



BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR CURRICULUM PLAN (2019-20)

STD: X SUBJECT : PHYSICS

Smt. Anju Bhutani-
Principal
Bhavan's B. P. Vidya
Mandir,
Civil lines, Nagpur

Smt. P.Nirupama Shankar
Principal
Bhavan's B. P. Vidya Mandir,
Srikrishna Nagar, Nagpur

Smt. Vandana Bisen
Principal
Bhavan's B. P. Vidya Mandir,
Ashti, Nagpur

Smt. Parwati Iyer
Principal
Bhavan's B. P. Vidya Mandir,
Trimurti Nagar, Nagpur

Ms. Sarbani Bose
Principal
Bhavan's B. P. Vidya Mandir,
Koradi, Nagpur

Smt. Janaki Mani
Principal
Bhavan's NTPC Vidya
Mandir Mouda

Ms. Kirti Mishra
Principal
Bhavan's Lloyds Vidya
Niketan, Wardha

Smt. Annapoorni Shastri
Director
Bharatiya Vidya Bhavan
Nagpur Kendra.
Nagpur

BHAVAN'S B.P. VIDYA MANDIR, NAGPUR
CURRICULUM PLAN
2019-2020
SUBJECT:- PHYSICS
STD :- X

SNO.	NAME OF THE TEACHER	BRANCH	PHONENUMBER	SIGNATURE
1	Smt. Smita Raipurkar	Civil Lines	8805452528	
2	Smt. Krishna Kannan	Civil Lines	9822843281	
3	Smt. Shilpi A Dutta	Civil Lines	9970829031	
4	Smt. Mrunalini Borkar	Civil Lines	7756810820	
5	Shri. Ravindra Tadas	Srikrishna Nagar	9503768434	
6	Shri Lalit Joshi	Srikrishna Nagar	9923720508	
7	Shri Yogiraj Tarone	Srikrishna Nagar	9503243949	
8	Smt. Manisha Rathkanthiwar	Srikrishna Nagar	9822737056	
9	Smt. Archana Sarkar	Srikrishna Nagar	9665096690	
10	Shri. Samir Khule	Ashti	8830732750	
11	Shri. Amol Channurwar	Ashti	8999429649	
12	Ms. Mamta Gore	Trimurti Nagar	8888848776	
13	Smt. Nayana Soholkar	Trimurti Nagar	9922925970	
14	Shri. Prakash Ghayawat	Bhavan's Lloyd's, Wardha	9595587368	
15	Shri. Santosh Kumar Sah	NTPC Mouda	8051036125	

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Bh. AN'S B.P. VIDYA MANDIR, NAGPUR
CURRICULUM PLAN – 2019-2020
STD:- X – PHYSICS

MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
APRIL	1 st , 2 nd , 3 rd and 4 th week 5 th to 30 th	8	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.1 Reflection of light	1	EDUCOMP MODULE • Spherical mirror • Image formation by concave mirror	Textual questions will be discussed and given as H.W. Assignment based on ray diagrams will be given.	Students will be able to- • Explain and demonstrate the phenomenon of reflection of light. • Describe image formation by plane, convex and concave mirrors • Write characteristics of the Images formed.
				10.2 Spherical mirror	2			
				10.2.1 Image formation by spherical mirrors.	2			
				10.2.2 Representation of images formed by spherical mirrors using ray diagrams	3			
JUNE	3 rd and 4 th week 14 th to 22 nd	4	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.2.3 Sign conventions for spherical mirrors	2	EDUCOMP MODULE • Sign convention • Mirror formula and magnification	Numerical based on sign convention and mirror formula will be discussed and given as assignment.	• Apply the knowledge of sign conventions to solve numerical problems. • Describe simple practical applications of reflection from day to day life.
				10.2.4 Mirror formula and magnification	2			
JUNE	5 th week 24 th to 29 th	3	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.3 Refraction	1	EDUCOMP MODULE • Refraction through a glass slab • Refractive Index Lab activity: To trace the path of light passing through a glass slab for different angles and make inferences.	Textual questions will be discussed and given as H.W. Extra questions and numerical will be given as assignment.	The students will be able to: • Explain and demonstrate the phenomenon of refraction of light. • Define the term refractive index and relate it with speed of light.
				10.3.1 Refraction through glass slab	1			
				10.3.2 Refractive index and related exercise	1			

