

TEXT-BOOK OF GEOLOGY

INTRODUCTION

GEOLOGY is the science which investigates the history of the Earth. Its object is to trace the progress of our planet from the earliest beginnings of its separate existence, through its various stages of growth, down to the present condition of things. It unravels the complicated processes, involving vast geographical revolutions, by which each continent and country has been built up, tracing out the origin of their materials and the manner in which their existing outlines have been determined. It likewise follows into detail the varied sculpture of mountain and valley, crag and ravine.

Nor does this science confine itself merely to changes in the inorganic world. Geology shows that the present races of plants and animals are the descendants of other and very different races that once peopled the earth. It teaches that there has been a progress of the inhabitants, as well as one of the globe on which they have dwelt; that each successive period in the earth's history, since the introduction of living things, has been marked by characteristic types of the animal and vegetable kingdoms; and that, how imperfectly soever they may have been preserved or may be deciphered, materials exist for a history of life upon the