

information about the ordinary phenomena of nature, such as the simple facts of astronomy, of geology, of physical geography, and of elementary physiology. On the other hand, the scientific habit of mind, which is the principal benefit resulting from scientific training, and which is of incalculable value whatever be the pursuits of after life, can better be attained by a thorough knowledge of the facts and principles of one science, than by a general acquaintance with what has been said or written about many. Both of these should co-exist, we think, at any school which professes to offer the highest liberal education; and at *every* school it will be easy to provide at least for giving some scientific information.

1. The subjects that we recommend for scientific *information* as distinguished from training, should comprehend a general description of the solar system; of the form and physical geography of the earth, and of such natural phenomena as tides, currents, winds, and the causes that influence climate; of the broad facts of geology; of elementary natural history, with especial reference to the useful plants and animals; and of the rudiments of physiology. This is a kind of information which requires less preparation on the part of the teacher; and its effectiveness will depend on his knowledge, clearness, method, and sympathy with his pupils. Nothing will be gained by circumscribing these subjects by any general syllabus; they may safely be left to the discretion of the masters who teach them.

2. And for scientific *training* we are decidedly of opinion that the subjects which have paramount claims are experimental physics, elementary chemistry, and botany.

i. The science of experimental physics deals with subjects which come within the range of everybody's experience. It embraces the phenomena and laws of light, heat, sound, electricity and magnetism, the elements of mechanics, and the mechanical properties of liquids and gases. The thorough knowledge of these subjects includes the practical mastery of the apparatus employed in their investigation. The study of experimental physics involves the observation and collation of facts, and the discovery and application of principles. It is both inductive and deductive. It exercises the attention and the memory, but makes both of them subservient to an intellectual discipline higher than either. The teacher can so present his facts as to make them suggest the principles which underlie them, while, once in possession of the