

Hygrometers.—Specific heat of solids, liquids and gases.—Conduction in solids, conductivity of liquids and gases.—Expansion of heat.—Applications: Heating.—Ventilation.—Steam engine.

Magnetism :—Properties of a magnet.—Terrestrial magnetism.—The magnetic needle.—Declination and inclination or dip.—Distribution of magnetism.—Methods of magnetisation.

Electricity : Static Electricity.—General phenomena.—Development of electricity.—Measurement of electricity.—Coulomb's law. Distribution of electricity.—Surface density.—Electrical potential.—Electrostatic induction.—Condensers of electricity.—Electrical Machines.—Effects produced by electrical machines and condensers.—Electroscopes.—Electrometers.

Dynamic Electricity :—Voltaic battery.—Electric conductivity.—Constant current batteries.—Different effects of constant current.—Physiological. Chemical. Mechanical. Physical effects of the electric current.—Terrestrial current.—Heat.—Electric lighting.—Electro-magnets.—Galvanometers.—Storage batteries.—Electric motors.—Telegraph.—Telephone.—Electrotyping, etc.

Elements of Meteorology.

Text Books :—Ganot, "Traité de Physique".—Lessons in elementary physics.—Stewart.—Jones.—Simard.

Botany

Histology :—Cells and cellular tissue of plants, transformation of cellular tissue.

Organography :—Roots and stems, ligneous stems, buds and ramification,—structure and conformation of the leaves, their arrangement on the stem and branches.—Inflorescence,—structure of the flower, fruit and seed.

Physiology :—Nutrition and growth of plants, absorption, circulation, assimilation and secretion.—Fertilization and germination.—General principles of classification.

Principal species of forest trees in Canada and especially in the province of Quebec.

Text Books :—Mgr Laflamme, Elements de Minéralogie, Géologie et Botanique.—Moyen, Cours élémentaire de botanique.—Penhallow.

Mineralogy

Physical properties of minerals.—Crystallography, structure of minerals.