell Rang*. Scholastic, 1988.

Hutchins, Pat. *Changes, changes*. Collier Macmillan Canada, 1971.

Jonas, Ann. *Round Trip*

Lionni, Leo. *The largest House in the World*.

Lobel, Arnold. *Frog and Toad are Friends*. The story entitled: "A Lost Button".

Munsch, Robert. *David's Father*.

Sheppard, Jeff. *The Right Number of Elephants* Scholastic, 1990.

Slobodkina, Esphyr. *Caps for Sale*.

Stinson, Kathy. *Red is Best*.

Viorst, Judith. *Alexander, Who Used to be Rich Last Sunday*.

Watts, Franklin. *Les formes*. Éditions Gamma, 1986.

Wells, Rosemary. *Max's Toys*.

### **Suggestions from other people.**

The following three books were suggested by Holly Tolman (SL6KC@cc.usu.edu), a student at Utah State University.

Myller, Rolf. *How Big is a Foot?*

Ernest, Lisa Campbell. *Sam Johnson and the Blue Ribbon Quilt*.

Schwartz, Bavid M. *How Much is a Million?*

We also received this note.

Greetings, just came upon your site looking for resources for my first grade daughter. I really loved your list of children's literature that have math themes. Here is another one to add to the list:

Counting on Frank

Author: Rod Clement

North American Publisher: Gareth Stevens, Inc., 1555 North RiverCenter Drive,  
Suite 201, Milwaukee, Wisconsin, USA 53212

Published in North America 1991

Cute story about a boy, his dog named Frank, and the boy's unique way of looking at the world in mathematical terms. Lots of size perception, estimation, etc.

Another nice book is Math Curse, but I don't have the complete information.

### **Professional Resources**

Baker, Ann; Baker, Johnny. *Mathematics in Process*. Heinemann, 1990.

Griffiths, Rachel; Clyne, Margaret. *Books You Can Count On. Linking Mathematics and Literature*. Heinemann, 1988.

*Mathematics and Children's Literature*. Interactions. Ginn Publishing Canada, 1993.

Whitin, David; Mills, Heidi; O'Keefe. *Living and Learning Mathematics*. Heinemann, 1990.

Many articles in various publications of *The Arithmetic Teacher*.

#### *Note*

- This list will be updated periodically. If you know of any good book to use to teach mathematical concepts, please let us know.
- If you have ideas, problems and/or activities relating to the use of children's books, please share them, we will insert them in this article.
- You can send these to: Dr. J. H. Weston or Dr. D. Hanson, Mathematics and Statistics Department, University of Regina, Regina, Saskatchewan, S4S 0A2; or you can e-mail these to: [TheCentralizer@MathCentral.uregina.ca](mailto:TheCentralizer@MathCentral.uregina.ca)  
Should you care to send your submission on a diskette, it will be returned to you.

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