# NTSE CLASS 10 SYLLABUS

# NTSE SAT TOPICS (Physics, Chemistry, Mathematics, Biology and Social Studies):



#### **PHYSICS:**

	Revision Topics of Class 8 and Class 9
1	Pre-requisites to Learn Physics
2	Force, Pressure (Fluid Statics) and Friction
3	Motion / Description of Motion
4	Force and Laws of Motion / Causes of Motion
5	Motion in Two Dimension
6	Gravitation
7	Work, Power and Energy
8	Sound and waves
9	Chemical Effects of Electric Current
10	Stars and the Solar System / Exploring Universe
11	Some Natural Phenomena
	NTSE Class 10 Topics
12	Light Reflection and Refraction/Colourful World (Class 10)
13	Electricity (Class 10)
14	Sources of Energy (Class 10)
15	Magnetic Effects of Electric Current / Magnetism and Electricity (Class 10)
16	Atomic and Nuclear Physics (NTSE)
17	Nature of Light and Photoelectric Effect (NTSE)
18	Solid-state Electronic and Lasers (NTSE)
19	Heat (NTSE)

## **CHEMISTRY:**

	Revision Topics of Class 08 and Class 09
1	Synthetic fibres and Plastics
2	Materials: Metals and Non-Metals
3	Coal and petroleum
4	Combustion and flame
5	Matter in Our Surroundings / Nature of Matter
6	Is Matter Around Us Pure
7	Atoms and Molecules
8	Structure of the Atom
9	Chemical Arithmetic: An Introduction to Stoichiometry / Mole concept and Reaction Stoichiometry
	NTSE Class 10 Topics
1	Chemical Reactions and Equations
2	Acids Bases and Salts
3	Metals and Non-Metals / General Metallurgy
4	Carbon and Its Compounds
	Introduction to Organic Chemistry
	Organic Chemistry Basic Concepts
	Nomenclature of Organic Compound
	Hydrocarbons
	Organic Compounds containing oxygen atom
5	Periodic Classification of Elements
	Periodic Table - I
	Periodic Table - II
6	Chemical Bonding (NTSE)
7	Chemical in Daily life (NTSE)
8	Man-made Material (NTSE)

## **MATHEMATICS:**

	Revision Topics of Class 08 and Class 09
1	Real Numbers / Arithmetic Expression
	Rational Numbers / Indices and Surds
	Squares and Squares roots
	Exponents and powers
	Number system
	Cubes and Cube roots
	Comparing quantities
	Direct and inverse variation

**MARS Learning Centre** 

	Playing with graphs
2	Algebra
	Linear equation in one variable
	Algebraic expressions
	Factorisation
	Introduce to graphs
	Polynomials
	Linear equations
3	Geometry
	Introduction to Euclid's geometry
	Lines and Angles
	Triangles
	Quadrilaterals
	Areas of Parallelogram and triangle
	Circles
	Constructions
	Heron's formula
	C-ordinate Geometry
	Visualising solid shapes
	Mensuration/ Solids
	Understanding Quadrilaterals
	Practical Geometry
	Surface areas and volumes
4	Statistics and probability
	Data Handling
	NTSE Class 10 Topics
1	Chapter 1 Real Numbers
2	Chapter 2 Polynomials
3	Chapter 3 Pair of Linear Equations in Two Variables
4	Chapter 4 Quadratic Equations
5	Chapter 5 Arithmetic Progressions
6	Chapter 6 Triangles
7	Chapter 7 Coordinate Geometry
8	Chapter 8 Introduction to Trigonometry / Heights and Distances
9	Chapter 9 Applications of Trigonometry
10	Chapter 10 Circle
11	Chapter 11 Constructions
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12	Chapter 12 Areas related to Circles
13	Chapter 13 Surface Areas and Volumes
14	Chapter 14 Statistics
15	Chapter 15 Probability
16	Ratio, Proportion and Percentage (NTSE)
17	Sets (NTSE)
18	Commercial Mathematics (NTSE)
19	Simple Interest, Compound Interest, and Applications (NTSE)
20	Permutations and Combination (NTSE)
21	Areas of Rectilinear Figures (NTSE)
22	Matrices (NTSE)

