BUDHA DAL PUBLIC SCHOOL, PATIALA

CLASS:IX

SUBJECT:PHYSICS **ANNUAL CURRICULUM PLAN SESSION 2025-26**

TOPIC	INNOVATI VE / ART INTEGRATION/ EXPERENTIANL LEARNING / INTER DISCIPLINARY	Expected Learning Outcomes
Motion Distance, displacement, speed, velocity, acceleration, uniform and non uniform motion, elementary idea of circular motion, distance- time graph and velocity time graph	EXPERENTIAL LEARNING ✍To understand distance and displacement can be same in some situations and different in some situations. ✍Calculate the average walking or running by evaluating the distance and time. ✍Identify the nature or kind of motion of own or anybody. ART INTEGRATION ✍Drawing of various graphs INTER DISCIPLINARY ✍Integration with mathematics	✍They have learned the concept of various terms related to motion such as distance, displacement, speed, velocity and difference between them. ✍They have learned the concept and examples of the uniform and non- uniform motion. ✍They have learned to represent motion by using graph. ✍They have learned the term acceleration. ✍They have learned the concept of uniform circular motion and its application in daily life. ✍They have learned use of term average speed and average velocity while moving of any object.

Force and laws of motion force (balanced and unbalanced force) and motion, Newton's laws and its applications, inertia, momentum, Impulse,	EXPERENTIAL LEARNING ✍To understand that mass and inertia are related. ✍Apply the inertia of rest and motion and direction to different situation Understand the concept of momentum and impulse and their applications. ✍To understand application of all the three laws in our daily life. ✍Apply the concept and applications of Newton's second laws in daily actions like why a fielder pulls his hand backward; while catching a cricket ball? ✍To study motion of object in terms of momentum. ✍To understand that there is a reaction to every action. INTER DISCIPLINARY ✍Integration with art and mathematics	✍They have learned the concept of force and difference between balance and unbalanced forces. ✍They have learned the relation f=ma. ✍They have learned the concept of inertia and its type. ✍They have learned the keys of Newton's laws and their applications. ✍They have learned the concept of momentum and impulse and their use in daily life. ✍They have learned the concept and types of collision. ✍They have learned the derivation of the relation between the KE and Momentum of body ✍They have learned the application of inertia of rest and motion in day to day life ✍They have learned the application and concept of Newton's laws in daily actions. ✍They have learned the to calculate the force and momentum of object on the basis of Newton's laws.

Gravitation & Floatation Newton's universal law of gravitation, free fall, acceleration due to gravity, mass, weight, pressure, thrust, density, relative density, buoyancy, Archimedes' principle , laws of floatation.	EXPERENTIAL LEARNING ✍To understand how and why planets revolve around sun in different orbits. ✍Apply the concept of free fall during the rain fall or any object fall from certain height ✍Understand that weight changes with place due to change in acceleration due to gravity. ✍Analyses and conclude the situation for applying pressure or thrust for example why is it difficult to hold a school bag having a strap made of a thin and strong string? ✍Daily life application of density and relative density. ✍Apply the concept of Archimedes' principle when the object will float or sink. ✍Calculate the force requires floating of an object on the water surface using buoyancy. LAB ACTIVITY	Students have learned :- ✍The concept of Newton's universal law of gravitation. ✍The concept of free fall and acceleration due to gravity. ✍The meaning and concept of mass and weight. ✍The Difference between pressure and thrust. ✍To Apply the concept of free fall during the rain fall or any object fall from certain height ✍To calculate the mass or weight of object at any instant using value of acceleration due to gravity. ✍To Analyse and conclude the situation for applying pressure or thrust for example why is it difficult to hold a school bag having a strap made of a thin and strong string? ✍To apply the concept of Archimedes' principle when swimming or floating. ✍Understand about the concept of density and relative density. ✍To apply use of density and relative density in daily life. ✍To apply laws of floatation in different situation.

Work and energy work and types of work, energy and types of energy, conservation of energy ,power.	EXPERENTIAL LEARNING ✍Identify different forms of energy in our surrounding. ✍Apply the concept of work in daily actions like person carries a load on his head. ✍Analyze the different forms and conversion of energ like chemical into electrical. ✍Understand and derive law of conservation of energy. ✍Differentiate between energy and work and their interconversion. ✍Understand the concept of power and average power ✍Understand the concept that to carry work energy is always needed.	**S**tudents have learned :- ✍The concept of work and its type. ✍The concept of energy and its type. ✍The meaning of different forms of energy and its uses ✍The concept of conservation of energy. ✍To deriveconservati on of energy mathematically. ✍To derive the expression for potential and kinetic energy. ✍To differentiate between energy and work. ✍The concept of power and average power. ✍To apply the concept of work in daily actions like person carries a load on his head. ✍To analyze the situation to differentiate which type of work being preceded in some situation like pulling or
	INTER DISCIPLINARY ✍Showing work done against gravitational force. ✍Identify different types of work in various situation.	pushing a roller. ✍The different forms and conversion of energy like chemical into electrical. ✍To calculate the power consumption in different situation.

Sound Sound wave, terms related with sound like frequency, wavelength etc, reflection of sound, echo, Reverberation, sonic boom, ultrasound and its applications, SONAR, Different characteristics of sound wave.	EXPERENTIAL LEARNING ✍Apply the concept of sound propagation in loudspeaker. ✍Use of the concept of loudness and pitch during public use of loudspeaker. ✍Analyze the concept of echo i.e. megaphone, stethoscope etc. ✍The meaning and concept of frequency, wavelength, time period. ✍Meaning of echo and reflection of sound. ART INTEGRATION To draw various wave forms LAB ACTIVITY ✍Verify the laws of reflection of sound.	✍They have learned ✍The Concept of sound and its propagation. ✍Different types of waves such as longitudinal and transverse. ✍The meaning and concept of frequency, wavelength, time period. ✍The Concept of loudness and pitch. ✍The Difference between intensity of sound and loudness. ✍The Meaning of echo and reflection of sound. ✍The Concept of the reverberation of sound and its application. ✍Meaning of sonic boom and ultrasound and its application. ✍Concept of the SONAR. ✍Apply the concept of sound propagation in loudspeaker. ✍Analyze the concept of loudness and pitch during public use of loudspeaker.