

Syllabus for Class X (2010-2011)
ENGLISH

April	Literature Reader : The Tribute, Night of the Scorpion, Cutie Pie MCB: Health and Medicine WB: Determiners, Tenses, Sub- Verb Agreement Writing: Post card writing, Notice writing, Instruction writing
May	Literature Reader : Cutie Pie MCB: Health and Medicine(cont.....) WB: Sub – Verb Agreement , Non-Finite and Relatives Writing: Pamphlet, Article writing, Formal letter writing Project : Sample Paper
July	Literature Reader : Ode to the West Wind , A Christmas Carol MCB: Education WB: Connectors , Integrated Grammar Practice I, II Writing : Article Writing , Diary Entry , Dialog Completion
August	Literature Reader : A Christmas Carol(cont.....) MCB: Science WB: Conditional, Integrated Grammar Practice III Writing: Message writing, Speech, Factual description
September	Literature Reader : The Ultimate Safari MCB: Environment WB: Comparison, Avoiding Repetition Writing: Expanding Notes, Process writing , Using Sequence Marker and Passive Voice
October	Literature Reader : The Frog and the Nightingale MCB: Environment(cont.....) WB: Nominalization , Integrated Grammar Practice IV Writing: Expanding Headlines
November	Literature Reader : , The Letter, The Rime of the Ancient Mariner MCB: Travel and Tourism WB: Active and Passive, Integrated Grammar Practice V Writing: Telegram, Itinerary
December	Literature Reader : Mirror , Julius Caesar MCB: Travel and Tourism (Cont.....) WB: Preposition , Integrated Grammar Practice VI and VII Writing: Official Letter Writing and Informal letter Solving sample papers, Revision

MATHS
I Term

April	Linear equation in two variables 1. Solution of a linear equation by graphical method
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	<p>2. By algebraic Method Equations reducible to a pair of linear equations in two variables Real Numbers 1. Euclid's division lemma 2. Fundamental theorem of arithmetic .</p>
May	<p>Polynomials Zeroes of a polynomial , Geometrical meaning and relationship between zeroes and coefficients of a polynomial , division algorithm for polynomials</p>
July	<p>Triangles Introduction to similar figures , Similar triangles and Polygons . Similarity of triangles , Criteria for similarity of triangles . Areas of similar triangles . Pythagoras theorem .</p> <p>Introduction to Trigonometry Meaning of trigonometric ratios of the angle . Trigonometric ratios of same specific angles .</p> <p>Trigonometric ratios of 0° , 30° , 45° , 60° & 90° & Complementary angles . Trigonometric identities .</p>
Aug / Sep	<p>Statistics - Mean , median and mode</p>

II Term

October	<p>Some applications of Trigonometry . Line of sight , angle of elevation & depression</p>
November	<p>Quadratic Equations Standard form of a quadratic equation solution of a quadratic equation Solution of a quadratic equation by factorization and completing the square , Nature of roots .</p> <p>Arithmetic Progressions (AP) Introduction to AP . General form of an AP . nth term of an AP . Sum of first n terms of an AP .</p>
December	<p>Circles Tangent , secant to a circle , number of tangents from a point on a circle length of tangents drawn from external point to a circle .</p> <p>Constructions Division of a line segment in a given ratio . To construct a triangle similar a given triangle as per given scale factor .</p> <p>Co-ordinate Geometry – Distance and Section formulae, Area of a triangle.</p>

Probability –

- January** Areas related to circles
Perimeter and area of a circle , Area of Sector , segment and combination of plane figures .
- Jan / Feb** Surface areas and volumes : Surface area and volume of combination of solids , Frustum of Cone .

PHYSICS

- April / May** Electricity
Electric current and circuit, electric potential and potential difference, circuit diagram, ohm's law, factors on which the resistance of a conductor depends ,.
Resistance of a system of resistors, resistors in series, resistors in parallel, heating effect of electric current, practical applications of heating effect of electric – current, electric power.
- July/Aug** Magnetic effects of electric current
Magnetic field and field lines, magnetic field due to a current through a straight conductor, right – hand thumb rule, magnetic field due to a current through a circular loop, magnetic field due to a current in a solenoid.