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MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
JULY	1 st week 1 st to 6 th	3	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.3.3 Refraction by spherical lenses 10.3.4 Image formation by lenses 10.3.5 Ray diagrams	1 1 1	• Image formation by convex lenses		• Describe image formation by lenses and write characteristics of the images formed.
JULY	2 nd week 8 th to 12 th	2	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.3.6 Sign convention for lenses 10.3.7 Lens formula and magnification.	1 1	Lab activity: To determine the focal length of the given concave mirror and convex lens.	The students will be asked to practice the ray diagrams for different position of objects placed in front of a concave mirror and convex lens.	• Understand the meaning of magnification
JULY	3 rd week 15 th to 20 st	3	CHAPTER 10. LIGHT – REFLECTION AND REFRACTION	10.3.8 Power of lens and exercise Exercise	1 2	EDUCOMP MODULE Uses of lenses.	Numerical worksheet will be given as worksheet.	Understand and Calculate Power of lens
JULY	4 th week and 5 th week 22 rd to 31 st	4	CHAPTER-11 HUMAN EYE AND THE COLOURFUL WORLD	11.1 The human eye 11.1.1 Power of accommodation 11.2 Defects of vision and their correction	1 1 2	EDUCOMP MODULE • Model of Human Eye showing different parts • Defects in human eye	Students will be asked to practice the diagrams on defects of vision and its correction.	The students will be able to: • Explain in brief the structure of a human eye and role of different parts of it. • Appreciate the role of the eye lens in the power of accommodation • Differentiate between myopia, hypermetropia and presbyopia. • Develop the skill of drawing neat and labeled diagrams of defects of eye and explain the role of lenses for correcting the defects.

MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
PORTION COMPLETION FOR PERIODIC TEST I : 12.07.2019 PERIODIC TEST 1 (07 marks) - 22 nd JULY 2019 PORTION- Chapter : 10- LIGHT(Upto 10.3.2 Refractive Index pg.175)								
AUG	1 st and 2 nd week 1 st to 9 th	4	CHAPTER-11 HUMAN EYE AND THE COLOURFUL WORLD	11.3 Refraction of light through a prism 11.4 Dispersion of white light by a glass prism 11.5 Atmospheric refraction 11.6 Scattering of light	1 1 1 1	EDUCOMP MODULE • Refraction of light through a prism Lab activity: To trace the path of light passing through the glass prism.	Textual questions will be discussed and given as H.W. Students will be asked to practice the diagrams for refraction of light and dispersion through a prism.	The students will be able to: Explain the basic aspects of refraction of light in a glass prism. • Describe the Newton's experiment on formation of spectrum of white light by a prism • Understand the phenomenon of dispersion of light and rainbow as an example
AUG	3 rd , 4 th and 5 th week 13 th , 14 th , 16 th , 19 th to 23 rd	3	CHAPTER-11 HUMAN EYE AND THE COLOURFUL WORLD	11.6.1 Tyndall effect 11.6.2 Colour of the sky 11.6.3 Colour of sun at sunrise and sunset	1 1 1	EDUCOMP MODULE • How we see colour • The significance of colour • Refraction of light through a prism • Dispersion of light • Twinkling of stars • Scattering of light	Textual questions will be discussed and given as H.W. Extra questions will be given as assignment.	• Explain the phenomenon of scattering of light and on its basis understand the blue colour of the sky, redness of sun during sunrise and sunset and use of red colour for signals. • Explain the phenomenon of twinkling of stars, early sunrise and delayed sunset.

MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
				Activity1- Ray Diagrams- Mirror and lens		Drawing skills are integrated while making ray diagrams		
PORTION COMPLETION FOR PERIODIC TEST II : 16.08.2019 PERIODIC TEST 2 (07 marks) - 26 th AUGUST 2019 PORTION- Chapter : 10 From 10.3.3 to Chapter : 11 HUMAN EYE AND THE COLOURFUL WORLD (Upto 11.4 pg.194)								
SEP	1 st and 2 nd week 3 rd , 4 th , 5 th 9 th to 14 th	4	CH 12- ELECTRICITY	12.1 Electric current and circuit 12.2 Electric potential and potential difference 12.3 Circuit diagram 12.4 Ohm's law	1 1 1 1	Activity to demonstrate an electric circuit. EDUCOMP MODULE • Electric current and circuit	Students will be asked to draw the basic circuit diagram.	The students will be able to – Define physical quantities and their units ,electric current, charge, potential, resistance and resistivity.
SEP	3 rd week 16 th to 21 st	3	CH 12- ELECTRICITY	12.5 Factors on which resistance of a conductor depends and related numerical 12.6 Resistance of a system of resistors 12.6.1 Resistors in series	1 1	Lab activity: 1.Verification of ohm's law in the lab 2.. Verification of series and parallel combination of resistors EDUCOMP MODULES • Ohm's law • Change in voltage • Factors on which the resistance of a conductor depend.	Textual questions will be discussed and given as H.W. Extra questions and numerical will be given as assignment	State and explain Ohm's law and also prove it experimentally.

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MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
PORTION COMPLETION FOR HALF YEARLY : 17.09.2019 HALF YEARLY: 23 rd SEPTEMBER 2019 (23 rd SEPTEMBER TO 5 th OCTOBER 2019) Marks -28 PORTION – CHAPTERS 10- LIGHT, 11- HUMAN EYE AND THE COLORFUL WORLD								
OCT	2 nd and 3 rd week 9 th to 19 th	4	CH 12- ELECTRICITY	12.6.2 Resistors in parallel 12.7 Heating effect of electric current 12.7.1 Practical application of heating effect of electric current 12.8 Electric power and numerical Exercise of the chapter	1 1 1 1	EDUCOMP MODULES • Series and parallel combination • Heating Effect of electric current	Students will be asked to solve numerical based on the circuit diagram of a system of resistors given to them.	Student will be able to • Apply the learnt formulae to solve numerical problems. Differentiate between series and parallel circuit and relate to its use in daily life. • Understand and elaborate heating effect of electric current and based on that they will be able to explain the working of various appliances like toaster, electric iron etc. • Calculate electric bills.
				13.2 Magnetic field due to current carrying conductor	1		Textual questions will be discussed and given as H.W	The students will be able to- • Define magnetic field and field lines.
				DIWALI VACATION : 25 th OCT TO 31 st NOV 2019				
				13.2.1 Magnetic field due to current through a straight conductor 13.2.2 Right hand thumb rule 13.2.3 Magnetic field due to current through a circular loop	1 1 1	EDUCOMP MODULES	Extra questions will be given as assignment. Worksheet based on numerical will be given as assignment.	• State, explain Right hand Thumb rule • Verify the magnetic field lines formed due to straight conductor, solenoid and bar magnet.
NOV	3 rd week	2	CHAPTER 13	13.2.4 Magnetic field due	1	• To demonstrate	Students will be asked to	

