

References: Same.

Class Discussion and Demonstrations:

1. Test for hardness of water.
2. Test for mineral content.
3. Test for vegetable material.
4. Distillation.

Assignment: Test on Water Pressure.

SEVENTH DAY

Study of water pressure and principles involved.

References: Wood and Carpenter, Webb and Didcoct, Clement, Collister and Thurston.

Class Discussion:

1. Why does water rise so high from a fire hose?
2. Why does water sometimes rush through the faucet strong enough to knock a cup from the hand?
3. How high is the reservoir above the city?
4. How much pressure is exerted?
5. If the reservoir were not above the city, how could water be gotten into the homes?
6. What is the name of the system by which water flows without mechanical aid?
7. What size pipes are used to bring the water from the source?
8. What is the course of the chief water mains, and their capacity?
9. How can you show that water seeks its own level?
10. How can you account for the water pressure in Harrisonburg being 70 lbs. per sq. in.?

FRED C. MABEE AND OTHERS

Teacher (to boy sitting idly in school during writing time): "Henry, why are you not writing?"

Henry: "I ain't got no pen."

Teacher: "Where's your grammar?"

Henry: "She's dead."

KEEPING UP WITH SCIENCE TEXT BOOKS

WHILE there is a dearth of textbooks for college general science courses, the general science books for senior and junior high schools are legion. Not only are the latter abundant in number, but they contain a great amount of subject matter that cannot be covered in the time generally allotted to this subject. The problem of subject matter is therefore one of elimination; the field is so extensive that utilization of all the material is impossible.

In selecting a general science textbook, the book itself should be tested by the following inquiries:

1. Is the book within the intellectual grasp of the pupil?
2. Can the book be easily adapted to local conditions?
3. Is the mechanical appearance of the book pleasing? (Type clear? Pictures interesting? Print large enough?)
4. Will the content of the book fall within the scope of the required course of study?
5. Are there teacher's helps? (Questions? Summaries? Experiments? References?)
6. Who wrote the book? (Some college professor who has had no actual teaching experience in the public schools?)
7. Is the book scientifically accurate?
8. When was the book written? (Within the last five, ten or fifteen years?)

Following are short discussions of general science textbooks that have been published within the last five years. Three of these were printed in 1928.

ELEMENTS OF GENERAL SCIENCE WITH EXPERIMENTS. By O. W. Caldwell and W. L. Eikenberry. New York: Ginn and Co. 1926. Pp. 600. \$1.68.

There exists a wealth of material in this text. The content is divided into six general divisions, namely: the air; water and

its uses; work, energy and electricity; the earth and its relation to other astronomical bodies; the earth's surface and life upon the earth. It is notable that this text starts out with the topic, Science in the Modern World, linking up new facts with the experiences the child has previously had. "In this book, the unity of no particular science stands out. Rather the unity is secured by logical interrelations between the topics which compose the course." A list of questions is given at the beginning of each chapter which helps to recall the pupils' previous experiences and lead on to new problems. Additional problems are given at the end of each chapter for the benefit of the brighter pupils, as well as lists of sample test exercises.

This book will be attractive to pupils, for it contains seventy-eight illustrations that are new to this revised edition. The paramount feature of this publication is the abundance of material on such comparatively new topics as the radio, the automobile, and vitamins. It is not putting it too strongly to say that this is perhaps the best book of its kind on the three above-mentioned topics.

OUR ENVIRONMENT: ITS RELATION TO US; HOW TO ADAPT OURSELVES; HOW WE USE AND CONTROL IT. A series of books by Harry A. Carpenter and George C. Wood. New York: Allyn and Bacon. 1928. Pp. 234, 391, and 704. \$1.20, \$1.60, and \$1.80.

Something different! A series of three books to be used in a three year junior high school; or they may be used in the upper grammar grades and the first year senior high school. It is noticeable that the authors of this series of books are men who have specialized in the teaching and supervision of science in the public schools. The three books are developed in the so-called project method. Each problem may include a number of projects which may be worked out by the class as a whole, by a special group, or by an individual. Some of the outstanding features of this book are: Questions at the first of each chapter with

the phrase, Do You Know?; an introductory chat printed in black type at the beginning of each chapter; and the unusual feature, the Science Calendar, at the back of each book of the series. This last feature alone makes the book highly desirable for the teacher as well as pupil, for it provides for greater activity for the pupil each week of the school year. As a means of review, the key words and key sentences may be used to great advantage. These three books contain many of the good features of other science books in addition to the newer features mentioned above. The whole idea of the series of books is to distribute the content of the general science course over a number of years, instead of crowding the subject matter into one year's work.

