VIDYARTHI VIGYAN MANTHAN 2025-26
SYLLABUS (CLASS - IX)

CLASS IX

PHYSICS

1. **Motion:** Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, elementary idea of uniform circular motion.

2. **Force and Laws of Motion:** Force and Motion, Newton's Laws of Motion, Action and Reaction forces, Inertia of a body, Inertia and mass, Momentum, Force and Acceleration. An elementary idea of conservation of Momentum.

3. **Gravitation:** Gravitation; Universal Law of Gravitation, Force of Gravitation of the Earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall.

4. **Floatation:** Thrust and Pressure. Archimedes' Principle; Buoyancy.

5. **Work and Energy:** Work done by a Force, Energy, power; Kinetic and Potential energy; Law of conservation of energy (excluding commercial unit of Energy).

6. **Sound:** Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo.

CHEMISTRY

- Matters in our surroundings
- Is the matter around us pure?
- Atoms & Molecules
- Structure of the Atom

BIOLOGY

- Cell structure and function
- Cell division
- Animal tissues
- Plant tissues
- Improvement in crop yield and crop variety
- Management of crop production
- Animal husbandry

MATHEMATICS

1. **Pure Arithmetic:** Irrational Numbers and Surds, Nested Radical, Exponents and Power, Indices with fraction and integers

2. **Algebra:** Algebraic Expansions, Factorization, Simultaneous Linear Equations and Inequalities, Factor Theorem and Remainder Theorem, logarithms

3. **Geometry:** Euclid Geometry, lines and angles, Triangles and its Properties, Apollonius Theorem, Stewart Theorems, Quadrilaterals, Circles – incircle, circumcircle and excircle, centroid theorem, area of Pentagon and Hexagon, Nine Point circle, Midpoint theorem

4. **Mensuration:** Area and perimeter of various shapes, like 2-D shapes, such as a triangle, a quadrilateral, a pentagon, and a hexagon. 3-D figures: cube, cuboid, cylinder, Cone, Sphere, Prism, pyramid. Heron Formula, Surface area and volume of 3-D figures.

5. **Statistics:** Introduction, collection, and presentation of data, Graphical representation, Mean and median of ungrouped data.

6. **Coordinate Geometry:** Dependent and independent variables, Plotting points in the Cartesian plane, Recognition of graphs Distance formula, Section formula.

LOGIC AND REASONING

Cryptarithmetic/Alphametics, Logical Sequence Series(number, alphabet & image and more), odd one out, Coding-decoding, Blood Relations, Binary Logic, Mathematical Operations, Standard Logical Reasoning Sets, Visual Puzzles, Word Problems, IQ puzzles, Sequencing, Grid Puzzles, Visual Puzzles, Cubes and Dices, Venn Diagrams, Math based reasoning, Direction, Order and Ranking, Clocks & Calender, Analogy, Syllogism, Analytical puzzles, logical Inequalities, Image based sequence(like mirror & water image, rotation, best fit, Odd one out and more), Figure counting, Critical path puzzles, Odd one out, shape constructions, symmetry, number puzzle, Logical Sequence of Words, pattern-based puzzle, Sudoku, Geometrical figures related problem, Input & Output series, Linear and Circular Seating arrangements, Games and Tournaments, Logical connectives, Math based reasoning, Decision making, meaningful word formation, Paper folding, Figure matrix, spatial visualization, Data Sufficiency.

LIFE STORY OF INDIAN SCIENTIST(S)

Satyendra Nath Bose: Father of Bosons (All Chapters)

INDIAN CONTRIBUTIONS TO SCIENCE

Indian Contributions to Science (Chapters 1-7 & 9-12)

UNITS AND TOPICS FOR LEVEL-II

IKS-ICS SUPPLEMENTARY READING (INDIAN KNOWLEDGE SYSTEM)

VIDYARTHI VIGYAN MANTHAN 2025-26
SYLLABUS (CLASS - IX)

Units		Sub-units (Scope and Limitations)
Unit No.	**Title of the Unit**	**Sub-units included**
1	**IKS and overview of the ICS**	Understanding IKS, Approaches to study IKS, Classification of Chaturdasa Vidyās (Vedas, Vedāṅgas, Upāṅgas) and groupings of the 64 Kalās, historical significance of Chaturdasa Vidyās and Kalās in ancient education system, Areas of study covered in ancient India, Theoretical and vocational knowledge imparted in ancient India, Accessible and respectable education in ancient India.
2	**Astronomy**	Measurement of time, Divisions of time in the *Vedas*, Concept of solar year and lunar year, Atronomy in Siddhāntic era, Astronomy in post Siddhāntic era, Introduction to the ancient Indian astronomical *yantras.*
3	**Mathematics**	Systems of Numeration in ancient India: Bhūtasaṅkhyā, Āryabhaṭa numeration, Kaṭapayādi (Kerala school of mathematics.) Important Contributions of Sangamagrama Madhavan
4	**Chemistry**	Sanskrit Vocabulary in Chemistry and its global impact. The use and processing of metals such as gold, iron, and zinc. Copper and Alloys like bronze and tin, role of chemistry in ancient Indian medicine. Introduction to Ancient Texts: Rasārṇava (RNV) and Rasaratnasamuccaya (RRS)
5	**Agriculture**	Ancient texts on agriculture, Indigenous knowledge and agricultural practices, Soil classification, Rainfall prediction methods, White revolution in India
6	**Āyurvēda and Medical Science**	Ayurvedic approach to health, Basic idea about rich literature in Ayurveda, Schools and traditions of Ayurveda, Concept of triguna and tridosha, Importance of Daily and seasonal regimen as explained in Ayurveda, Properties and medicinal uses of plants: Pippali Haridra, Yaṣṭīmadhu, Dāḍima, Cāṅgēri as per ayurvedic literature.
7	**Environmental conservation**	Protection of biodiversity in Indian culture through sacred groves and provision of judicial action to protect plants and animals, Community participation in conservation with example of Bishnois in Rajasthan, Conventional, non-conventional and clean energy sources in modern India
8	**Modern Sciences**	Indian Oceanography: Early evidences of knowledge of oceans, marine trade in Indian Civilizations. Deep ocean mission, Mission Antarctica