

It may not be amiss if an occasional number of the JOURNAL devotes a large amount of space to the subject of moral training in the schools. It would not be easy to find a worthier theme. Hence we are constrained to add a word on two kindred vices which often try the soul of the true-hearted teacher. We refer to lying, and cheating at games. These vices are sometimes said to be more common amongst girls than boys. We fear there is some truth in the observation, though we should rejoice to have it denied by teachers in Canadian schools. If it be admitted that the percentage of untruthful girls is larger than that of boys, we cannot accept the common explanation which refers it to their greater constitutional timidity. We believe, and confidently appeal to history and observation in support of the opinion, that the truly conscientious woman will do and dare at least as much for the right as the bravest man. The difference referred to, if such exists, must be explained on other grounds. The true explanation will probably be found in the fact that the consciences of girls are less carefully trained in the household, than those of the boys who go out into the streets. Parents are apt to feel that the latter are subject to greater temptations and dangers and do more to fortify them accordingly. Certainly, for some reason or other, the sense of honor is more constantly appealed to in boys than in girls, and, somehow, the impression is tacitly conveyed that a high sense of honor is more to be expected, or of greater importance, in a boy than in a girl. If such notions exist they cannot be too quickly eradicated, and no one can do so good service in eradicating them as the teacher. There are few children of either sex who cannot, if rightly dealt with, be taught to despise a lie as one of the meanest, most cowardly, and most despicable things of which a human being can be guilty. Cheating, which is but another form of lying, can easily be put in the same category. The instinctive love of truth will be strong enough in most natures to re-inforce the teaching, and the higher sanctions of religion can never be more appropriately invoked. Let the teacher, too, take care to make it clear that the essence of falsehood is in the intention to deceive, that no mere form of words can make a lie, and no evasion or ambiguity unmake one. The cowardly, contemptible prevarication which skulks behind a nod or a gesture, or sneaks along in the shadow of a petty ambiguity of speech, is, if possible, meaner and more despicable than the open, fearless, untruth. A great and good man once said that he had generally observed that the person who was afraid to tell a lie was a person who was not usually afraid of anything else. That is a good thing to teach the child; a better still, is the affirmation of a still higher authority that "lying lips are abomination to the Lord."

The N. Y. *School Journal* asks: "Did it ever occur to you that a boy ought to like school as well as he does holing woodchucks?" Certainly. Why shouldn't he? He likes holing woodchucks because it calls into exercise certain activities with which he has been endowed by the Creator, who has attached enjoyment to the proper exercise of every healthful activity. But the proper work of the school calls into exercise higher forms of activity and should, therefore, produce greater enjoy-

ment. We have no doubt there are many children now at school in Ontario who do enjoy the mental activity there stimulated even better than any mere physical exercise on the playground. If this is unhappily true of but a very small proportion of the whole number there is a serious fault somewhere. The fault is not always that of the teacher. Parents and previous teachers are often to blame. The idea of study has become so inextricably associated with dry, mechanical, routine, and unintelligent memorizing, that the child's conceptions are utterly perverted. The skilful teacher will generally overcome this great difficulty by taking the pupil for a time out of the beaten track and putting him on an entirely new route. But to say that mental gymnastics ought to be and may be as delightful to the child as any game of the playground, is to utter what will appear to every wide-awake teacher of the young a truism. Who ever saw a lisping infant that did not delight in the exercise of its unfolding mental powers? With what avidity does the child of three or four summers drink in knowledge of any kind, if attractively presented and suited to its comprehension? The delight should grow rather than die with growing years.

We do not believe, either, that in order to make the school-work pleasant to the pupil everything must be made easy. The healthy child likes a sugar-plum occasionally, but does not want all its food sugar-coated. He would quickly sicken of that. It is not the easy play that is most attractive to the robust boy. He spurns it, and chooses that which calls for the putting of his utmost powers. One great source of his delight is in the consciousness of power. So too in the field of mental exercise. There is a joy in the severest mental effort, if it be but rightly directed and crowned with success. Every true teacher must have watched with keen satisfaction the play of the child-mind as shadowed on the countenance. He delights to mark the clouded face, the wrinkled brow, the downcast eye, while the struggle for the mastery of some uncomprehended sentence or problem is going on, and to see these quickly give place to the flushed cheek, the shining forehead, and the flashing eye, which tell of victory achieved. One aim of the wise teacher will be to develop this sense of power in the child. He will seek not so much to remove obstacles out of the way as to teach the young thinker how to meet and overcome them.

Special.

ELEMENTARY CHEMISTRY.

CHAPTER IV.

CHEMICAL CALCULATIONS.

Amount of Material required to produce a given Weight of a Substance.

We have hitherto employed equations to express chemical changes only, but they also express the relative quantities of the elements which form the compounds acting on each other, or which take part in the changes, and hence they furnish the basis