BUDHA DAL PUBLIC SCHOOL PATIALA ANNUAL PEDAGOGY SESSION 2023 – 2024

CLASS: X SUBJECT: PHYSICS

TOPIC	**INNOVATIVE/ART INTEGRATION/EXPERENTIAL LEARNING/INTER-DISCIPLINARY**	**Expected Learning Outcomes**
1.Light- reflection and refraction	***Experential Learning*** By forming image of a distant object on screen using concave mirror ***ART INTEGRATION*** Drawing of ray diagrams. ***INTER-DISCIPLINARY*** Integrated with Mathematics.	Students will learn 1) The characteristics of image formation in plane mirrors. 2) The laws of reflection 3.To differentiate between real and virtual images. 4) To compare the types of spherical mirrors. 5) To draw ray diagrams for image formation by Spherical Mirrors (concave and convex mirror) 6) To solve numericals using mirror formula 7) To study the laws of refraction. 8) To observe the effect of refraction in daily life. 9) To compare the types of spherical lens. 10) To draw ray diagrams for image formation by Spherical lens (concave and convex lens) 11)To solve numericals using lens formula. 12)determine the power of the lens.
2.Human eye and the colourful world	***Experential Learning*** • Formation of rainbow. • Soap bubbles. ***ART INTEGRATION*** Diagrams showing dispersion of light.	Students will 1) Discover that white light is a mixture of colours and appreciate that the dispersion is caused by the difference in angles of deviation caused by a prism for different colours 2)Correlate dispersion, refraction to certain observations in daily life and in nature like rainbow 3)Correlate atmospheric refraction and scattering to certain

		observations in daily life and in nature like twinkling of stars, blue colour of sky etc
3.Electricity	***Experential Learning*** Connecting various components ,ressistors in series and parallel. ***ART INTEGRATION*** Drawing circuit diagrams. ***INTER-DISCIPLINARY*** Integrated with Mathematics.	Student will learn 1) To define electric current, potential difference, resistance, resistivity and power. 2) To deduce ohm's law and verify it experimentally. 3) To solve numericals on combination of resistors in series and parallel. 4) To derive and state the joules law of heating and solve numericals based on it. 5)To find an expression for electric power and derive commercial unit of electrical energy.
4.Magnetic effects of electric current	***Experential Learning*** By creating magnetic field lines around a bar magnetic. ***ART INTEGRATION*** Drawing diagrams of solenoid etc.	Students will 1)analyse the concept of magnetic field and demonstrate its presence using a bar magnet. 2)learn the properties of magnetic field lines. 3) discuss the magnetic field around a straight current carrying conductor, a circular loop, a solenoid and an electromagnet. 4) state and apply right hand thumb rule to find the direction of magnetic field. 5) study the force on a current carrying conductor in a magnetic field. 6) state and apply fleming's left hand rule to determine the direction of force produced. 7)explain electromagnetic induction and state the fleming's right hand rule to determine the direction of induced current. 8)study the construction, working and principle of an electric motor.