OUR SURROUNDINGS. By Arthur G. Clement, Morton C. Collister, and Ernest L. Thurston. Syracuse, N. Y.: Iroquois Publishing Co. 1928. Pp. 640. \$1.60.

All three of the authors of this book are men of practical teaching experience, which may account for the style which distinguishes this text from other general science publications. Special attention is called to the black face type introductions at the beginning of each chapter. These taken as a whole form an outline of the story of general science. The subject matter of the text is carefully arranged, technical detail is omitted, and yet certain fundamentals of science are duly emphasized. The book as a whole is a complete unit, the experiments being built into the body of the text so as to be a part of it. Cross page references and pictures are lacking, thus making the continuity of the book exceptional. Beside the summaries, fact and thought questions, projects, observations and bibliographies, this book also contains a glossary which lists over nine hundred definitions which are accented and divided into syllables. This itself may be used as a means of review. The content covers a great deal of ground; if it is necessary, therefore, a great many topics may be touched upon, or the class

may select the units in which it is most interested.

EVERYDAY PROBLEMS IN SCIENCE. By Charles J. Pieper and Wilbur Lee Beauchamp. New York: Scott, Foresman and Co. 1925. Pp. 600. \$1.60.

Although this book was published in 1925, it is most worthy of praise. Its two outstanding features are: First, the bountiful amount of reference and research work. The bibliographies contain over six hundred books and pamphlets that may be used with the various topics. First is listed a group of general references which should be in almost any up to date high school library. Following this is a list of specific references concerning certain definite topics. Succeeding lists of references are for pupils, who because of their special interests and abilities, are given the privilege of doing extra work out of class. On one page are found thirty-seven reference books concerning discoveries and inventions in science. Second, the teachers guide book, which is of special help to the inexperienced teacher. The manual is an exceptionally good one and quite complete. Taking all into consideration, *Everyday Problems in Science* answers well the questions which are considered in selecting a textbook, and these two additional features make it an indispensable reference book for both teacher and pupil.

NEW INTRODUCTION TO SCIENCE. By Bertha Clark. New York: American Book Co. 1928. Pp. 480. \$1.48.

The discussion of new general science books could not be closed without calling attention to the new edition of Clark's science book, which is a great improvement over the old editions. The fundamentals of a great number of sciences are included in this concise, compact volume. As aids to the teacher and pupils, the bibliographies of books, industrial exhibits and pamphlets are valuable and useful. Italicised questions on nearly every page of the book, sufficient laboratory work for the laboratory with the minimum equipment, problems and

directions for organized review work are the high-lights of this, the new edition, of Clark's general science text. The older text is the state adopted textbook for general science in Virginia.

DOROTHY S. GARBER

SCHOOLROOM HUMOR

BACK

"What is your brother in college?"

"A half-back."

"I mean in studies."

"Oh, in studies he's away back!"

POOR RELATIONS

"Tommy," asked the teacher, "what can you tell me of America's foreign relations at the present time?"

"They're all broke," answered the brightest boy in the class.—*Household Guest*.

PECULIAR

Teacher: "Can you tell me the name of any animal peculiar to Australia?"

Boy: "The rhinoceros, sir."

Teacher: "Wrong. That's not found in Australia."

Boy: "Well, sir, that's exactly why it would be peculiar."

CARTER KNEW

The professor was trying to demonstrate a simple experiment in the generation of steam.

"What have I in my hand?" he asked.

"A tin can," came the answer.

"Very true. Is the can an animate or inanimate object?"

"Inanimate."

"Exactly. Now, can any little boy or girl tell me how, with this tin can it is possible to generate a surprising amount of speed and power almost beyond control?"

One little boy raised his right hand.

"You may answer, Carter."

"Tie it to a dog's tail!"