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MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
	11 th to 16 th		MAGNETIC EFFECTS OF CURRENT	to a current in solenoid 13.3 Force on a current carrying conductor in a magnetic field and Fleming's left hand rule	1	current carrying conductor produces magnetic field/effect	draw magnetic field lines around a bar magnet and a straight conductor.	State, explain and illustrate Fleming's right hand rule and Fleming's left hand rule
NOV	4 th week 18 th to 23 rd	3	CHAPTER 13 MAGNETIC EFFECTS OF CURRENT	13.4 Electric motor 13.5 Electromagnetic induction, Fleming's right hand rule	1 2	Demonstration of a solenoid and its working. EDUCOMP MODULE Magnetic field due to solenoid Right hand thumb rule. Demonstration of force on a current carrying coil placed in magnetic field.	Students will be given HOTS questions based on right hand thumb rule.	- The students will be able to: - Describe and demonstrate the phenomenon of electromagnetic induction. - Understand the working of electric fuse and its importance in electrical circuit - Comprehend the meaning of A.C. - Explain the construction and working of electric motor and generator.
				13.6 Generator 13.7 Domestic electric circuit, exercise of the chapter 14.1 What is a good source of energy? 14.2 Conventional sources of energy 14.2.1 Fossil fuels	1 1 1	- Model to demonstrate electro-magnetic induction will be shown EDUCOMP MODULE - Electric motor - Generator - Domestic electric circuit	Textual questions will be discussed. Extra questions will be given as assignment. Students will be asked to practice the figure to show the experimental setup of Motor and generator.	- Differentiate between AC and DC. - Analyse the working of domestic circuits.
NOV	5 th week 25 th to 30 th	3	CHAPTER 13 MAGNETIC EFFECTS OF CURRENT CHAPTER 14- SOURCES OF ENERGY					

MONTH	WEEKLY DATES	TOTAL NO OF PERIODS	NAME OF TOPIC	SUB-TOPICS	NO OF PERIODS REQUIRED	ACTIVITIES/ EDUCOMP MODULES	ASSIGNMENTS/ EVALUATION	LEARNING OUTCOMES
DEC	1 st week 2 nd to 7 th	3	CHAPTER 14- --SOURCES OF ENERGY	14.2.2 Thermal power plant 14.2.3 Hydro power plants. 14.2.4 Improvement in technology for conventional sources. 14.3 Alternative sources of energy 14.3.1 Solar energy	1 1 1	EDUCOMP MODULE • Thermal power plant • Solar energy • Demonstration of box type solar cooker. • Hydroelectric power plant	Textual questions will be discussed and given as H.W.	- The students will be able to- - Able to understand the environmental consequences caused due to non-conventional sources of energy and should be able to think and discuss various ways to reduce their harmful effects.
PORTION COMPLETION FOR PERIODIC TEST III : 1.12.2019 PERIODIC TEST 3(06 Marks) - 9th DECEMBER 2019 PORTION- Chapter : 12 ELECTRICITY								
DEC	2 nd week 9 th to 14 th , 16 th	3	CHAPTER 14- --SOURCES OF ENERGY	14.3.4 Nuclear energy 14.4.Environmental consequences 14.3.2 Energy from sea (tidal energy, wave energy, OTEC plant) 14.3.3 Geothermal energy 14.5 How long will an energy source last us? Exercise and revision	1 1	EDUCOMP MODULE • Non conventional sources of energy • Energy from Sea • Geothermal energy • Hydrogen Bomb	Extra questions will be given as assignment.	- The students will be able to- - Realize that for sustainability of natural resources we should shift towards renewable resources. - Realize that energy problem cannot be solved by technology alone.
DEC	3 rd week 16 th to 20 th	2		Revision Activity-2 Identification of error in circuit diagram and Identification of components .	1 1			

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CHRISTMAS VACATION (23 rd DEC.2019 TO 01 st JAN. 2020)								
PRELIMINARY EXAMINATION								
JAN								
1 st to 3 rd week								
Portion Completion 16 th DECEMBER 2019								
Portion - Chapter-10,11,12,13,and 14 (28 Marks)								

SMT. ANJU BHUTANI	SMT. P.NIRUPAMA SHANKAR	SMT. VANDANA BISEN	SMT. PARWATI IYER	MS. SARBANI BOSE	SMT. JANKI MANI	MS. KIRTI MISHRA
PRINCIPAL, CVL	PRINCIPAL,SKN	PRINCIPAL, ASHTI	PRINCIPAL, TRMN	PRINCIPAL, KORADI	PRINCIPAL,MOUDA	PRINCIPAL, WARDHA

Smt. Annapoorni Shastri
 Director, Bharatiya Vidya Bhavan
 Nagpur Kendra, Nagpur.

