400 TEMPERATURE OF THE EARTH.

the northern snows to blossom on the waste, has a constitution equally adapted to the circumstances in which it is placed, as the full-leaved branching trees and shrubs of the equatorial region. But the great principle of adaptation which so remarkably distinguishes all the works of the Creator, may be traced much farther than this. If all vegetable productions had been suited to one and the same temperature, but one zone of the earth's surface could have been covered with vegetation, and only that one would have been suited to maintain animal life, which is commonly supported by the productions of earth. Every zone, however, has its own vegetation, and this is invariably suited to supply the wants of those animals which are its inhabitants.

TEMPERATURE OF THE ANCIENT EARTH.

If it be true that animals and vegetables are confined to certain localities distinguished by temperature, any great change of climate should be followed by a change in the animal and vegetable products. Now it is supposed by geologists, that some such change as this has happened at several periods in the physical history of the earth. The organic remains found in the rocks of northern countries, are supposed to belong to a temperature much higher than that by which they are distinguished at the present moment. Thus, in our own climate, we find the remains of animals analogous to those which exist in tropical climes, and of plants which can only be nurtured in the hottest portions of the earth; such are those belonging to the coal measures. Now, it has been deduced from these facts, that the climate of the places in which they are imbedded must have changed, supposing that these products lived on the spots where their remains are now entombed. There are some writers, however, who object to this assumption, and imagine that they have been floated from a distant clime, and deny that the temperature of the earth has changed. Without entering upon this matter of dispute, to which reference has been already made, we may be permitted to state that too much dependance is sometimes placed upon the existence of organic remains in rocks. It is generally stated, that the fossils found in any bed give evidence as to the nature of the animals then existing upon the surface, and consequently the temperature of the place at