

ICSE - Indian Certificate of Secondary Education

GRADE 8 ENGLISH LANGUAGE

SYLLABUS

| UNITS | SUB-UNITS |
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| A. COMPREHENSION | <ul style="list-style-type: none"> Unseen prose passage / poem for comprehension |
| B. CAPITALISATION & PUNCTUATION | <ul style="list-style-type: none"> Proper placement of punctuation marks |
| C. NOUNS | <ul style="list-style-type: none"> Nouns - types Number of Nouns (Singular and Plural) Gender Countable and Uncountable Nouns Noun case |
| D. PRONOUN | <ul style="list-style-type: none"> Pronouns – types, uses |
| E. WRITING SKILL | <ul style="list-style-type: none"> Letter writing - Informal letter |
| F. ADJECTIVE | <ul style="list-style-type: none"> Adjectives – types Correct use of adjectives Formation of adjectives Degrees of comparison |
| G. ADVERB | <ul style="list-style-type: none"> Adverbs – types Position and Order of adverbs Degrees of Comparison |
| H. PHRASE & CLAUSE | <ul style="list-style-type: none"> Main clause and subordinate clause Subordinate clauses - types |
| I. WRITING SKILL | <ul style="list-style-type: none"> Picture Composition Essay Letter writing - Formal letter, Informal |

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| | <p>letter</p> <ul style="list-style-type: none"> • Summary writing • Report writing |
| J. SENTENCE STRUCTURE | <ul style="list-style-type: none"> • Sentences based on structure - Simple, Complex, Compound • Conditional sentences • Conversion of sentences • Synthesis of sentences |
| K. VOCABULARY | <ul style="list-style-type: none"> • Change of a word from one part of speech to another • Same word used as different parts of speech • Difference between pairs of sentences having apparently minor grammatical / punctuation differences • Figures of speech • Vocabulary enrichment |
| L. PREPOSITIONS | <ul style="list-style-type: none"> • Prepositions: • Prepositional phrases • Words followed by prepositions |
| M. CONJUNCTION | <ul style="list-style-type: none"> • Conjunctions • Subordinating conjunction |
| N. VERBS | <ul style="list-style-type: none"> • Participle • Gerund • Infinitive • Phrasal verbs • Agreement of the verb with the subject |
| O. DETERMINERS | <ul style="list-style-type: none"> • Determiners - explanation, examples and use |

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| <p>P. TENSES</p> | <ul style="list-style-type: none"> • Tenses - identification and conversion • Sequence of Tenses |
| <p>Q. DIRECT & INDIRECT SPEECH</p> | <ul style="list-style-type: none"> • Direct & Indirect Speech • Conversion of sentences |
| <p>R. ACTIVE & PASSIVE VOICE</p> | <ul style="list-style-type: none"> • Active & Passive Voice • Conversion of sentences |
| | <ul style="list-style-type: none"> • All basic concepts taught earlier |

ICSE - Indian Certificate of Secondary Education

GRADE 8 ENGLISH LITERATURE

SYLLABUS

| UNITS | SUB-UNITS |
|------------------|---|
| A. PROSE | <ul style="list-style-type: none"> • My Lost Dollar • Umpiring • The Cemetery of Chateau D'If • Ignited Minds • The Footsteps die out forever • Albert Einstein • The Wolves of Cernogratz • A Pair of Mustachios |
| B. POETRY | <ul style="list-style-type: none"> • On Television • The Road Not Taken • The Louse and the Mosquito • King Canute • Prince Kano • Blowing in the wind • On Killing a Tree • Ozymandias |
| C. DRAMA | <ul style="list-style-type: none"> • The Taming of the Shrew – William Shakespeare (Acts I & II) • The Taming of the Shrew – William Shakespeare (Acts III, IV & V) |

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GRADE 8 HINDI

SYLLABUS

| UNITS | SUB-UNITS |
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| A. LITERATURE | <ul style="list-style-type: none"> • पाठ १ मानवता ही विश्व सत्य • पाठ २ साइकिल की सवारी • पाठ ३ लालू • पाठ ४ जीवन का लक्ष्य • पाठ ५ रंग जाती एक ऋतु (कविता) • पाठ ६ बच्चों के लिए • पाठ ७ रथचक्र • पाठ ११ पेड़ पौधे और हम • पाठ १० विद्रोही • पाठ १२ मेरा नया बचपन • पाठ २२ अंतरिक्ष की कल्पना • पाठ १४ उसने कहा था • पाठ १५ बिहू • पाठ १६ कपि करी हुद्दय विचार • पाठ १७ सज़ा • पाठ १८ आखिर कितनी जमीन • पाठ २० प्रियतम • पाठ २१ पंच परमेश्वर • पाठ १३ आर्यभट |

B. LANGUAGE

- संज्ञा (लिंग, वचन, कारक)
- निबंध लेखन
- पर्यायवाची शब्द
- विलोम शब्द
- अनौपचारिक पत्र
- मुहावरे
- सर्वनाम
- लोकोक्तियाँ
- पुनरावर्तन
- विशेषण
- औपचारिक पत्र
- क्रिया
- अपठित गद्यांश
- चित्र—कथा लेखन
- श्रुतभाव ग्रहण

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GRADE 8 HISTORY AND CIVICS

SYLLABUS

| UNITS | SUB-UNITS |
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| A. RISE OF INDEPENDENT REGIONAL POWERS | <ul style="list-style-type: none"> • Regional Powers |
| B. ANGLO FRENCH RIVALRY IN THE CARNATIC | <ul style="list-style-type: none"> • Establishment of the English East India Company • French East India Company • Carnatic Wars • Reasons of British Success |
| C. RISE OF BRITISH POWER IN BENGAL | <ul style="list-style-type: none"> • Battle of Plassey • Battle of Buxar • Dual Government in Bengal |
| D. GLOBALIZATION | <ul style="list-style-type: none"> • Concept of Interdependence • Sharing of Goods and Services • Trade • Terrorism |
| E. WAR AND DISARMAMENT | <ul style="list-style-type: none"> • World War I • World War II • Cold War • Disarmament |
| F. GROWTH OF BRITISH POWER IN SOUTH, WEST AND CENTRAL INDIA | <ul style="list-style-type: none"> • Subjugation of Mysore • Subsidiary Alliance System • Subjugation of the Marathas |
| G. EXPANSION OF BRITISH POWER IN NORTH INDIA | <ul style="list-style-type: none"> • Anglo-Sikh Wars • Dalhousie's Policy of Expansion |

