

SELF-EDUCATION.

Boys and girls, never forget that you educate yourselves. Schools, books, and teachers are helps, but you have to do the work. Only by persevering industrious efforts can you become educated.

There are two objects in education: first, to develop yourself; second, to gain knowledge. To develop yourself is to strengthen and cultivate your whole being; to improve your memory and reasoning powers; to learn to think and judge correctly; in short, to have your mind grow so that you will be better able to do your work in life.

You develop yourself by acquiring an education, thinking about it, and using it; for education is the food to make your mind grow. To gain knowledge is to learn facts and truths, and methods which will be of use to you in life.

There are four sources from which to derive education: from your own observation, from your experience, from the conversation of others, and from study. You can learn much without books and teachers.

When you walk in the woods and fields, keep your eyes open. Watch the animals, birds, and insects. Do not injure or torment them, but learn all you can about their habits, how they do and live, what they eat. Learn to distinguish the different animals by sight and by sound.

Some of the birds change their plumage in winter; some go north, some go south; some of the animals change the color of their fur; some of the insects creep part of their lives and fly during another part. Notice all these peculiarities, and you will learn much of natural history.

A celebrated naturalist said of some of his most important discoveries: "All I had to do was to look and see a thing just at it was made." Follow his example—look, and you may be able to announce some new discovery.

Study trees and plants. Learn all you can about how they begin to grow, how long they live, how often they blossom and bear fruit and of what use they are. Learn to tell the different kinds of wood by the grain, and examine the different

leaves and stems of plants. Examine the ground and rocks and see what you will find. Be always on the lookout and you will see more curiosities than you ever dreamed of.

I often think it would be a real treat to camp out a month and become acquainted with nature. Nature's college is the best college; no other has so wide and grand a course. There is no need to go to California or to South America or to the northern regions, to see wonders; there are enough in your yard or garden to keep you interested and busy for weeks.

Examine a bit of moss, or the structure of a honey-bee, with the determination to find out all about it, and you see more wonderful things than could be described in several pages. Procure a microscope, if possible; it will show you a fairyland. Also form a museum, in which to preserve the curiosities you find.

When you visit a manufactory, examine the machinery; try to learn how the power applied at one point moves levers and wheels until it reaches the part that does the work; wherever work is going on be sure to learn how it is done. Study into causes and results. The steam engine came from the boy Watts watching a boiling tea-kettle, and thinking about it.

Listen to conversation. You can learn something useful from every one. Every one can teach the best educated man something.

Ask people to tell you what they have seen and know. Never be ashamed to ask about what you do not understand. A learned man was asked how he had acquired such a vast amount of knowledge. "By asking information of everyone," he replied.

Avoid asking in regard to private affairs, but talk with people about what they work at; they will gladly give you information, and you will gain much practical knowledge.

To educate yourself, you must read, study, observe, reflect, reason, and think. Keep your eyes open, and your mind at work.—Ex.