

PRIMARY ARITHMETIC

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649121007

Primary arithmetic by Bruce M. Watson & Charles E. White

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D. C. HEATH & CO., PUBLISHERS

BOSTON NEW YORK CHICAGO

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INTRODUCTION

In the preparation of this series of arithmetics the aims have been :

First, — To secure a high degree of facility in the fundamental operations and in those other processes which, in the actual business of life, are reduced to purely mechanical forms of computation.

Second, — To cultivate in pupils the habit of forming vivid mental pictures of the business transactions introduced in the exercises, and of the commercial and industrial relations of the numbers involved in the problems.

Third, — To make, at proper times, a clear and rational development of so much of the theory of numbers as is necessary for intelligent arithmetical work.

Fourth, — To grade the work up, from the simple and easy to the more complex and difficult, by steps so gradual and in an order so logical, that the pupil will steadily grow in mathematical power and take pleasure in his own progress.

In pursuance of the aims herein outlined, care has been taken to dwell upon each new process until the child has acquired a considerable degree of skill in it. Then it has not been permitted to drop out of sight and memory, but has been kept fresh by continuous and systematic review.

Useless and meaningless distinctions and statements of matter have been avoided.

The problems of play, of trade, and of industry deal with things and transactions that are within the experience or knowledge of the child and appeal to his interest.

The numbers used in problems are not so large as to cause fatigue, discouragement, or waste of time.

In the development work, pupils are directed in a line of observation or experiment and enabled to obtain their facts from the numbers and objects studied, rather than from a printed statement.

The present volume is intended to cover the work usually accomplished during the first four years of school.

The text-book may be introduced either in the middle of the second year, or at the beginning of the third. When the former plan is chosen, the first thirty-one pages, consisting of oral work involving all combinations of numbers to twenty-four, will be found to contain sufficient book work for the remainder of the second year. When the latter plan is followed, the pages covering work that has been accomplished orally in the second year will serve as review and preparation for the lessons that follow.

The further distribution of the course through the third and fourth years must be determined by local conditions, experience, and age of pupils.

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