List of Experiments in Class 10

1. Determination of the focal length of:

i) Concave mirror ii) Convex lens by obtaining the image of a distant object.

2. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.

3. Tracing the path of the rays of light through a glass prism.

4. Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed

5. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I.

6. Determination of the equivalent resistance of two resistors when connected in series and parallel.

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ANNEXURE-II PERIODIC TEST-I

Std.: X

Subject: Science

Portion Completion Date: 12-7-2019

Exam date: 22-07-2019

SUBJECT	CHAPTER	WEIGHTAGE	QUE NO	QUE. PAPER PATTERN
BIOLOGY	Ch.06 Life Processes	6	3,4,5 10	3QX1=3M 1QX3=3M
CHEMISTRY	Ch.01 Chemical Reactions and Equations	7	6,7,8,9 11	4QX1=4M 1QX3=3M
Physics	Ch10 Light – Reflection and Refraction (10.3.2 included)	7	1,2 12	2QX1M = 2M 1QX5M = 5M

PERIODIC TEST-II

Std.: X

Portion Completion Date: 16-08-2019

Subject: Science

Exam date: 26-8-2019

SUBJECT	CHAPTER	WEIGHTAGE	QUE NO	QUE. PAPER PATTERN
BIOLOGY	Ch.07 Control and Co-ordination	6	7,8,9 11	3QX1=3M 1QX3=3M
CHEMISTRY	Ch.03 Metals and Non-metals	7	5,6 12	2QX1M = 2M 1QX5M = 5M
PHYSICS	Ch.10 Light - Reflection and Refraction (From 10.3.3 onwards) Ch.11 Human Eye and Colourful World (up to 11.4 included)	7	1,2,3,4 10	4QX1=4M 1QX3=3M

PERIODIC TEST-III

Std.: X

Portion Completion Date: 01-12-2019

Subject: Science

Exam date: 9-12-2019

SUBJECT	CHAPTER	WEIGHTAGE	QUE NO	QUE. PAPER PATTERN
BIOLOGY	Ch.09 Heredity and Evolution	7	8,9 12	2QX1M = 2M 1QX5M = 5M
CHEMISTRY	Ch.04 Carbon and its Compounds(till 4.3.4 included)	7	4,5,6,7 11	4QX1=4M 1QX3=3M
PHYSICS	Ch.12 Electricity	6	1,2,3 10	3QX1=3M 1QX3=3M

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BHAVAN'S B.P.VIDYA MANDIR, NAGPUR
ANNEXURE-II

HALF YEARLY EXAMINATION

Std.: X
Subject: Science

Portion Completion Date: 17-09-2019

Exam date: 23-9-2019

SUBJECT	CHAPTER	WEIGHTAGE	QUE NO	QUE. PAPER PATTERN
BIOLOGY	Ch.06 Life Processes	10	13,14,15,16	4QX1=4M;
	Ch.07 Control and Co-ordination	8	28,29	2QX3=6M
	Ch.08 How Do Organisms Reproduce?	9	30 35 17,18,19,20	1QX3=3M; 1QX5=5M 4QX1=4M;
CHEMISTRY	Ch.01 Chemical Reactions and Equations	8	36	1QX5=5M
	Ch.02 Acid, Bases and Salts	8	7,8 25,26	2QX1=2M; 2QX3=6M
	Ch.03 Metals and Non-metals	9	9,10,11 33 12 27 34	3QX1=3M; 1QX5=5M 1QX1=1M; 1QX3=3M; 1QX5=5M
PHYSICS	Ch.10 Light – Reflection and Refraction	14	1,2,3 21,22	3QX1M=3M; 2QX3=6M;
	Ch.11 Human Eye and Colourful World	14	31 4,5,6 23,24 32	1QX5=5M 3QX1M=3M; 2QX3=6M; 1QX5=5M