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| <p>H. INDIA AND HER NEIGHBOURING COUNTRIES</p> | <ul style="list-style-type: none"> • India's Policy towards its Neighbouring Countries • India in South Asia and South East Asia • SAARC Countries • Programmes - SAVE, SAF Games, SAPTA and SAFTA |
| <p>I. THE BASIC FEATURES OF THE CONSTITUTION</p> | <ul style="list-style-type: none"> • Basic Features of the Constitution |
| <p>J. IMPACT OF BRITISH RULE IN INDIA</p> | <ul style="list-style-type: none"> • Education under the British • Social and Religious Reforms • Transport and Communication |
| <p>K. FUNDAMENTAL RIGHTS AND DUTIES</p> | <ul style="list-style-type: none"> • Characteristic Features of the Fundamental Rights • Fundamental Duties |
| <p>L. DIRECTIVE PRINCIPLES OF STATE POLICY</p> | <ul style="list-style-type: none"> • Meaning • Classification, Implementation and Importance. • Difference between Fundamental Rights and Directive Principles |
| <p>M. ELECTIONS AND ELECTION COMMISSION</p> | <ul style="list-style-type: none"> • Meaning of Elections • Need for Elections • Types and Kinds of Elections • Universal Adult Franchise • Constituency • Powers and Functions of the Election Commission |
| <p>N. POLITICAL PARTIES</p> | <ul style="list-style-type: none"> • Meaning • Role of Political Parties • Difference between National and Regional |

| | Parties |
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| O. RENAISSANCE IN INDIA | <ul style="list-style-type: none"> • Social Reformers • Reform Movements |
| P. THE AGE OF REVOLUTION | <ul style="list-style-type: none"> • The American Revolution • The French Revolution |
| Q. THE AMERICAN CIVIL WAR | <ul style="list-style-type: none"> • Causes • Role of Abraham Lincoln • Main Events • The Gettysburg Address |
| R. NATIONAL MOVEMENTS IN EUROPE | <ul style="list-style-type: none"> • Meaning of Nationalism and its Impact. • Unification of Italy and Germany. |

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GRADE 8 GEOGRAPHY

SYLLABUS

| UNITS | SUB-UNITS |
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| A. PHYSICAL GEOGRAPHY | <ul style="list-style-type: none"> • Weather and Climate • Temperature |
| B. PHYSICAL GEOGRAPHY | <ul style="list-style-type: none"> • Atmospheric Pressure • Winds |
| C. PHYSICAL GEOGRAPHY | <ul style="list-style-type: none"> • Moisture in the Atmosphere |
| D. ASIA - LOCATION AND PHYSICAL FEATURES | <ul style="list-style-type: none"> • Location • Physical Features |
| E. ASIA- MAP WORK | <ul style="list-style-type: none"> • Map Reading • Map Marking |
| F. EUROPE | <ul style="list-style-type: none"> • Location • Physical Features Europe |
| G. STRUCTURE OF THE EARTH AND INTERNAL PROCESSES | <ul style="list-style-type: none"> • Volcanoes • Earthquakes • Folding and Faulting |
| H. INDIA | <ul style="list-style-type: none"> • Political Divisions • Location • Climate, vegetation and Wildlife |
| I. INDIA – MAP WORK | <ul style="list-style-type: none"> • Map Reading • Map Marking |
| J. INTRODUCTION TO TOPOGRAPHICAL MAPS MAP WORK | <ul style="list-style-type: none"> • Introduction to Survey Maps • Key Symbols and 4 Figure Grid |

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**GRADE 8
ENVIRONMENTAL EDUCATION**

SYLLABUS

| UNITS | SUB-UNITS |
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| A. UNDERSTANDING THE ECOSYSTEM | <ul style="list-style-type: none"> • Types of ecosystem: Forest, Grassland, Desert, Aquatic, Coastal, Marine • Interaction between biotic and abiotic factors • Energy flow and its importance • Destruction of Ecosystem • Impact of Ecosystem • Role of EIA |
| B. DEPLETION OF RESOURCES | <ul style="list-style-type: none"> • Natural Resources • Causes of depletion • Impact of resource depletion • Practices for conservation of resources |
| C. WASTE GENERATION AND MANAGEMENT | <ul style="list-style-type: none"> • Sources of waste • Classification of waste • Impact of waste accumulation • Need and methods of safe disposal of waste • Legal provisions for handling and management of waste |
| D. ENVIRONMENTAL VALUES AND ETHICS | <ul style="list-style-type: none"> • Human rights, fundamental duties and value education • Women and Child welfare |
| E. DISASTERS | <ul style="list-style-type: none"> • Natural and man-made disasters • Disaster management and its mitigation |

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GRADE 8 MATHEMATICS

SYLLABUS

| UNITS | SUB-UNITS |
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| A. NUMBERS | <ul style="list-style-type: none"> • Review: Natural numbers • Review: Whole numbers • Review: Integers • Review: Rational And irrational numbers • Review: Real numbers |
| B. ALGEBRA - FUNDAMENTAL OPERATIONS | <ul style="list-style-type: none"> • Review: Addition • Review: Subtraction • Review: Multiplication • Review: Division of a polynomial by a monomial or a binomial of first degree. • Simplification by removal of brackets. |
| C. DIRECTED NUMBERS | <ul style="list-style-type: none"> • Review: Four fundamental operations involving directed number |
| D. FRACTION; DECIMALS | <ul style="list-style-type: none"> • Review: Conversions and simple direct problems |
| E. SQUARES AND SQUARE ROOTS | <ul style="list-style-type: none"> • Review: Square root by factors and division method |
| F. RATIO; PROPORTION | <ul style="list-style-type: none"> • Conversions and simple direct problems |
| G. RATIO; PROPORTION CONTINUED | |
| H. INC / DEC PERCENTAGE | <ul style="list-style-type: none"> • Conversion and simple direct problems |
| I. PROFIT; LOSS; DISCOUNT | <ul style="list-style-type: none"> • Elementary (Simple And Direct Questions Only) |

