

## SYLLABUS OF CLASS IX (2010-2011)

### ENGLISH

<b>April</b>	<b>Literature Reader :</b> How I Taught My Grandmother to Read <b>MCB:</b> People <b>WB:</b> Determiners <b>Writing:</b> Official Report writing, Informal letter, Message Writing
<b>May</b>	<b>Literature Reader :</b> The Brook <b>WB:</b> Verb Forms, Integrated Grammar Practice I <b>Writing:</b> Dialogue completion, Expanding notes  <b>Project :</b> The Class IX Radio Show, Reading project
<b>July</b>	<b>Literature Reader :</b> A Dog Named Duke , Villa for Sale <b>MCB:</b> Adventure <b>WB:</b> Future Time Reference, Integrated Grammar Practice II <b>Writing:</b> Factual Description- description of school, classroom, home etc
<b>Aug</b>	<b>Literature Reader :</b> The Road Not Taken <b>MCB:</b> Environment <b>WB:</b> Modals, Integrated Grammar Practice III <b>Writing:</b> Formal letter, Pamphlet writing, scientists report
<b>September</b>	<b>Literature Reader :</b> The Solitary Reaper, Lord Ullin's daughter <b>WB:</b> Connectors, Integrated Grammar Practice IV <b>Writing:</b> Diary entry
<b>October</b>	<b>Literature Reader :</b> The Man Who Knew too Much , the Seven Ages <b>MCB:</b> Mystery <b>WB:</b> The Passive <b>Writing:</b> Expanding Headlines, Process writing
<b>November</b>	<b>Literature Reader :</b> Keeping it from Harold , Oh , I Wish I'd Looked After My Teeth <b>MCB:</b> Mystery (cont.....) <b>WB:</b> Integrated Grammar Practice V <b>Writing:</b> Article writing, Telegram , Completing Newspaper Report  <b>Project :</b> MCB related topic , Reading Project
<b>December</b>	<b>Literature Reader :</b> Song of the Rain , Best Seller <b>MCB:</b> Children <b>WB:</b> Reported Speech , Integrated Grammar Practice VI <b>Writing:</b> Speech , Debate
<b>January</b>	<b>Literature Reader :</b> The Bishop's Candle sticks <b>MCB:</b> Sports and Games <b>WB:</b> Preposition , Integrated Grammar Practice VII <b>Writing:</b> Notice Writing , Post Card Writing , Completion of Biography
<b>February</b>	Solving Sample papers and Revision

**MATHS**  
**I TERM**

- April**      **NUMBER SYSTEM**
1. Review of natural numbers , integers and rational numbers.      (Ex 1.1 & 1.2)
  2. Irrational numbers and their representation on number line .      (Ex 1.3 )
  3. Real numbers and their decimal representation.      (Ex 1.5 )
  4. What kind of decimal representation does rational and irrational numbers have.      (Ex1.5)
  5. Representing real numbers on the number line.      (Ex 1.5)
  6. Operation on real numbers.      (Ex 1.5)
  7. How to perform rationalization of real numbers of the type      (Ex 1.6)  
    (i)  $1/(a+b\sqrt{x})$   
    (ii)  $1/(\sqrt{x} + \sqrt{y})$
  8. Laws of exponents for real numbers .      (Ex 1.6)

- April / May**      **ALGEBRA - POLYNOMIALS**
1. Definition of polynomial, it's co-efficient with examples, its degree, constant, Linear, quadratic, cubic polynomials      (Ex 2.1)
  2. Zeros of a polynomial.      (Ex 2.2)
  3. Statement of remainder theorem with examples.      (Ex 2.3)
  4. Statement of factor theorem with examples.      (Ex 2.4)
  5. Factorization of Polynomials      (Ex 2.4)
  6. Recalling of algebraic expressions & identities
  7. Identities of types  $(a+b)^3$  ,  $(a-b)^3$  ,  $a^3+b^3$  ,  $a^3-b^3$  etc.      (Ex 2.5)

**CO-ORDINATE GEOMETRY.**

1. Cartesian plane, Co-ordinates of a point.      (Ex 3.1)
2. Plotting points in the plane      (Ex 3.2)
3. Names and terms associated with Co-ordinate plane      (Ex 3.3)

**July**      **INTRODUCTION TO EUCLID'S GEOMETRY**

**EUCLID'S DEFINITONS, AXIOMS & POSTULATES**

**LINES AND ANGLES**

1. Basic terms and definitions.      (Ex 6.1)
  2. To prove that if two lines intersect each other then vertical opposite angles are equal.
  3. Results on corresponding angles , alternate angles etc.      (Ex 6.2)
- Angle sum property of triangle      (Ex 6.3)

**TRIANGLES**

1. Congruence of triangle
  2. } S S S      (Ex 7.1)
  3. } S A S      Congruency      (Ex 7.2)
  4. } A S A      (Ex 7.3)
  5. } R.H.S
- INEQUALITIES OF A TRIANGLE**      (Ex 7.4)

