

cation system would make follow-up investigations difficult. But as the purpose of the work is to stimulate interest in wetlands, the book could be useful to the casual visitor on a beginning observation in a freshwater wetland.

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THE EARTH MANUAL, by Malcolm Margolin. 1975. Distributed by Houghton Mifflin Co. (2 Park St., Boston 02107). 184 p. \$10.00 hardback, \$5.95 softback.

*The Earth Manual* is essentially a "how to do it" guide for would-be conservationists. According to the author, most of the book is based on his experience in managing the conservation program for the Redwood Regional Park in the hills above Oakland, Calif.

The author gives a number of excellent detailed instructions on how to help control water erosion, fell trees, transplant native shrubs and trees, collect, treat, and disperse wildflower seeds, treat injured trees, prune trees, build nature trails and ponds, construct hedgerows to encourage the proliferation of birds and small mammals, and, in general encourage the maintenance of wildlife in wilderness areas.

Margolin should have been content with writing a practical how-to-do-it guide for distribution through bookstores. Instead, his book is laced with personal opinions about how "kids" behave, with *his* ideas on how "kids" should be taught, and is replete with anthropomorphic statements of the wildest sort. He uses the term "kids" repeatedly when referring to students ranging from fifth graders to high school seniors. The reader is left confused as to the age of the students even though the author talks of recruiting high school students, Cub Scouts, and Boy Scouts to aid in his work.

The following quotations should help to clarify my objections. For example: "There are animal droppings—a sure winner with kids since they combine two of their favorite obsessions: animals and turds." "The litter of half-eaten nuts teaches us that animals are enormously sloppy, inefficient feeders—a fact that small children are always glad to hear." "'C'mon' I'd yell. 'Let's go out and see how the plants make

babies.'" "You mean a stick is going to grow?" a kid once asked me. 'It's not a stick,' I replied. 'It's a magic wand.'" "Kids' work is bound to be sloppy and half done. That is the nature of kids." "One of the nicest things about using plants is that plants *want* to fight erosion. In fact, they want to fight erosion even more than you do, and what's more, they know how to do it."

One classical example of a combination of teaching technique and anthropomorphism: "I would assemble the kids and give them what must have been the craziest speech they ever heard. 'Be quiet, please. You've got to be quiet. It's lunchtime. The trees are eating. Sh-sh-sh! The trees in the forest are always eating. It's always lunchtime. No wonder the trees are so fat. Just look at the bellies on them. They eat all day long, all night long, every day of the year. Eat, eat, eat. Millions of mouths, always eating. No wonder trees don't move and run around and jump. They don't have time. All they have time to do is eat. The earth is like a huge banquet table, and all their lives they sit at the table, eating, eating, growing, growing, swelling, swelling.'" Margolin goes on to explain to his "kids" that trees breathe in and out through millions of noses.

I submit that Margolin's approach to teaching, his tendency to categorize student likes and dislikes regardless of age, and his unnecessary use of anthropomorphism, are not consistent with good teaching practice. I find it impossible to state for whom the book is written—"kids," or "teachers."

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### **Educational and Professional Concerns**

OPPORTUNITIES IN ENVIRONMENTAL CAREERS. by Odom Fanning, Rev. ed., 1975. Vocational Guidance Manuals, Inc. (620 S. Fifth St., Louisville, Ky. 40202). 251 p. \$3.95 softback, \$6.95 hardback.

This volume is a complete revision of the highly successful edition of 1971. It is a book of career opportunities designed especially for teachers and guidance counselors. The long-term

outlook for jobs in environmental management, particularly in the area of protection and energy programs, is presented from a very optimistic viewpoint.

The organization of the text makes it easy for the user to locate the desired information about specific careers without having to read the entire book. The reader can quickly view a general description of the occupation and then find specific institutions that offer training in this area. The writing style is reasonably concise and objective.

The basic fault with this book is due not to the editor but to the quickly changing times. The information becomes obsolete very rapidly due to ever changing technology.