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| J. SPECIAL PRODUCTS AND EXPANSION | <ul style="list-style-type: none"> • Expansion of various products |
| K. EXPONENTS | <ul style="list-style-type: none"> • Positive, integral and zero indices only • Laws of exponent • Uses of Law of exponent |
| L. ROTATION | <ul style="list-style-type: none"> • Rotation through 90^0 |
| M. SPECIAL PRODUCTS AND EXPANSION | <ul style="list-style-type: none"> • Hands - on experience |
| N. SETS | <ul style="list-style-type: none"> • Review: Sets |
| O. AREA; PERIMETER | <ul style="list-style-type: none"> • Area and perimeter of triangle, rectangle, trapezium and circle |
| P. VOLUME AND SURFACE AREA | <ul style="list-style-type: none"> • Familiarization with the abbreviations: cm, m, km, cm^2, m^2, cm^3, m^3. |
| Q. SIMPLE INTEREST; COMPOUND INTEREST | <ul style="list-style-type: none"> • Calculation of interest and amount only |
| R. TIME AND WORK | <ul style="list-style-type: none"> • Measures of money, length, area, volume, weight and time |
| S. SPEED, DISTANCE, TIME | <ul style="list-style-type: none"> • Measures of money, length, area, volume, weight and time |
| T. RELATIONS AND MAPPING | <ul style="list-style-type: none"> • Review: Relations and Mapping • Roster form and equation form of Functions |
| U. APPROXIMATION | <ul style="list-style-type: none"> • Significant figures • Rounding off to a specified unit (e.g. to the nearest mm, nearest g, nearest paisa, etc.) and decimal places |
| V. LINES, ANGLES AND THEIR PROPERTIES; UNKNOWN ANGLES OF PARALLEL LINES | <ul style="list-style-type: none"> • Review: Parallel, intersecting, perpendicular lines |

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| | <ul style="list-style-type: none"> • Review: Bisector of angles, bisector of line segments. • Review: Acute, right, obtuse, straight and reflex. • Review: Adjacent angles, vertically opposite angles. • Review: Complementary and supplementary angles. • Review: Alternate corresponding and interior opposite angles. • Properties : A) if two straight lines intersect, the adjacent angles are supplementary and vertically opposite angles are equal B) If two angles having a common arm are supplementary the other two arms lie in a straight line C) If two parallel lines are cut by transversal line, i) the alternate angles are equal. ii) the corresponding angles are equal. iii) the interior opposite angles on the same side of the cutting line are supplementary D) Converse of C |
| <p>W. POLYGONS</p> | <ul style="list-style-type: none"> • The angle sum property interior $(2n-4)rt.$ Angles, exterior $(4 rt \text{ angles})$ • Different kinds of polygons and their names interior and exterior angles and their relations. <ul style="list-style-type: none"> (a) Sum of interior angles of a polygon. (b) Sum of exterior angles of a polygon. |

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| | <p>(c) Regular polygons: Types of regular polygons</p> |
| <p>X. TRIANGLES(CONGRUENCY, THEOREM)</p> | <ul style="list-style-type: none"> • Types of Triangles: Scalene, isosceles, equilateral • Relation between sides and angles of triangles • Congruent triangles (a) Congruency : four cases: SSS, ASA, SSS, RHS :Illustration through cut-outs, Simple applications • Problems based on: The angle sum property If one side of a triangle is produced, the exterior angle formed is equal to the sum of the interior angles |
| <p>Y. ISOSCELES TRIANGLE THEOREM</p> | <ul style="list-style-type: none"> • If two sides of a triangle are equal, the angles opposite to them are equal and the converse. • If two sides of a triangle are unequal, the greater side has the greater angle opposite to it and the converse |
| <p>Z. QUADRILATERALS AND PARALLELOGRAMS</p> | <ul style="list-style-type: none"> • If a pair of opposite sides of a quadrilateral are equal and parallel, it is a parallelogram • The opposite angles of a parallelogram are equal and adjacent angles are supplementary • The diagonals of a parallelogram bisect each other and each diagonals bisects the parallelogram • Parallelograms on the same base and |

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| | <p>between the same parallels are equal in area</p> |
| <p>A. HISTOGRAMS, FREQUENCY POLYGONS</p> | <ul style="list-style-type: none"> • Review: Frequency and Frequency, Distribution, Tabulation of Data, Arithmetic Mean • Graphical representation of grouped data (bar graph) introducing median, mode, histogram and frequency polygon • Introduction, collection of data, presentation of data, Graphical representation of data, Mean, Median of ungrouped data. <ul style="list-style-type: none"> (i) Understanding and recognition of raw, arrayed and grouped data. (ii) Tabulation of raw data using tally-marks. (iii) Understanding and recognition of discrete and continuous variables. (iv) Mean, median of ungrouped data (v) Class intervals, class boundaries and limits, frequency, frequency table, class size for grouped data. (vi) Grouped frequency distributions: the need to and how to convert discontinuous intervals to continuous intervals. (vii) Understanding of how a histogram differs from a bar chart. |
| <p>B. SUBSTITUTION</p> | <ul style="list-style-type: none"> • Change of subject of formula and substitution • Substitution in polynomials involving |

