Bhartiya Vidya Mandir Sen. Sec. School,Sector 39, Chandigarh Road, Ludhiana

CLASS - XII Stream-Science Subject: Physics Session 2024-2025

BOOKS: **NCERT**

Month	Unit/Chapter/Topic	Learning Objectives	Resources/Art-Integrated Pedagogy Tools Used/E-Resources	Learning Outcomes/Skills Learnt by Students
APRIL	**Ch-1: Electric charges and fields**	The objective of this chapter is to understand the concept of electric force, field through different laws and phenomena.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_31308 594116241817614119	Students can learn processses and laws with the understanding of the relationship between nature and matter on scientific basis
	Ch-2 : Electrostatic potential and capacitance	The objective of this chapter is to clear the concept of electric potential and capcitance.	on/do_31310347539906560017 56?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_31308 806577103667212367	Students can derive formulae and equations.They can applies concepts of Physics in daily life with reasoning in solving problems.
MAY	**Ch-3 : Current Electricity**	The objective of this chapter is to make the learners to know about electric current, drift velocity, ohm's law, resistance, kirchhoff's law, wheatstone bridge.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_31309 07915893964801442	Students can differentiates various physical quantities. They can also apply concepts for problem solving

JULY	**Ch-4: Moving charges and magnetism**	Th objective of this chapter is to make the learners to know about concept of magnetic field, Biot= Savart's law and its applications, ampere's circuital law, Moving coil galvanometer and its sensitivity and conversion to voltmeter and ammeter.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmo bile%26utm_campaign%3Dshar e_content&contentId=do_31309 92946311741441547	Students can understands relationship between nature and matter on scietific basis
	Ch-5: Magnetism and matter	The objective of this chapter is to inculcate knowledge of magnetic dipole , different magnetic materials and factors affecting their strengths.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmo bile%26utm_campaign%3Dshar e_content&contentId=do_31310 07089111695361903	Students can recognises the concepts of Physics related to various natural phenomena
AUGUST	**Ch-6: Electomagnetic induction**	The objective of this chapter is to clear the concept of .Faraday's laws, induced emf and current, self and mutual inductance.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmo bile%26utm_campaign%3Dshar e_content&contentId=do_31310 06554435338241388	Students can recognises different processes used in Physics-related industrial and technological applications
	Ch-7: Alternating currents	The objective of this chapter is to make learners familiar about the concept of alternating current,its peak and root mean square value,LCR series circuit, power in ac circuit,wattless current, AC generator, transformer	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmo bile%26utm_campaign%3Dshar e_content&contentId=do_31312 405720431820811222	Students can derives formulae and equations They can also interpret graphs and draw conclusion

	Ch-8: Electromagnetic Waves	The objective of this chapter is to inculcate knowledge of electromagnetic waves and its uses related to real world.	https://diksha.gov.in/play/collection/do_31310347539906560017 56?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_31312 406122013491211359	Students can realises and appreciates the interface of Physics with other disciplines
SEPTEMBER	**Ch=9: Ray optics and optical instruments**	The objective of this chapter is to understand the phenomena of reflection, refraction, total internal reflection, combination of thin lenses in contact, optical instruments and their use in real world.	https://diksha.gov.in/play/collection/do_31310347540115456011 088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131 2406694190284811360	Students can recognises the concepts of Physics related to various natural phenomena
OCTOBER	**Ch-10: Wave optics**	The objective of this chapter is to clear geometerical interpretation of waves using huygen's principle, Young's double slit experiment, diffraction due to single slit, width f central maxima.	https://diksha.gov.in/play/collection/do_31310347540115456011 088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131 2409516153241611254	Students can analyses ad interprets figures and draws conclusions
NOVEMBER	**Ch-11 : Dual nature of radiation and matter**	The objective of this chapter is to make learners to familiar about dual nature of radiation	https://diksha.gov.in/play/collection/do_31310347540115456011 088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131	Students can recognises the concepts of Physics related to various phenomena. They can also derives formulae and equations.
	Ch-12: Atoms	The objective of this chapter is to make students familiar with Rutherford experiment and its limitations, Bohr's postulates, energy levels of hydrogen spectrum.	https://diksha.gov.in/play/collection/do_31310347540115456011 088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131 0775326993612812586	Students can realises and appreciates the interface of Physics with other disciplines

	Ch-13: Nuclei	The objective of this chapter is to inculcate the knowledge of properties of nucleus, binding energy and its curve with atomic mass, concept of nuclear fission, fusion amon st the learners.	https://diksha.gov.in/play/collection/do_31310347540115456011088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131241713151508481133 3	Students can daw graphs and derive relations
DECEMBER	**Ch-14:: Semiconductor devices**	The objective of this chapter is to clear the conceot of p,n type semiconductors, energy band gaps between conductors, semiconductors and insulators, forward-reverse biasing characterstic curves, half wave and full wave rectifier.	https://diksha.gov.in/play/collection/do_31310347540115456011088?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131241639099514881132 8	Students can understands principles,and relationship between physical quantities