

first object is not the gaining of that knowledge; he is seeking the formation of a habit. If a child can be endowed with a habit of quick and intelligent observation, he has acquired a species of annuity. It is the richest gift with which a teacher can dower his pupils, for the fruits will continue to be harvested throughout life. Perception has been described as (a) ordinary and (b) scientific. "Ordinary perception is unsystematic, fragmentary, does not accumulate or collect and retain data in the form of general ideas." In its worst form one looks with unseeing eye at tree and river as a cow looks at a barn-door. "Scientific perception is systematic, exhaustive, and cumulative." It is the intent inquiry after "identity and difference, likeness and unlikeness, force and manifestation, whole and parts, cause and effect, substance and property." A habit of observation can be cultivated; that should be an article of the teacher's creed. Again, the human mind being what it is, some of the facts observed will be retained. Viewed in this way, nature-study is not "formal," but "real." The amount of retention will depend partly on the brain of the child. Some children appear to have viscid brains. If you make a hole in honey the hole will fill up in time and all become smooth again. Honey is viscid. Other children have brains of brass. Whatever is written thereon becomes, to all intents and purposes, indelible as the writings on Chaldean tablets. Nevertheless, a systematic presentment of the subject, utilising the principles of contiguity, similarity, and contrast, &c., may assist much. The teacher's first design then, in teaching nature-study, is to cultivate this habit of observation; but as there is the incidental accompaniment of accumulated knowledge, the objects on which we practice may best be chosen from such as afford information that will be of use. The schoolmaster of the middle ages would say, Try to cultivate the habit by studying the little points of Latin. Somewhat later he might have admitted that the study of conundrums in mathematics, requiring, as it does, attention to minute differences of statement, would also be a useful means of acquiring the habit. Mathematics and Latin, however, were more or less "formal" studies, and even if mathematics be treated as a branch of physical science its "formal" element predominates. The habit would be acquired in these studies if the child could only conceive a liking for them, but the incidental knowledge accumulated would be relatively small. The educationist turns to nature-study because the incidental knowledge is relatively important, and because it has another advantage in being attractive to youth. In nature-study we make use of wonder. This is an element in the human mind that was not recognised in older days. "Philosophy," says Plato, "begins in wonder." Philosophy is the love of truth. With a little guidance the child will get on the right track. Rosenkrantz would endow the child with a love of truth as the surest way of making him love clear thinking. The teacher wishes to cultivate in the child the habit of clear thinking. If the teacher, then, looks up the topics under the head of "Nature-study" in the syllabus he will understand why they are so various. These are only suggestions. The first thing to acquire is the observing habit. The next, for the sake of the incidental knowledge, to see that the objects experimented on give useful information. Here is a collection of useful subjects of study; some may not be near each school, but some may. Choose these. Choose many or few; point out the interesting and call forth the pupil's wonder, but, above all, study him to see if the habit is forming. The children of the Sounds schools to some extent make up for remoteness of situation and fewness of books by a more alert observation. They are in immediate contact with nature. It would tend to make their observing systematic if they were encouraged to make roughly classified collections of objects. In one or two schools nature-study was construed as reading in a book about natural objects. That mode of treatment loses the best part of the study. There must be a first-hand looking at objects—the opening and closing of flowers, the devices used by seed in the endeavour to propagate, the strong and weak flow of the sap, the changing panorama of the flowers, the procession of sun, moon, and tides. Let the pupil act also—pruning, grafting, budding, manuring, growing from slips, seeds, &c. "It is no education," says Professor Robertson, of Ontario, "in the knowledge of oats to learn the names of the varieties of oats. It is an education to grow one variety under close observation and management. The one kind of knowledge is no more real than the other, but he knows that it is real." There is no reason why the observation that feeds the feelings should be neglected—the rich colouring of autumn sunsets and the purple of far-drawn hills. In capable hands nature-study may lead up to the great generalisations of natural science and so serve greater ends.

The teacher at Waitohi was very successful in correlating observation with expression—in drawing the children into writing out their own ideas of what they had seen and thought. Mr. Hogben, in his address at Napier, said: "I contend that any intelligent teacher who is worth his salt, and is earnest in the matter, can begin forthwith to introduce systematic nature-study into his school, and will find that his work will grow easier and the interest greater the further he carries the new methods." Buchanan's "Country Reader," Book II, has a very good account of grasses, with illustrations that may prove helpful to the teacher. In nine schools weather-charts were kept, and a beginning was made with flower-calendars and temperature-charts.

HANDWORK.—The number of schools employing handwork during 1905 was twenty-nine, as compared with eighteen during 1904. Four of the six private schools examined also included handwork in the subjects taught. The means adopted were brush drawing, crayon drawing, paper-weaving, card-pricking, brick and tablet designing, modelling in plasticine, carton work, gardening, ambulance, cookery, and in one small school wood-carving—using the birds of the neighbourhood as models. The school gardens increased from six to seventeen during the year. In these, experiments are made in raising numerous kinds of flowers and vegetables. Technical and continuation classes were carried on in Canvas-town. There were special teachers' classes in ambulance (Blenheim and Havelock), brush, blackboard, nature-study, and model drawing (Blenheim). At the close of the ambulance lectures in Blenheim, twenty-four candidates sat at the examination for the certificates of St. John's Ambulance Association, and twenty-two succeeded in passing. The doctor examining referred to the average attainment in terms of high praise. From observation of the daily papers it appears that the class work has time and again been put to practical use by members of the classes in cases of cuts, fractures and fits occur-