## Pre-Nurture & Career Foundation

Study Material Syllabus for CLASS - X CBSE (MH)

[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

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

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

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

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 Nutrition, Respiration, Transportation in Plants and Animals, Excretion, The Regulators of Life, The Life Cycle, Mapping our

Genes, Introduction to Microbiology, Cell Biology and Biotechnology, Disaster Management

Advance Biology-2 Cell: The Unit of Life, Life: Simple and Complex, Life Around You, Highway to Health, Quality food Quality Life, Bonding with

Ecosystem, Striving for Better Environment, Solid Waste: Eco-friendly Management

Advance Physics-1 Electricity and Chemical Effects of Current, Magnetic Effects of Electric Current, Light, Sources of Energy, Heat, Miscellaneous

Advance Physics-2 Motion, Force and NLM, Gravitation, Thrust and Pressure; Work, Energy, Power; Waves and Sound, Information

 ${\sf Communication Technology}$ 

Advance Chemistry-1 Chemical Reactions & Equations, Acids, Bases & Salts, Metals & Non-metals, Carbon and its Compounds, Periodic

Classification of Elements

 $Advance Chemistry - 2 \qquad \qquad Matter in our surroundings, Is \ matter around us \ pure, Atoms \ and \ molecules, Structure \ of \ atoms \ and \ molecules, Structure \ of \ atoms \ and \ molecules, Structure \ of \ atoms \ and \ molecules, Structure \ of \ atoms \ atoms \ and \ molecules, Structure \ of \ atoms \ atoms$ 

Advance Mathematics-1 Sets, Linear Equations in Two Variables, Number System, Surds and Indices, Polynomials, Rational Expressions, Quadratic

Equations, Arithmetic Progressions, Coordinate Geometry, Trigonometry and Its Applications, Triangle, Circles and Tangent to the circle, Mensuration of Plane Figures, Mensuration of Solid Figures, Statistics, Probability, Lines and Angles,

Quadrilaterals, Area of Parallelogram and Polygon, Equation of Straight Line.

Advance Mathematics-2 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, Financial Planning

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.

 $Advance\,SST-1 \\ History: Historiography: Development\ in\ the\ West, Historiography: Indian\ Tradition, Applied\ History, History\ of\ India\ Arts, \\ History: History: History\ of\ India\ Arts, \\ History: History: History\ of\ India\ Arts, \\ History: Hist$ 

 $Mass\,Media\,and\,History, Entertainment\,and\,History, Sports\,and\,History, Tourism\,and\,History, Heritage\,Management\,.$ 

Political Science: Working of the Constitution, The Electoral Process, Political Parties, Social and Political Movements,

Challenges faced by Indian Democracy.

Geography: Location & Extent, Physiography, Drainage, Climate, Natural Vegetation and Wildlife, Population, Human

Settlements, Economy and Occupation, Tourism, Transport and Communication.

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Advance SST-2 History: Sources of History, India Became Independent in 1947, India's internal challenges, Economic Development,

Education, Empowerment of Women and other Weaker Sections, Science and Technology, Industry and Trade, Changing

Life-1, Changing Life-2.

Civics: Post World War Era and India's Foreign Policy, India's Defence System, The United Nations, India and Other Countries,

International Problems

Geography: Endogenic Movements, Exogenetic Processes Part I, Exogenetic Processes Part II, Precipitation, The Properties of Sea Water, International Date Line, Introduction to Economics and Trade, Urbanisation, Transport & Communication,

Tourism.

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

 $Foundation\,Mathematics \hbox{-}4\qquad Circles, Constructions, Surface\,Areas\,and\,Volumes, Statistics\\$ 

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:: NMTC FINAL ROUND

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

<sup>\*\*</sup> Module will be dispatched to those students who will be selected for Stage-II of the National Talent Search Examination (NTSE).