- Aug / Sep**      **MENSURATION**  
**HERON'S FORMULAE**

**II TERM**

<b>October</b>	QUADRILATERALS 1. Angle sum property of quadrilateral types of quadrilateral. (Ex 8.1) 2. Properties of Parallelogram (Ex 8.2) 3. Mid point theorem (Ex 8.3)
<b>November</b>	AREAS OF PARALLELOGRAMS & TRIANGLES 1. Parallelograms of same base and between same parallels (Ex 9.1, 9.2) 2. Triangles on the same base and between same parallels (Ex 9.3)  CIRCLES Properties of a circle and cyclic quadrilaterals (Ex 10.1 – 10.3) Cyclic quadrilaterals
<b>December</b>	CONSTRUCTION  LINEAR EQUATIONS IN TWO VARIABLES 1. Recalling linear equation in one variable. (Ex 4.1) 2. Linear equation in two variables 3. Solution of linear equation (Ex 4.2) 4. Graph of linear equation in two variable (Ex 4.3) 5. Equation of lines parallel to x-axis and y-axis (Ex 4.4)
<b>Dec / Jan</b>	SURFACE AREAS AND VOLUMES SURFACE AREAS AND VOLUMES OF DIFFERENT SOLIDS .
<b>Jan</b>	STATISTICS Collection and presentation of data (Ex 14.1 & 14.2) Graphical representation of data (Ex 14.3) Measures of Central tendency (Ex 14.4)
<b>February</b>	PROBABILITY Probability as an experimental approach

### PHYSICS

<b>April / May</b>	MOTION : Motion along a straight line, Uniform motion and Non - Uniform Motion , Speed and Velocity , acceleration, Distance time graphs , Velocity time graphs , Graphical derivation of equations of motion , Circular motion, Numericals, Exercises .
<b>July</b>	FORCE AND LAWS OF MOTION : Balanced and Unbalanced forces . First law of motion, Inertia and Mass, Second Law of Motion – Mathematical formulation of second Law of Motion, Third Law of Motion – Solved eg , Exercises
<b>Aug / Sept</b>	GRAVITATION Universal Law of Gravitation , Free Fall , Mass and Weight, Weight of an object on the moon . Thrust and Pressure , Buoyancy , Archimedes' Principle , Relative Density , Exercises
<b>Oct / Nov</b>	WORK AND ENERGY

Work – Scientific concept of work – Work done by a Constant force ,Energy , Forms of energy, Kinetic energy and Potential energy ,Law of conservation of energy , Commercial unit of energy . Exercises

<b>Dec / Jan</b>	<b>SOUND</b> Production of sound , Propagation of sound , Longitudinal and transverse waves, Relationship between frequency, Wavelength and velocity of a wave, Reflection of sound, Echo, Reverberation, Applications of ultrasound Sonar , Structure of Human ear , Exercises .
<b>February</b>	Revision

## **CHEMISTRY**

### **TERM 1**

April /May	<u>Matter in our surroundings</u> Physical Nature of matter , Characteristics of particles of matter , states of matter Evaporation.
July/ August	<u>Is matter around us Pure</u> Mixture, Solution, Separating the components of mixture,
September	<u>Is matter around us Pure (continued.....)</u>

### **TERM 2**

October / November	<u>Atoms &amp; Molecules</u> Laws of chemical combination, Atom, Molecules, Chemical formulae,molecular mass , Mole concept
December / January	<u>Structure of the Atom</u> Charged particles,Structure of Atom, Distribution of electrons in shells, Valency, Atomic Number, Mass number,Isotopes
February	Natural Resources. Air , Atmosphere,Pollution of different kinds,soil,water .

### **Biology**

#### **I Term**

<b>April</b>	<u>ORGANISATION IN LIVING WORLD -</u> Cell – Basic unit of life What are living organisms made up of, What is a cell made up of, What is the structural organization of a cell. Plasma membrane, Cell wall, Nucleus, Cytoplasm. Cell organelles – Endoplasmic Reticulum, Golgi apparatus, Lysosomes, Mitochondria, Plastids, Vacuoles.
<b>May / July</b>	<u>Tissues</u>

Plant tissues – Meristematic tissues  
Permanent tissue – simple tissue, Complex permanent tissue.  
Animal tissues – Epithelial tissue, Connective tissue, Muscular tissue, Nervous tissue.

**Aug / Sep**

Food

Improvement in crop yields, Crop variety improvement, Crop production management, Nutrient management, Manure, Fertilizers, Irrigation, cropping patterns.  
Crop protection Management , Storage of grains.  
Animal husbandry – cattle farming, poultry farming, fish production, Bee-keeping.

**Oct / Nov**

**II Term**

ORGANISATION IN THE LIVING WORLD

- Biological diversity.  
What is the Basis of classification ,Classification and evolution, The Hierarchy of classification groups – Monera, Protista, Fungi, Plantae, Animalia.  
Animalia – Porifera, Platyhelminthes, Coelenterate, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata, Protochordata, Vertebrata (Pisces, Amphibia, Aves, Reptilia, Mammalia ) .

**Dec / Jan**

HEALTH AND DISEASES

Health and its Failure, Diseases and its causes, Acute and Chronic Diseases, Infections and non-infectious diseases, Infectious Diseases.  
Means of spread – Principles of Treatment, Principles of prevention.

