

LESSONS
IN
GENERAL KNOWLEDGE

AN ELEMENTARY READING BOOK

INTENDED TO SERVE AS A FAMILIAR AND ATTRACTIVE
INTRODUCTION TO THE PRINCIPLES
OF NATURAL SCIENCE

BY

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PREFATORY REMARKS.

THE lessons contained in the following pages are intended to serve a double purpose. They are essentially *Reading Lessons*, or exercises suited to familiarise the pupil with the use and meaning of words, and to lead to habits of accurate and precise expression. But in addition to this, they form a simple introduction to the principles of science, so expressed as to induce the reader to seek a further and more intimate acquaintance with the plans of nature. The Exercises in Reading are designed to be also familiar lessons of philosophical instruction. They are professedly discursive in their main features, because they aim at being attractive to the young and to the uninitiated in science. It is hoped that with a little help in the form of judicious explanation, they will be intelligible to children of seven years of age; but it is anticipated that they will, nevertheless, be read with profit by older boys and girls, and that they

will communicate much information which even teachers will be glad to receive.

In carrying out this object, of preparing a comprehensive introduction to the elements of General Knowledge, in the form of Reading Lessons of a suggestive and inciting rather than of an exhaustive character, subjects have necessarily been selected from a very wide range. First, phenomena which are pretty well common to the whole earth, such as its movements, winds, and rain, are described; then peculiarities which are exhibited in certain districts only are illustrated—as, for instance, snow-mountains, volcanoes, rivers, and seas. The vegetable luxuriance of the tropics is contrasted with the barren desolation of deserts. It is shown how all conditions and circumstances are intended to be subservient to the one grand object, the production of life; how life is of two kinds—the vegetable or constructive, and the animal or destructive; and how vegetable life paves the way, and prepares the means, for the support of the animal. The chief characteristics of animal vitality are then pointed out; and its higher attributes—the reason, intelligence, and moral capabilities of man, in particular,—are dwelt upon, as affording a suitable opportunity for illustrating the advantages of education, by showing what the highest mental training has succeeded in accomplishing in the discoveries of astronomy, and in the construction of machinery.

Although the lessons in which these matters have been sketched are, in the main, each complete in itself, the entire series is nevertheless bound together by a natural sequence, and a mutual connexion, so

that a little scheme is traced, which, if followed attentively, will lead the reader gradually through the most important provinces of human knowledge. Narratives of adventure, descriptions of places, and histories of distinguished men, have been strung upon a continuous thread of scientific exposition. "Some of the lessons are didactic, some are narrative; and in others both of these methods are combined." But in every case the descriptive and narrative portions bear more or less immediately upon the principles and facts that constitute the main objects of instruction, and render good service either as illustrations or as a means of fixing the attention and sharpening the memory. Biographies have been freely introduced amongst these lighter parts, with the further purpose of calling up in youthful and impressible minds a desire to emulate the actions, and follow the examples of great and good men. How this general plan has been worked out in detail, and how one subject has been caused to connect itself with the rest by suggestive association, will be at once understood by a reference to the table of contents.

In the matter of style, great pains have been taken to render these Reading Lessons illustrations of the Author's idea of what educational writing should be. In a general way, only the simplest words and the plainest construction have been used, and involved sentences have been carefully avoided; but a few words have been purposely introduced into each lesson, which seem to require that their precise meaning should be pointed out. These words are printed in *Italics* in the text, and