Force on a current carrying conductor in a magnetic field, electric motor, electromagnetic induction, electric generator, domestic electric circuits.
- September/
October** Sources of energy
What is a good source of energy, conventional sources of energy, improvements in the technology for using conventional sources of energy, alternative or non – conventional sources of energy, energy from the sea,
Geothermal energy, nuclear energy, environmental – consequences, how long will an energy source last us ?
- November/
December** Light
Reflection of light, Spherical mirrors, representation of images formed by spherical mirrors using ray diagrams, sign convention for reflection by spherical mirrors, mirror – formula and magnification, refraction of light, the refractive index, refraction by spherical lenses image formation by lenses , image formation in lenses using ray diagrams , sign convention for spherical lenses , lens formula and magnification , power of a lens.
- January** The human eye and the colourful world :- the human eye , power of accommodation , defects of vision and their correction , refraction of light through a prism , dispersion of white light by a glass prism , atmospheric refraction , scattering of light .

February Revision

CHEMISTRY

TERM 1

April Chemical Reactions and Equations
Types of chemical reactions, combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation, reduction in terms of gain and loss of oxygen and hydrogen.

May/ July Acids, Bases and Salts
Chemical properties, examples and uses , concept of pH scale, preparation and
Uses of NaOH, CaOCl₂, NaHCO₃, Na₂CO₃, POP

August Metals and Non - metals
Brief discussion of basic metallurgical processes, properties of common metals
And non metals, elementary idea about bonding, corrosion and prevention.

TERM 2

September Sources of energy
Biomass.
Management of Natural resources .
Coal and Petroleum .

Oct / Nov Periodic classification of elements
Gradations in properties, Mendeleev's periodic table.

Dec/ Jan Carbon and its compounds
Covalent bond formation.
Carbon compounds, elementary idea about bonding,
Nomenclature of carbon compounds, difference saturated and
Unsaturated hydrocarbons,

February chemical properties of carbon compounds ,Ethanol and Ethanoic acid
Soap and Detergents

BIOLOGY

I Term

April Chapter 6 : Life Processes
1. Nutrition : How do living things get their food, Autotrophic nutrition, Heterotrophic nutrition, How do organisms obtain their nutrition, Nutrition in human beings.

May	<u>2. Respiration</u> : Aerobic and Anaerobic respiration, Respiration in human beings.
July	<u>3. Transportation</u> : Transportation in human beings, our pump – the heart, the tubes – blood vessels, maintenance by platelets, lymph, transportation in plants, transport of water, transport of food and other substances. <u>4. Excretion</u> : Excretion in human beings, Excretion in plants.
August	Chapter 7 : Control and Coordination <u>I In Animals</u> Animals' nervous system, what happens in reflex action, Human brain, How tissues are protected, How does nervous tissue cause action., Hormones in animals.
September	Chapter 7 : Control and Coordination <u>II In Plants</u> Coordination in plants, Immediate response to stimulus, Movement due to growth.
II Term	
October	Chapter 8 : How do organisms reproduce? Modes of reproduction used by single organisms, Fission, Fragmentation, Regeneration, Budding, Vegetative propagation, spore formation, sexual reproduction, sexual reproduction in flowering plants, sexual reproduction in human beings, male reproductive system, female reproductive system, reproductive health.
November	Chapter 9 : Heredity and Evolution Accumulation of variations during reproduction, Heredity, How do these traits get expressed, Sex determination, Evolution, Acquired and inherited traits, speciation, evolution and classification, fossils, Evolution by stages, Human evolution.
December	Chapter 15 : Our Environment What happens when we add waste to the environment, Ecosystem – its components, food chains, food webs, ozone layer and how it is getting depleted, Managing the garbage. Chapter 16 : Management of Natural Resources Why do we need to manage resources, Forest and wild life, sustainable management, Water harvesting, An overview of natural resources and management.
January	Management of Natural resources
February	Revision

