

Book Reviews

Michael Emsley

Department Editor

GENETICS

Practical Genetics. By R.N. Jones & G.K. Rickards. 1991. Open University Press (1900 Frost Rd., Suite 101, Bristol, PA 19007). 224 pp. Hardcover \$88, paperback \$38.



This is a concise, well-written set of practical laboratory exercises which effectively communicate genetics to the student. It can be used as the main lab text for an introductory course in genetics or as a source for a student doing independent course work. It is intended for the high school (advanced course) or university undergraduate student.

Each chapter begins by indicating the level of student for which the exercise is suitable and by listing precautions that need to be taken into consideration. Following the introduction and background information is a section on procedures and materials that, in some exercises, gives experimental alternatives such as using different stains or organisms. The procedure normally includes all the information necessary to make stains or solutions listed in each exercise. Further information and details for carrying out some procedures can be found in the appendix. At the end of the book a glossary is provided for help in certain areas.

In addition to the techniques for the exercise, every chapter has an exten-

sive discussion of the subject with plenty of diagrams and pictures to help give the student insights into the analysis and interpretation of results and observations.

I have not performed all of the particular exercises described in the text, but based on the ones that I have used in the laboratory, these look comparatively similar. The authors claim that the exercises are known to work repeatedly well and to be within the means of a modestly equipped teaching laboratory. The organisms and chemicals used are readily available in most biological supply catalogs.

This book would be a useful lab exercise text or supplement to a laboratory program for the practical study and application of genetics, for it covers a variety of organisms, including fruit flies, fungi, bacteria and humans. The exercises and information would be a useful tool in teaching the principles and concepts of genetics by allowing the student to observe and analyze a great deal of the information first hand.

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REFERENCE

The Facts on File Dictionary of Environmental Science. By L. Harold Stevenson & Bruce Wyman (Eds.). 1991. Facts on File, Inc. (460 Park Ave. South, New York, NY 10016). 294 pp. Hardcover \$24.95.



The rapidly growing environmental field presents biologists with a host of unfamiliar biochemical and engineering terminology. This dictionary, with more than 3000 entries, would be invaluable in deciphering modern information on waste management, atmospheric discharge reducers and other pollution equipment. The definitions are a good balance between detail and simplicity, with diagrams and formulas where appropriate. Of particular use is an appendix on acronyms and other abbreviations. A very useful book to

have available in the school or college library, but better still, to have in the departmental office for ready access.

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E for Environment. An Annotated Bibliography of Children's Books with Environmental Themes. By Patti K. Sinclair. 1992. R.R. Bowker (121 Chanlon Rd., New Providence, NJ 07974). 292 pp. Hardcover \$39.95.



As the full title indicates, this text is a catalog of book references that would be suitable for children from preschool to age 14. Each of the 517 citations has an approximately 150-word review of the works, all of which have been published during the last 10 years. The citations are arranged in five sections headed: Planting the Seeds of Environmental Awareness—Introducing Young Children to Nature (excitement inducers); The Web of Life (ecology); At Issue (environmental issues); People and Nature (human ecology); It's Your Turn (activities and activism). In a short appendix is a list of 43 suggestions for more adult reading of environmental classics (Rachel Carson, Aldo Leopold, etc.). Lastly, there is an author and subject index. Overall, this is a very useful book for teachers of the young and for environmentally aware parents.

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A First Dictionary of Cultural Literacy: What our Children Need To Know. By E.D. Hirsch, Jr. 1991. Houghton Mifflin Co. (2 Park St., Boston, MA 02108). 271 pp. Paper \$9.95.



When this book arrived I neglected my duties because I could not put it down. Although ostensibly aimed at children in the sixth grade, this well-written and

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