Note: Internal choice of one 3 mark question, one 5 mark question and one 1 mark question in all three subjects

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Std.: X
Subject: Science

PRELIMINARY EXAMINATION
Portion Completion Date: 16-12-2019

Exam date: 3-1-2020

SUBJECT	CHAPTER	WEIGHTAGE	QUE NO	QUE. PAPER PATTERN
BIOLOGY	Ch.06 Life Processes	8	13,14,15	3QX1=3M;
	Ch.07 Control and Co-ordination	3	35	1QX5=5M
	Ch.08 How Do Organisms Reproduce?	5	28	1QX3=3M
	Ch.09 Heredity and Evolution	6	16,17	2QX1=2M;
	Ch.15 Our Environment	2	29	1QX3=3M
	Ch.16 Management of Natural Resources	3	18, 36, 19,20, 30	1QX1=1M, 1QX5=5M 2QX1=2M 1QX3=3M
CHEMISTRY	Ch.01 Chemical Reactions and Equations	3	25	1QX3=3M
	Ch.02 Acid, Bases and Salts	6	7	1QX1=1M,
	Ch.03 Metals and Non-metals	6	33	1QX5=5M
	Ch.04 Carbon and its Compounds	6	8, 34	1QX1=1M, 1QX5=5M
	Ch.05 Periodic Classification of Elements	4	9,10,11, 26, 12, 27	3QX1=3M, 1QX3=3M 1QX1=1M, 1QX3=3M
PHYSICS	Ch.10 Light – Reflection and Refraction	6	1,2,3, 21	3QX1=3M, 1QX3=3M
	Ch.11 Human Eye and Colourful World	6	22,23	2QX3=6M
	Ch.12 Electricity	7	4,5	2QX1=2M;
	Ch.13 Magnetic Effects of Electric Current	6	31, 6, 32	1QX5=5M 1QX1=1M, 1QX5=5M
	Ch.14 Sources of Energy	3	24	1QX3=3M

Note: Internal choice of one 3 mark question, one 5 mark question and one 1 mark question in all three subjects



Term - I

Subject: Physics

Class: X

Topic: Light: Reflection & Refraction

Sub-topic: Ray Diagram

Nature of Task: Post Content

Task: Individual diagram based worksheet

Skills Assessed: Drawing Skill, Thinking Skill, Scientific Aptitude

Learning Objectives: To enable the learner to

- 1) Draw correct ray diagram showing image formation by lenses & mirrors for different positions of the object.
- 2) Differentiate between real & virtual image.
- 3) Appreciate the specific applications of the lenses & mirrors in daily life on the basis of the nature of image formed.
- 4) Apply cartesian sign conventions correctly.

Procedure: The teacher may

- 1) Draw and explain specific rays, used to obtain the images, in case of mirrors & lenses for different position of the object.
- 2) Discuss the nature, size and position of the images, formed by convex/concave lenses and mirrors.
- 3) State Cartesian Sign conventions and explain its use by means of extensive illustrative examples.



Assessment Criteria: _____

- 1) Completing the ray diagrams.
- 2) Identifying the object & Image Size.
- 3) Finding Nature of image
- 4) Finding magnification of image

Duration of the Task: 25 mins

Follow up / Feedback: i) Some students may not understand the details of the change in the path of light rays (a) incident rays ||al to principal axis (b) passing through the optical centre & (c) passing through the focus. The same may be highlighted.
ii) Analyse the errors committed by the students with regards to applications of the sign conventions. The proper use of positive & negative signs with object & image size, object & image distance may be explained with help of extensive examples.