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| | atmost three unknown |
| C. FACTORIZATION | <ul style="list-style-type: none"> • Taking common; $ax+bx$, $a(x+y)+b(x+y)$, $a(x+y)-b(x+y)$ • Grouping and taking common : $ac+bd+ad+bc$ • Difference of square $x^2 - y^2$, $a^3+ b^3$ • Trinomial ax^2+bx+c ($a,b,c \in \mathbb{N}$),by splitting the middle term |
| D. LINEAR EQUATIONS | <ul style="list-style-type: none"> • Simple linear equation and problems leading to them. • Pairs of simultaneous linear equation in two variables. • To find the solution set in a given replacement set for the variable. |
| E. SIMULTANEOUS EQUATION | <ul style="list-style-type: none"> • Can solve simultaneous linear equation in two variables. • Solution of a pair of simultaneous linear equation in two variables graphically |
| F. HCF AND LCM OF ALGEBRAIC EXPRESSIONS | <ul style="list-style-type: none"> • Using factors only simplification of algebraic fractions (cancelling the H.C.F. in numerator and denominator • Addition and subtraction of simple algebraic fractions by finding the LCM of the denominators |
| G. PYTHAGORAS THEOREM | <ul style="list-style-type: none"> • Proof and Simple applications of Pythagoras Theorem and its converse |
| H. QUADRATIC EQUATIONS | <ul style="list-style-type: none"> • Solution of quadratic equations in one variable, using factors only • Problems leading to Quadratic Equations excluded |

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| I. INEQUATIONS WITH NUMBER LINE | <ul style="list-style-type: none"> • To solve linear inequations and graph the solution on the number line |
| J. PYTHAGORAS THEOREM | <ul style="list-style-type: none"> • Hand on experience |
| K. CONSTRUCTION | <ul style="list-style-type: none"> • Using ruler and compasses only • An angle equal to the given angle • Bisection of an angle • Bisector of a line segment • Perpendicular bisector of a line segment • Construction of a perpendicular to a line <ol style="list-style-type: none"> 1) at a given point in the line and 2) from an external point. • Construction of Rectangle, Square and Rhombus from simple data |

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GRADE 8 PHYSICS

SYLLABUS

| UNITS | SUB-UNITS |
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| A. GENERAL PROPERTIES OF SOLIDS, LIQUIDS AND GASES | <ul style="list-style-type: none"> • Kinetic theory of matter: differentiate the three states of matter, cohesion and inter-molecular arrangement in each state, general properties of solids, liquids, gases, conduction, convection, expansion |
| B. HEAT | <ul style="list-style-type: none"> • Concepts of heat and temperature: heat as energy, differentiate between heat and temperature, SI unit of heat-joule • Expansion of solids, liquids and gases: expansion of solids, cubical expansion of liquids, gases, differentiate between real and apparent expansion of liquids, simple examples of the uses of expansion of solids; steel rims; riveting, disadvantages of expansion, examples of disadvantages of expansion: railway tracks, joints in metal pipes and electric cables, anomalous expansion of water, draw graphs showing variation of volume and density of water with temperature in the 0 to 10°C range, numerical problems in solids • Thermometers: relation between Celsius, Fahrenheit, Kelvin scales, problems based on conversion between these scales • Transfer of heat: Conduction, Convection |

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| | <p>and Radiation: examples of good and bad conductors and their uses, water as a bad conductor, phenomena of convection in liquids and gases, consequences of convection: land and sea breeze, detection of radiation by blackened bulb thermometer</p> <ul style="list-style-type: none"> • Applications of heat |
| <p>C. MEASUREMENT</p> | <ul style="list-style-type: none"> • Measurements and Experimentation: estimation by orders of magnitude of size(length, area and volume),mass and time • International System of Units: instrument used for measurement-meter rule, vernier callipers, screw gauge for length, use of measuring cylinder for volume • Measurements using common Instruments • Laboratory experiments • Presentation of data in tabular and graphical form: steps in plotting a graph such as title, detection of origin and axes, label axes, scale, plotting the points, best-fit straight line etc, slope and of straight -line graph |
| <p>D. MOTION IN ONE DIMENSION</p> | <ul style="list-style-type: none"> • Distance, speed, velocity, acceleration: rest and motion; differentiate between distance and displacement; speed and velocity; acceleration and retardation • Graphs of distance-time and speed- time: distance-time and velocity-time graphs; meaning of slope of the graphs • Equations of uniformly accelerated motion with derivations: Derive equations $v=u + at$; |

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| | $s=ut+\frac{1}{2}at^2$, $S=\frac{1}{2}(u+v)t$; $v^2=u^2+2aS$ |
| E. NEWTON'S LAWS OF MOTION | <ul style="list-style-type: none"> • Introduce the idea of inertia, mass and force: statement and introduction to the idea of inertia, mass and force, define inertia and force from first law • Newton's first law of motion: Give examples of inertia as illustration of first law • Simple numerical problems: Solve simple numerical problems, linear momentum, $p=mv$ • Newton's second law of motion including $F=ma$: Solve numerical problems • Weight and mass • Numerical problems combining $F=\Delta p/\Delta t$ and equations of motion: examples of action-reaction pairs say FBA and FAB • Units of force-only cgs and SI (non gravitational): action and reaction always act on different bodies • Newton's third law of motion: Solve the numericals • Numerical problems based on second law |
| F. LIGHT | <ul style="list-style-type: none"> • Revision: Reflection of light; image formed by a plane mirror: experimental verification; images of (a) point object and (b) extended object formed in by a plane mirror - using ray diagrams and their characteristics • Regular and irregular reflection: regular and irregular reflection; laws of reflection • Images formed by a pair of parallel and |

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| | <p>perpendicular plane mirrors: lateral inversion; characteristics of images formed in a pair of mirrors, (a) parallel and (b) perpendicular to each other; uses of plane mirrors; characteristics</p> <ul style="list-style-type: none"> • Simple periscope: draw ray diagrams with two plane mirrors • Spherical mirrors; characteristics of image formed by these mirrors.(only simple direct ray diagrams are required): introduction to spherical mirrors - concave and convex mirrors, centre and radius of curvature, pole and principal axis, focus and focal length; $f = R/2$ with proof;' simple ray diagram for the formation of images in (a) concave mirror, when a small linear object is placed on the principal axis at very large distance ($u \gg R$), at the center of curvature, between C and F, at F, between F and P. (b) convex mirror a small linear object is placed on the principal axis in front of the mirror • Uses of concave and convex mirror: list the uses of concave and convex mirrors |
| <p>G. SOUND</p> | <ul style="list-style-type: none"> • Nature of sound waves: sound and its production from vibrations • Requirement of a medium for sound waves to travel: sound propagation, terms -frequency (n), wavelength, velocity (v),their relation and medium [qualitative ideas only]; bell jar experiment • Propagation and speed in different media: differentiate the speed of sound in different |

