

Real-life Math. Ed. by K. Lee Lerner and Brenda Wilmoth Lerner. Detroit: Thomson-Gale, 2006. 2 vols. acid free \$175 (ISBN 0-7876-9422-3).

No other subject is so maligned and yet so beautiful. While it is scary to many people, it is pervasive in all our lives. The prevention of math anxiety is an ongoing trial. Will another mathematics dictionary help? In this case, speaking as a former teacher of mathematics, definitely!

Real-life Math explores the role of mathematics in everyday life and is intended for high-school age readers. It is handsomely bound in two volumes and could be described as either encyclopedia or dictionary. It covers eighty topics designed to correspond to commonly studied fundamental mathematical concepts as found in high-school-level curriculum objectives. The topics are arranged in alphabetical order and range in length from three pages on “Prime Numbers” to sixteen pages on “Sports Math.” Each topic has subtopics that are addressed by the sections “Overview,” “Fundamental Concepts,” “Real-Life Applications,” and “Where to Learn More,” which consists of a short bibliography of books and Web sites. A brief history is sometimes included. There is a nice balance of text and white space as well as black-and-white photographs, graphs, and boxed information. (My favorite boxed discussion is about how much wood a woodchuck can chuck.) Another describes how the use of cell phones can skew statistics, such as the results of political polls. In both volumes there are two tables of contents: One gives a list of the topics found in both volumes; the other lists the topics with each area of discussion and the corresponding page number. At the end of the second volume there is a comprehensive index and a glossary of terms.

The editors of this work are well-known academic writers and editors. The entries are not signed but there is a list of advisors and contributors who run the gamut from writers to mathematicians to geologists to engineers, from many different countries.

The real-life applications make this work what it is. Modern topics, such as “Modeling,” “Computers and Mathematics,” “Algorithms,” “Statistics,” and “Photography Math,” and traditional topics, such as “Volume,” “Addition,” “Graphing,” and “Proportion,” are covered. The neat thing is that applications presented for the traditional topics can be just as “cool” as the others. For example, the section on “Percentages” is illustrated by sports, sales tax, academic testing, rebates, and automobile performance. The section on “Financial Calculations, Personal” analyzes a 2005 Super Bowl commercial comparing Napster and iTunes costs. One section that really stands out is “Music and Mathematics,” a marvel of interest and clarity that explains why these two subjects are so closely associated both philosophically and practically. Applications particularly suited for engaging the attention of high-school students, such as digital music, electronic instruments, and computer-generated music, are included along with the usual applications like time signatures and intervals.

The editors do not neglect the nature of pure mathematics: “The more abstract side of mathematics is a beautiful area, and application to the real world provides a stepping-stone

into this complex and remarkable subject” (584). The discussions are challenging but the language is never condescending. In my opinion, the editors were targeting the high-school audience and they hit a bull’s eye.

When I tried to find similar reference works targeted toward this audience, I could find nothing even close. There are many dictionaries that simply define words, such as Christopher Clapham’s *Concise Oxford Dictionary of Mathematics* (2005), John Daintith’s *Facts On File Dictionary of Mathematics* (2005), and Frank Tapson’s *Barron’s Mathematics Study Dictionary* (1998). More advanced is Chris Kornegay’s *Math Dictionary with Solutions* (Sage, 1999), which is primarily an aid in problem solving. Jeanne Bendick’s *Mathematics Illustrated Dictionary: Facts, Figures, and People* (Watts, 1989) consists mainly of illustrations and is meant for students at a lower level than high school. Closer in discussion length but targeted toward a more advanced audience is the *Encyclopedic Dictionary of Mathematics* by the Mathematical Society of Japan (MIT Pr., 1996). *Real-life Math* is not only unique but fills a real void in the reference literature of a much-neglected market.

I could go on and on about the readability and relevance of this work. Math anxiety is alive and well and we need more works such as this to pique interest and promote understanding and appreciation. This title would be a wonderful addition to your high school or public library collection.—Nancy F. Carter, *Mathematics Bibliographer, University Libraries, University of Colorado, Boulder*

The Seventies in America. Ed. by John C. Super and Tracy Irons-Georges. Pasadena, Calif.: Salem, 2006. 3 vols. acid free \$364 (ISBN 1-58765-228-5).

Reasonable people can certainly argue about the need for three volumes dedicated to the decade of the seventies, but this work is clearly original in scope and detail. *The Seventies in America* is a companion set to Carl Singleton’s *The Sixties in America* (Salem, 1999) and John Super’s *The Fifties in America* (Salem, 2005). The encyclopedic format and extremely specific entries in *The Seventies in America*, such as “Platform Shoes” and “Monty Python,” are ideal for researchers who were not alive in the decade, or who simply do not remember it. The reading level of the entries is easily suited to junior-high students through general-adult readers looking for manageable (one-to-six-page) explanations of important events related to the social, economic, and political events of the seventies. Rounding out the work are helpful appendixes that include major sports, literature, and popular entertainment award winners. Librarians may find these tools faster to use for answering simple reference questions than the Internet.

There are single volume works, including Victor Bondi’s *American Decades 1970–1979* (Gale, 1995) and Stephanie Slocum-Schaffer’s *America in the Seventies* (Syracuse Univ. Pr., 2003), that, while less ambitious in scope, are excellent resources and far less expensive.

Although *The Seventies in America* is an excellent resource for its unique coverage of so much information, there is one