

NATURE STUDY—No. XIII.

NATURE STUDY IN THE WINNIPEG SCHOOLS.

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For some years there have appeared on the Programme of Studies for Manitoba a number of suggestions as to subjects which might be classed as Nature Study. Such was Agriculture, which took the forms of a small box of chemicals and of colored plates of some common Manitoban flowers and weeds. These had a definite value ; but the teachers did not know exactly what was required of them, and too often the experiments in agricultural chemistry were allowed to degenerate into an hour's amusement; and the colored plates were put away in a drawer, or were used to decorate the school walls. It is safe to say that Nature Study as we know it to-day, had then no place in the work of the schools. In a few cases, a teacher, herself enthusiastic, would arouse the enthusiasm of her pupils about Nature ; but, even then, it was usually done with little thought of the curriculum. The trouble was, the work was too indefinite ; and it remained for the committee which completed its labors last year, to place on the Programme of Studies a series of definite topics which covered the whole range of the subject as understood by its most advanced advocates.

Even then, the troubles had by no means all disappeared. The teachers were frightened of the work. Arithmetic, history, etc., they could teach ; but this new work, which they were not to *teach* was, even with its assigned topics, something altogether different.

The Winnipeg School Board realized this, and appointed a supervisor of Nature Study for one year. In that time, they considered the subject should be on a firm basis and the teachers all able to continue the work without further supervision.

The plan was inaugurated last September, and a valuable fortnight was taken up in finding what had already been done in the schools and what material was within reach. Programmes were drawn up, meetings of teachers held and the topics and purposes of the work explained. The main purposes kept in view

were : (1) Interest of the pupils in their surroundings ; (2) Training in self dependence ; (3) Knowledge.

(1) It was felt that, without interest, the very life and soul of the work would be lost ; so, all first efforts were directed towards this end. If the pupils were interested, observation would naturally follow. Few people realize how blind the majority of us are.

(2) Training in self dependence was believed to be one of the greatest values of Nature Study. In other subjects, books may be used, the teacher may help ; but the very essence of Nature Study is that it is the pupil's own eyes and brain that do the work ; it is all first hand, so that this value has been considered almost more than any other.

(3) While fully realizing the value of the knowledge to be gained, it was deemed advisable not to accentuate this too much. The teachers were already inclined to lose sight of the other values and consider only this, which was so much more in line with the usual school work.

Keeping these purposes in view, each monthly programme was made as varied as possible. The more varied the subjects, the more chance of appealing to the individual pupils and of interesting the teachers. And, further, the design was to arouse the pupils' interest in their whole environment.

The following outline gives a few of the topics on the programmes, with the reason for their appearance and the suggested methods of taking them up.

(a) Flowers and Seeds. This was meant to give the pupils a speaking acquaintance with a few of our common fall flowers. Seeds which had special means of dispersion were collected, and during the winter were discussed with the classes, attention being directed to the clever ways in which mother plants distribute their seeds. Common fruits were also studied. This proved a delightful topic with the children, who doubtless will watch the plants during the coming summer with great interest.

(b) Animals. The study of animals was taken up by all grades up to the sixth, but from very different standpoints. In the junior grades, the object was to interest the pupils more fully in the habits and care of domestic animals ; in the senior grades, in the relation of the animal to its environment ; and the chief object was the preparation of the pupils for the fuller study of adaptation in spring. This work proved exceedingly interesting, and, among the older pupils, much individual observation work was done and many hypotheses advanced to answer questions suggested by themselves.

(c) The Moon. The great purpose of this topic was to show pupils that by thoughtful observation many interesting problems could be solved, and to stimulate them to find out about some of the wonders of creation which are so often taken as matters of course. The pupils were to make observations and drawings, and then by wise questions the teacher was to lead them to suggest causes for the apparent double motion of the moon and for its change in appearance. This topic proved both a brilliant success and a dismal failure. In a few cases it was simply astonishing how readily the pupils—without being told anything—came to a clear understanding of the motions and phases of the moon, but in others very little was accomplished. On the whole, while the chief object was not always attained, so much interest was aroused that no doubt the moon will be looked upon by the pupils very differently in the future.

(d) Evaporation and Condensation. An effort has been made to arouse wonder in the children's minds, so that they may desire to understand all they see. Thus when it snows, the wish to know why it snows, where snow comes from, how it got there, and many other queries would naturally arise. These studies were taken up in order that such questions should be answered. The results were fairly satisfactory, though in a few cases the desire of the teacher to tell, worked somewhat against complete success.

(e) Stars. The senior grades were helped to find a few of the prominent constellations and to recognize some of the brighter stars. This proved most successful. The purpose was to arouse interest and the pupils, on the whole, were delighted with the work. It was almost amusing, too, to notice how the teachers seized upon this topic as something they could do, something tangible, something requiring explanation; and, with this, the poorest Nature Study subject we have taken up, they felt quite at home.

From the above an idea of what we are attempting may be gathered. During the coming months we hope to do a great deal of most interesting work. Birds, flowers, insects, the weather, and much else will receive attention. Special work will be: seed germination and experiments on the growth of plants; insect study, such as of the ant, with experiments suggested by the pupils; a flower-growing competition, and, not least, aquaria-keeping, with particular study of such creatures as mosquitoes, dragonflies, toads, and almost anything which the class may propose.

Having now touched upon what has been done in our schools, it may be well to mention some of the difficulties that had to be faced.

First came the question of time. The curriculum seemed already crowded. Other work showed results which could be seen ; Nature Study was so entirely a matter of attitude that naturally there was a strong temptation to let it, if anything, be left undone.

Then, in the teachers themselves some difficulties arose. It was hard for them to forget the habits of years and cease to regard knowledge as the chief object of education. They wished to give information and when directed not to tell too much, in some cases went to the opposite extreme and did not even guide, but turned their classes adrift. Their lack of knowledge troubled them, and in a few instances topics were shunned for fear the pupils might ask questions which they could not answer. In spite of these difficulties, however, the teachers have done remarkably well ; and I must express my admiration of the Winnipeg teachers as a body, for having taken up so well, work which was completely foreign to all their traditions.

Another difficulty arose with the pupils, in a few cases. They thought they knew all about the topics suggested. "Fancy studying a cat !" They had had one in the house for years. A very little trouble showed them how much they really knew.

Another difficulty was the "parent who didn't believe in such nonsense as studying a butterfly's wing." We heard of a few parents who objected to the work and at the same time showed a consummate ignorance of all about it. However, I am glad to say we received from the parents more encouragement than the reverse.

Last of all arises the question : "What results have been attained?" It is too soon to answer such a question when it is remembered that the work has for its end, not the mere acquisition of knowledge, but the development of interest and mental power ; still, I think that results can be seen, for I have asked many times : "Do you see any results?" and have received such answers as : "They see much more ;" "They see things they would never have seen before and are always asking questions about something." Surely interest and faculty for observation are things worth working for, and, to those who ask for knowledge as a result, many things can be pointed out as having added to the pupils' stock of facts. We have four months more to work in. If at the end of that time we can feel that the pupils as a whole are a little more interested, sympathetic, observant and self-reliant ; and if they realize better that in all things, great or small, animate or inanimate, there is something wonderful, something worthy of study, then indeed our work has not been in vain.



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