



BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR

CURRICULUM PLAN (2023-24)

STD: XI SUBJECT: PHYSICS

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BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR

CURRICULUM PLAN

2023- 2024

SUBJECT :- PHYSICS

STD :- XI

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BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR
CURRICULUM PLAN 2023- 2024
SUBJECT :- PHYSICS
STD :- XI

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CURRICULUM PLAN
 2023-2024
SUBJECT :- PHYSICS
STD :- XI

MONT H	WEEKLY DATES	NO. OF PERIODS	NAME OF THE TOPICS	SUB-TOPICS	NO.OF PERIODS REQUIRED TOPICWISE	ACTIVITIES/ SMART CLASS MODULES	ASSIGNMENTS / EVALUATIONS	LEARNING OUTCOMES/SUSTAINBLE DEVELOPMENT GOALS/SKILL ASSESSED
APRIL & MAY	3 rd , 4 th and 5 th week 17 th to 29 th April 1 st Week May 2 nd to 4 th	13	Chapter 1: Units and measurements	1.1 Introduction 1.2 The international system of units 1.3 Significant figures 1.3.1 Rules for arithmetic operation with significant figures 1.3.2 Rounding off uncertain digits 1.3.3 Rules for determining the uncertainty in the result of arithmetic calculation Measurement of length 1.4 Dimensions of physical quantities 1.5 Dimensional formulae and dimensional equations	2 2 2 2 2 2 3	SMART CLASS MODULE— The International system of units ACTIVITIES – <ul style="list-style-type: none"> Classification of physical quantities as fundamental and derived quantities. Finding significant figures for given number 	Numerical based on significant figures and dimensions	Students would be able to 1. understand that every physical quantity is expressed completely in terms of a numerical value and unit. 2. differentiate between fundamental and derived units 3. understand the meaning of significant figures and the „rules used for calculating these. Analytical Skill Critical thinking skill SDG : Use of SI units, symbols, nomenclature of physical quantities and formulations and conventions in day to day life, to have uniformity in measurement all over the world.

JUNE	4 th and 5 th week 20 th to 30 th June	08	Chapter 1: Units and measurements	Revision of the topics covered (1.1 to 1.5)	08	SMART CLASS MODULE —The International system of units	Textual questions will be discussed and given as H.W.	
JULY	1 st and 2 nd week 1 st to 8 th July	07	Chapter 1: Units and measurements	1.6 Dimensional analysis and its application (three applications) Exercise	02	SMART CLASS MODULE – 1. Dimensions module	Textual questions will be discussed and given-as H.W.	Students would be able to 1. apply the principles of dimensional homogeneity.
			Chapter 2: Motion in a straight line	2.1 Introduction (Frame of reference, Elementary concepts of Differentiation and integration for describing motion, Average velocity and average speed , position – time graph, velocity – time graph)(As per curriculum)	03	SMART CLASS MODULE – 1. Reference frame and point mass ACTIVITIES – Plotting of different graphs like s-t, v-t etc	Extra numerical will be given as assignments	Students would be able to : 1. differentiate between one, two and three dimensional motion 2. differentiate between distance and displacement, speed and velocity. 3. differentiate between uniform and non-uniform motion. Critical thinking Skill Creativity Skill
JULY	3 rd week 10 th to 15 July	07	Chapter 2: Motion in a straight line	2.2 Instantaneous velocity and speed 2.3 Acceleration 2.4 Kinematic equations for uniformly accelerated motion	02 02 03	SMART CLASS MODULE – 1. Instantaneous velocity and acceleration ACTIVITIES – • Derive kinematical equations using graph.	Textual questions will be discussed and given as H.W.	Students would be able to : 1. to understand the concept of acceleration 2. to derive kinematic equations for uniformly accelerated motion Critical thinking skill Problem solving skill

