

Hence, even though not intended to be systematically studied, flowers should form a prominent feature in the surroundings of all our schools. But this interest in color and form—this instinctive love of what is beautiful in nature—is deepened into admiration for nature's ways of working, when we look more closely into the structure and uses of the various parts of plants, and see how wonderfully these parts are adapted for the special purposes they have to fulfil in the plant's life-history.

In this closer examination, also, the truth is gradually borne in upon us that the floral world around us, peopled though it is with forms almost endless in variety, is nevertheless not a chaos, but a well-ordered system, and we come to recognize family likenesses between plants which to the untrained eye do not at first resemble each other in any respect. To the ordinary observer, for instance, there is nothing in common between the locust tree and the clover growing about its base; yet a very moderate botanical training enables one to see that the flowers of these two plants are constructed on precisely the same plan, that a similar plan is manifested in the structure of their leaves, and that even the mode of growth of the stem is the same in both. If our botanical studies are conducted in a proper way, we are led to find out all such facts, and many others, for ourselves by the use of our own eyes; our powers of observation are trained and strengthened, and we are irresistibly led to the exercise of our reasoning faculties in drawing inferences of various kinds from the facts which we observe. *We are taught to think for ourselves.* And no study accomplishes this high aim more effectually than botany, when rightly pursued.

In the following papers it will be the aim of the writer to present only such

botanical facts as can be readily observed and comprehended by even very young readers. We shall, from the very outset, study plants themselves, and the writer will be much disappointed if those who attentively follow the lessons do not shortly find themselves qualified to go into the fields and woods and with little difficulty determine the proper name and relationship of any of our common plants. To be sure this is not the highest aim of botany, but the consciousness of the power to do even this is a great source of pleasure to the young; it leads to pleasant summer outings in search of new plants, and to the formation of collections, in which much innocent pride may be taken, and in the making of which habits of neatness and carefulness are necessarily cultivated.

LESSON I.

As it is the design of these lessons that you shall learn the simpler facts of botany by actually handling plants themselves, and seeing with your own eyes all those things to which your attention will be drawn, the first thing you must do, always, is to get the plants or parts of plants that will be mentioned at the beginning of each lesson. Sometimes these specimen plants will be wild ones, so that you must go into the fields or woods to get them; but we shall also, when it suits our purpose, take plants from the garden, or weeds which grow by our roadsides and near all our houses. So that, generally, you will not have much, if any, trouble in finding everything you want.

Now, for the first lesson we shall examine roughly the whole of two or three plants, so as to get a general idea of all the parts which go to make up their structure. After that we shall spend some time upon each of the parts separately, comparing together the same