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| | <p>media; some values; values of v in air</p> <ul style="list-style-type: none"> • Comparison with speed of light: compare speed of sound with speed of light; consequences of the large difference in these speeds in air, thunder and lightning • Range of hearing; ultrasound, a few applications: frequency ranges for (i) hearing and (ii) speaking; differences between ultrasonic and supersonic |
| <p>H. ELECTRICITY AND MAGNETISM</p> | <ul style="list-style-type: none"> • Static electricity:Revision • Simple electric circuit using an electric cell and a bulb to introduce the idea of current (including its relationship to charge); potential difference; insulators and conductors; closed and open circuits; direction of current (electron flow and conventional); resistance in series and parallel |

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GRADE 8 SCIENCE (CHEMISTRY)

SYLLABUS

| UNITS | SUB-UNITS |
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| A. LANGUAGE OF CHEMISTRY | <ul style="list-style-type: none"> • Symbol: definition of symbol • Symbols of the elements used often • Valency: definition of valency, hydrogen combination, number of valence electrons of metals and non-metals, mono, di, tri and tetra valent elements • Radicals: definition of radicals, formula and valencies of radicals, formula of compounds • Chemical equations: definition of chemical equations, examples of chemical equations as follows: one reactant and two or three products, two reactants and two products, two reactants and three or four products, balance chemical equations |
| B. PHYSICAL AND CHEMICAL CHANGES | <ul style="list-style-type: none"> • Types of chemical reactions • Revision of writing equations: Revise the writing and balancing of equations studied earlier • Combination, decomposition, displacement: patterns in these reactions, define and give examples • Double decomposition reactions forming a precipitate: patterns in these reactions, define and give examples |

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| | <ul style="list-style-type: none"> • Neutralization; oxidation/reduction (in terms of loss or gain of hydrogen/oxygen): patterns in these reactions • Electrolysis: formation of ions |
| <p>C. ATOMIC STRUCTURE</p> | <ul style="list-style-type: none"> • Structure of an atom: element; atom, constituents of atom-nucleus (protons, neutrons) with associated electrons • Mass number; atomic number: atomic number and mass number, differentiate between atomic number ;mass number • Isotopes: Define isotopes with examples (hydrogen, carbon, chlorine) • Octet rule: Define the octet rule with examples, 2n square rule |
| <p>D. CHEMICAL BONDING</p> | <ul style="list-style-type: none"> • Electrovalent bond: Define an electrovalent bond, structure of electrovalent compounds NaCl, MgCl₂, CaO, properties of electrovalent compounds: state of existence, melting and boiling points, conductivity(heat and electricity), ionization; dissociation in solution, relate ionization to electrolysis |
| <p>E. ACTIVITY SERIES</p> | <ul style="list-style-type: none"> • Elements of the activity series: activity series • Chemical behaviour of elements: substances in the activity series, to relate their position in activity series to reactivity |
| <p>F. WATER: LAB ACTIVITY INCLUDED</p> | <ul style="list-style-type: none"> • Water as a compound: water as a compound • Water as a universal solvent: water as a universal solvent |

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| | <ul style="list-style-type: none"> • Physical properties of water: density, b.p.m.p., show that water contains dissolved solids and dissolved gases(air);their significance, solutions as 'mixtures' of solids in water, saturated solutions, qualitative effect of temperature on solubility • (e.g. solutions of calcium sulphate, potassium nitrate, sodium chloride in water) • Chemical properties: <ol style="list-style-type: none"> a. The action of cold water on sodium and calcium b. The action of hot water on magnesium c. Reversibility of reaction between iron and steam: chemical properties of water, reversibility of reaction between iron and steam , solve equations related to water |
| <p>G. HYDROGEN</p> | <ul style="list-style-type: none"> • i) Hydrogen from water: hydrogen can be obtained from cold water and metals; hot water and metals; steam and metals; steam and non-metals, activity series for the above mentioned preparations • ii) Hydrogen from dilute acids: displacement of hydrogen from dilute sulphuric acid or hydrochloric acid by zinc or iron • iii) Hydrogen from alkalies: displacement of hydrogen from alkalis(NaOH, KOH) by Zn,Al-unique nature of these elements, displacement reactions and their equations, properties of hydrogen-oxidation/reduction • Laboratory preparation of hydrogen: laboratory preparation and collection of |

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| | <p>hydrogen by a standard laboratory method other than electrolysis, understand the reason for using zinc, impurities in the gas; their removal, precautions in the collection of the gas</p> <ul style="list-style-type: none"> • Industrial manufacture of hydrogen: Bosch process with main reactions and conditions, separation of CO₂ and CO from it • Uses of hydrogen |
| <p>H. OXYGEN AND OXIDES</p> | <ul style="list-style-type: none"> • Discovery, Occurrence, Preparation: discovery; occurrence and preparation of oxygen, • Laboratory preparation: laboratory preparation of oxygen; the reactants involved in the same • Properties: properties and uses of oxygen • Uses • Oxides: identify the oxides of oxygen • Rusting: rusting as a chemical change |
| <p>I. NITROGEN</p> | <ul style="list-style-type: none"> • Discovery, Occurrence, Preparation: discovery; occurrence and preparation of nitrogen • Laboratory preparation: laboratory preparation of oxygen; the reactants involved in the same • Properties; Uses: properties and uses of oxygen • Nitrogen Cycle: maintenance of nitrogen content in the atmosphere |
| <p>J. CARBON AND ITS COMPOUNDS:ALLOTROPES</p> | <ul style="list-style-type: none"> • Some organic and inorganic compounds containing carbon |

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| | <ul style="list-style-type: none"> • Allotropy;Allotropes • Properties of carbon • Fuels and combustion |
| K. CARBON AND ITS COMPOUNDS:OXIDES:CARBON MONOXIDE; CARBON DI-OXIDE | <ul style="list-style-type: none"> • Properties; reactions; uses: chemical properties of carbon monoxide and carbon di-oxide, reactions associated with carbon monoxide and carbon dioxide, uses of CO₂ and CO |

ICSE - Indian Certificate of Secondary Education

GRADE 8 SCIENCE (BIOLOGY)

