YEAR 2010 - 2011
ENGLISH

I term
(April – August)

April/May **Chapter :** Alice in wonderland

Poem Amalkanti

Grammar: Tenses- The Present
The Past
The Future

Project Work Extra Reading Book

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July **Chapter :** A Pinch of Salt

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Grammar : Finites and non- finites
Writing – Process Writing
Paragraph writing
Jumbled Sentences

August /
September **Chapter :** Ranji's Wonderful Bat
Poem Exile

Grammar : Preosition
Conjunction

Writing Notice/ message missing & error

October/ **Chapter :** **Flamingo**
November **Poem :** You have two Voices

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Grammar : Active / Passive

December	**Chapter :**	The Open Window
	Poem :	To a butterfly
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	Grammar	Direct and In direct speech

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January/	**Chapter :**	Galileo Galileo
February	.	
	Grammar :	Syntheses of sentences
	Writing	Story writing
		Missing & error
		Jumbled sentences

Mathematics

APRIL

Exponents

1. What is an exponent ?
2. Which is base and which is power?
3. Powers with negative exponents.
4. Use of exponents to express small numbers in standard form.
5.

Square and Square roots.

1. Squares numbers
2. Properties of perfect squares
3. Finding square roots.
4. To find square of a number
5. Square roots of decimals
6. Estimating square roots.

MAY Cubes and Cube Roots

1. Perfect cubes or cube numbers.
2. Properties of cubes of numberes.
3. Cube root

JULY

Unit 3
Understanding Quadrilaterals

1. Polygons: Types , diagnols and angle sum property
2. Sum of exterior angles of polygon
3. Kinds of quadrilaterals – Trapezium
   Kite
   Parallelogram – Properties , angles, diagonals of parallelograms
   Some special parallelograms – Rhombus
   Rectangle
   Square

   Properties of Rhombus, Rectangle and Square

Unit 4
Practical Geometry
To construct Quadrilaterals when:-

1. four sides and one diagonal are given
2. three sides and two diagonals are given
3. two adjacent sides and three angles are given
4. three sides and two included angles are given
5. construction of special quadrilaterals

AUGUST

Unit 13
Direct and Inverse propotions

1. Direct propotion
2. Inverse propotion

SEPTEMBER

Rational Numbers

1. What are rational numbers ?
2. Closure property for all applications.
3. To learn the properties of rational numbers
4. Associativity for all rational numbers.

5. The role of Zero
6. Additive inverse and multiplicative inverse
7. Distributivity of multiplication over addition for rational numbers.
8. Representation of rational numbers on the number line.

OCTOBER

Introduction to graphs

1. To present a data in a graphical from
2. To compare different categories using a bar graph
3. How to compose parts of a whole or percentage using pie graph
4. How to read a histogram and infer from it.
5. Representing qualities over a period of time using line graph.
6. What is a linear graph?
7. Locating a point in a graph sheet.
8. Co ordination of a point
9. How to express direct variation and inverse variation through a graph.

Linear Equations in one variable

1. Equations with highest power as one
2. Non – linear equations
3. How to find the solution of an equation
4. Finding solutions for equations which have linear expressions on one side and numbers on the other side.
5. Applications – puzzles
6. Solving equations having the variable on both sides
7. Solving the given problems by framing suitable and right equations
8. Solving equations having the variable on both sides.
9. Application – word problems
10. Reducing equations to simpler form
11. Utility of linear equations in solving problems on number , ages, perimeters etc

NOVEMBER Algebric Expressions and Identities

1. What are expressions ?
2. Representing expressions on number line.
3. Term, factors and co – efficient
4. Monomial, binomial and coefficient.
5. Like and Unlike terms
6. Addition and Subtraction of Algebraic expressions

7. Multiplying a monomial by a monomial.
8. Multiplying of algebraic expression.
9. Multiplying a monomial by a binomial and by a trinomial.
10. How to multiply a binomial by a binomial and by a trinomial.
11. What is an identity ?
12. What are standard identities ?
13. Applying identities to multiply polynomials .
14. How to find out squares and products of algebraic expressions.

Factorisation

1. Factors of natural numbers.
2. Factors of algebraic expressions
3. Factorization – method of common factors.
4. Factorization by regrouping terms
5. Factorization using identities.
6. Factors of the form (x + a) (x + b)
7. Division of a polynomial by a monomial
8. Division of a polynomial by a monomial.
9. Division of algebric expressions.

DECEMBER

Mensuration

Area of a trapezium

Area of a general quadrilateral
Area of polygon
Solid shapes
Surface area of cube, cuboid, cylinder
Volume of cube, cuboid, cylinder

JAN / FEB

Data Handling / comparing quantities

A pictograph , bar graph, double bar graph , organizing data, grouping data.

Circle graph or pie chart
Chance and probability

Ration and percentages
Finding the increase or decrease percent
Prices related to buying and selling
Sales tax/ Value added tax.

