



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA - 700019



Session Plan/ Syllabus Coverage for the Academic Year 2025-2026

Subject: Physics

Term: 1st Term

Subject Co-ordinator: Soumitra Maity

Name of the Book: ISC Physics(Nootan)

No. of Working Days: 99

No. of Periods Available: 68

Class: XI

Sections: A

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
April	9	UNIT I: Physical world and measurement(Pg No. -12)	Need for measurement, systems of units, accuracy, precision, dimension	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No. -70-75, 96-102	Experimentation on length measurement by Screw gauge vernier callipers
		UNIT II: Kinematics(Pg No. - 110)	Elementary concepts of differentiation and integration Frame of reference, types of motion	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise, Pg No. -136-144	Model demonstration on 1D and 2D motion.
May	9	UNIT II: Kinematics Continued(Pg No. -156)	Scalar and vector, projectile motion, uniform circular motion	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No. -202-213	Model demonstration on resolution of vectors and projectile motion.
		UNIT III: Laws of motion(Pg No. - 231)	Concept of force, inertia, impulse, friction Newton's laws of motion, dynamics of uniform circular motion	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise, Pg No. -253-262, 286-292, 320-329	Demonstration of centripetal and centrifugal force with the help of a model.
June	9	UNIT IV: Work, energy, power(Pg No. -363)	Concepts of work, power and energy, work-energy theorem, Conservation of mechanical energy, Elastic and inelastic collision	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No. -377-390	Explanation of conservation of energy by an inclined plane and a block.
		Unit Test -1 begins from 16th June. Syllabus for Unit Test – 1: Unit –I : Physical world and measurement, Unit – II : Kinematics (Pg no. 105 to 117)			
July	18	UNIT V: Motion of system of particles and rigid body(Pg No.435)	Centre of mass, moment of a force, torque, angular momentum, conservation of angular momentum, equilibrium. moment of inertia, parallel and perpendicular axes theorems	Important questions and numerical will be discussed from exercise, Pg No.410-414	Model demonstration on conservation of angular momentum
		UNIT VI: Gravitation(Pg No.532)	Keplar's laws of planetary motion, variations of acceleration due to gravity, gravitational potential energy, Escape velocity, geo-stationary satellites	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise, Pg No. -528-540	Model demonstration on geo-stationary satellite and variation of 'g'.
Aug	16	UNIT VII: Properties of matter (Pg No. - 593)	Hooke's law, Young's modulus, Bulk modulus, modulus of rigidity, Poisson's ratio, Pascal's law, viscosity, Stoke's law, terminal velocity, Reynold's number, streamline and turbulent flow, critical velocity, Bernoulli's theorem, Surface tension, Capillary rise	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No.571-579, 593-597, 624-632, 653-662	Beaker, Hg tube, Demonstration of terminal velocity of an iron ball, model on Bernoulli's Theorem
Sept 1 st term exam begins on 15.09.25	7	Revision: UNIT VI: Gravitation(Pg No. - 532)	gravitational potential energy, Escape velocity	Previous year's board papers will be solved	
		Syllabus for 1st Term examination - UNIT I: Physical world and measurement, UNIT II: Kinematics, UNIT III: Laws of motion, UNIT IV: Work, energy, power, UNIT V: Motion of system of particles and rigid body, UNIT VI: Gravitation, UNIT VII: Properties of Bulk matter (Excluding Thermal properties of matter)			

Teachers are requested to prepare a LESSON PLANS for each Topic month wise.

Signature of the Co-Teachers: 1. *Soumitra Maity* 2.

Submitted on: *23.13.5.25*
21.04.2025
Academic Co-Ordinator: *Soumak Chatterjee*

PRINCIPAL:

[Signature]

VICE PRINCIPAL:

[Signature]



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA - 700019



Session Plan/ Syllabus Coverage for the Academic Year 2025-2026

Subject: Physics

Term: 2nd Term

Subject Co-ordinator: Soumitra Maity

Name of the Book : ISC Physics(Nootan)

No. of Working Days: 92

No. of Periods Available: 64

Class: XI

Sections: A

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
Oct 2 nd term begins from 07.10.25	12	UNIT VIII: Heat and Thermodynamics (Pg No. 727)	Heat, temperature, thermal expansion of solids, liquids and gases, ideal gas laws, isothermal and adiabatic processes, anomalous expansion, specific heat capacity, Cp, Cv, calorimetry, change of state, specific latent heat capacity. heat transfer, Kirchoff's law, green house effect, thermal conductivity, Newton's law of cooling, Wein's displacement law, Stefan's law	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No. 687-691	Demonstration of Boyle's law by an 'U' shaped Hg tube.
		UNIT VIII: Heat and Thermodynamics continued (Pg No.759)	Laws of thermodynamics, heat work and internal energy, heat engines and refrigerators	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise, Pg No. 752-759, 776-782, 796-800	Model on Carnot's engine & explanation of reversible process.
	**** Last Date of Submission of Physics Project is 24.10.2025 ****				
Nov	16	UNIT IX: Behavior of perfect gas and kinetic theory of gas(Pg No. 870)	Equation of state of a perfect gas, kinetic theory of gases, kinetic energy and temperature, degrees of freedom, law of equipartitiin of energy, concept of mean free path, Avogadro's number	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No.836-845.	Model demonstration on Degree Of Freedom.
		Unit Test -2 begins from 17 th November. Syllabus for Unit Test – 2: UNIT VIII: Heat and Thermodynamics (Pg No. 727 to 759)			
Dec	13	UNIT X: Oscillations and waves(Pg No.921)	Periodic motion, simple harmonic motion – equation, phase, energy in SHM	Concepts related to all the subtopics will be discussed and different types of numericals will be solved from exercise, Pg No.892-906	Model of mass spring system to explain restoring force and SHM.
Jan' 2026	15	UNIT X: Oscillations and waves Continued(Pg No.994)	Wave motion, longitudinal and transverse wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics. Beats, Doppler effect	Important points and notes related to topics will be given. Important questions and numerical will be discussed from exercise, Pg No.935-940, 955-959, 970-974, 998-1006, 1029-1033, 1053-1057	Model of resonance tube, tuning fork
Feb'2026 2 nd term exam begins from 16.02.26	8	Revision : Motion of system of particles. , Thermodynamics, kinetic theory.	Moment of inertia, parallel and perpendicular axes theorems. heat work and internal energy, law of equipartition of energy	Previous year's board papers will be solved	
		Syllabus for 2 nd Term examination – All the units i.e. from Unit – I to Unit – X			
March' 2026	Correction work continues				

Teachers are requested to prepare a LESSON PLANS for each Topic month wise.

Signature of the Co-Teachers: 1. Soumitra Maity 2.

PRINCIPAL

Submitted on: 13.5.25
21.04.2025

Academic Co-ordinator: Soumak Chatterji,
VICE PRINCIPAL