The Camford International School

ANNUAL LESSON PLAN 2023-2024

GRADE: 9 **SUBJECT: SCIENCE (086)**

MONTH	CHAPTER NO. AND NAME	DETAIL CONCEPTS TO BE COVERED	PRACTICALS
APRIL	PHYSICS: Chapter-8 Motion	Motion: Distance and displacement. velocity; uniform and non-uniform motion along a straight line; acceleration distance-time and velocity-time graphs for	
	CHEMISTRY: Chapter 1: Matter in our surroundings	Matter, Classification of matter, The common unit of temperature and SI unit of temperature, change of state of matter, effect of change of temperature, latent heat, effect of change of pressure and evaporation..	Preparation of compound and mixture a) A mixture b) A compound using iron filings and sulphur powder and distinguishing between these on the basis of: (i) appearance, i.e., homogeneity and heterogeneity (ii) behaviour towards a magnet (iii) behaviour towards carbon disulphide as a solvent (iv) effect of heat

	BIOLOGY: Chapter: 5 The fundamental unit of life	Cell as a basic unit of life: prokaryotic and eukaryotic cells, multicellular organisms; Cell membrane and Cell wall, Nucleus, Cytoplasm.	To prepare stained temporary mounts of onion peel and human cheek cells and to record observations.
JUNE	PHYSICS: Chapter-8 Motion Chapter-9 Force and Laws of Motion	Uniform motion and uniformly accelerated motion, elementary idea of uniform circular motion Force and Newton's laws: Force and Motion, Inertia of a body, Inertia and mass, Newton's first law of motion. Momentum, Force and Acceleration. Newton's second law of motion. Action and Reaction forces, Newton's third law of motion	Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
	CHEMISTRY: Chapter 1: Matter in our surroundings Chapter: 2 Is matter around us pure	Change of state of matter, effect of change of temperature, latent heat, effect of change of pressure and evaporation. Elements and compounds, Metals, non-metals and metalloids and properties, Metalloids, Mixtures and its types, Compounds, Difference between compounds and mixtures and Alloy	Perform the simple chemical reactions and classify them as physical or chemical changes:

	BIOLOGY: Chapter: 5 The fundamental unit of life	Cell organelles and cell inclusions: Vacuoles, Endoplasmic Reticulum, Golgi Apparatus. Cell division – general introduction to DNA and chromosomes; mitosis, meiosis.	.
JULY	PHYSICS: Chapter-10 Gravitation	Gravitation: Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall.	Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder Establishing the relation between the loss in weight of a solid when fully immersed in Unit-III a) Tap water b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.
	CHEMISTRY: Chapter: 2 Is matter around us pure.	Solutions and its types, Properties of solution, Concentration of a solution, Saturated and unsaturated solution, Solubility, Physical and chemical change and Separation of mixtures	Preparation of: a) a true solution of common salt, sugar and alum b) a suspension of soil, chalk powder and fine sand in water c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of transparency, filtration criterion, stability.

	BIOLOGY: Chapter6: Tissues	Tissues, Organs, Organ System: Structure and functions of plant tissues (Meristematic and Permanent tissues in plants).	Identification of following tissues via permanent slides: Parenchyma, Collenchyma and Sclerenchyma.
AUGUST	PHYSICS: Chapter-11 Work, Energy and Power	Work, Energy and Power: Work done by a Force, Energy, power; Kinetic and Potential energy; Law of conservation of energy (excluding commercial unit of Energy).	
	CHEMISTRY: Chapter: 3 Atoms and Molecules	Laws of chemical combination, Dalton's atomic theory, Atoms, symbol of elements, Atom and Atomic mass, Molecules and molecular mass.	
	BIOLOGY: Chapter6: Tissues	Tissues, Organs, Organ System: Structure and functions of animal tissues.	Identification of following tissues via permanent slides: Muscular tissues and nerve cells.
SEPTEMBER	PHYSICS: Chapter-12 sound	Nature of sound and its propagation in various media, speed of sound,	Verification of the Laws of reflection of sound Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring).
	CHEMISTRY: Chapter: 3 Atoms	Ions and ionic compound, Chemical formulae, Valency of ions, Writing chemical formula for ionic compound, Gram atomic mass and gram molecular mass and Mole concept.	

	and Molecules Chapter: 4 Structure of Atoms	Discovery of electron proton and neutron, Structure of atom, Thomson model, Rutherford model, Neil's bohr model,	
	BIOLOGY: Chapter: 15 Improvement in food resources	Improvement in food resources: Improvement in crop yields- Selection for quality improvement and management; Use of fertilizers and manures; Protection from pests and diseases; Cropping patterns, Organic farming.	
OCTOBER	PHYSICS: Chapter-12 sound	range of hearing in humans; ultrasound; reflection of sound; echo	
	CHEMISTRY: Chapter: 4 Structure of Atoms	Atomic number and mass number, Arrangement of electrons in the atom, Valence electrons and valency, Covalency, Isotopes and isobars and Radioactive isotopes.	
	BIOLOGY: Chapter: 15 Improvement in food resources	Improvement in food resources: Animal husbandry (cattle farming, Poultry farming, fish production, Bee keeping.)	