## Pre-Nurture & Career Foundation

Study Material Syllabus for CLASS - X CBSE (TN)

[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 Life Process - Nutrition, Life Process - Respiration, Life Process - Transportation, Life Process - Excretion, Control and

Coordination, Reproduction in Plants and Animals, Heredity and Evolution, Our Environment, Management of Natural

Resources.

Advance Biology-2 Cell, Tissue, Improvement in Food Resources, Diversity in Living Organisms, Structural Organisation of Animals, Health and

 ${\it Diseases, Breeding} \ and \ Biotechnology.$ 

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

Miscellaneous.

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

**Physics** 

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

Classification of Elements

Advance Chemistry-2 Matter in our surroundings, Is matter around us pure, Atoms and molecules, Structure of atom, Chemical Bonding, Applied

Chemistry

Advance Mathematics-1 Linear Equations in Two Variables, Number System, Surds and Indices, Polynomials, 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, Set Language, Relations and

Functions, Numbers and Sequences, Algebra

Advance Mathematics-2 Every Day Mathematics : Percentage, Profit, Loss and Discount, Partnership, Mixtures and Alligations, Simple and

Compound Interest, Ratio and Proportion, Time, Speed and Distance, Unitary Method, Time and Work, Pipes and Cisterns,

Problems on Ages.

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: Outbreak of World War I and Its Aftermath, The World between two World Wars, World War II, The World after World

War II, Social and Religious Reform Movements in the 19th Century, Early Revolts against British Rule in Tamil Nadu, Anti-Colonial Movements and the Birth of Nationalism, Nationalism: Gandhian Phase, Freedom Struggle in Tamil Nadu, Social

Transformation in Tamil Nadu.

Civics: Indian Constitution, Central Government, State Government, India's Foreign Policy, India's International Relations

Geography: India- Location, Relief and Drainage, Climate, India-Natural Resources, India- Agriculture, Manufacturing Industries, India-Population, Transport, Communication and Trade, Physical Geography of Tamil Nadu, Human Geography

of Tamil Nadu.

Economics: Gross Domestic Product and its Growth: An Introduction, Globalization and Trade, Food Security and Nutrition,

 $Government \, and \, Taxes, Industrial \, Clusters \, in \, Tamil \, Nadu \, and \, Taxes \,$ 

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[For English Medium Students Only]

Advance SST-2 History: Evolution of Humans and Society - Prehistoric Period, Ancient Civilisations, Early Tamil Society and Culture,

Intellectual Awakening and Socio-Economic Changes, The Classical World, The Middle Ages, State and Society in Medieval India, The Beginning of the Modern Age, The Age of Revolutions, Industrial Revolutions, Colonialism in Asia and Africa.

Civics: Forms of Government and Democracy, Election, Political Parties and Pressure Groups, Human Rights, Forms of

Government, Local Self Government, Road Safety.

Geography: Lithosphere I - Endogenetic Processes, Lithosphere II - Exogenetic Processes, Atmosphere, Hydrosphere,

Biosphere, Man and Environment, Mapping Skills, Disaster Management: Responding to Disasters.

Economics: Understanding Development: Perspectives, Measurement and Sustainability, Employments in India and Tamil

Nadu, Money and Credit, Tamil Nadu Agriculture, Migration.

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

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

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

**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.

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

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 SST-2

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 Circles, Constructions, Surface Areas and Volumes, Statistics

Foundation Mathematics-4

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 Ouestion 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).