

CLASS : XI, TERM : 1 (SYLLABUS) (2026-2027), STREAM : SCIENCE

SUBJECT : ENGLISH CORE

Hornbill

- 1.The Portrait of a Lady
2. A Photograph
- 3.We are not afraid to die
4. Discovering Tut
5. The Laburnum Top
6. The Voice of the Rain
7. Childhood

Snapshots

8. The Summer of the Beautiful white horse
9. The Address
10. Birth

Writing skill

1. Speech
2. Debate
3. Poster making
4. Classified Advertisement

Grammar

1. Tense
2. Clause

Comprehension

SUBJECT : PHYSICS

UNIT	CHAPTERS	TOPICS
Unit-I Physical World and Measurement	Chapter-1: Units and Measurements	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures, Determining the uncertainty in result. Dimensions of physical quantities, dimensional analysis and its applications.
Unit-II Kinematics	Chapter-2: Motion in a Straight Line	Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, average speed and average velocity and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical and calculus treatment).
	Chapter-3: Motion in a Plane	Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.
Unit-III Laws of Motion	Chapter-4: Laws of Motion	Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).
Unit-IV Work, Energy and Power	Chapter-5: Work, Energy and Power	Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.
Unit-VII Properties of Bulk Matter	Chapter-10: Thermal Properties of Matter	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; C_p , C_v - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law.
Unit-IX Behaviour of Perfect Gases and Kinetic Theory of Gases	Chapter-12: Kinetic Theory	Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equipartition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number

SUBJECT : CHEMISTRY

- 1. Atomic Structure**
- 2. Chemical Bonding (What has been taught in the class)**
- 3. Some basic concepts of Chemistry (mole concept)**
- 4. Redox reactions**
- 5. General Organic chemistry**
 - a. IUPAC nomenclature**
 - b. Isomerism**
 - c. Inductive effect, Mesomeric effect, Hyperconjugations and resonance.**
 - d. Intermediates (Carbocation, Carbanion, Free radical)**
 - e. Reaction Mechanisms (substitution and additionc reaction)**

SUBJECT : BIOLOGY

CH-1 : THE LIVING WORLD

CH-2 : BIOLOGICAL CLASSIFICATION

CH-3 : PLANT KINGDOM

CH-4 : ANIMAL KINGDOM

CH-5 : MORPHOLOGY OF FLOWERING PLANTS

Ch-6 : ANATOMY OF FLOWERING PLANTS

CH-7 : STRUCTURAL ORGANISATION IN ANIMALS

CH-8 : CELL- THE UNIT OF LIFE

CH-10 : CELL CYCLE AND CELL DIVISION

SUBJECT : MATHEMATICS

Unit I: Sets and Functions

1. Sets
2. Relations and Functions
3. Trigonometric Functions

Unit II: Algebra

1. Complex Numbers
2. Linear Inequalities
3. Binomial Theorem

Unit III: Coordinate Geometry

1. Straight Lines
2. Conic Sections
3. Introduction to Three-dimensional Geometry

SUBJECT : PHYSICAL EDUCATION

S.No.	Chapter
1	Changing Trends & Career in Physical Education
2	Olympic Value Education
3	Yoga
4	Physical Education & Sports for CWSN (Children with Special Needs - Divyang)
5	Physical Fitness, Health and Wellness
6	Fundamentals of Kinesiology and Biomechanics in Sports
7	Psychology & Sports

SUBJECT : COMPUTER SCIENCE

Unit 1: Computer Systems and Organisation

- Basic computer organisation: Introduction to Computer System, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (bit, byte, KB, MB, GB, TB, PB)
- Types of software: System software (Operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler, and interpreter), application software
- Operating System(OS): functions of the operating system, OS user interface
- Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth tables and De Morgan's laws, Logic circuits
- Number System: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems
- Encoding Schemes: ASCII, ISCII, and Unicode (UTF8, UTF32)

Unit 2: Computational Thinking and Programming - I

- Introduction to Problem-solving: Steps for Problem-solving (Analyzing the problem, developing an algorithm, coding, testing, and debugging), representation of algorithms using flowchart and pseudocode, decomposition
- Familiarization with the basics of Python programming: Introduction to Python, Features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens(keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments
- Knowledge of data types: Number(integer, floating point,complex), boolean, sequence(string, list, tuple), None, Mapping(dictionary), mutable and immutable data types.
- Operators: arithmetic operators, relational operators, logical operators, assignment operators, augmented assignment operators, identity operators (is, is not), membership operators (in not in)
- Expressions, statement, type conversion, and input/output: precedence of operators, expression, evaluation of an expression, type-conversion (explicit and implicit conversion), accepting data as input from the console and displaying output.
- Errors- syntax errors, logical errors, and run-time errors
- Flow of Control: introduction, use of indentation, sequential flow, conditional and iterative flow

- Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number.
- Iterative Statement: for loop, range(), while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number, etc.
- Strings: introduction, string operations (concatenation, repetition, membership and slicing), traversing a string using loops, built-in functions/methods—len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()
- Lists: introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/methods—len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list.

SUBJECT : PSYCHOLOGY

1. What is Psychology
2. Methods of Enquiry in Psychology
3. Human Development
4. Sensory, Attentional and Perceptual Processes
5. Learning
6. Human Memory

SUBJECT : HINDI

(आरोह पाठ्य पुस्तक)

काव्य

- * कबीर
- * मीरा
- * घर की चाह
- * चंपा काले काले अक्षर नहीं चिन्हती

(वितान पाठ्य पुस्तक)

- * भारतीय गायिकाओं में भेजो लता मंगेशकर
- * राजस्थान की रजत बूंदें

गद्य

- * नमक का दरोगा
- * मियां नसीरुद्दीन
- * अप्पू के साथ ढाई साल
- * विदाई संभाषण

(अभिव्यक्ति और माध्यम पाठ्य पुस्तक)

- * जनसंचार माध्यम
- * पत्रकारिता के विभिन्न आयाम
- * डायरी लिखने की कला
- * कथा पटकथा
- * कार्यालय लेखन और प्रक्रिया
- * स्ववृत्त लेखन और रोजगार संबंधी आवेदन पत्र
- * शब्दकोश

Writing skills

अपठित - गद्यांश, पद्यांश

रचनात्मक लेखन

औपचारिक पत्र लेखन

SUBJECT : BENGALI

Biral (story)

Puimacha (story)

Lalan sah fakirer gaan (poem)

Samyabadi (poem)

Ajob sohar Kolkata (supply mentary Reader)

Agun (Drama)

Grammar

Ukti poriborton

Sabdo vandar

WRITING

Dialogue writing

Summary writing