#### **BIOLOGY:**

	Revision Topics of Class 8 and Class 9
1	Study of Cells / The Fundamental unit of life
2	Tissues
3	The Living World / Diversity in Living Organism / Biological Classification
	Classification of Plants
	Classification of Animals (Invertebrates, Vertebrates)
4	Environmental Issues / Pollution of Air and Water
5	Natural Resources
6	Why do we fall ill / Health, Hygiene and Diseases
7	Improvement in Food resources - Plants
8	Animal Husbandry
9	Conservation of Plants and Animals
	Class 10 NTSE Topics
10	Life Processes (Class 10)
	Nutrition in Plants and Animals
	Respiration in Plants and Animals
	Transport system in Plants and Animals
	Transpiration in plants
	Excretion in plants and animals
	Response and co-ordination in plants
	Control and coordination: Nervous system and sense organs
	Co-ordination through hormones (endocrine system)
11	Reproduction/Reaching the age of Adolescence (Class 10)

12	Genetics (Class 10)
13	Evolution (Class 10)
14	The human eye (Class 10)
15	Our Environment / Environment and its components (Class 10)
16	Sustainable Management of Natural Resources (Class 10)
17	Biotechnology (NTSE)

# **SOCIAL - STUDIES:**

	Class 10 NTSE Topics
	HISTORY
	Advent of Europeans to India
	The Extension of the British Rule
	The Impact of British Rule in India
1	Opposition to British Rule in Karnataka
	Social and Religious Reform Movements
	The first War of Indian Independence (1857)
	Political Science
	THE PROBLEMS OF INDIA AND THEIR SOLUTIONS
2	Indian Foreign Policy
2	India's Relations with Other Countries
	Sociology
3	SOCIAL STRATIFICATION
	Labour
	GEOGRAPHY
	India - Position and Extent
	India - Physiography
4	India - Climate
_	India - Soils
	India - Forest Resources
	India - Water Resources
	India - Land Resources
	ECONOMICS
5	Development
	Rural Development
6	BUSINESS STUDIES

	Banking Transactions
	Entrepreneurship
	Class 09 NTSE Revision Topics
	History
	Christianity And Islam
1	Medieval India And Political Transition
	Religious Promoters and Social Reformers
	Vijayanagara and Bahamani Kingdoms
	POLITICAL SCIENCE
2	Our Constitution
2	The Union Government
	State Government
	SOCIOLOGY
3	Family
	Socialization
	GEOGRAPHY
	Our State - Karnataka
4	Physiographic Divisions of Karnataka
	Climate, Soil, Natural Vegetation and Animals of Karnataka
	Water Resources of Karnataka Land Resources of Karnataka
	ECONOMICS
5	Natural Resources
	Human Resources of India
	BUSINESS STUDIES
6	Management of Business
	Class 08 NTSE Revision Topics
	HISTORY
	Geographical Features and Pre-Historic India
1	Ancient Civilizations of India
	Ancient Civilizations of The World
	Greek, Roman and American Civilizations
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	Rise of Jainism And Buddhism
	Mauryasa and Kushans
	The Guptas and Vardhanas
	South India-Shatavahanas, Kadambas and Gangas
	The Chalukyas of Badami and The Pallavas Of Kanchi
	The Rashtrakutas of Manyakheta and The Chalukyas of Kalyana
	The Cholas And Hoysalas of Dwarasamudra
	POLITICAL SCIENCE
	Meaning and Importance of Political Science
2	Public Administration
	Human Rights
	Local Government
	SOCIOLOGY
	Introduction to Sociology
3	Culture
	Social Institutions
	Types of Society
	GEOGRAPHY
	The Earth–Our Living Planet
4	Lithosphere
	Atmosphere
	Hydrosphere
	Biosphere
	ECONOMICS
	Introduction to Economics
	Meaning and Types of Economy
	National Income and Sectoral Aspects of The Indian Economy
5	Government and The Economy
	Business Studies
	Components of Business Studies
	Business and Industry
	Forms of Business Organizations

#### **NTSE GMAT TOPICS:**

1	Number Series
2	Identifying the wrong number in the series
3	Letter series
4	Identifying the wrong numbers in the given pairs of numbers
5	Change of signs and numbers
6	6(a) Substitution of Mathematical Symbols
	6(b) Substitution of Signs
7	Problem Solving Questions
8	8(a) Odd Man Out (Numbers)
	8(b) Odd Man Out (Figures)
9	Numbers in Figures and Their Relationships
10	Similarity of Sets
11	Number Relation
12	Identifying the Number of Geometrical Figures
13	Completion of Figures
14	14(a) Analogy (Figures)
	14(b) Analogy (Numbers)
15	Intersecting Figures
16	Venn Diagrams
17	Figural Series
18	Substitution
19	Problems Related to Numbers in Figures
20	Thought - Questions
21	Matching conditions with the given set of numbers
22	Identifying the incorrect equations
23	23(a) Coding and Decoding
	23(b) Coding and Decoding
	23(c) Coding and Decoding