

NATURE STUDY — OCTOBER.

During these pleasant October afternoons organize little excursions for the school children to some neighboring hill. If the distance is too great for the short afternoon, choose Saturday. Take plenty of time and do not hurry these walks. Children enjoy climbing; and the prospect, from some hill, of the autumn tinted woods; of other hills and valleys; of the distant sea, perhaps; of lake, river and woodland; of farm houses and cultivated fields—all these impress themselves on children's minds, and the pictures will brighten many an hour of the literature class, and give subjects for stories and descriptions in days to come.

The smaller children will enjoy these excursions; and it is the primary teacher that should be especially interested in them. She knows that where the children have been partners with her in gathering materials for lessons, they will delight to recall in the schoolroom their little experiences. When they draw and study the leaves, seeds, nuts, which the teacher gathered in their presence, they will remember the particular plant or tree or spot of ground that these came from, and they will live over again the brightness and spirit of that October afternoon. The weather, the changes in foliage, the effects of light and shadow, the broad landscape, the incidents of the journey, will all be remembered and interwoven with their reading lessons. The contour of the land, the real hills and valleys, and rivers and lakes, will present a picture of the world in miniature, and put new life into the pages of the geography and history; and so with other studies. An afternoon walk or a Saturday excursion will help you to teach every lesson better. And it will bring you into closer sympathy with your pupils, and bring about a better understanding between you and them. You will learn more of their dispositions in an afternoon ramble in the open air than during a week in the schoolroom. But every excursion must have a definite object. There must be careful plans made out beforehand, and there must be exertion to ensure success.

There will be few flowers on this October afternoon and most of these will be built on the plan of the Thistle or Sunflower. They are not single flowers but a number of flowers or florets crowded together (Composite) in one head. Some of these florets are strap-shaped (ligulate), others are tubular. In the thistle all the flowers are tubular. In the Dandelion and Fall Dandelion all are strap-shaped. In the Golden-rods and Asters, some of which you will still find blooming in sheltered places, you will see both kinds of flowers—the centre or disk-flowers tubular, the outside or ray-flowers strap-shaped.

Most of the birds are gone. But some of those which remain are friendly little fellows, whom your pupils will be delighted to make acquaintance with, especially as they remain here all winter. The Junco or snow-bird is of a grayish slate color, and as he flies from you shows two white tail feathers in the form of a V. His gentle *'tsip* as he flies about—always near the ground—cannot be mistaken. The black-capped Chickadee is everywhere. No bird is more companionable than he, and none take more evident interest in you and your actions. You have only to strike up an acquaintance with him by imitating his note, *chick-a-dee-dee*, and he will do his share of the conversation. Another little bird, often found with the chickadee is the Nuthatch. It is easily identified on account of its short tail, roundish body, straight bill, and his fondness for running up and down trees, actively searching, like the chickadee, for his daily food. When this becomes scarce, he may come on cold winter mornings to get a supply from you or the children if you become friends with him now in your walks in the woods. The loud, nasal *yank, yank*, of the nuthatch, once recognized, will never be forgotten.

But the study of leaves will be of great interest on this October afternoon. Some have fallen; others are preparing to fall. Notice the branch from which a leaf has just dropped and you will see the buds with the beginnings of next season's branches, leaves and flowers snugly coiled up in them and protected by thick brown coats from the storms and frosts of the coming winter. There are beautiful colors everywhere from the nut brown of the beech to the scarlet of the maple and sumach, and the yellow of the birch and poplar. These colors signify decay. Weeks before your visit to the woods, the work of the leaf was about done, and then the process began of slowly drawing back to trunk and branch the nourishing matter in the leaf; for nothing is allowed to go to waste in nature's great household. The bright colors show the stopping of growth in the plant, the breaking up and withdrawal of leaf green, preparatory to the fall of the leaf. Sometimes a branch of a tree or a single tree shows this change of color very early. It will be found to be broken, or otherwise injured by the attacks of insects, insufficient nourishment, or other cause. (See REVIEW, Vol. XI, p. 88).

It is a wise provision that some trees shed their leaves. The storms and snows of winter would otherwise make sad havoc with them.

We have five native species of maple, five of birch, one of beech, one of elm, one of walnut (the butternut), in these provinces. See how many you can identify during your walk and from studies of the leaves afterwards. The evergreens with their dark green leaves