Tripoli Evangelical School

Curriculum

Class : 10 IP
Subject : Physics
Teacher's name : Ziad Mina

Cycle : Secondary
Textbook : Holt McDougal
Coordinator : Dr. Jamal Bitar
HOD : Miss Wafa Bitar

Unit	Objectives
Unit 1 : Electricity	• Know the laws of voltages and currents in an electric circuit. • Differentiate between direct current and alternating current ; • Know the characteristics of an alternating voltage; Relate the effective voltage to the maximum voltage of a sinusoidal alternating current. • Calculate resistance, current and potential difference by using the definition of resistance. • Distinguish between ohmic and non-ohmic materials. • Calculate the equivalent resistance for a circuit of resistors in series, and find the current in and potential difference across each resistor in the circuit. • Calculate the equivalent resistance for a circuit of resistors in parallel, and find the current in and the potential difference across each resistor in the circuit. • Relate electric power to the rate at which energy is converted to other forms of energy; • Calculate electric power and the cost of running electric appliances.
Unit 2 : Optics	• Distinguish between specular and diffuse reflection of light • Apply the law of reflection for flat mirrors • Describe the nature of images formed by flat mirrors
Unit 3 : Mechanics	• Know that a force represents a mechanical action exerted by a body on another body • Name the mechanical effects of a force • Identify the characteristic elements of a force • Know the SI unit of the force • Represent a force by a vector • Distinguish between a contact force and a force acting from a distance • State and use Hooke's Law

Unit	Objectives
Unit 3: Mechanics	• Know the condition of equilibrium of a solid acted by two forces. • State and apply the principle of interaction. • Define a fluid. • Distinguish a gas from a liquid. • Determine the magnitude of the buoyant force exerted on a floating object or a submerged object. • Explain why some objects float while some objects sink. • Calculate the pressure exerted by a fluid. • Calculate how pressure varies with the depth in a fluid.