## Pre-Nurture & Career Foundation

### [For English Medium Students Only]

## Study Material Syllabus for CLASS - X CBSE (IN)

#### TSET-F1

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-A TARGET:: 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, Why do we fall ill?
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
Advance Chemistry-1	Chemical Reactions & Equations, Acid, Bases and Salts, Metals and 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.
Advance Mathematics-1	Linear Equations in Two Variables, Number System, Surds and Indices, Polynomials, Quadratic Equations, Arithmetic Progression, 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.
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: The Making of a Global World, The Age of Industrialisation, Work Life and Leisure, Print Culture and the Modern World, The Rise of Nationalism in Europe, The Nationalist Movement in Indo - China, Nationalism in India.
	Civics: Power Sharing, Federalism, Democracy and Diversity, Gender, Religion and Caste, Popular Struggles and Movements, Political Parties, Outcomes of Democracy, Challenges to Democracy.
	Geography: Resources and Development, Forest and Wildlife Resources, Water Resources, Agriculture, Mineral and Energy Resources, Manufacturing Industries, Lifelines of National Economy.
	Economics : Development, Sectors of the Indian Economy, Money And Credit, Globalisation and The Indian Economy, Consumer Rights.
Advance SST-2	History : The French Revolution, Socialism in Russia and the Russian Revolution, Nazism and the Rise of Hitler, Forest Society and Colonialism, Pastoralists in the Modern World.

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	Civics : What is Democracy? Why Democracy?, Constitutional Design, Electoral Politics, Working of Institutions, Democratic Rights.	
	Geography: India Size And Location, Physical Features of India, Drainage, Climate, Natural Vegetation and Wildlife, Population.	
	Economics: The Story of Village Palampur, People as resource, Poverty As a Challenge, Food Security in India.	
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.	
	${\sf Civics: Popular Struggles and Movements, Political Parties, Outcomes of Democracy, Challenges to Democracy.}$	
	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).	
	${\sf FOOTPRINTSWITHOUTFEET:} The Making of a Scientist, The Necklace, The Hack Driver, Bholi, The Book That Saved the Earth.$	
TSET-E2*TARGET::NMTC FIN	NAL 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	

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