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Book Reviews

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This is a book for biology teachers and biology students written by teachers and students. The authors have dedicated themselves to teaching and learning methods of presenting biological facts, principles, and attitudes. This second edition for busy teachers has been brought up to date through radiation biology. They make it possible for the teacher to turn his textbook over to the student and teach from materials which demonstrate the facts. They present methods, for teachers with or without a budget, to get materials and devise experiments to illustrate principles of their courses. Methods are presented for giving the student practice in using information to understand principles and the application of these principles in his daily life.

The book is equally valuable for the biology major or the biology teacher with little preparation. Methods of presentation are discussed, and materials and methods of improvising are suggested. This is a rarity today where many materials are replaced rather than repaired and where functions are often ignored. Drs. Miller and Blaydes' book makes possible the practice of laws of conservation, where skills of design, invention, and principle formation are experienced.

Following the first question presented to the student or teacher—"Do you really want to teach?"—the book is divided into two parts. Part one deals with classroom methods for teaching biological principles. This includes: the purpose and objectives of teaching, types of courses and methods of presentation; evaluation, materials and equipment; the choosing of a text; and trends in the curriculum.

Part two deals with sources, preparation and uses of materials. Student projects, collecting, culturing, and preserving, are discussed. The life processes of plants and animals are each considered as functions lending themselves to demonstrations. The methods and materials best demonstrating each life function are explained.

In addition to the teaching aids already mentioned there is an audio-visual bibliography, innumerable references on each subject, many drawings to demonstrate the arrangement of apparatus or techniques for preparation or preserving of materials. There are drawings to aid in the identification, classification and preservation of plants and animals.

This book, Methods and Materials for Teaching the Biological Sciences, is essential for every biology teacher, and every student who aspires to be a biology teacher.

Maurice L. Giltz