JULY	4 th week 17 th to 22 nd July	07	Chapter 2: Motion in a straight line Chapter 3: Motion in a Plane	Exercise 3.1 Introduction 3.2 Scalars and vectors 3.3 Multiplication of vectors by real numbers	03 01 01 02	SMART CLASS MODULE- 1. scalars and vector quantity ACTIVITIES – Classification of physical quantities as scalar and vector quantities	Extra numericals will be given as assignments.	Students would be able to 1. to classify physical quantities into scalars and vectors. 2. to draw position and displacement vectors for given data. 3. apply rules for addition & subtraction of two vectors. (graphical & analytical method) Analytical Skill Critical thinking skill
JULY	5 th and 6 th week 24 th to 31 st July	07	Chapter 3: Motion in a Plane	3.4 Addition and subtraction of vectors – graphical method 3.5 Resolution of vectors, Rectangular components 3.6 Vector addition – analytical method 3.7 Motion in a plane 3.8 Motion in a plane with constant acceleration	01 02 01 01 02	SMART CLASS MODULE- 1. scalars and vector quantity ACTIVITIES – To demonstrate motion in a plane using any example. SMART CLASS MODULE- 1. Projectile motion 2. UCM	Textual questions will be discussed and given as H.W.	Students would be able to 1. understand the meaning of motion in a plane through appropriate daily life situations. 2. appreciate that for motion in a plane, one needs to use vector form of the one-dimensional relations for a uniformly accelerated motion. Observation skill Critical thinking skill
AUG	1 st Week 1 st to 05 th Aug	05	Chapter 3 : Motion in a Plane	3.9 Projectile motion 3.10 Uniform circular motion	03 02	ACTIVITIES – • To demonstrate projectile motion	Extra numericals will be given as assignments.	Students would be able to 1. understand projectile motion 2. derive equation of path of projectile, its height, time period and range. 3. know about uniform circular motion. Analytical Skill Problem solving skill Observation skill

						• Variation in the range of a jet of water with the range of projection		Students would be able to 1. appreciate the intuitive concept of force 2. appreciate that a body can continue in its state of rest, or of uniform motion in a straight line, only when no external force acts on it and comprehend the meaning of the term inertia. 3. to comprehend the laws of motion 4. Apply the laws of motion in day to day life Observation skill Analytical skill Problem solving skill
AUG	2 nd Week 7 th to 11 th Aug	06	Chapter 3: Motion in a Plane Chapter 4 : Laws of motion	Exercise 4.1 Introduction 4.2 Aristotle's fallacy 4.3 The law of inertia 4.4 Newton's first law of motion 4.5 Newton's second law of motion 4.6 Newton's third law of motion	02 01 01 01 01 01	SMART CLASS MODULE- • Law of inertia • Newtons 2 nd and 3 rd laws of motion ACTIVITY- explore surroundings, natural processes, phenomena and attempt to understand the applications of newtons laws of motion.	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	
AUG	3 rd Week 14 th to 19 th Aug	04	Chapter 4 : Laws of motion	4.7 Conservation of momentum 4.8 Equilibrium of a particle	02 02	SMART CLASS MODULE- • Conservation of momentum • Equilibrium of a particle HANDS ON ACTIVITY- Gravissand's apparatus activity	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. understand equilibrium of a particle Observation skill Critical thinking skill Collaboration skill

Periodic Test 1 : 21 Aug 2023 (PORTION : CH-1 and CH -2)

AUG	4 th and 5 th Week 21 st to 31 th	08	Chapter 4 : Laws of motion	4.9 Common forces in mechanics 4.10 Circular motion 4.11 Solving problems in mechanics Exercise	02 01 02 03	SMART CLASS MODULE- 1. Common forces in mechanics 2. Circular motion ACTIVITY- To study the friction on inclined plane	Textual questions will be discussed and given as H.W. Numerical questions related to the topic will be discussed and given as HW	Students would be able to 1. appreciate and apply common forces in mechanics Learning skill Observation skill Problem solving skill Collaboration skill
SEPT	1 st and 2 nd Week 1 st to 8 th Sept	06	Chapter 5 : Work Energy and Power	5.1 Introduction 5.2 Notions of work and kinetic energy: The work-energy theorem 5.3 Work 5.4 Kinetic energy 5.5 Work done by a variable force 5.6 The work-energy theorem for a variable force 5.7 The concept of potential energy	01 01 01 01 01 01 01	SMART CLASS MODULE- 1. Work energy theorem 2. The potential energy of a spring ACTIVITY- To find spring constant of a helical spring	Numerical questions related to the topic will be discussed and given as HW	Students would be able to 1. recall the correlation between work and energy 2. define the term work and state its SI unit. 3. to know the significance of the work-energy theorem 4. understand the concept of equivalence of mass and energy Critical thinking skill Analytical thinking skill Collaboration skill Initiative skill
SEPT	3 rd week 11 th to 16 th Sept	07	Chapter 5 : Work Energy and Power	5.8 The conservation of mechanical energy 5.9 The potential energy of a spring(Conservative force, non-conservative forces, motion in a vertical circle) 5.10 Power 5.11 Collisions	01 02 01 03	SMART CLASS MODULE- 1. conservation of mechanical energy 2. potential energy of a spring	Textual questions will be discussed and given as H.W.	Students would be able to 1. state the law of conservation of energy and appreciate its significance. 2. define the term power and state its SI unit. 3. Elastic collisions -Inelastic collisions Creativity skill

