SCIENCE.—*Continued.*

and Accelerations. Energy, its Transmutation and Conservation. Stresses, Strains and Oscillations. Waves, transverse and longitudinal. Propagation of Undulations. Determination of Wave-lengths and Frequencies. Reflection, Refraction and Interference of Wave-systems.

Pressures, Stresses, Strains and Oscillations in Gross Matter. Water-waves and Flow. Air-waves. Music. Molecular Oscillations or Heat. States of Aggregation. Kinetic Theory of Gases, Liquids and Solids. Solutions. Latent and Specific Heats, Mechanical Equivalent of Heat.

Stresses, Strains and Oscillations in the Ether. Electrostatics. Induction. Units. Electro-kinetics. Ether-whirl or Magnetism. Electro-magnetic Oscillations. Radiant Heat and Light.

The Motor, Dynamo, Telegraph and Telephone.

Books of Reference : Daniel's Principles of Physics. Barker's Physics. Gage's Introduction to Physical Science. Tyndall on Sound, Light and Heat as a Mode of Motion. Deschanel's Physics. Hopkins's Experimental Science. Hertz's Electric Waves. S. P. Thompson's Lessons in Electricity and Magnetism. Preston's Heat and Light. Casell's Electricity in the Service of Man.

Three lectures, experimentally illustrated, are given each week, and the class spend one hour a week in experimentation and graphical representation of results. This course forms the basis of all the Science work of the Arts Course, and its object is to lead students to such points of view as will enable them to appreciate the chief results of modern physical inquiry, to give some practice in methods of investigation, and to lay such a basis of knowledge that from it, the experimental courses of Honor Physics, Chemistry and Biology may naturally start.

Sophomore Year.

CHEMISTRY—Lectures on the Nature, Conditions and Results of Chemical Change. Acid and Alkaline Properties. Laws of Combination. Dalton's Theory. Atomic Masses and the Gramatom. Chemical Reactions and Heat-toning. Heats of Formation, Liquefaction and Vaporization. Specific