

**THE ELEMENTS OF  
GEOLOGY: ADAPTED  
TO THE USE OF  
SCHOOLS AND COLLEGES**

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The Elements of Geology: Adapted to the Use of Schools and Colleges by Justin R. Loomis

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**JUSTIN R. LOOMIS**

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*10th Edition cat.*

THE

# ELEMENTS OF GEOLOGY;

ADAPTED TO THE USE OF

## SCHOOLS AND COLLEGES.

BY

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WITH NUMEROUS ILLUSTRATIONS.

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## P R E F A C E .

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IN preparing the following work, it was intended to present a systematic and somewhat complete statement of the principles of Geology, within such limits that they may be thoroughly studied in the time usually allotted to this science.

A sufficient number of leading facts has been introduced to enable the learner to feel that every important principle is a conclusion to which he has himself arrived; and yet, for the purpose of compression, that fulness of detail has been avoided with which more extended works abound. In furtherance of the same object, authorities are seldom cited.

The consideration of geological changes is made a distinct chapter, subsequent to the one on the arrangement of materials. It should, however, be remembered that these processes of arranging and disturbing are not thus separated in time. In nature the two processes are always going on together.

It seemed important to exhibit the science with as much unity and completeness as possible; and hence, discussions

upon debatable points in Theoretical Geology, so interesting to mature geologists, would have been out of place here; and yet those more intricate subjects have not been omitted. A large proportion of the work is devoted to the explanation of geological phenomena, in order to convey an idea of the modes of investigation adopted, and the kind of evidence relied on. Where diversities of opinion exist, that view has been selected which seemed most in harmony with the facts; and the connection has not often been interrupted to combat, or even to state, the antagonist view.

Technical terms have, in a few instances, been introduced, and principles referred to, which are subsequently explained. The index will, however, enable the student to understand them, without a separate glossary.

Some may prefer to commence with the second chapter, deferring the study of the elementary substances, minerals and rocks, to the last. Such a course may be pursued without special inconvenience.

Questions have been added, for the convenience of those teachers who may prefer to conduct their recitations by this means. But, when the circumstances of the case admit of it, a much more complete knowledge of the subject will be acquired by pupils who are required to analyze the sections, and proceed with the recitation themselves; while the teacher has only to correct misapprehension, explain what may seem obscure, and introduce additional illustrations.



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