**Jan / Feb**

BIOGEO CHEMICAL CYCLES IN NATURE

Biogeo chemical cycles – The Water-cycle, The carbon-cycle, Nitrogen – Cycle, The Oxygen – cycle, The green house effect and ozone layer.

**HISTORY**

**April/May**

Chapter 1 : The French Revolution : The Ancient Regime and its crisis, The Social forces that led to the Revolution, The different Revolutionary groups and ideas of the time, The Legacy.

**July / August**

Chapter 3 : Rise of Nazism : The growth of Social Democracy , The crises in Germany , The basis of Hitler's rise to power , The Ideology and impact of Nazism

**September**

Chapter 5 : Forest, Society and Colonialism. : Relationship between forests and Livelihood , Changes in forest Societies under Colonialism .  
CASE STUDIES : Focus on two forest movements one in colonial India (Bastar) and one in Indonesia.

**October**

Chapter 6 : Farmers and Peasants : Histories of the emergence of different forms of farming and peasant Societies, Changes within rural economies in the modern world.  
CASE STUDIES : Focus on contrasting forms of rural change and different forms of rural societies (expansion of large – scale wheat and cotton farming in USA, rural

economy and the Agricultural Revolution in England, and small peasant production in colonial India)

**November  
December** Chapter 8 : Clothes and Cultures : A short history of changes in clothing, Debates over clothing in colonial India, Swadeshi and the movement for Khadi.

**January** Revision

## CIVICS

**April / May** Democracy in the Contemporary World :What is Democracy ? Why democracy? : What are the different ways of defining democracy? Why has democracy become the most prevalent form of government in our times? What are the alternatives to democracy? Is democracy superior to its available alternatives? Must every democracy have the same institutions?

**July** What is Democracy :Designing of democracy in India : How and why did India become a democratic country?

**August** Why democracy? How was the Indian constitution framed? What are the salient features of the constitution? How is democracy being constantly designed and redesigned in India?

**September** Constitutional Design :Merits and challenges of Democracy.

**October** Electoral politics in democracy: Why and how do we elect representatives? Why do we have a system of competition among political parties? How has the citizens' participation in electoral politics changed? What are the ways to ensure free and fair elections?

**November** Working of Institutions - Institutions of Parliamentary Democracy : How is the country governed? What does Parliament do in our democracy ? What is the role of the President of India, the Prime Minister and the Council of Ministers? How do these relate to one another?

**December** Democratic Rights – Why do we need rights in a constitution? What are the fundamental Rights enjoyed by the citizen under the Indian constitution? How does the judiciary protect the Fundamental Rights of the citizen? How is the independence of the Judiciary ensured?

**January** Revision

## ECONOMICS

**July** Chapter 1 : The Economic story of Palampore : Economic transactions of Palampore and its interaction with the rest of the world through which the concept of production (including three factors of production – land, labour and capital) can be introduced.

**September** Chapter 2 : People as Resource : Introduction of how people become resource / asset ; economic activities done by men and women; unpaid work done by women;

quality of human resource; role of health and education; unemployment as a form of nonutilisation of human resource; sociopolitical implication in simple form.

**October** Chapter 3 : Poverty as a challenge facing India : Who is poor (through two case studies one rural one urban); indicators; absolute poverty (not as a concept but through a few simple examples) – why people are poor ; unequal distribution of resources ; comparison between countries ; steps taken by government for poverty alleviation.

**November/  
December** Chapter 4 : Food Security – Source of foodgrains : Variety across the nation ; famines in the past ; the need for self sufficiency ; role of government in food security ; procurement of foodgrains ; overflowing of granaries and people without food ; public distribution system ; role of cooperatives in food security (foodgrains, milk and vegetables ration shops, cooperative shops, two three examples as case studies)

**January /  
February** Revision and final Examination.

### **GEOGRAPHY**

**April / May** Location of India , size of India , India and the world , India's neighbours, Arunachal Pradesh – the land of rising sun , duration of day and night , local time and standard time, Indian standard time .

**July** Physical features of India - The Himalayan , the Northern plain, Peninsular Plateau , Desert Coastal Plateau and Islands

**August** Drainage : drainage basin, drainage system in India, the Himalayan rivers, lakes , role of rivers in the economy , river pollution .

Disaster Management :- Introduction to Disaster Management .

**September** Disaster Management :-Common Hazards

**October /  
November** Climate : Monsoons , climate controls , factors affecting India's climate, Indian monsoon , onset of the monsoon and withdrawal , the seasons , distribution of rainfall , monsoon as a unifying bond .

**December** Natural vegetation and wildlife, flora and fauna, relief, climate, ecosystem, types of vegetation , wildlife  
Disaster Management :- Man made disasters .

**January /  
February** Population : Population , size and distribution , India's population distribution by density , population growth and processes of population change , age composition , sex ratio , literacy rates , occupational structure , health , adolescent population , National Population Policy , NPP2000 and adolescents .  
Disaster Management :- Community based disaster management.