								SDG : Responsible consumption of energy to avoid crises of energy resources.
SEPT	4 th week 18 th to 23 rd Sept	05	Chapter 5 : Work Energy and Power Chapter 6 : System of particles and rotational motion	Exercise 6.1 Introduction 6.2 Centre of mass 6.3 Motion of center of mass 6.4 Linear momentum of a system of particles	02 01 01 01	SMART CLASS MODULE- <ul style="list-style-type: none"> Rigid body Centre of mass and its motion 	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments	Students would be able to 1. understand the concept of rigid body. 2. appreciate the meaning of the rotation of a rigid body about a fixed axis. 3. know the meaning of the centre of mass of a two particle system and write the mathematical formula Critical thinking skill Information literacy Communication skill
SEPT	5 th week 25 th to 28 th Sept	04	Chapter 6 : System of particles and rotational motion	6.5 Vector product of two vectors 6.6 Angular velocity and its relation with linear velocity	02 02	SMART CLASS MODULE- <ul style="list-style-type: none"> Vector product Angular velocity 	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments.	Students would be able to 1. define the terms angular velocity and obtain its relation with the linear velocity. Communication skill Problem solving skill
Half Yearly Examination :- 30TH SEP TO 14TH OCT 2023 (including practical examination)								
(Physics - 3rd OCT 2023) (PORTION : CH-1 to CH-5)								

OCT	3 rd week 16 th to 21 st Oct	07	Chapter 6 : System of particles and rotational motion	6.7 Torque and angular momentum 6.8 Equilibrium of a rigid body 6.9 Moment of inertia, radius of gyration 6.10 Kinematics of rotational motion about a fixed axis	02 02 01	SMART CLASS MODULE- • Moment of inertia • conservation of angular momentum ACTIVITY- Bailey dance activity	Textual questions will be discussed and given as H.W.	Students would be able to 1. meaning of equilibrium of a rigid body, conditions for equilibrium of a rigid body. 2. to appreciate and define the term moment of inertia and radius of gyration Communication skill
OCT	4 th and 5 th week 25 th to 31 st Oct	06	Chapter 6 : System of particles and rotational motion	6.11 Dynamics of rotational Motion about a fixed axis 6.12 Angular momentum in case of rotations about a fixed axis Exercise	01 02 03	SMART CLASS MODULE- • Dynamics of rotational • Angular momentum in case of rotations about a fixed axis	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. know the analogy between the basic terms used for describing translational and rotational motions. 2. define the term angular momentum and write the vector expression for it Communication Skill
NOV	1 st week 1 st to 4 th Nov	04	Chapter 7 : Gravitation	7.1 Introduction 7.2 Kepler's law 7.3 Universal law of gravitation 7.4 The gravitational constant	02 02	SMART CLASS MODULE- • Kepler's law • Universal law of gravitation	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments.	Students would be able to 1. state and interpret Kepler's laws of planetary motion. 2. appreciate the long history of mankind's effort to understand planetary motion. 3. state and interpret Kepler's laws of planetary motion Communication skill

NOV	2 nd week 6 th to 9 th Nov	04	Chapter 7 : Gravitation	7.5 Acceleration due to gravity of the earth 7.6 Acceleration due to gravity below and above the surface of earth	01 03	SMART CLASS MODULE- • Acc due to gravity ACTIVITY- • Free fall of a stone • Pouring of liquid	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments	Students would be able to 1. acceleration due to gravity above the surface of earth and below the surface of earth Creativity Skill Communication skill
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DIWALI VACATION
10th NOV 2023 to 23rd NOV 2023

Periodic Test 2 : 28 NOV 2023 (PORTION : CH-6 and CH -7)

