

NATURE STUDY—No. XXIV.

APPARATUS REQUIRED FOR NATURE STUDY.

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It is often urged that "A Nature Study laboratory is necessary for the successful teaching of elementary science and that without expensive apparatus the work done will be of little or no value." If this view be entirely correct it is prohibitive as regards the introduction of Nature Study into the primary grades of elementary schools, for the general public are not likely to sanction any large expenditure for such a purpose. A brief investigation of this argument therefore may not be out of place.

Nature Study versus Laboratory Method.—The method of the laboratory is usually artificial, technical, abstract. In a laboratory experiment the conditions set up are different from the natural conditions and are established with the purpose in view of discovering or proving certain facts or laws by eliminating irrelevant factors and gaining control of others.

Now, a study of genetic psychology reveals the fact that, speaking generally, it is only when the child has reached the period of youth (beginning at the age of from 12 to 14 years) that the mind takes on the more reflective laboratory attitude which is interested in law, abstraction and generalization, seeks truth for its own sake, desires to probe into the hidden meaning of things and to develop technique in a scientific way.

Previous to this age and during the period of childhood (from about 6 to 12 or 13 years) when the child is in the primary classes of the Public School, the attitude is quite different. During this period the unity of interest is found in serial order, a relation of means and ends, a history or scheme. The child likes to observe the process from one stage to another and see how it is going to come out. He also finds his greatest pleasure in the development of skill in the attainment of some life purpose. It is a delight to him to find that he has gained a power to cause the process to come out differently from the way in which it otherwise would. He is not content with mere play as he was in the previous stage of infancy, but begins to look ahead, make plans for the future