Assessment Rubric: _____

Ray diagram	-	2m
Object & image size	-	1m
Nature of image	-	1m
Magnification of image	-	1m

Subject Coordinator's Name	CL	Mrs. M. Borker	Signature with Date	infobhar/3-5-2019
	SKN	Smt. Archana. S		Borker
	Ashti	Mr. Samir K.		3/5/19
	TRMN	Ms. Manita Grox		3/5/19
	Koradi			

(SMT. ANJU BHUTANI)
PRINCIPAL
BVM, CL

(SMT. P. NIRUPAMA SHANKAR)
PRINCIPAL
BVM, SKN

(SMT. VANDANA BISEN)
PRINCIPAL
BVM, ASHTI

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

(MS. SARBANI BOSE)
PRINCIPAL
BVM, KORADI



TERM - II

Subject: Physics.

Class: X

Topic: Electricity

Sub-topic: Ohm's law

Nature of Task: Post content

Task: Individual task. (Worksheet)

Skills Assessed: Scientific aptitude, thinking skills, Drawing skills, logical reasoning

Learning Objectives: To enable the students to

1) understand the connections of various components in an electric circuit.

2) get familiarised with the symbols of different circuit elements.

3) Identify the different components/devices used in domestic electric circuit & understand their use.

Procedure: The teacher will give an incorrect circuit diagram; the student will identify the error and draw the correct circuit diagram.

The student has to identify the different components used in the circuit and list them with their function.



Assessment Criteria: Identification of the errors in the circuit diagram. Drawing the correct circuit diagram. Identification of the components in the circuit (any five). Function of each component of the circuit identified.

Duration of the Task: 30 minutes.

Follow up / Feedback: The students may not be able to identify the way of connecting ammeter, voltmeter or resistors in a circuit.

They may not be familiar with various symbols used for drawing circuit diagrams or may not know their function.

The teacher may familiarize them with these symbols, explain their functions and how they are connected in a circuit.

Assessment Rubric:

Identification of error. - 2 marks

Correct circuit diagram. - 3 marks.

Identification of components in the circuit. (any five) - $(5 \times \frac{1}{2}) = 2\frac{1}{2}$ marks

One function of each component identified. - $(5 \times \frac{1}{2}) = 2\frac{1}{2}$ marks.

Total = 10 marks.

Subject Coordinator's Name	CL	Mrs. M. Borkar	Signature with Date	M. Borkar
	SKN	Mrs. A. Sarkar		Sarkar
	Ashti	Mrs. Sameer Khule		3/5/19
	TRMN	Mrs. R. Amta Gore		03/05/19
	Koradi	-		

(SMT. ANJU BHUTANI) (SMT. P. NIRUPAMA SHANKAR) (SMT. VANDANA BISEN)

PRINCIPAL
BVM, CL

PRINCIPAL
BVM, SKN

PRINCIPAL
BVM, ASHTI

(SMT. PARWATI G. IYER) (MS. SARBANI BOSE)

PRINCIPAL
BVM, TRMN

PRINCIPAL
BVM, KORADI



STRUCTURE OF MULTIPLE ASSESSMENT (2019-2020)

PORTFOLIO (NOTEBOOK + PEER ASSESSMENT)

Subject: SCIENCE (PHYSICS)

Class: X

Topic: NOTE BOOK ASSESSMENT

Sub-topic: FOR ALL Chapters

Nature of Task: POST- CONTENT

Task: Note book Submission + PEER ASSESSMENT

Skills Assessed: Regularity Completion of Assignment
Neatness upkeep of notebook

Learning Objectives:

* To assess the maintenance of subject Notebook

* To assess the way a student writes the answer, draw diagrams, Index and Overall presentation

Procedure: ^{NOTE} 1. The student will submit their note books after the completion of each ch. write extra questions, assignment given, draw respective diagram

PEER ASSESSMENT:

2. Work sheet will be provided to the students,

3. The worksheet will be exchanged among the students.

4. The evaluation will be done after discussion with the Teacher.



Assessment Criteria: Assessment will be on the basis of regularity, completion of assignment Neatness & upkeep of notebook.

