

S.B.P D.A.V CENTENARY PUBLIC SCHOOL, FATEHABAD.

CLASS-IX

SUBJECT-SCIENCE

MON.	CHAPTER	CONTENT	LAB ACTIVITIES & EXPERIMENTS	ASSIGNMENT	Class Room activities
APRIL	Matter in our surroundings(Half)	Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state	To dissolve Potassium permanganate in water to show the characteristics of particles of matter.	Quest Assignment	Group activity of solid, liquid and gases.
	Motion	Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, elementary idea of uniform circular motion.	To measure the reading of odometer and speedometer of a car in given interval of time.	Quest Assignment	
	The fundamental unit of life.(Half)	Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles and cell inclusions; chloroplast, ; nucleus, chromosomes - basic structure, number.	Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams. 1. Show osmosis with the help of raisins.	Quest Assignment	Quiz based on question of fundamental unit of life Video presentation

MAY	<p>Matter in our surroundings.</p> <p>Force and Newton's laws(Half)</p> <p>The fundamental unit of life</p>	<p>melting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation.</p> <p>Force and Motion, Newton's Laws of Motion, Action and Reaction forces, Inertia of a body, Inertia and mass, Force and Acceleration.</p> <p>mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus</p>	<p>and distinguish between these on the basis of</p> <p>To show permanent slides of Parenchyma, Collenchymas and sclerenchyma</p>	<p>Quest Assignment</p> <p>Quest Assignment</p> <p>Quest Assignment</p>	<p>Video presentation</p> <p>Quiz based on question of plant tissue</p> <p>Role play of different tissue</p>
JULY	<p>Force and Newton's laws</p> <p>Is Matter around us Pure(Half)</p>	<p>Momentum.</p> <p>Elements, compounds and mixtures. Heterogeneous and homogenous mixtures, colloids and suspensions. Physical and chemical changes (excluding separating the components of a mixture).</p>	<p>Pushing a wall by man and moves backward</p> <p>To separate sand from</p> <p>a) a true solution of common salt, sugar and alum</p> <p>b) a suspension of soil, chalk powder and fine sand in water</p> <p>c) a colloidal solution of starch in water and egg</p>	<p>Quest Assignment</p> <p>Quest Assignment</p>	<p>Video presentation</p>

	<p>Plant Tissue & Animal Tissue(Half)</p>	<p>Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic and Permanent tissues in plants).</p>	<p>albumin/milk in water To show permanent slides of different types of muscular tissue.</p> <p>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 Perform the following reactions and classify them as physical or chemical changes:</p> <p>a) Iron with copper sulphate solution in water b) Burning of magnesium ribbon in air c) Zinc with dilute sulphuric acid d) Heating of copper sulphate crystals e) Sodium sulphate with barium chloride in the form of their solutions in water</p>	<p>Quest Assignment</p>	
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			Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.		
AUGUST	Gravitation Plant Tissue & Animal Tissue	Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall. Floatation: Thrust and Pressure. Archimedes' Principle; Buoyancy. Animal Tissue	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 a) Tap water b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.	Quest Assignment Quest Assignment	Project of crop pattern
SEPTEMBER	Revision & Half Yearly Exams				

OCTOBER	<p>Improvement in food resources(Half)</p> <p>Atoms and Molecule</p> <p>Work, energy and power</p>	<p>Plant and animal breeding and selection for quality improvement and management;</p> <p>Atoms and molecules, Law of Chemical Combination, Chemical formula of common compounds, Atomic and molecular masses.</p> <p>Work done by a Force, Energy, power; Kinetic and Potential energy; Law of conservation of energy (excluding commercial unit of Energy).</p>	<p>Visit a nearby field to find the cropping pattern.</p> <p>Verification of the law of conservation of mass in a chemical reaction.</p>	<p>Quest Assignment</p>	<p>Video presentation</p> <p>Video presentation Role play of different kingdom</p> <p>Identify plants in your surrounding and classify according to phylum Role play of different phyla</p> <p>Identify animals in your surrounding and classify according to phyla</p>
NOVEMBER	<p>Structure of atom</p> <p>Sound</p>	<p>Electrons, protons and neutrons, Valency, Atomic Number and Mass Number, Isotopes and Isobars Bohr model of atom Isotopes and isobars</p> <p>Nature of</p>	<p>Determination of the</p>	<p>Quest Assignment</p>	<p>To make a chart of different atoms having different atomic number with electronic Configuration</p>

	Improvement in food resources	<p>Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo. sound and its propagation in various media,</p> <p>Use of fertilizers and manures; Protection from pests and diseases; Organic farming.</p>	speed of a pulse propagated through a stretched string/slinky (helical spring).	Quest Assignment	
December	Revision & Preboard Exams				
JANUARY	Pre Board Exams				