Phy/Chem

Month	Concepts	Objectives
APRIL	Speed	What does distance moved in unit time indicate?
	Force	What is force ? When do we say that a force is in action? Define force How many objects are involved? What is the magnitude of force? What is its direction?
	Motion	What happens when a force acts on object?
	Thrust	When do we say an object is in motion? When is it at rest?
	Pressure	What are contact forces? What are non- contact forces? What is the force acting on a unit area? Does liquid have pressure? Does air have pressure? What is atmospheric pressure?
	Activities and project work	To prove that two objects are involved when a force is applied. To prove the pressure exerted by liquids. To prove that air exerts pressure.
May	Particles of atom	Name particulars of an atom
	Structure of an atom	Describe stable of an atom.
	Electronic configuration of	Express metals & non – metals in ters of electronic configuration

	metals and non – metals Valency of metals and non- metals Symbols of metals	Write the valency of metals & non-metals Identify symbols and interpret elements Derive the formula
JULY	Friction :- A force of friction, factors affecting friction Friction – a necessary evil Increasing and reducing friction fluid friction	Examine and interpret by an activity using a book, cardboard. Demonstrating the factors by taking various situations from life. Discuss and evaluate the disadvantages of friction in daily life situations Discuss on various methods of increasing and decreasing friction Explain and then identify the pressure in fluids.
AUGUST	Materials Metals and Non Metals Reaction with oxygen	How do different substances appear ? What are the physical properties of metals ? What are the chemical properties of non – metals ? What are the physical properties of non – metals ? What are the chemical properties of metals? Distinguish between metals and non metals How does a metal react with oxygen ? What is the nature of products? To learn the chemical reaction , nature

	Displacement reactions Activities Project work ********** on metals and non – metals	of products when metals and non – metals react with water , acids and bases. What are displacement reaction? Which metals is more active than the other? Why do one metal displaces another from its respective salt? Students will observe the chemical reactions and will be distinguish between metals and non – metals by themselves. Students should make a questioner about metals and non – metals
SEPTEMBER	Lightning Charges To charge a body? Precautions Earthquake	Why does lighting occur? What are charges? What are charged bodies? How does a body develop charge on a body ? What are the types of charges? What is an electricdischarge ? What are the properties of charges? How can we charge a body ? What are the methods of transferring charges? What are the preventive measures to be taken to remain safe during lightning? How can you protect the buildings from lightning? What is an earthquake ? What are the causes of earthquake? Can we measure the magnitude of earth quake? What is seismograph ?

		What are the modern building technologies for quake safe? What are the steps to be taken to protect yself if an earthquake strikes?
OCTOBER	Define combustion. Conditions for combustion. Define Ignition temperature. Ways to control fire. Types of combustion What is the structure of a candle flame? Different types of fuels , fules differ in efficiency, cost Effect of burning fuels on environment	Ain combustion Investigate conditions under which combustion takes place. Collect and analyze examples from daily life situations. Observe and identify ways to control fire. Describe types of combustion Understand and draw the structure of a candle flame. Collect information from daily life situation and justify the uses of fuels. Compare gaseous and liquid effects of burning fuels.
NOVEMBER	Sound How is sound formed? Sound produced by humans. Sound needs a medium fro propagation, amplitute, time-period and frequency. Audible and inaudible, noise and music, noise pollution,	Perform an activity using rubber band and pencil box to show how sound is produced? Discuss sand explain the organ in human which produce sound. Perform activity to demonstrate the concept and then discuss the characteristics of sound. To differentiate between noise and music. Identify various sources of noise. Thinking of measures to minimize noise and its hazards.

	measures to limit noise pollution.	
DECEMBER	Conductors and insulators Conduction of electricity in solids and liquids Effect of current on conducting substance Electrolysis, electrolyte Importance of electroplating Advantages of electroplating.	Differentiate between conductors and insulators. Examine the conduction by analyzing the nature of liquid , solid. Record the effect a) bubble the effect b) deposits of metals on electrodes change in color of solution Analyze and interpret electrolysis , to understand electroplating. Apply electrolysis in electroplating. Identify uses and advantages of electroplating.
JANUARY	Light :- Laws of reflection Regular and diffused reflection Reflected light can be reflected again, multiple images, kaleidoscope. Sunlight- dispersion of light Structure of eye , care of the eyes,	Comprehends and express the law Identify and relate to the life situations Observing multiple images formed by mirrors places at angle to each other Making a Kaleidoscope Observing spectrum obtained on a wall using a plane – mirror inclined at an angle of 45 Description of case histories of visually challenged people, activities with Braelle sheet.

	visually challenged persons, Braille system.	

