

# GOPI BIRLA MEMORIAL SCHOOL [2023-24]

GRADE: 11 PHYSICS

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## ANNUAL PLAN

MONTH	MAIN CONTENT / CHAPTERS	ACTIVITIES
June	1.Units and measurement 2. Motion in a straight line	1.To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.  2.To measure diameter of a given wire and thickness of a given sheet using screw gauge.  OR  To determine volume of an irregular lamina using a screw gauge.  3.To determine radius of curvature of a given spherical surface by a spherometer.
July	1. Motion in a plane 2. Laws of motion	To find the weight of a given body using parallelogram law of vectors.
August	1.laws of motion (continue) 2. Work , energy and power	1.To find the downward force, along an inclined plane, acting on a roller due to the gravitational pull of the earth and studying its relationship with the angle of inclination $\theta$ by plotting a graph between force and $\sin \theta$ . Activities. 2. To study the relationship between force of limiting friction and normal reaction and to find the co-efficient of friction between a block and a horizontal surface.
September	1. Work , energy and power (continue)	To study the relationship between force of limiting friction and normal reaction and to find the co-efficient of friction between a block and a horizontal surface.
October	1. System of particles and rotational motion	To study the relationship between force of limiting friction and normal reaction and

	2. Gravitation	to find the co-efficient of friction between a block and a horizontal surface.
November	1. Properties of solids 2. Mechanical properties of fluids	To determine Young's modulus of elasticity of the material of a given wire.  OR To find the force constant of a helical spring by plotting a graph between load and extension.
December	1. Mechanical properties of fluids (continue) 2. Kinetic theory of gases 3. Thermal properties of matter	1. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.  2. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
January	1. Thermodynamics 2. Oscillations 3. Wave	Using a simple pendulum, plot its $L-T^2$ graph and use it to find the effective length of second's pendulum.
February	1. Wave (continue)	To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.