NOV	4 th and 5 th week 24 th to 30 th Nov	05	Chapter 7 : Gravitation	7.7 Gravitational potential energy 7.8 Escape speed 7.9 Earth satellite 7.10 Energy of an orbiting satellite Exercise	01 02 02	SMART CLASS MODULE- • Gravitational potential energy Escape speed	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments	Students would be able to 1. explain gravitational potential energy 2. differentiate between speed and escape speed 3. understand the concept of motion of satellite Technology skill Communication skill
DEC	1 st and 2 nd Week 1 st to 8 th Dec	07	Chapter- 8: Mechanical properties of solids	8.1 Introduction 8.2 Stress and strain 8.3 Hook's law 8.4 Stress Strain curve 8.5 Elastic moduli ,young modulus , bulk modulus 8.6 Applications of elastic behaviour of materials (Deleted)	01 01 01 01 02	SMART CLASS MODULE- • Stress and strain • Hook's law LAB ACTIVITY Hook's law- To determine	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments.	Students would be able to 1. describe Hook's law 2. appreciate the concept of strain and stress Critical thinking skill Technology skill

				Exercise	02	Young's modulus		SDG : Study of strength of materials in designing bridges, buildings, tools etc.
DEC	3 rd week 11 th to 16 th DEC	07	Chapter- 9: Mechanical properties of fluids	9.1 Introduction 9.2 Pressure, pascals law and its application, hydraulic lift, brakes 9.3 Streamline flow and turbulent flow 9.4 Bernoulli's principle and its application 9.5 Viscosity, stokes law	02 01 03 01	SMART CLASS MODULE- • Pressure • pascals law and its application • hydraulic lift, brakes	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. state the definition and units of pressure and comprehend why it is a scalar quantity. 1. to understand the concept of streamline flow. 2. 3 Explain Bernoulli's principle.4. recognize that viscosity originates from the force between layers of liquid in relative motion
DEC	4 th week 18 th to 23 rd Dec	07	Chapter- 9: Mechanical properties of fluids	9.6 Surface tension, surface energy, angle of contact, excess of pressure across a curved surface, ideas to drop, bubbles, and capillary rise Exercise	03 02 01 01	SMART CLASS MODULE- • Surface tension • surface energy • angle of contact HANDS ON ACTIVITY-	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments	Students would be able to 1. know the concept of surface tension 2. differentiate between temperature and heat. 3. recognize the qualitative differences between Thermal expansion of solids, liquids and gases. Collaboration skill Flexibility skill
DEC			Chapter 10: Thermal	10.1 Introduction 10.2 Temperature and heat				

			properties of matter	10.3 Measurement of temperature		To find surface tension using capillary tube		
DEC	5 th week 26 th to 30 th Dec	05	Chapter 10: Thermal properties of matter	10.4 Ideal gas equation and absolute temperature 10.5 Thermal expansion, anomalous expansion of water 10.6 Specific heat capacity 10.7 Calorimetry 10.8 Change of state 10.9 Heat transfer 10.10 Newton's law of cooling (Deleted) ** Qualitative ideas of Blackbody radiation, Wein's displacement law, Stefan's law (As per curriculum)	01 01	SMART CLASS MODULE- • Ideal gas equation • absolute temperature • absolute temperature • calorimetry HANDS ON ACTIVITY- Newton's law of cooling	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments.	Students would be able to 1. understand the concept of thermal expansion 2. comprehend and define specific heat capacity. Learning skill Flexibility skill Collaboration skill SDG : application of anomalous behavior of water in survival of aquatic life.
JAN	1 st week 1 st to 6 th Jan	07	Chapter 10: Thermal properties of matter Chapter 11: Thermodynamics	Exercise 11.1 Introduction 11.2 Thermal equilibrium 11.3 Zeroth law of thermodynamics	01 01 01 01	SMART CLASS MODULE- • Thermal equilibrium • Zeroth Law	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. know the laws of thermodynamics. processes.

