GREAT BOOKS FOR SCIENCE TEACHERS: REVIEWS


Admittedly this is not a trade book, but was published for the school textbook market. This topic is now revised each academic year and the editor selects articles from various magazines and journals (Natural History, Social Policy, Science News, etc.) to provide a taste of current environmental crises. Because the book changes annually, it is not printed on the best grade of paper . . . but it's inexpensive! They want to hook you into using it as a class text, and each edition is excellent for advanced biology classes on environmental issues, or as a supplement to the regular biology text--I have used it both ways. Also, any biology teacher can use it as a "quick study" of the last year's environmental issues.

Baker, Robert A. 1963. A Stress Analysis of a Strapless Evening Gown. Originally published by Prentice-Hall, current editions are now being remaindered from Barnes and Noble, 126 Fifth Avenue, New York, NY 10011-5666. 192 pp. $7.95 (softcover) plus $3.95 shipping (one-time charge if ordering other books). Also available from "A Common Reader," 141 Tompkins Avenue, Pleasantville, NY 10570-3154 for $8.95 (softcover) plus $4.25 shipping, order no. 8518.

This is for the library of the biology teacher and maybe you wouldn't put this one in the library. It is a classic set of essays, including "The Lab Coat as a Status Symbol" and "The Average Working Hours of a Scientist During a Lifetime." My copy is on my bookshelf next to the Journal of Irreproducible Results, but this little text is more serious. If a teacher's intellectual life is an oreo cookie, this book provides the creme filling between the more serious chocolate wafers reviewed here. Some of us will consume the creme filling first.


The everyday world of an average house becomes a fascinating science journey through electron micrographs of house dust, computer-enhanced X-rays of commonplace structures, and
thermographs of temperature differences. Students will learn that the windows are not solid, but liquid and slowly flowing . . . that the coat hangers in the closet "bong" at low frequencies with the expansion and contraction resulting from changes in temperature.


This knowledgeable book written within the vocabulary level of a good high school student might also lure and hold advanced junior high students' attention as well (if they aren't discouraged by the smaller print and lack of illustrations). The author treats the discoveries of causes for major epidemic diseases with a simplified, but intelligent coverage of the social attitudes of the time: scurvy, syphilis, smallpox, malaria, yellow fever, diphtheria, pellagra, rickets, gout, influenza, tobacco, polio, and hypertension. In addition, he summarizes advances in medicines that show how it is often easier to change medical practices than to change political traditions or public behaviors. Each topic is compartmentalized so students can be assigned reports equivalent to just one chapter. However, students will have to wait until the biology teacher finishes it as bedtime reading!


This compendium of pictures of organisms (and biomes) accompanied by short paragraph descriptions is at high school reading level. It is a picture-by-picture "look-up book" (no keys), but there are small range maps to help you decide if the plant or animal in the color illustration might be in your area. If your classroom or school library can only afford one nature guide, this will do the job.


This priceless book on "mathematical illiteracy and its consequences" needs to be in teachers' hands, as well as the school library. Paulos is superb in exposing our slipshod and downright wrong concepts in math and numbers; many of the delightful examples he provides can be used by any teacher (but especially science teachers) in class to
"turn on" students: "Modern Homo sapiens is probably less than 10 trillion seconds old . . . agriculture has been here for approximately 300 billion seconds . . . writing for about 150 billion seconds, and rock music has been around for only about one billion seconds . . . All the (human) blood in the world would fit into a cube 870 feet on a side . . . would cover the (Central) Park to a depth of something under 20 feet . . ." The reader is painlessly guided through the calculations. Much of the math undermines beliefs we do not stop to analyze: "The Book of Genesis says of the Flood that ‘. . . all the high hills that were under the whole heaven were covered . . .’ Taken literally, this seems to indicate that there were 10,000 to 20,000 feet of water on the surface of the earth, equivalent to more than half a billion cubic miles of liquid! . . . according to biblical accounts, it rained for forty days and forty nights, or for only 960 hours, the rain must have fallen at a rate of at least fifteen feet per hour, certainly enough to sink any aircraft carrier, much less an ark with thousands of animals on board." He treats everything from your chances in state lotteries to AIDS risks. This book is an intellectual giggle and generates a high rate of: "Of course, why didn’t I think of that?" statements.


The biology teacher expecting an in-depth elaboration of the concepts about the biosphere will be disappointed in this book. Although the origins of the biosphere concept and the details of "Biosphere II" are elaborated, much of the rest of the text is rambling philosophy and pontification. In spite of its LC and Dewey decimal codes, it probably belongs in the philosophy section of a library and not on the science bookshelves.

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