SYLLABUS

| UNITS | SUB-UNITS |
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| <p>A. THE FLOWER: DIFFERENT KINDS: HIBISCUS, LILY,</p> <p>B. GULMOHAR: RELATED TERMS</p> | <ul style="list-style-type: none"> • Structure of a bisexual flower; functions: structure of a flower and its functions • Incomplete; complete flowers: difference between a complete and incomplete flower • Inflorescence: what is inflorescence |
| <p>C. POLLINATION; FERTILISATION</p> | <ul style="list-style-type: none"> • Self and cross pollination: Advantages; disadvantages • Agents of pollination • Characteristic features of flowers pollinated by various agents • Events taking place between pollination and fertilization upto the fusion of male gamete with egg cell in the embryo sac • Double fertilization and triple fusion • Fruit and seed: significance • True fruits; false fruits |
| <p>D. GERMINATION</p> | <ul style="list-style-type: none"> • Structure of dicot and monocot seeds: bean; maize • Differences between hypogeal and epigeal germination • Experiments on germination |
| <p>E. VEGETATIVE PROPAGATION</p> | <ul style="list-style-type: none"> • Artificial methods: Advantages and |

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| | <p>disadvantages; Economic importance of artificial propagation</p> <ul style="list-style-type: none"> • Hybridization: meaning and benefits • Micro-propagation: meaning, uses and limitations • Biotechnology: brief idea; (eg. human insulin from E.coli) • Applications of biotechnology: in medicine-penicillin and tetracycline, in industry (example cheese, vinegar, yogurt, alcoholic beverages, synthesis of vitamins namely vitamin C and enzymes-namely lipase. |
| <p>F. LIFE PROCESSES: GROWTH, G. DEVELOPMENT AND REPRODUCTION</p> | <ul style="list-style-type: none"> • Sexual and asexual reproduction in plants and animals: various reproductive organs of male and their functions • Fission-Amoeba: process of fission • Life cycle of a butterfly • Reproduction in human beings |
| <p>H. RESPIRATION IN PLANTS</p> | <ul style="list-style-type: none"> • Respiration in plants: outline of the process; gaseous exchange • outline of the process mentioning the term Glycolysis, Krebs cycle and their significance • Aerobic and anaerobic respiration with chemical equations • Experiments on gaseous exchange and heat production |
| <p>I. HUMAN ANATOMY AND PHYSIOLOGY: NUTRITION</p> | <ul style="list-style-type: none"> • i) Classes of food: Functions of carbohydrates, fats, proteins, mineral salts(calcium, iodine, iron and |

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| | <p>sodium),vitamins and water in proper functioning of the body</p> <ul style="list-style-type: none"> • Balanced diet: Definition. Importance of cellulose in our diet. • Malnutrition and deficiency diseases: Kwashiorkor and Marasmus |
| <p>J. DIGESTIVE SYSTEM</p> | <ul style="list-style-type: none"> • Digestive System: Organs and digestive glands and their functions • Enzymes and their functions in digestion; absorption; utilization of digested foods |
| <p>K. LAB ACTIVITY: DEMONSTRATION</p> | <ul style="list-style-type: none"> • Tests for reducing sugar, starch, proteins and fats |
| <p>L. HEALTH AND HYGIENE</p> | <ul style="list-style-type: none"> • Causes of diseases • i) Bacteria-types of bacteria, bacterial control, three examples of diseases caused by bacteria e.g. Tuberculosis, Tetanus, Syphilis (Venereal disease) • ii) Virus- nature of viruses, three examples of viral diseases e.g. poliomyelitis, mumps, rabies etc. Introduction to HIV, its outline, structure and spread • iii) Parasites- two examples, roundworm, tapeworm and their control • iv) Brief idea of endemic, epidemic, pandemic and sporadic • v) Simple, personal hygiene and social conditions affecting this; general idea of public hygiene and sanitation Disease carriers(vectors) flies, rats and |

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| | <p>cockroaches and their control</p> <p>Contamination of water; water-borne diseases like cholera, dysentery and Hepatitis</p> |
| <p>M. LIFE PROCESSES:</p> <p>CONTROL AND</p> <p>CO-ORDINATION: NERVOUS</p> <p>SYSTEM</p> | <ul style="list-style-type: none"> • Sense organs: eye, ear, nose external structure of the eye • Taking care of sense organs • Structure of the brain; spinal chord and their functions • Reflex actions |
| <p>N. ENDOCRINE SYSTEM</p> | <ul style="list-style-type: none"> • Names of endocrine glands • Action of hormones: adrenaline, thyroxin, insulin, pituitary hormone |

ICSE - Indian Certificate of Secondary Education

GRADE 8 COMPUTER

SYLLABUS

| UNITS | SUB-UNITS |
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| A. ARTIFICIAL INTELLIGENCE | <ul style="list-style-type: none"> • Definition of Artificial Intelligence • Fields of Artificial Intelligence |
| B. COMPUTER NETWORKING | <ul style="list-style-type: none"> • Definition of Computer Network • Advantages of Computer Network Basic Elements of a communication System • Data Transmission Media • Network Types • Network Architecture • Network Topologies • Devices used in Networking |
| C. INTRODUCTION TO MICROSOFT ACCESS | <ul style="list-style-type: none"> • Concept of a Database • Need of a Database • Features of MS Access • Important terms in MS Access • Creation of a Database and Tables in MS Access |
| D. MODIFYING A DATABASE IN MICROSOFT ACCESS | <ul style="list-style-type: none"> • Modifying structure of a database in MS Access • Working with tables in MS Access |
| E. QUERIES, FORMS AND REPORTS IN MICROSOFT ACCESS | <ul style="list-style-type: none"> • Creating Queries in MS-Access • Creating Forms in MS-Access |

