Book Reviews

All unsigned reviews were made by editor.

Science Projects

THE JUNIOR SCIENTIST'S PROJECT HANDBOOK, Byron Broudy, 16 pp., The Steck Company, Austin, Texas, 1964.

A very brief pamphlet guiding a junior high student in the steps of a project, including report and exhibit, but no project ideas.

EXPERIMENTAL BIOLOGY, William Berman, 128 pp., $1.00, Sentinel Books, New York, 1963.

An excellent paperback book for the biology teacher who likes to promote among his students those science projects and/or investigations which provide an opportunity for exploring "open-endedness" with a "research" flavor.

Each investigation is well illustrated which makes it much easier for students to follow some of the more complicated procedures involving apparatus manipulation and laboratory techniques used in manometry, respirometry, chromatography, microscopy, cytology, photomicrography, bacteriology, and hypodermic injections. Many charts and tables are clearly presented along with the procedure, thereby, enabling the student to find the necessary information needed to prepare most of the required solutions.

The only fault I can find with this little book is that it is too little. I am not referring to size but to the number of investigations, of which, there are only seven. I hope the author will soon come forth with parts two, three, and four to supplement an already excellent beginning edition.

Ronald K. Gibbs
Coordinator for School Science
Indiana University

EXPERIMENTS IN OPTICS, Bulletins 101 and 101-2, 68 pp., Klinger Scientific Apparatus Corp., Jamaica 32, New York, 1963-1964.

These two small pamphlets together contain 51 short experiments in optics. They range from very simple ones on the pinhole camera and on the measurement of focal lengths of lenses to more complex ones on measurement of the speed of light and on interference, polarization, diffraction, birefringence, and other properties of light. Instructions are brief but complete, with an itemized list of equipment and a clear diagram of each experimental setup. Although intended for use in physics classes, many of these experiments will be of interest to biology teachers, particularly those on color mixing and other optical phenomena associated with vision and the eye.

Gordon G. Heath
Division of Optometry
Indiana University

EXPERIMENTS IN MAGNETISM AND ELECTRICITY, Harry Sootin, 244 pp., $2.95, Franklin Watts, Inc., New York 22, 1962.

This book describes about 200 basic experiments that can be done either in the classroom or at home with a minimum of specialized equipment. One of the unique features of the book is the practice of giving background information, including questions, before each individual experiment is begun. The procedure of the investigation is set up in simple step by step form, accompanied by illustrations which are well chosen, thus making it possible for the child to work alone in his home laboratory or at school. Observations are suggested in the form of questions to the experimenter. Another unique feature presented by the author is the practice of listing additional topics for students who find a special interest which they may wish to pursue further.

Upper elementary and junior high school science teachers will find this set of experiments very useful for classroom demonstrations and for supplementary activities for those interested students who need encouragement. Having the entire book devoted to magnetism and electricity is an advantage over those containing all types of experiments.

Virgil Heniser
Coordinator for School Science
Indiana University

PHARMACEUTICAL SCIENCES PROJECT HANDBOOK, American Association of Colleges of Pharmacy, 32 pp., $.25, American Pharmaceutical Association Foundation, Washington, D.C., 1964.

A booklet describing a number of pharmaceutical science projects which are designed to give the student an insight into some of the theories and practices associated with pharmacy. A short introduction tells the student how to use the book as a basis for selecting a project and leaves open the opportunity for the student to develop his own distinctive work. Helpful suggestions are offered, such as consulting the science teacher regarding the scientific method of conducting a study, and safety precautions, the community pharmacist's assistance in obtaining the less common chemicals, and the procedures to be used in obtaining many of the restricted drugs. The use of narcotics such as morphine and its substitutes is not encouraged in high school work.