

BOTANY FOR APRIL.

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April is a Month for Planning.

as well as for acting. The teacher will have the children tell her what grows in yonder swamp or woodland, on yonder hillside or riverbank. Together, they will plan excursions to find the first opening flowers. They will keep a record of the dates of blooming, and of the home surroundings, and associates of each plant.

Think of the plant not simply as an object to be studied, but as a living thing influencing and being influenced by its environment. 'Did the plant choose its present locality, or was it forced there? This introduces a discussion on the struggle to exist, — a subject treated in every text-book and illustrated everywhere in real life.

Some Early Spring Plants.

At this season, I like a lesson on the Alder. One gets such comprehensive illustrations here of the modifications for special work. On a single twig, we find the staminate catkins, the pistillate catkins and the well-covered leaf buds. Possibly last year's pistillate catkins still adhere to the same twig. The structure and arrangement of the individual staminate flowers should interest one. Here one can begin the study of pollination. Watch the alders for insect visitors. Similarly, watch other flowers when they appear. Make a list of wind-pollinated and of insect-pollinated flowers, with remarks on your discoveries.

Among early showy flowers is the Dog Tooth Violet or Adder's Tongue or Fawn Lily. How much earlier does it bloom on a south slope than on a north one? Is there ever any disadvantage in this? If a hard frost came a few days after the flowers on the warm slope had opened, would those on the north slope suffer? What bearing has this on farming and fruit-growing? Is it always wise to have early-blooming fruits on a south slope?

Try to pull up Adder's Tongue Lily by the roots. Were you successful? Investigate. Dig one up. How deeply does it go? What is the root like? Compare the depth of the bulbs belonging to leaves of various sizes. It is interesting to know that it takes six or seven years from seed before the plant reaches the fruiting age. During this time, the bulb is growing larger and burying itself more deeply in the ground. In a bed of these plants it is possible to find those of all ages, from one

year to maturity. Try transplanting them to your school garden, and watch them grow.

The practice of destroying rare plants should be discouraged. Knowing their habit of growth and reproduction will guide one in this. Does the picking of Adder's Tongue Lilies lessen the crop for next year? If the leaves are left to feed the bulb, no harm results, excepting that seeds cannot spread to start new beds. How are these seeds usually scattered?

Among other early flowers which are worth looking for are the Blood-root and Spring Beauty. These are not common to all sections of the provinces.

Make the School Grounds Attractive.

The mere finding of flowers, however, and noting their life relations is not the only botanical work for early spring. Why can we not assist Nature as well as admire her? Possibly a teacher can do no greater work than that of beautifying the school-grounds. Do not wait until Arbor Day. To plant a few trees on that day is commendable. But that is not the limit of one's opportunities. Why is every school-ground not a bower of native and imported shrubbery and flowers? The influence it would have on the home grounds in the section is almost incomputable.

Why not begin at once by getting one or two good seed catalogs? Have the children select what they would like to see on the school premises. Perhaps they would like to get something for the home garden at the same time. Impress upon them the danger of neglect during vacation. Then call for volunteers who will be responsible for its care during that period. If the teacher contemplates leaving at the end of the term, she should will her share to the next teacher; and appoint trust-worthy pupils executors of the will. In that way, she is combining business training with Nature study; and doing it all in the spirit of play.

The matter of selecting material is not difficult. Along the north side of the grounds, I should plant some hundreds of our native trees and shrubs, conifers, poplars, birches, maples, dog-wood, Indian pear, wild cherry, hawthorn, wild roses, etc. Do not set them in straight lines; but mass them. Keep in mind their habit of growth. Taller trees should be behind shorter ones. The conifers should be suitably placed for winter wind-break. Among these trees, and in the shade of the school house, plant ferns and shade-loving flowers. Have the children notice what plants grow in the shade.