

with special attention to this phenomenon of the education system. Separate chapters are devoted to the social sciences, humanities, fine arts, language arts, and the sciences. But the first part of the book is devoted to the general problems that are connected with the gifted child, his characteristics, adjustments, identification, creativity, etc. Such chapters as those on ability grouping, acceleration, and guidance are unusually good ones, succinct, and to the point.

All of those in the field of biology teaching who are contemplating special sections with special attention to the gifted child might very well take the time to read this book thoroughly. Teaching the gifted is not something which simply comes naturally, and some of the very important facets of recent research are now necessary for a good teacher in this field.

General Biology

BIOLOGY, 3rd ed., W. H. Johnson, R. Laubengayer, L. DeLanney, and T. A. Cole, 788 pp., Holt, Rinehart, Winston, Inc., New York, 1966.

The format of this newly revised "Wabash College" collaborative teaching set is superb. It is something of a "load," for the student who likes to have his materials at hand for ready inspection, to carry around over campus, especially when he has several classes in succession with other texts to take along as well. However, it is an impressive collection which suits this particular reviewer's conception of the organization and context sequence of general biology for a year's work with college classes. The insertion of several color plates adds a touch of beauty and aesthetics which should please those biologists who feel that the Science of Life is as colorful and artistic as any in the curriculum.

Basic background appears in 5 chapters, each being followed by references for additional reading, with review questions, thought and problem questions. Fifty-three pages devoted to the flowering plants may be a bit scanty. About 202 pages on the vertebrates follow with a very short summary of the chordates coming after the non-chordate phyla sequence. Part V of some 100 pages returns to a consideration of plants, from viruses and bacteria through Tracheophytes again and plant phylogeny.

A hundred pages are devoted to the protozoa through Echinodermata (and Chordata) plus animal phylogeny. "Dynamics of Organisms and Species," in excess of 150 pages, comprises Part 7 to conclude an encyclopedic treatment. *Homo habilis* is mentioned but the work of the Leakeys receives scant attention. Cybernetics and computers, space biology and oceanography, and radiation biology are not very much to the fore, and probably should not be, although a few

paragraphs as to the future of biological advance might be in order where the coverage of the conventional field is so well carried out. Accompanied by a Glossary of 14 pp., an instructor's manual of 69 pp., and a laboratory manual of 261 pp. in colored paper cover, perforated for a three-ring notebook.

But where shall we stop in biology today? If we acquaint the beginning student with this most amazing and dynamic of subjects in its entirety we run the risk of giving him froth without substance. Is the time coming in our area when we shall have to extend general biology into a year of introduction then follow up with a second one of elective advanced to round out and perfect the student's knowledge? This is a problem faced by all the natural sciences. There is just too much of absorbing interest to be presented within the scope of a couple dozen or maybe four dozen periods.

This is a fine presentation which will take its place among numerous other excellent ones so that the conscientious teacher is hard put to know which to choose and what will serve his purposes best. As was said in the beginning, the appeal of the Wabash achievement in the third edition is great for one who has spent a lifetime in trying to set forth biological principles.

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FOUNDATIONS OF BIOLOGY, Felix Mainx, 86 pp., University of Chicago Press, Chicago, Illinois, 1955.

A paperback which has gone through several printings. The author is never fully identified, but the writing is translated from German. In summary, it is a philosophical treatise about biology which concludes that organisms are still beyond biochemical knowledge and that our understanding of them assumes several unprovable assumptions.

BIOLOGY LABORATORY MANUAL, Stanley L. Weinberg, 245 pp. \$2.52, Allyn and Bacon, Inc., Boston, Massachusetts, 1966.

This handy-sized, spiral bound manual was written to accompany the author's textbook, *Biology: An Inquiry into the Nature of Life*. The text has already been reviewed on page 59 of this year's January issue. The manual contains sixty-eight laboratory exercises presented as sixty-eight problems to be investigated following a familiar format. These were carefully designed so that most of them (about 80%) can be completed in a single 50-minute laboratory period. Mr. Weinberg's broad teaching experiences in the high school biology laboratory have enabled