## Pre-Nurture & Career Foundation

Study Material Syllabus for CLASS - X CBSE (KL)

[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-1 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 Sensations and Responses, Windows of Knowledge, Chemical Messages for Homeostasis, Keeping Diseases Away, Soldiers

 $of \, Defence, Unravelling \, Genetic \, Mysteries, Genetics \, for \, the \, Future, The \, Paths \, Traversed \, by \, Life \, The \, Paths \, Traversed \, Defence, \, Contract \, Contract$ 

Advance Biology-2 Protectors of Biosphere, Food through Digestive Tract, Simple Nutrients into Cells, Breathing for Energy, To Maintain

Homeostasis, The Biology of Movement, Division for Growth and Reproduction

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

Universe and Space Exploration

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

Advance Chemistry-1 Electronic configuration and the periodic table, Gas laws and mole concept, Redox reactions and rate of chemical reaction,

Reactivity series and electrochemistry, Production of metals, Carbon and its compounds.

Advance Chemistry-2 Structure of atom, Chemical bonding, Classification of elements and the periodic table, Non-metals and their compounds,

Acids bases and salts.

Advance Mathematics-1 Linear Equations in Two Variables, Number System, Surds and Indices, Polynomials, Decimal Form, Quadratic Equations,

Arithmetic Progressions, Coordinate Geometry, Trigonometry and Its Applications, Triangles, 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

 $Interest, Ratio \ and \ Proportion, Time, Speed \ and \ Distance, Unitary \ Method, Time \ and \ Work, Pipes \ and \ Cisterns, Problems \ on \ Proportion \ And \ And \ Proportion \ A$ 

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

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

formation, Construction of Shapes & Grouping of Identical Figures.

Advance SST-1 History: Revolution that influenced the World, World in the 20th Century, British Exploitation & Resistance, Culture &

 $Nationalism, Struggle\, and\, Freedom, India\, After\, Independence, Kerala\, Towards\, Modernity,$ 

Civics: Public Administration, The State and Political Science, Civic Consciousness.

Geography: Seasons and Time, In Search of the Source of Wind, Terrain Analyses Through Maps, Eye in the Sky and Data

Analysis, India: The Land of Diversities, Resources of India.

Economics: Human Resource Development in India, Public Expenditure and Public Revenue, Financial Institutions &

Services, Consumer Protection & Satisfaction, Sociology.

Advance SST-2 History: Medieval World: Centres of Power, The East & West Era of Exchanges, Medieval India: Concept of Kingship and

 $Nature\ of\ Administration, Society\ and\ Economy\ in\ the\ Medieval\ Period, India\ and\ The\ Land\ of\ Synthesis.\ Kerala:\ From\ Eight$ 

to Eighteenth Century.

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 $Civics: Indian Constitutions \ Rights \& \ Duties, Election \& \ Democracy, Towards \ Bright \ Future.$ 

 $Geography: Sun: The \ Ultimate \ Source, Signature \ of Time, By the \ Hands \ of \ Nature, For a \ Safer Future, Population, Migration \& Safer Future, Population, Migration \& Safer Future, Population, Migration \& Safer Future, Population, Migration & Safer Future, Migration$ 

Settlements, Ocean and Man.

Economics: National Income, Economic Growth and Development, Economic System & Economic Policies.

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, Parabola, Florence, Parabola, Parabola,

**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:: 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::NTSESTAGE2

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).