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| | <ul style="list-style-type: none"> • Creating Reports in MS-Access |
| F. FILES | <ul style="list-style-type: none"> • File Processing • File Compression |
| G. COMPUTING AND ETHICS | <ul style="list-style-type: none"> • Computer in crime • Computer Hacking • Theft of Money • Fraud on Internet • Viruses • Software piracy |
| H. INTRODUCTION TO VISUAL BASIC | <ul style="list-style-type: none"> • Overview of Visual Basic Screen • Controls in visual Basic • Control properties in Visual Basic • Variables in Visual Basic • Operators in Visual Basic • Functions in Visual Basic • Methods in Visual Basic • Statements in Visual Basic • Events in Visual Basic • Advantages and disadvantages of Visual Basic |

ICSE - Indian Certificate of Secondary Education

GRADE 8 ART

SYLLABUS

| UNITS |
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| A. MEMORY DRAWING |
| B. 2D DESIGN (TEXTURE) |
| C. STILL LIFE |
| D. MEMORY DRAWING (LANDSCAPE) |
| E. 2D DESIGN (MOTIF) |
| F. MEMORY DRAWING |
| G. STILL LIFE |
| H. DESIGN- RELIEF WORK-CLAY |
| I. MEMORY DRAWING |
| J. DESIGN |

ICSE - Indian Certificate of Secondary Education

**GRADE 8
FRENCH
2nd Language
(Mumbai, Vadodara, Pune, Bangalore-Marthahalli)**

SYLLABUS

| UNITS |
|--------------------------------------|
| A. LES SAISONS |
| B. LES MESURES |
| C. LA MAISON |
| D. LE PASSE COMPOSE |
| E. PLURALS |
| F. PASSE RECENT TENSE |
| G. LE FUTUR PROCHE |
| H. LE FUTURE |
| I. LES ARTICLES PARTITIFS |
| J. REFLEXIVE VERBS |
| K. LESSON 15 – 26 |
| L. IMPERATIF TENSE |
| M. SUPERLATIF AND COMPARATIVE |
| N. COMPREHENSION |
| O. ESSAY WRITING |
| P. LETTER WRITING |
| Q. LESSON 27, 28, 29, 30, 31 |

Note: As per the ICSE guidelines, French is offered as second language only to foreign passport holders

ICSE - Indian Certificate of Secondary Education

GRADE 8 KANNADA 2nd Language (Bangalore-Marthahalli) SYLLABUS

| UNITS | SUB-UNITS |
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| ೦. ನಮ್ಮ ಊರಿನ ರಸಿಕರು ಅಧ್ಯಾಯ ೧ | <ul style="list-style-type: none"> ಗೊರೂರಿನ ಪ್ರಕೃತಿ ಸೌಂದರ್ಯ ಗೊರೂರಿನ ಜನರ ಜೀವನ |
| ಃ. ವ್ಯಾಕರಣ | <ul style="list-style-type: none"> ಸ್ವರಗಳು, ವ್ಯಂಜನಗಳು |
| <p>ಅ. ಕನ್ನಡ ಕಸ್ತೂರಿ- ಕನ್ನಡ ತಾಯಿಯ ಸುಪ್ರಭಾತ (ಪದ್ಯ)</p> <p>ಆ. ನಮ್ಮ ಊರಿನ ರಸಿಕರು-ಅಧ್ಯಾಯ ೨</p> <p>ಇ. ವ್ಯಾಕರಣ</p> | <ul style="list-style-type: none"> ಕವಿಪರಿಚಯ ಕವಿತೆಯ ಭಾವಾರ್ಥ, ಕವಿತೆಯ ವಾಚನ ಕವಿತೆಯ ಅಭ್ಯಾಸ ಗೊರೂರಿನ ರಸಿಕರ ಬಗ್ಗೆ ಲಿಂಗಗಳು ವಚನಗಳು ವಿರುದ್ಧ ಪದಗಳು |
| ಈ. ಕನ್ನಡ ಕಸ್ತೂರಿ-ಬಸಯ್ಯ ಮತ್ತು ಜೇನುಗೂಡು (ಪಾಠ) | <ul style="list-style-type: none"> ಲೇಖಕರ ಪರಿಚಯ ಪಾಠದ ಆಶಯ ಪಾಠದ ಸಾರಾಂಶ ಪಾಠದ ವಾಚನ ಪಾಠದ ಅಭ್ಯಾಸ |

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| <p>ಉ.ಕನ್ನಡ ಕಸ್ತೂರಿ-ಪದ್ಯ ಊ. ಹಡೆದವ್ವ</p> <p>ಋ. ವ್ಯಾಕರಣ</p> | <ul style="list-style-type: none"> • ಜನಪದ ತ್ರಿಪದಿ • ಆಶಯ • ತ್ರಿಪದಿಯ ಬಗ್ಗೆ ವಿವರಣೆ • ಪದ್ಯದ ವಾಚನ • ಪದ್ಯದ ಅಭ್ಯಾಸ <ul style="list-style-type: none"> • ಗಾದೆಮಾತು • ಗದ್ಯಭಾಗ • ಚಿತ್ರ ಕಥಾಲೇಖನ • ಪತ್ರ ಲೇಖನ • ಪ್ರಬಂಧ |
| <p>ಎ. ಕನ್ನಡ ಕಸ್ತೂರಿ ಏ. ಕುರುಡು ಕಾಂಚಾಣ ಪದ್ಯ</p> | <ul style="list-style-type: none"> • ಕವಿ ಪರಿಚಯ • ಪದ್ಯದ ಆಶಯ |
| <p>ಐ. ವ್ಯಾಕರಣ</p> | <ul style="list-style-type: none"> • ಸರ್ವನಾಮ • ಪುನರಾವರ್ತನೆ |
| <p>ಒ. ನಮ್ಮ ಊರಿನ ರಸಿಕರು ಓ. ಅಧ್ಯಾಯ ೩</p> <p>ಔ. ಕನ್ನಡ ಕಸ್ತೂರಿ ಕ ಮನಸೂರದಲ್ಲಿಯ ದಿನಗಳು - ಪಾಠ</p> <p>ಕಿ. ವ್ಯಾಕರಣ</p> | <ul style="list-style-type: none"> • ಅಪರ ಕರ್ಮದ ಬಗ್ಗೆ ವಿವರಣೆ <ul style="list-style-type: none"> • ಲೇಖಕರ ಪರಿಚಯ • ಪಾಠದ ಆಶಯ • ಪಾಠದ ಸಾರಾಂಶ • ಪಾಠದ ವಾಚನ • ಪಾಠದ ಅಭ್ಯಾಸ <ul style="list-style-type: none"> • ಪ್ರಬಂಧ • ಕಾಲಗಳು |

