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

CLASS VI

PHYSICS

1. **Motion:** Measurement of length. Motion is a change in position with time. Observation of different types of moving objects on land, in air, water and space. Identification and discrimination of various types of motion. Demonstrating objects having more than one type of movement (screw motion, bicycle wheel, fan, top etc.) Observing the periodic motion of the hands of a clock/watch, the Sun, the Moon, and the Earth.

2. **Light:** Classification of various materials in terms of transparent, translucent and opaque. A shadow is formed only when there is a source of light and an opaque material obstructs the source. A shadow is black irrespective of the colour of the object. Reflecting surfaces, images are different from shadows.

3. **Electricity and Electric Current:** Electric circuit (current flows only when a cell and other components are connected in an unbroken loop), Conductor and Insulator. Activity using a bulb, cell, key and connecting wire to show the flow of current and identify closed and open circuits. Making a switch. Opening up a dry cell. Experiment to show that some objects (conductors) allow current to flow and others (insulators) do not.

4. **Fun with Magnets:** Magnet, Poles of a magnet, a freely suspended magnet always aligns in a particular direction. North and South poles, like poles repel and unlike poles attract each other. Demonstrating how things are attracted by a magnet. Classification of objects into magnetic/ non-magnetic classes. Activity to locate poles of a magnet; activity with iron filings and paper. Activities with a suspended bar magnet and a compass needle. Activities to show that like poles repel and unlike poles attract

5. **Rain, Thunder and Lightning:** Evaporation and condensation, water in different states. Water cycle, Condensation on the outside of a glass containing cold water; activity of boiling water and condensation of steam on a spoon. Simple model of the water cycle. Discussion on three states of water

CHEMISTRY

- Materials around us
- Temperature and its measurement
- A journey through States of water
- Methods of separation in Everyday life

BIOLOGY

- Observation as a scientific method to see living organisms
- Living versus non-living: characteristics of living creatures
- Diversity in the living world
- Comparison of food and mindful eating

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MATHEMATICS

1. **Number System:** Different types of numbers, Kaprekar number, Kaprekar constant, Self-Number, Triangular to Hexagonal number, Virhanka Number, Whole numbers, Integers etc. their properties like – closure, identity, commutative, associative and distributive. Estimation & rounding off, Use of brackets and order of operations

2. **Factors and Multiples**: Prime and Composite Numbers, Even and Odd Numbers, Divisibility Rules (including 7, 11 and 13), LCM and HCF, Prime Factorisation

3. **Fractions and Decimals:** Types of Fractions and their operations with numerical

4. **Ratio and Proportion:** Ratio, Proportions, Unitary method, finding third and fourth proportion, unitary methods, rule of threes

5. **Geometry:** Basic Geometrical concepts, Angles and their types, Types of Triangles, Circles and their components. Numerical questions based on these topics

6. **Mensuration:** Perimeter and Area of 2 D figures- triangle, square, circle, rectangles, Area of irregular figures using Pick theorem

7. **Algebra:** Algebraic expression, Addition, subtraction of algebraic expression, Solving

8. **Symmetry and Patterns:** Rotational, Line and Reflective symmetry, Tessellations, Magic Squares

LOGIC AND REASONING

Cryptarithmetic/Alphametics (Addition & subtraction upto 4 digits), 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, Cubes and Dices, Logical Venn Diagrams, Math based reasoning, Direction, Order and Ranking, Clocks & Calender, Analogy, Analytical puzzles, Logical Inequalities, Image based puzzles(like mirror & water image, rotation, best fit, Odd one out and more), Logical Sequence of Words, shape constructions, symmetry, number puzzle, pattern-based puzzle, Sudoku (4×4 & 5×5), Geometrical figures related problem.

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)

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SYLLABUS (CLASS - VI)

UNITS AND TOPICS FOR LEVEL-II

IKS-ICS SUPPLEMENTARY READING (INDIAN KNOWLEDGE SYSTEM)

Units		Sub-units (Scope and Limitations)
Unit No.	**Title of the Unit**	**Sub-units included**
1	**IKS and overview of the ICS**	Knowledge Production and Propagation in India through the Ages, Introduction to Chaturdasa Vidyās and Kalās, India's Contribution to Science and Technology in relation with Pre-independence contribution to water management, ship building and navigation. The topic is for general idea only.
2	**Astronomy**	Importance of calendar sticks found on Andaman, Rings found in Mohanjo Daro, Concept of five year *Yuga*. Calendar system mentioned in Rig veda, Yajur veda, Vedang jyotisha, siddhanta and Jain literature. Contribution of Aryabhatta.
3	**Mathematics**	Early evidences of mathematical principals as found in town planning of Mohanjo daro and Harappa. General idea and importance of Sulabhasutras and Pingala's Chandrasutras.
4	**Chemistry**	Concept of anu and parmanu (atomism), contribution of Rishi Kanada, Alchemy in India: rasaśāstra, rasavidyā or dhātuvāda, Extraction of various metals and preparation of various alloys. Pigments. Importance of Kautilya's arthshastra and Brihat samhita of Varahmihir in chemistry.
5	**Agriculture**	Indigenous varieties of rice and millets, Global importance of spices and other aromatic plants.
6	**Āyurvēda and Medical Science**	Concept of saptadhatus and tridosha. Idea of panchakarma, Importance of plants Guggula, Amla, Ashwagandha, Neem, Tulsi, Aloe vera, Arjuna, Bramhi as per ayurvedic literature. General idea of Charak samhita and Bhavprakash of Nighantu. Contribution of Sushruta in surgery.
7	**Environmental conservation**	Central idea of protection of nature through religious texts, hymns, songs, etc. Examples of flora, fauna, rivers, mountains, etc worshiped in Indian religions. Contribution of Atharva veda, Brahma purana, Manusmruti and Thirevallur's kurala.
8	**Modern Sciences**	Green revolution in India, White revolution in India