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AN INTRODUCTION TO THE PROFESSION OF MEDICAL TECHNOLOGY, by M. Ruth Williams and David S. Lindberg. 2nd ed., 1975. Lea & Febiger (Washington Square, Philadelphia 19106) 135 p. \$5.00 softback.

In an age of computers and electronics, the profession of medical technology requires a person knowledgeable not only in the clinical and medical foundations of the career but also in the new and emerging tools of the profession as well. This relatively brief but valuable reference clearly captions for the biology or health careers coordinator, careers counselor, or prospective student the academic and clinical training necessary for entry into the various allied health fields within the profession of medical technology. As a textbook, the volume is suitable for use in introductory classes in medical technology.

The profession of medical technology has undergone numerous developmental changes since its beginnings in the 19th century. In this revised edition, the authors have referenced extensively the historical basis for the profession as well as current employment training, salaries, and opportunities. Such opportunities may be found in hospitals, private labs, public health agencies, and industry. Williams and Lindberg note the recent changes in the above areas which have raised medical technology from a health occupation to an emerging health profession. The authors

# Tracking Down the Sickle Cell



Edgar B. Jackson, Jr., M.D. — Gary F. Stein, M.D., M.P.H. — Charles E. Adams — Kathy Sylva, Ph.D.

**Tracking Down the Sickle Cell** is a short course which clearly explains the facts on transmission, treatment, and effects of sickle cell anemia. Designed for junior/senior high school students and community/neighborhood study groups, the program fully explores the medical, personal, and social aspects of the disease. Materials include Student Booklets, Leader's Guide, duplicator masters for Activities, a Content Questionnaire, Implementation Guide, blood sample slides, a full-color Wall Chart and two color/sound films entitled **THE RED CELL** and **LIVING WITH SICKLE CELL ANEMIA**.

Prepared under the aegis of the Sickle Cell Medical Advisory Committee of the **AMERICAN SICKLE CELL ANEMIA ASSOCIATION**, Cleveland, Ohio

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prefer to define medical technology as "that branch of medicine concerned with the performance of the laboratory determinations and analyses used in the diagnosis and treatment of disease and the maintenance of health."

Using that definition, the authors examine the various departments in the clinical lab career cluster, including but not limited to hematology, cytology, chemistry, microbiology, and nuclear medicine. However, the descriptions of these sections are probably the weakest part of the book. Possibly due to the brief nature of the book, medical technology specialties are only very lightly treated. While this inequity in coverage doesn't distract from the book's usefulness, it is serious. Most medical technologists will probably specialize in one of the areas in any large clinical lab. Nevertheless, the discussions on employment opportunities and educational requirements are especially well done.

One of the most impressive features of this book is the profession's emphasis on standards, ethics, and interpersonal relationships. The authors describe not

only the problems in training standards and how they developed, but also legal and professional accreditation and licensing differences among state and federal agencies. The various professional registries and organizations mentioned are objectively described while the appendix lists the addresses of major groups so students might write for additional information. The section on interpersonal relationships contains interesting tips on how to maintain good working and yet professional relationships with other employees and persons, such as the physician, patient, and pathologist. In each case, illustrative situations are given. Responsibilities of the profession are outlined in several sample codes of ethics. The above sections should prove useful to the student who wishes to evaluate himself in terms of being compatible with expected professional goals and responsibilities.

The format of the volume will likely set the pace for other career volumes in the allied health career cluster. And such volumes would be highly desirable for medical career preparation programs. Few other paperbacks are avail-

able with so much concise information about the profession of medical technology.

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Argo (Ill.) Community High School

## Related Fields

**FOUNDATIONS OF BIOPHYSICS**, by A. L. Stanford, Jr. 1975. Academic Press (111 Fifth Ave., New York 10003). 392 p. \$19.50 hardback.

Biophysics is traditionally an advanced topic of study for biologists and physicists. In the preface the author recommends this textbook as an introduction to biophysics at the earliest possible level in the student's education after he has completed calculus-based general physics courses.

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