

gen, and carbon di-oxide—metals, oxides, and salts—common properties of carbon, sulphur, and phosphorus—food of plants—a simple explanation from the teacher of reasons for ploughing, harrowing, manuring, draining, and rotation of crops in farming.

*List of Chemical Apparatus and Material supplied.*

Hulke's test-tube stand and holder—oxygen tubes (3) fixed with corks—gas-receivers (4) test-tubes, various (12), partly fitted—phosphorus tray—ounce-measure bottles (2)—delivery-tubes (3)—spirit-lamp—hydrogen bottle and fittings—carbon di-oxide bottle and fittings—pneumatic trough and beehive—indiarubber tubing—rat-tail file—corks—sulphuric acid—hydrochloric acid—nitric acid—methylated spirits—chlorate of potash—binoxide of manganese—sulphate of copper—alum—phosphorus—iodine—sulphur—marble—coal—sodium—iron wire—copper wire—zinc—litmus.

*Additional Supply to Large Schools.*

Hulke's battery—voltameter—formation-of-water apparatus by reducing copper oxide—scales and weights—glass tubing and triangular file—bichromate of potash.

Apparatus and chemicals will be supplied free of cost. Fresh supplies of chemicals, acids, methylated spirits, glass tubing, &c., may be obtained on application free of cost. Such additional apparatus as the following will be lent from time to time Microscope, balance, furnace. A few printed hints on the use of the apparatus will be supplied.

PHYSICS.

*Syllabus.*

Balfour Stewart's Physics—Science Primer. Macmillan and Co. 1s.

Schools with less than one hundred children in average attendance need not take articles 30, 33, 36 to 39, 46, 47, 51, 56 to 59, 63, 71 to 75, and 78 to 90 (all inclusive).

*Matter included in Full Syllabus.*

The chief forces of nature—the three states of matter—properties of solids, liquids, and gases—explanation of the syphon, water-pump, and barometer—work done by a moving body—motion, rate, and reflection of sound—motion and effects of heat—the thermometer—reflection and refraction of light—first principles of electricity, including explanation of electrical machine.

*List of Physics Apparatus and Materials supplied.*

Barometer tube—brass spirit-lamp—lamp-glasses—tripod—combined-metal strip—Mowbray's star of four metals—expansion-lever—reflection-screen—curve and seven marbles—specific-gravity cylinder and weight—gravity plate—hydrostatic bellows—water-level—vibrating wire—under-pressure apparatus (lamp-glass and disc)—glass model syringe—scales and weights—one water prism—U tube—test-tubes—glass tubing—Hulke's test-tube, stand, and holder—glass model lifting-pump—methylated spirits—mercury—litmus—shellac.

*Extra Material supplied to Large Schools*

Savart's wheel—friction-cylinder and wooden clamp—Newton's disc—one extra water prism—Mowbray's camera—Hulke's battery—Voltameter—platinum wire—covered wire—bichromate of potash—sulphuric acid.

Apparatus supplied free of cost. Extra and more costly apparatus lent on application, such as Tate's air-pump and accessories, plate-glass electrical machine, electro-magnet, balance and weights, electroscope. A few printed hints and suggestions on the use of the apparatus will be supplied.

PHYSIOLOGY

*Syllabus*

Murché's Animal Physiology Blackie and Sons. 1s. 6d. Books I. and II. only

The following chapters may be omitted in schools with less than one hundred children in average attendance Book I.—The bones of the head, hands and foot—ligaments—the teeth—the spinal column—the portal and coronary circulations. Book II., Part 1—Mechanism of the skeleton—the lymphatic system.

*Matter included in Full Syllabus.*

The build of the human body, including the names and positions of principal bones—names and positions of internal organs—the principal movements of the limbs—the organs and functions of alimentation, circulation, and respiration—advice from the teacher as to food, air, and exercise in preserving health.

Diagrams lent by the Board for one year, or supplied to school committees at half-cost.

BOTANY

*Syllabus.*

Murché's Botany Published by Blackie and Sons. 1s. 6d.

*Matter included in Full Syllabus*

Characters of the root, stem, leaves, and part of the flower, illustrated by specimens of common flowering plants—structure of wood, bark, and pith—cells and vessels—food of plants, and manner in which a plant grows—functions of the root, leaves, and parts of flower—fruits—seeds—the phenomena of germination.

In schools with less than one hundred children in average attendance, Part III. may be omitted.