Pre-Nurture & Career Foundation

Study Material Syllabus for CLASS - X CBSE (WB)

[For English Medium Students Only]

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Foundation Biology-1 Life Processes - Nutrition, Respiration, Transportation, Excretion, Control and Coordination
Foundation Physics-1 Optics: Reflection of Light, Optics: Refraction of Light, The Human Eye & The Colourful World

Foundation Chemistry-1 Chemical Reactions & Equations, Acids, Bases & Salts, Metals & Non-metals

 $Foundation\,Mathematics \hbox{-}1\qquad Real\,Numbers, Polynomials, Pair\,of\,Linear\,Equations\,in\,Two\,Variables, Co-ordinate\,Geometry$

Foundation Mathematics-2 Introduction to Trigonometry, Similar Triangles, Areas Related to Circles, Probability

Foundation SST-1 History: The Rise of Nationalism in Europe, Nationalism in India, The Making of a Global World, The Age of Industrialisation.

 $Geography: Resources and \, Development, Forest \, and \, Wildlife \, Resources, Water \, Resources, Agriculture.$

Civics: Power Sharing, Federalism, Democracy and Diversity, Gender, Religion and Caste.

Economics: Development, Sectors of the Indian Economy.

Foundation English-1 Section A (Grammar): Tenses, Subject-Verb Concord, Modals, Reported Speech, Articles & Determiners, Integrated

Grammar Exercises.

Section B (Writing): Letter Writing, Analytical Paragraph Writing

Section C (Literature): Figures of Speech. FIRST FLIGHT: A Letter To God, Dust Of Snow, Fire And Ice, Nelson Mandela: Long Walk To Freedom, A Tiger in the Zoo, Two Stories About Flying (Part 1 - His First Flight, Part - 2 Black Aeroplane), How to Tell

Wild Animals, The Ball Poem, From the Diary Of Anne Frank, Hundred Dresses-I, Hundred Dresses-II

FOOTPRINTS WITHOUT FEET: A Triumph Of Surgery, The Thief's Story, The Midnight Visitor, A Question of Trust, Footprints

Without Feet

TSET-ATARGET:: NTSE & Olympiads

Advance Biology-1 Control and Coordination in Living System, Continuity of Life, Heredity and Common genetic diseases, Evolution and

Adaptation, Environment its resources and their conservation.

Advance Biology-2 Basic properties of life, Classification of diversity of life: Taxonomy, Biomolecules and their behaviour, Cell, Tissue, Major

Organs of Human body and their functions, Photosynthesis, Mineral nutrition & Transpiration in Plant, Respiration, Nutrition, Circulation, Excretion, Immunity and Human Diseases, Ecology and Ecological Organisation, Natural Resources

and its Sustainable use.

Advance Physics-1 Concern About Our Environment, Thermal Phenomena, Light, Current Electricity, Magnetic Effects of Electric Current,

 $Atomic\, Nucleus.$

 $Advance\ Physics-2 \\ Measurement,\ Motion,\ Force\ and\ NLM,\ Matter\ Structure\ and\ Properties;\ Work,\ Energy,\ Power;\ Sound.$

Advance Chemistry-1 Behaviour of gases, Chemical calculations, Periodic table, Chemical bonding, Electrochemistry, Inorganic chemistry in the

laboratory and in Industry, Metallurgy, Organic chemistry.

 $Advance\ Chemistry - 2 \qquad Atomic\ structure, Mole\ concept, Solution, Acids\ bases\ and\ salts, Separation\ of\ Substances, Water.$

Advance Mathematics-1 Number System, Surds and Indices, Coordinate Geometry, Linear Equations in Two Variables, Polynomials, Logarithm,

Trigonometry, Statistics, Mensuration of Plane Figures, Mensuration of Solid Figures, Triangle, Quadrilateral and Area of

Parallelograms, Circles, Sets, Probability, Quadratic Equations, Inequalities.

 $Advance\,Mathematics - 2\qquad \qquad \text{Every Day Mathematics: Percentage, Profit, Loss and Discount, Partnership, Mixtures and Alligations, Simple and Compound}$

Interest, Instalments, Ratio and Proportion, Time Speed & Distance, Unitary Method, Time and Work, Pipes And Cisterns,

Problems on Ages, Uniform Rate of growth.

Mental Ability-1 Verbal: Series, Logical Sequence of Words, Coding & Decoding, Analogy, Classification, Logical Venn Diagrams,

Mathematical Operations, Direction Sense Test, Alphabet Test, Puzzle Test, Number, Ranking & Time sequence Test, Alpha-Numeric Sequence Puzzle, Inserting The Missing Characters, Calendar, Arithmetical Reasoning, Blood Relations,

Statements-Conclusions, Clock, Data Sufficiency, Sequential Output Tracing.

Mental Ability-2 Non Verbal: Series, Analogy, Classification, Analytical Reasoning, Mirror Images, Water Images, Spotting Out The Embedded

 $Figures, Completion of Incomplete \ Pattern, Paper \ Folding \ \& \ Paper \ Cutting, \ Dice, Cube, \ Dot \ Situation, \ Figure \ Matrix, \ Figure$

formation, Construction of Shapes & Grouping of Identical Figures.

