

Middle School Resources

The Absolutely Essential Math Dictionary: Every Kid's Guide to Mathematical Terms, Strategies, and Tables

Theresa Fitzgerald, 2002. 80 pp., \$12.95 paper. ISBN 1-883055-50-4. Dandy Lion Publications, 3563 Sueldo, Ste. L, San Luis Obispo, CA 93401, (800) 776-8032

This dictionary is organized according to concepts rather than alphabetically. The concept categories include numbers and operations, measurement, algebra, geometry, fractions, decimals, ratios, percents, statistics and probability, and problem solving. Each section contains defined terms, many with examples and illustrations. The book also contains formulas, tables, and charts, including a prime-factor chart and a list of fraction, decimal, and percent equivalents.

When students search for the word *prism* in the geometry section, they will find not only the definition and illustrations but also related words, such as *pyramid* and *rhomboid*, on the same pages. The book will appeal to students who enjoy learning new words. Students who have partial knowledge of definitions can also use this book to review mathematics vocabulary.

This dictionary would be useful as a class reference book to check definitions or review vocabulary when a question arises during discussions. It could also be used by individual students in grades 6-8 who need to search for a specific word related to their classwork. This book is suitable for use in the K-8 classroom, school library, or at home. *Carolyn Marchand, Floyd C. Fretz Middle School, Bradford, PA 16701*

EDTHOUGHTS: What We Know About Mathematics Teaching and Learning

John Sutton and Alice Krueger, eds., 2002. ix+112 pp., \$11 paper. ISBN 1-893476-02-2. Mid-continent Research for Education and Learning, 2550 S. Parker Rd., Ste. 500, Aurora, CO 80014-1678, (303) 337-0990, info@mcrel.org

This overview of successful classroom practices in mathematics teaching can serve as a valuable reference for teachers and administrators who are new to the discipline. The book outlines, in an easy-to-read format, proven practices that might provide good discussion points for mathematics department meetings.

I would like to see a publication such as this one in a teacher's reference library. Experienced mathematics teachers might not find this book useful because the information included is fairly basic, but novice teachers or generalists, such as elementary school teachers, will benefit from the material. *Corinne Grandolfo, Assistant Head of School, Rye Country Day School, Rye, NY 10580.*

Jayden's Rescue

Vladimir Tumanov, 2002. 123 pp., \$5.99 paper. ISBN 0-439-98864-0. Scholastic Canada Ltd., 175 Hillmount Rd., Markham, ON L6C 1Z7, (800) 268-3860 (Canada), (800) 560-6816 (USA)

Jayden's Rescue is a charming combination of mathematics and literature. This well-written middle school-level fantasy novel is the story of three kids who are on a quest to free a queen by solving mathematical puzzles. At the beginning of the book, Alex, the main character, experiences a fear of, and poor self-confidence in, mathematics. As he and his friends solve problems to unravel the mystery, he gains confidence in mathematics and a well-developed independent problem-solving ability.

The characters are presented with a variety of problems and apply many problem-solving strategies, including using logical reasoning, working backward, making a chart, solving by trial and error, and using beginning algebraic equations. If testing the book's reading level, note that chapter 3 is slightly more difficult than the other chapters.

I highly recommend this book for students in grades 5-8 who are taking a mathematics course that includes problem solving, general mathematics, or beginning algebra. The problems could be presented to a class in two different ways: (1) students solve the problems before reading the story or (2) students read the story, then solve each problem using a different strategy than the one given in this book. I will definitely use this book to strengthen my students' problem-solving abilities during this school year! *Diane Kahle, Blendon Middle School, Westerville, OH 43081*

Sir Cumference and the Great Knight of Angleland: A Math Adventure

Cindy Neuschwander, illus. by Wayne Geehan, 2001. 32 pp., \$7.95. ISBN 1-57091-169-X. Charlesbridge Publishing, 85 Main St., Watertown, MA 02472, (800) 225-3214, books@charlesbridge.com.

This adventure story uses the language of angles. Its purpose is to help children learn vocabulary and to understand different types of angles and how they are used.

The main character, Radius, studies to be a knight. His mentor, Sir D'Grees, tells his student's parents that Radius is ready to attempt his knightly quest. They proudly agree. Radius must find the missing King Lell. Those who previously sought to find King Lell never returned. Radius vows to search until he finds the king. On the morning of Radius' departure, his parents present him with a family heirloom, a medallion in the shape of a perfect circle. Sir D'Grees counsels Radius to remember the teachings of the knightly right angle. Thus, Radius is off to succeed in his quest.

Children from third grade to junior high school may find this book suitable. Younger students will be entertained and will learn vocabulary, which should be of