BUDHA DAL PUBLIC SCHOOL SAMANAs

LESSON PLAN SESSION 2023 – 2024

CLASS: XI

SUBJECT:PHYSICS

Month & Working Days	Theme/ Sub-theme	Learning Objectives		Activities &Resources	Expected Learning Outcomes	Assessment
		Subject Specific (Content Based)	Behavioural (Application based)			
MAY , 17	**Vectors/ Basic mathematical concepts Scalar and vector quantities; Position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors. Unit vector; Resolution of a vector in a plane - rectangular components. Scalar and Vector product of vectors**	• **Understand the various systems of units** • **What is the utility of differentunits** • **Why different systems are introduced** • **Understand the systems of units in India and in other countries.** • **To understand the meaning of dimensional formula** • **Know the various kinds oferrors.** • **Understand**	• **How the different units of same physical quantities arerelated.** • **Applications of units in export importpurposes** • **Types of error can be possible.** • **How the mathematical tools are useful in minimizing errors.** • **Applying the knowledge of units in day to daylife.** • **Apply the concept cross product in calculating the area of a parallelogram after finding the magnitude of cross product.** **Apply the concept in finding the direction of torque when we open a screw with the help of**	**Lab Activities** **1.Determination of diameters of objects using vernier calipers .** **2.Determination of diameters of objects using screw gauge.** **3. Determination of radius of curvature byspherometer**	Students will learned • the various systems of units **the relation between different units ofdifferent systems** the concept of scalar and vector quantities • the concept of dot and cross product of two vectors. • the triangle ,polygon and parallelogram laws ofvectors.	**Students will be asseson the basis of their observation and accuracy skills**

	Relative velocity. Measurements , systems of units ,dimensional formulas, errors in measurements/	**the concept of dot and cross product of two vectors.** • **Understand thetriangle ,polygon and parallelogram laws of vectors.**	**lever arm**			
APRIL ,15	**kinematics Frame of reference, Motion in a straight line: Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion. Uniform and non-uniform motion, average speed and instantaneous velocity. Uniformly accelerated motion, velocity-time and position-time graphs. Relations for uniformly**	**Understand the difference between one dimension, two dimension and three dimensional motion** • **Understand the concept of uniform, non uniform and accelerated motion.** • **Understand the concept of average speed, instantaneous speed.** • **Understand the difference between speed and velocity .** • **Statethe projectile**	• **Apply the motion in 1D,2D and 3D motion in day to day life e.g. motion of train on straight track(1D),crawling of insect on a wall (2D) and motion of kite insky(3D).** • **Apply the concept of x-t graph,v-t graph in calculating thevelocity ,acceleration and retardation of a train ,vehicle moving with uniform and non uniform speed.** • **Apply the concept of projectile motion in calculating time of flight of a bag or bomb when they are being dropped from aplane.** • **Apply the concept instantaneous and**	**Lab Activities** • **Velocity of a ball on incline plane.** • **Velocity of pendulumwhen it passes through mean position and extreme position during oscillations.**	Students will learn • to differentiate between one dimension, two dimension and three dimensional motion. • the concept of uniform,non uniform and accelerated motion. • the concept of average speed, instantaneous speed. • the difference between speed and velocity. • the projectilemotion ,maximum range,heightand time offlight. • the uniform andnon	**Students will be assess on the basis of observation and calculations skills**