JAN	3 rd week 17 th to 20 th Jan	05	Chapter 12: Kinetic theory	12.5 Law of equipartition of energy (statement only) 12.6 Specific heat capacity 12.7 Concept of Mean free path, Avogadro's number Exercise 13.1 Introduction 13.2 Periodic and oscillatory motion	01 01 01 01	SMART CLASS MODULE- • Law of equipartition of energy • Specific heat capacity • Avogadro's number	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. To understand the concept of law of equitation of energy 2. to understand the concept of mean free path. Critical thinking skill
JAN	4 th and 5 th week 22 nd to 31 st	08	Chapter 13 Oscillations	13.3 Simple harmonic motion 13.4 Simple harmonic motion and circular motion (uniform motion) 13.5 Velocity and acceleration in Simple harmonic motion 13.6 Force law for simple harmonic motion 13.7 Energy in SHM	01 01 02 02 01	SMART CLASS MODULE- Simple harmonic motion. ACTIVITY- 1. Working of simple pendulum, vertical oscillation of helical spring	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments.	Students would be able to 1. understand why oscillations occur in nature and the property of the forces that cause these. 2. understand about periodic, oscillatory and SHM. 3. understand about periodic, oscillatory and SHM Critical thinking skill Creativity skill
FEB	1 st and 2 nd week 1 st to 10 th Feb	10	Chapter 13 Oscillations Chapter 14 Waves	13.8 Simple pendulum- derivation of expression for its time periods Exercise 14.1-Introduction 14.2-Transverse and longitudinal waves 14.3-Displacement relation in a progressive wave 14.4-Speed of a travelling wave 14.5-Principle of superposition of waves	01 02 01 01 01	SMART CLASS MODULE- • Simple pendulum ACTIVITY- Demonstration of transverse and longitudinal waves using slinky.	Textual questions will be discussed and given as H.W. Extra numerical will be given as assignments Textual questions will be discussed and given as H.W.	Students would be able to 1. to derive the formula for time period of simple pendulum Analytical skill Problem solving skill Observation skill Students would be able to 1. define a wave. 2. to give expression for speed of a travelling wave 3. effect.

				11.4 Heat, internal energy and work 11.5 First law of thermodynamics, Isothermal and Adiabatic processes 11.6 Specific heat capacity	02	• First law of thermodynamics		2. Thermodynamic state variables and equation of state Critical thinking skill Communication skill
JAN	2 nd week 8 th to 13 th Jan	07	Chapter 11: Thermodynamics	11.7 Thermodynamic state variables and equation of state 11.8 Thermodynamic process 11.9 II law of Thermodynamics 11.10 Reversible and irreversible processes 11.11 Carnot Engine(Deleted) Exercise	01	SMART CLASS MODULE- • Thermodynamic process • Second law of thermodynamics	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	Students would be able to 1. know the laws of thermodynamics variables and equations of state 3. understand reversible and irreversible processes Critical thinking skill Technology literacy skill Problem solving skill Students would be able to 1. State and interpret Boyle's law and Charles law. Communication skill
			Chapter 12: Kinetic theory	12.1 Introduction Equation of state of a perfect gas, work done in compressing a gas 12.2 Molecular nature of matter 12.3 Behavior of gases 12.4 Kinetic theory of an ideal gas	01 01 01	SMART CLASS MODULE- • Kinetic theory of an ideal gas	Textual questions will be discussed and given as H.W. Extra numericals will be given as assignments	

Periodic Test 3 : 16 JAN 2024 (PORTION : CH-8 and CH-9)

			14.6-Reflection of waves, Standing waves in strings and Organ Pipes 14.7-Beats Exercise	01 01 01	Extra numerical will be given as assignments	4. state the basic principle of superposition of waves Communication skill Flexibility skill Technology skill
FEB	3 rd week 12 th to 16 th Feb	04	Revision			

ANNUAL PROMOTION EXAMINATION (THEORY AND PRACTICAL) MARCH – PORTION: CHAPTER 1 TO 14.

Exam date : 02 March to 16 March 2024 (Physics 02 March)

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BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR

CURRICULUM PLAN 2023-24

SUBJECT: - PHYSICS [042] PRACTICALS

STD: - XI

The record, to be submitted by the students, at the time of their annual examination, has to include:

- Record of at least 8 Experiments [with 4 from each section], to be performed by the students.
- Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
- Report of the project carried out by the students.

SECTION–A

List of Experiments

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.
3. To determine volume of an irregular lamina using screw gauge.
4. To determine radius of curvature of a given spherical surface by a spherometer.
5. To determine the mass of two different objects using a beam balance.
6. To find the weight of a given body using parallelogram law of vectors.
7. Using a simple pendulum, plot its $L-T^2$ graph and use it to find the effective length of second's pendulum.
8. 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.
9. To study the relationship between force of limiting friction and normal reaction and to find the coefficient of friction between a block and a horizontal surface.
10. To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination θ by plotting graph between force and $\text{Sin}\theta$.

Activities

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
2. To determine mass of a given body using a metre scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars.
4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
5. To study the variation in range of a projectile with angle of projection.
6. To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
7. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.

SECTION–B

Experiments

1. To determine Young's modulus of elasticity of the material of a given wire.
2. To find the force constant of a helical spring by plotting a graph between load and extension.
3. To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and V , and between P and $1/V$.
4. To determine the surface tension of water by capillary rise method.
5. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.

6. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
7. To determine specific heat capacity of a given solid by method of mixtures.
8. To study the relation between frequency and length of a given wire under constant tension using sonometer.
9. To study the relation between the length of a given wire and tension for constant frequency using sonometer.
10. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.

Activities

1. To observe change of state and plot a cooling curve for molten wax.
2. To observe and explain the effect of heating on a bi-metallic strip.
3. To note the change in level of liquid in a container on heating and interpret the observations.
4. To study the effect of detergent on surface tension of water by observing capillary rise.
5. To study the factors affecting the rate of loss of heat of a liquid.
6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.
7. To observe the decrease in pressure with increase in velocity of a fluid

EVALUATION SCHEME

Time 3 hours

Max. Marks: 30

Topic	Marks
Two experiments one from each section	7+7
Practical record (experiment and activities)	5
One activity from any section	3
Investigatory Project	3
Viva on experiments, activities and project	5
Total	30

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CURRICULUM PLAN
2023-24
SUBJECT: - PHYSICS
STD: - XI

TEST TIME TABLE

CH. NO.	NAME OF CHAPTER	Periodic Test 1	Periodic Test 2	Periodic Test 3	HALF-YEARLY	PRELIM
1	UNITS AND MEASUREMENT	12			10	6
2	MOTION IN A STRAIGHT LINE	13			11	6
3	MOTION IN A PLANE				17	6
4	LAWS OF MOTION				15	5
5	WORK ENERGY AND POWER				17	5
6	SYSTEM OF PARTICLES AND ROTATIONAL MOTION		13			6
7	GRAVITATION		12			6
8	MECHANICAL PROPERTIES OF SOLIDS			10		4
9	MECHANICAL PROPERTIES OF FLUIDS			15		5
10	THERMAL PROPERTIES OF MATTER					4
11	THERMODYNAMICS					4
12	KINETIC THEORY					3
13	OSCILLATIONS					5
14	WAVES					5
	TOTAL	25	25	25	70	70



Subject: PHYSICS

Class: XI

Topic: MOTION IN A PLANE

Sub-topic: Projectile motion

Nature of Task: Group activity

Task: Post content

Skills Assessed: Information literacy, creativity, critical thinking, Problem solving, Learning

Learning Objectives: • To know the definition of a projectile motion.

• To be able to describe the horizontal & vertical components of a velocity & displacement of a projectile.

• To make students aware about the applications of projectile motion in history, modern technology & different sports.

• To make students appreciate various projectile motions taking place in their surrounding & in their day to day life.

Procedure: • Teacher will divide class into group of 4-5 students.

• Teacher will brief about the activity

• Teacher will explain basic concepts related to projectile motion.

• Teacher will ask students to collect the information related to applications of projectile motion during ancient times in war.

• Teacher will ask students to collect/draw pictures of projectile motion used in modern technology/sports etc.

• Teacher will guide students to use ecofriendly material to make a booklet/brochure.

• Teacher will ask to give catchy title to the brochure created



Bhavan's B.P. Vidya Mandir, Nagpur

Art - Integrated Activity/Project/Subject Enrichment (2023-2024)

Assessment Criteria: _____

- Use of ecofriendly material
- Basic concepts involved.
- Authenticity of information gathered.
- Creativity

Duration of the Task: 2 weeks

Follow up / Feedback: • Teachers will ask about the progress of the project.

- Teachers will encourage students to make informative & creative brochure.
- Teachers will ensure that all the group members are participating in the project.
- Teachers will guide students how to use resources available in school like digital library, sports facility.

Assessment Rubric: _____

• Originality	-	01
• Overall presentation	-	01
• Conceptual understanding	-	01
• Creativity	-	01
• Use of ecofriendly material	-	0½
• Use of ICT	-	0½

Subject Coordinator's: Name and Signature

CL : MS

SKN : Levindra Tadas Pawar

ASHTI: Samir K. Ashi

TMN : Asmita Deshpande

KORADI: _____

CHB: MOUDA : Nutan Satpute MS

(SMT. ANJU BHUTANI)
PRINCIPAL
BVM, CL

(SMT. NIRUPAMA PADMARAJ)
PRINCIPAL
BVM, SKN

(SMT. VANDANA BISEN)
PRINCIPAL
BVM, ASHTI

(SMT. PARWATI G. IYER)
PRINCIPAL
BVM, TRMN

(MS. SARBANI BOSE)
PRINCIPAL
BVM, KORADI

(SMT. RAJI SRINIVASAN)
PRINCIPAL
BVM, CHB