Duration of the Task: on Regular basis

Follow up / Feedback: The Subject Teacher will give a date to Submit the notebook after the completion of the chapter.

Those who are not able to complete will be guided by the Teacher & a peer mentor can be provided for the help. Teacher will keep a record of regular submission in registers

Assessment Rubric: Regularity - 2M
Completion of assignment - 2M
Neatness & upkeep of notebook - 1M

Total - 5M

PEER-ASSESSMENT → 10 question x 1/2 = 5 Mark

Subject Coordinator's Name	CL	smt. mounalini Borkar	Signature with Date	<i>m Borkar</i>
	SKN	smt. Archana Sarkar		<i>Sarkar</i>
	Ashti	Mr. Samir Khule		<i>AS</i> <i>21/5/19</i>
	TRMN	M Mamta Gore		<i>MGore</i> <i>03/05/19</i>
	Koradi			

(SMT. ANJU BHUTANI)
PRINCIPAL
BVM, CL

(SMT. P. NIRUPAMA SHANKAR)
PRINCIPAL
BVM, SKN

(SMT. VANDANA BISEN)
PRINCIPAL
BVM, ASHTI

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

(MS. SARBANI BOSE)
PRINCIPAL
BVM, KORADI



STRUCTURE OF MULTIPLE ASSESSMENT (2019-2020)

Subject Enrichment

Subject: Physics

Class: X

Topic: Physics Practical

Sub-topic: 1) To determine the focal-length of a) concave mirror
b) convex lens. 2) To trace the path of a ray of light passing through a
glass slab 3) Glass prism 4) To find the image distance in case of

Nature of Task: convex lens and draw ray diagrams 5) Ohm's Law

6) Series combination 7) Parallel combination.

Task: Post content (Individual Activity).

Skills Assessed: 1) Practical (Hands-on Activity) 2) Observation
3) Application 4) Analytical 5) Psychrometer.

Learning Objectives: ★ To make the students understand theoretical
concepts.

★ To make the students develop scientific
and experimental skills.

★ Learning By Doing ★ Keen observation

★ Safety measures and work with precision ★ Complete
work in given time frame.

Procedure: i) Students will be divided into 3 batches.

ii) Each batch will go in Physics, Chemistry and Biology Lab.

iii) Theoretical concepts related to experiments will be revised
in brief.

iv) Teacher will demonstrate the experiments.

v) Students will be given apparatus for performing individually.

vi) They will note the observations and draw conclusions.

vii) Teacher will take rounds and observe the students while
they are performing the experiments and guide them if needed.

viii) Students will be asked to take proper precautions while
performing the experiments.



STRUCTURE OF MULTIPLE ASSESSMENT (2019-2020)

Assessment Criteria:

- i) Practical work
- ii) Performance of the task
- iii) Record of the observations
- iv) Conclusion derived
- v) Response to viva.

Duration of the Task:

One period.

Follow up / Feedback:

- i) Feedback will be obtained by asking viva-voce.
- ii) Teacher will guide those students who will not be able to perform well.

Assessment Rubric:

- i) Practical work : 3 marks
 - a) Takes interest
 - b) Learns and observes
 - c) Takes precautions and safety measures
- ii) Performance of the task : 3 marks
 - a) Complete task precisely
 - b) Needs help
 - c) Works independently
- iii) Practical Record : 2 marks
- iv) Viva-voce : 2 marks.

Subject Coordinator's Name	CL	Mrs. M. Borke	Signature with Date	ms. shen
	SKN	Smt. Archana-S		Archana
	Ashti	Samir K		Samir
	TRMN	Ms. Mamta Gore		Ms. Gore
	Koradi			

(SMT. ANJU BHUTANI)
PRINCIPAL
BVM, CL

(SMT. P. NIRUPAMA SHANKAR)
PRINCIPAL
BVM, SKN

(SMT. VANDANA BISEN)
PRINCIPAL
BVM, ASHTI

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

(MS. SARBANI BOSE)
PRINCIPAL
BVM, KORADI