HISTORY

April / May	Sub unit - Economics and Livelihood Industrialization 1850s – 1950s Contrast between the form of industrialization in Britain and India; Relationship between handicrafts and industrial production, formal and informal sectors, Livelihood of workers. CASE STUDIES : Britain and India.
July / Aug	Sub Unit - Culture, Identity and Society Print Culture and Nationalism The history of print in Europe ; The growth of press in the 19 th century India ; Relationship between print culture, public Debate and politics.
Sep / Oct	Nationalist Movement in Indo China : French colonialism in Indochina ; Phases of struggle against the French; The ideas of Phan Dinh Phung, Phan Boi Chau, Nguyen Ac Quoc ; The Second World War and the liberation struggle ; America and the second Indochina war.
Nov / Dec	Nationalism in India : Civil Disobedience Movement First World war, Khilafat and Non – cooperation; Salt Satyagraha; Movements of peasants, workers, tribals; Activities of different political groups.
Jan	Revision

DEMOCRATIC POLITICS II

April/May	Power Sharing- Mechanisms in Belgium and Srilanka – Why Power Sharing is desirable ? Forms of power sharing .
July	Federalism – What makes India federal country ? How is federalism practised ? Decentralisation in India.
August	Democracy and Diversity- Differences , similarities , division ,overlapping and cross cutting differences.
September	Gender , Religion and Caste – Gender in politics , Religion , communalism and politics.
October	Popular struggles and movements- Popular struggles in Nepal and Bolivia , Pressure groups.

November Political Parties –
Need of political parties , How many parties should we have ? Challenges to political parties .

December Outcomes of Democracy –
Accountable , Responsive and legitimate government , Reduction of inequality and poverty. Dignity of the citizens.

January Challenges of Democracy-
Different types of Challenges , Thinking about political Reforms

Revision

UNDERSTANDING ECONOMICS II

April / May The Story of Development
The traditional notion of development ; National Income and per – capita income ; Growth of NI – critical appraisal of existing development indicators (PCI, IMR, SR and other income and health indicators) The need for health and educational development ; Human Development Indicators (in simple and brief as a holistic measure of development. CASE STUDY : Three states (Kerala, Punjab and Bihar) or a few countries (India, China, Sri Lanka and one developed country)

July The Role of Service Sector in Indian Economy
What is service sector (through examples) : Importance of service sector in generating employment and income to the nation (with the help of a few case studies) ; Growth of Service sector in India ; India as a major service provider to the world ; The need for public investment ; The role of important infrastructure, education and health.

**August/
September** Money and Financial System
Role of money in an economy : Historical origin; Formal and Informal financial institutions for savings and credit – General introduction; select one formal institution such as a nationalized commercial bank and a few informal institutions ; Local money lenders, landlords, self help groups, chit funds and private finance companies.

**October/
November** Globalisation
What is globalization (through some simple examples) ; How India is being globalised and why; Development strategy prior to 1991. State control of Industries : Textile goods as an example for elaboration ; Economic Reforms 1991; Strategies adopted in Reform measures (easing of capital flows ; migration, investment flows); Different perspectives on globalization and its impact on different sectors ; Political impact of globalization.

December/ Consumer Awareness

January How consumer is exploited (one or two simple case studies) factors causing exploitation of consumers ; Rise of consumer awareness ; how a consumer should be in a market ; role of government in consumer protection.

February Revision.

Geography

April/May Resources and development
Types of resources , development of resources , resource planning, land Resources , land use pattern in India , Land degradation and conservation measures , soil as a resource .

May Forest and Wild Life Resources

July Water Resources
Water scarcity and the need for water conservation and management, Multipurpose river projects and integrated water resources management, Rainwater harvesting.

**August /
September** Agriculture
Types of farming, cropping pattern, Major crops, Technological and institutional reforms, food security.

**October/
November** Minerals and energy resources
Mode of occurrence of minerals , conservations of minerals

December Manufacturing industries
Importance of Manufacturing , classification of industries , Agro based industries , Mineral based industries , Industrial pollution and Environmental degradation .

Jan / Feb Lifelines of national economy
Transport , Communication , International trade , Tourism as a trade.
Disaster Management :- Term I & II (Through Project & Assignment in formative assessment only).
Topics for project :-

1. Tsunami
2. Safer Construction Practices
3. Survival skills
4. Alternate communications skills
5. Sharing responsibility