

technical education. The pupil must be a boy or a girl before being an artizan or a worker. Hence the first duty of the educator relates to that general culture which shall fit for any trade or occupation. Whether the educator shall go beyond this into the specialties of particular arts must depend on the requirements of the case. In communities where certain arts are of special importance, it may pay to provide special apparatus and means of training in these. Where the aims of life are very various and one man may have to play several parts, it may be best to give general culture only. It is, however, in all cases, good, whenever possible, to give some varied training in ordinary handiwork and the use of tools, in working, for example, in wood and metal; and it is most useful to give some insight into the laws which regulate the great art of agriculture, which lies at the foundation of all other arts. This can, fortunately, be done, as an accessory and help to the ordinary school work.

Lastly, we are brought by our principle of simultaneous growth and training, face to face with the problem of science-teaching, and of the relation of science to literature in education. In the wider sense of the term science, it really includes all that intellectual education can effect. Knowledge, logically arranged, and traced to the inductive and deductive conclusions to which it leads, is science in this wide sense. Scientific habits of thought cover all that is necessary for the practical working of mind. Applied science includes whatever men can do by turning to account the mastery which mind acquires over matter. Even the teaching of languages should not be divorced from science, for there is a true science of language, aiding the pupil in its acquisition and use, and cultivating his mind in the process. The question here is not as to teaching children or young people botany, chemistry or physics, but as to accustoming the mind, by the study of some subject or subjects in a scientific manner, to the orderly pursuit and use of knowledge, and the orderly exercise of mental power.

Whence then comes the conflict, in our educational courses, of older with newer studies, and especially of ancient languages with modern science? One cause is a mere question of time. Before the great extension of modern science, the literary element of culture, with some abstract mathematics and philosophy, engrossed the