

**ESSENTIALS OF
ARITHMETIC.
GRADE II**

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Essentials of Arithmetic. Grade II by Nina B. Glass

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PREFACE

Much of the pupil's progress in arithmetic in the intermediate and upper grades depends upon the foundation which is acquired in the work of the primary grades. A well-developed and carefully graded textbook is therefore as helpful and as necessary in the teaching of this elementary number work as a primer in the teaching of reading.

To all teaching, and to none more than that of arithmetic, the following principles apply: (1) a necessary condition for learning is that the process be stimulated through motive and interest; (2) knowledge, to be real, must be founded upon natural experiences of the individual learner; and (3) knowledge, to be retained, must be given an opportunity for use. With these principles as a guide the development of each primary number fact in this book is presented in the following distinct phases: (1) the presentation, (2) the application, and (3) the drill upon the fact until the pupil has automatic control of it.

In the first phase, which forms the correct number concepts, the pupil is not asked to accept and learn printed facts, but is carefully shown how he can build these facts for himself. In the application, simple, everyday problems give to the pupil the wider appreciation of the meaning of the fact and the need for knowing it. While the problems also give drill in gaining control of the fact, it is

the third phase that gives the pupil the necessary automatic control, or forms the habit in regard to the fact. Great care has been taken in this work to develop a series of exercises and drills which possess greater variety and more careful gradation than most teachers can take time to work out for themselves, and which are of such a type as to show a need for the number facts and to furnish a stimulus to interest. In this grade games give the greatest stimulation to interest, — the natural result of which is concentration and attention, — but it has been the classroom experience of the author that with games the tendency is not to drill on all the combinations, but to concentrate on only a few. One feature of the book which counteracts this tendency is found in the three special drill charts (pages 29, 51, and 63), which develop all the primary addition facts by giving, first, those twenty-five combinations whose sums do not exceed ten; second, the forty-five separate combinations; and, third, those combinations with sums less than ten which are used in preparation for the addition of two-figure numbers.

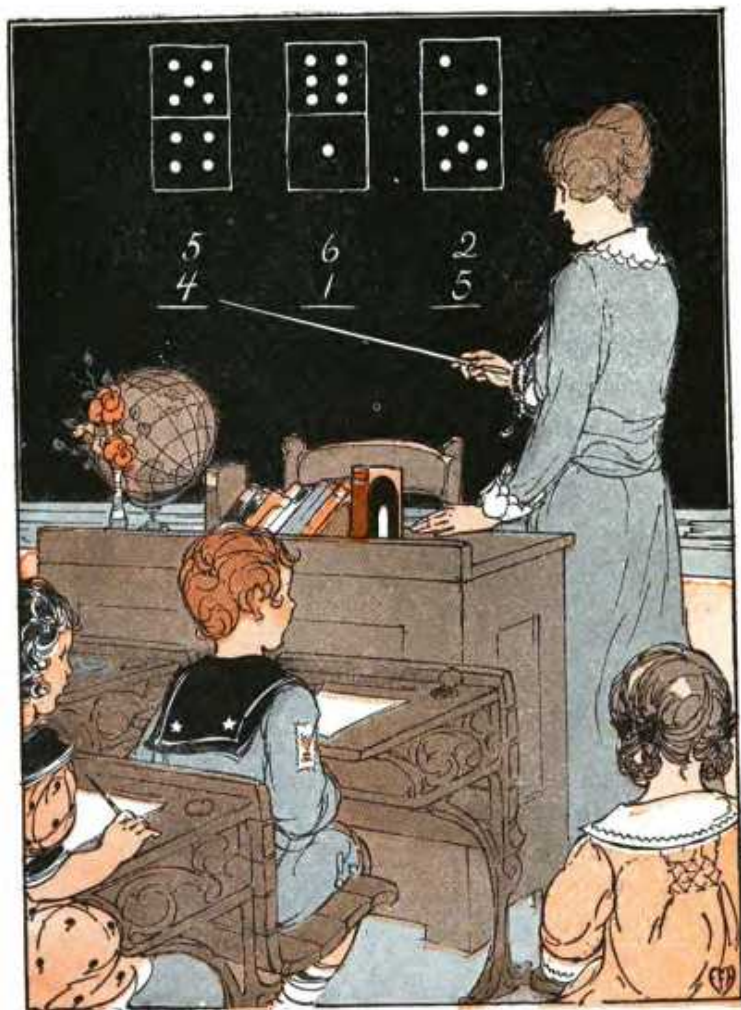
It is hoped that the book will make for economy of time and effort on the part of both teacher and pupil by giving that assistance which in the author's experience has been found necessary to develop in the pupil of this grade a well-balanced power and skill with numbers and to instill the habits of thoroughness, neatness, and accuracy.

NINA B. GLASS

WACO, TEXAS

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ESSENTIALS OF ARITHMETIC

GRADE II

CHAPTER I

THE FIRST TWENTY-FIVE NUMBER FACTS

COUNTING

1. Can you tell how many children there are in your class? Count them. How many are there?
2. How many boys are there in your class? How many girls are there?
3. Count the number of desks in your classroom. How many are there?
4. How many readers will it take for the class if you give each child one book?

When the pupils can call the names of the numbers in proper order, the meaning of the names should then be taught by counting objects. Let the pupils count anything of which they are interested in finding the "how many."