

NATURE STUDY OF ANIMALS

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The nature study work for December might appropriately be introduced by a review of the work of the term, but space will not permit more than a word.

In the June-July number of the REVIEW our nature work was mostly directed to birds,—spring migrations, nesting, notes on bird banding, etc. The suggestions for August and the months since have been quite definitely assigned to grades or divisions of the school, and have aimed to introduce the pupils to some of our more common animals, both wild and domestic.

For this month it is again proposed to call your attention to the study of birds. December is in many ways a favorable month for this branch of nature study. Since few birds remain with us during the winter the pupils can soon learn to identify the more common ones at sight, and a good opportunity is also afforded to watch their ways and learn something of their habits, and, moreover, through such study the pupils will be ready for the spring migrants when they arrive.

The first step, the A B C, of bird study is identification. This requires some knowledge of the external features of birds, coupled with a fair appreciation of size and color. As general work for the school the chief external features should be taught, either from an outline drawing made on the blackboard, or better from a mounted specimen. In the latter case small pieces of paper with the names of the parts may be pinned to the bird. Good outline drawings of birds are found in most books on the subject, and in most zoologies, e. g. see Chapman's "Handbook of Birds," and Colton's "Descriptive Zoology," page 210. Many children already know the names of the more important parts; their chief difficulty is in not being able to tell where one part ends and another begins. A little practice will soon set them right in this particular.

All pupils should study such common winter birds as the chickadee, nuthatch and downy woodpecker. These birds are readily identified, and they present some striking contrasts. Work first on the identification, then on the contrasts. But aim to learn something more about these birds, find out all you can about their life habits—the

doing, the active life of the bird. This is that phase of the work that gives it interest, that keeps it ever new and fresh, and makes it a perpetual delight to old and young alike.

Advanced grades should extend the work to other species till all the birds of your locality are included. Make a list of your winter birds, with notes about their calls or methods of communication with one another, their food, their haunts, their habits, etc. Which remain the whole year? Which are migrants? Where did the migrants spend last summer? Note that you find the nuthatch much more in evidence about clearings during December than he was three months ago. He spent the nesting season in the quiet of the woods and now has returned to renew old friendships. Is the same true of the chickadee, and the downy woodpecker? Which of these is the most companionable with man? The older boys know well that the ring of the woodman's axe and the smell of the camp fire will soon attract our little feathered friends, and among the first to arrive is the chickadee. Watch this bird as he flits from tree to tree. Why does he examine so closely every branch and twig? What part of tree does the nuthatch inspect with greatest care? Note the position of his body. Does he work up or down the tree? Note that the nuthatch and chickadee do not overlap their inspection to any great degree. How does the woodpecker supplement the work of each? Are these birds a benefit or an injury to our orchards, shade trees and forests? Tell your pupils about the balance of nature, and lead them to see that these birds and others of their kind, in obtaining their food, help to maintain that balance. But for their careful work our orchards and forests would be overrun by insect pests.

Birds are of great assistance to man, and should be carefully protected, and given every encouragement in their work. As a feeding experiment firmly tie pieces of suet in wrapping twine, and secure to branches of trees that grow just outside the school window, and watch for birds. The chickadee is fond of such food and you will soon see him enjoying a feast. Keep suet in the tree for several days and note what other birds come to the feast. How do they act toward one another when near the food? Is selfishness, generosity, or indifference exhibited? You may find some birds hiding pieces of the suet in the snow.