Advance SST-1 History: The advent of Europeans to India, The foundation of British Administration and its effects, Social and Religious

reforms, The First war of Independence, Effects of British rule in India, The Freedom Struggle, India after Independence, The Political dimensions of 20th CE, First World War, Russian Revolution, League of Nations, Development of Nazism and

 $Fascism, Second\,World\,War, United\,Nations\,Organisation, Cold\,War.$

Civics: The Indian Constitution, Democracy in India, Functioning of Indian Democracy

Geography: Lithosphere, Hydrosphere, Atmosphere, India-Size and Location, Physical Divisions of India, Drainage, Climate, Control of the Co

Natural Vegetation and Wildlife, Agriculture, Manufacturing Industries, Lifelines of National Economy

 ${\sf Economics:} Development, Money and Credit, Globalisation and Indian Economy$

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Advance SST-2 History: Historical derivation of land and source of history, The evolution of Indian society, Vedic Civilisation, Ancient India,

Jainism and Buddhism, The Growth of Kingship, The Delhi Sultanate, The Mughal Empire, Sufi and Bhakti Movements,

Periodisation in History.

Geography: Earth as a planet, Movements of the Earth, Determination of Location of a place on Earth's surface, Geomorphic processes and landforms of Earth, Weathering, Hazards and Disasters, Resources and Development, Minerals and Energy

Resources, West Bengal, Maps and Scale.

TSET-E1 (E)#TARGET:: FOUNDATION ENGINEERING

Excellent Physics Units and Dimensions, Significant Figures & Errors in Measurement, Vectors, Motion in one dimension, Projectile Motion,

Newton's Laws of Motion, Friction, Work, Energy & Power, Circular Motion, Gravitation, Simple Harmonic Motion, Wave

Motion

Excellent Chemistry General Concepts in Chemistry, States of Matter, Atomic Structure, Periodic Classification of Elements, Chemical Bonding,

Equilibrium, Redox reactions, Basic Concepts of Organic Chemistry.

Excellent Mathematics-1 Sets and Relations, Functions, Quadratic Equation & Expression, Complex Numbers, Logarithm, Trigonometry, Sequences

and series, Binomial Theorem, Permutations and Combinations, Points, Straight Lines, Circles, Parabola, Ellipse, Hyperbola

TARGET:: NMTC ROUND-1

Excellent Mathematics-2 Algebra, Geometry, Number System, Inequalities

TSET-E1 (M)#TARGET::FOUNDATION MEDICAL

Excellent Physics Units and Dimensions, Significant Figures & Errors in Measurement, Vectors, Motion in one dimension, Projectile Motion,

Circular Motion, Newton's Laws of Motion, Friction, Work, Energy & Power, Gravitation, Simple Harmonic Motion, Wave

Motion

Excellent Chemistry General Concepts in Chemistry, States of Matter, Atomic Structure, Periodic Classification of Elements, Chemical Bonding,

Equilibrium, Redox reactions, Basic Concepts of Organic Chemistry.

Excellent Biology Diversity in Living Organisms, Cell, Cell Cycle and Cell Division, Biomolecules, Morphology of Flowering Plants, Anatomy of

Flowering Plants and Animals, Plant Physiology, Animal Physiology - Animal Nutrition, Respiratory System, Circulatory

 $System, Excretory\,System, Control\, and\, coordination.$

Will be dispatched according to choice given by student at the time of enrollment for preparing for Foundation

Engineering or Foundation Medical respectively.

TSET-F2

Foundation Biology-2 How do Organisms Reproduce, Heredity and Evolution, Our Environment, Sustainable Management of Natural Resources

Foundation Physics-2 Electricity, Magnetic Effects of Electric Current, Sources of Energy
Foundation Chemistry-2 Carbon and its Compounds, Periodic Classification of Elements
Foundation Mathematics-3 Quadratic Equations, Arithmetic Progressions, Heights and Distances

Foundation Mathematics-4 Circles, Constructions, Surface Areas and Volumes, Statistics

Foundation SST-2 History: Print Culture and the Modern World.

 $Geography: Minerals\ and\ Energy\ Resources, Manufacturing\ Industries, Lifelines\ of\ National\ Economy.$

Civics: Popular Struggles and Movements, Political Parties, Outcomes of Democracy, Challenges to Democracy.

Economics: Money and Credit, Globalisation and The Indian Economy, Consumer Rights.

Foundation English-2 Section A (Grammar): Integrated Grammar Exercises.

 $Section\,B\,(Writing)\,:\,Letter\,Writing, Analytical\,Paragraph\,Writing$

Section C (Literature): FIRST FLIGHT: Amanda, Animals, Glimpses of India (Part 1 - A Baker from Goa, Part 2 - Coorg, Part 3 - Tea from Assam), Trees, Mijbil the Otter, Fog, How to tell Wild Animals, Madam Rides the Bus, The Tale of Custard the Dragon,

The Sermon at Benares, For Anne Gregory, The Proposal (Play).

FOOTPRINTS WITHOUT FEET: The Making of a Scientist, The Necklace, The Hack Driver, Bholi, The Book That Saved the Earth.

TSET-E2*TARGET::NMTCFINALROUND

Excellent Mathematics-3 Same Topics as in Round-1

* Module will be dispatched to NMTC Round-1 Qualified Students.

TSET-E3** TARGET:: NTSE STAGE 2

NTSE Question Bank 1 Mental Ability Test (MAT)

NTSE Question Bank 2 Scholastic Aptitude Test (SAT)

Practicing NTSE Booklet of Sample Papers

^{**} Module will be dispatched to those students who will be selected for Stage-II of the National Talent Search Examination (NTSE).