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| | <ul style="list-style-type: none"> ● ಗಾದೆಮಾತುಗಳು |
| <p>ಖಿ. ಕನ್ನಡ ಕಸ್ತೂರಿ- ಉತ್ತರನ ಪೌರುಷ- ಪಾಠ</p> <p>ಬಿ ನಮ್ಮ ಊರಿನ ರಸಿಕರು</p> <p>ಬಿ. ಅಧ್ಯಾಯ ೪</p> <p>ಗಿ ಅಧ್ಯಾಯ ೫</p> | <ul style="list-style-type: none"> ● ಲೇಖಕರ ಪರಿಚಯ ● ಪಾಠದ ಆಶಯ ● ಪಾಠದ ಸಾರಾಂಶ ● ಪಾಠದ ವಾಚನ ● ಪಾಠದ ಅಭ್ಯಾಸ ● ಊರಿನ ಮೇಷ್ಟ್ರು ● ಊರಿನ ಪೋಸ್ಟ್ ಮ್ಯಾನ್ |
| <p>ಗಿ. ವ್ಯಾಕರಣ</p> | <ul style="list-style-type: none"> ● ಗಾದೆ ಮಾತುಗಳು ● ಪ್ರಬಂಧ ● ಚಿತ್ರ ಕಥಾಲೇಖನ ● ಗದ್ಯಾಂಶ |
| <p>ಘಿ ನಮ್ಮ ಊರಿನ ರಸಿಕರು</p> <p>ಘಿ. ಅಧ್ಯಾಯ ೬</p> <p>ಜಿ. ಕನ್ನಡ ಕಸ್ತೂರಿ</p> <p>ಜಿ ನೆಲ್ಸನ್ ಮಂಡೇಲಾ -ಪದ್ಯ</p> <p>ಂಂ. ಪುನರಾವರ್ತನೆ</p> | <ul style="list-style-type: none"> ● ಜೋಡಿದಾರರು ● ಕನ್ನಡಕಸ್ತೂರಿ |
| <p>ಃಃ. ವ್ಯಾಕರಣ</p> <p>ಅಅ. ಪುನರಾವರ್ತನೆ</p> | <ul style="list-style-type: none"> ● ಪ್ರಬಂಧ ● ಗದ್ಯಾಂಶ ● ಗಾದೆಮಾತುಗಳು ● ನಮ್ಮ ಊರಿನ ರಸಿಕರು, ಕನ್ನಡ ಕಸ್ತೂರಿ |

ICSE - Indian Certificate of Secondary Education

GRADE 8
SANSKRIT
2nd Language
SYLLABUS
(Bangalore-marthahalli)

| UNITS | SUB-UNITS |
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| A.सुभाषितानी (पाठ १) | • अर्थ, व्याख्या |
| B.बिलस्य वाणी न कदापि मे श्रुता (पाठ २) | • अनुवाद, वाचन, लिखित कार्य |
| C.भगवद्ज्जुकम (पाठ ३) | • प्रहसन अभिनय, अभ्यास कार्य |
| D.सदैव पुरतो निधही चरणम (पाठ ४) | • राष्ट्रवादी कविता वाचन, व्याख्या, लिखित कार्य |
| E.धर्मे धमनं पापे पुण्यम (पाठ ५) | • लोककथा अनुवाद, अभ्यास प्रश्न |
| F.प्रेमलस्य प्रेमल्याश्च कथा (पाठ ६) | • कथा वाचन, लिखित कार्य |
| G.जलवाहिनी (पाठ ७) | • लोकगीत अनुवाद, अभ्यास प्रश्न |
| H.सन्धि (व्याकरण) | • अर्थ, भेद |
| I.उपसर्ग (व्याकरण) | • प्र,पर,अप,सम, अनु |
| J.कारक (व्याकरण) | • कारक विभक्ति, उपपद विभक्ति |

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| K.निबंध (व्याकरण) | <ul style="list-style-type: none"> रचना- पाठशाला, होलिका |
| L.पत्र लेखनम | <ul style="list-style-type: none"> औपचारिक पत्र |
| M.संसार सागरस्य नायका(पाठ ८) | <ul style="list-style-type: none"> स्पष्टिकरण, लिखित कार्य |
| N.सप्त भागिन्य (पाठ ९) | <ul style="list-style-type: none"> नाट्य प्रस्तुति, अभ्यास कार्य |
| O.अशोक वनिका (पाठ १०) | <ul style="list-style-type: none"> व्याख्या,अभ्यास कार्य |
| P.सावित्रीबाई फुले (पाठ ११) | <ul style="list-style-type: none"> अनुवाद, वाचन, लिखित कार्य |
| Q.कःरक्षति कःरक्षितः (पाठ १२) | <ul style="list-style-type: none"> स्पष्टिकरण, लिखित कार्य |
| R.हिमालयः (पाठ १३) | <ul style="list-style-type: none"> कुमारसंभव वाचन, व्याख्या, अभ्यास प्रश्न |
| S.आर्यभटः (पाठ १४) | <ul style="list-style-type: none"> जीवन परिचय, अभ्यास प्रश्न |
| T.प्रहेलिका (पाठ १५) | <ul style="list-style-type: none"> पहेलिया, वाचन, स्पष्टिकरण |
| U.सन्धि (व्याकरण) | <ul style="list-style-type: none"> गुण, व्यंजन, विसर्ग |
| V.संस्कृत अनुवाद (व्याकरण) | <ul style="list-style-type: none"> रचनात्मक लेखन |
| W.प्रत्यय (व्याकरण) | <ul style="list-style-type: none"> प्रत्यय की जानकारी |
| X.पत्र लेखनम (व्याकरण) | <ul style="list-style-type: none"> पत्र का प्ररूप (अनौपचारिक पत्र) |
| Y.निबंध (व्याकरण) | <ul style="list-style-type: none"> रचना- दीपावली, मम प्रिय पुस्तकम |