BIOLOGY

Month	Chapter	Topics
APRIL	**Crop Production and Management**	Agricultural practices. - Kharif crops. Rabi crops. - - Basic practices of crop production . - Prepration of soil. - Agricultural implements (i) Plough (ii) Hoe (iii) cultivator Sowing Activity to sort out good seeds and bad seeds Selection of seeds Traditional tools Seed drill Adding manure and fertilizers - Activity to show growing seedlings with maure and fertilizer. - Advantages of manure. Irrigation - Sources of irrigation - Traditional methods (i) Moat (ii) Chain pump (iii) Dhekli (iv) Rahat - Modern methods (i) Sprinkler system (ii) Drip system - Protection from weeds Harvesting Storage
MAY	**Cell structure and Functions** .	Organisms show Variety in cell number Shape and size – egs. Cell structure and functions Parts of the cell (i) Cell membrane (ii) Cell wall (iii) Cytoplasm (iv) Nucleus (v) Vacuole (vi) Plastids Comparison between plant and animal cell

		- Diagrams showing the differences
JULY	**Micro organisms Friends and Foe**	Different micro – organisms Where do micro – organisms live? Friendly micro – organisms. - Making of curd and bread - Medicinal uses - Vaccine - Increasing soil fertility Harmful micro – organisms - Disease causing micro – organisms in humans. - Disease causing micro – organisms in animals. - Disease causing micro – organisms in plants. Food Poisoning. Food preservation - Chemical method - Using common salt - Using sugar - Using oil and vinegar - Heat and cold treatments. - Storage and packing Nitrogen fixation Nitrogen cycle
August	**Synthetic fabrics and plastics**	Fibres - Natural, synthetic Synthetic fibres - Rayon, Nylon, Polyester, Acrylic. Characteristics of synthetic fibres Plastics - Characters: (i) Non reactive (ii) Light, strong and durable. (iii) Poor conductors Plastic and the environment
OCTOBER	**Reproduction in animals**	**Modes of reproduction** - Sexual and Asexual Sexual Reproduction - Male and Female reproductive organs - Labeled diagram - Fertilization : external , internal with egs. Development of Embryo - diagram Viviparous and Oviparous animals Metamorphosis Asexual Reproduction - Budding Binary Fission – with diagrams

NOVEMBER	**Reaching the age of Adolescence**	Adolescence and puberty Changes at Puberty - Increase in height, body shape changes, Voice changes, in activity of sweat and sebaceous glands, Development of se Reaching mental, intellectual and emotional maturity Secondary sexual characters Role of hormones in initiating reproductive function. Reproductive phase of life in humans. Determination of the sex of the baby. Hormones other than sex hormones. Role of hormones in completing the life history of insects and fr Reproductive Health - Nutritional needs of the adolescents. - Personal hygiene - Physical exercise - Say " No " to drugs.
DECEMBER	**Coal and Petroleum** .	Inexhaustible and Exhaustible Natural Resources Coal - Products formed from coal (i) Coke (ii) Coal tar (iii) Coal gas Petroleum - Refining of petroleum Natural gas Limited natural resources

JANUARY	**Conservation of plants and animals.**	Deforestation and its causes. Consequences of deforestation. Conservation of forests and wild life. Biosphere reserve Flora and Fauna Endemic species Wild life sanctuary National Park Red Data Book Migration Recycling of paper Reforestation
	Pollution of Air and water	Air pollution How does air gets polluted? Case study – The Taj Mahal Green house effect What can be done to reduce air pollution? Water pollution. How does water gets polluted? Case study – Ganga Potable water. How can we purify water? What can be done to reduce water pollution?
FEBRUARY	**REVISION**	

History

Month	Concepts	Objectives
APRIL	Different periods of Indian History and their importance . Sources of information about British rule.	Explain the classification on Indian history and problem associated with it. Analyze the administration records and other sources of information about the British rule.
	The Establishment of Company Power	Analyze the establishment of East India Company and other European power fro trade.

		Evaluate how trade led to battles. Describe the events of battle of Plassey and its result. Comprehend the meaning of Subsidary alliance. Evaluate the reason behind the war between Tipu Sultan and British. Ananlyze the British policy of Paramount and doctrine to lapse. Describe the setting up of new administration under Warrn Hasting . Evaluate the changes in company army.
MAY	Ruling the country side.	Analyze the aims behind the company becoming of Bengal and its result. Evaluate the problems associated with permanent settlement policy of the British. Explain the Mahabari system and system. Realize the problems of Indian farmers growing Indigo. Appreciate the Blue rebellion
JULY	**Tribal and dikur** .	Analyse the effect of colonial rule on tribal like Evaluate the forest laws on life of tribals and trader.
AUGUST	**The Rebilion of 1857 and after**	Analyse the reasons why Nawabs lost their power . Realize the difficulties of peasants

		and sepoye Evaluate why mutiny became popular Discuss the spread of rebilion Evaluate the result of Mutiny.
SEPTEMBER	**Cities under colonial rule.**	Explain what happened to the colonial cities. Evaluate the establishment of New Delhi Realize the problem faced by people during partition. Explain the role of municipalities in planning and decline of Havelis .
OCTOBER	**Educating the Nation**	Analyse the importance of education and British system of education. Value the scientific and technical knowledge imparted by British. Compare and contrast the Orientalist approach and British approach. Explain the aim of education for commerce. Evaluate the report of William Adam on changes in local schools. Realise how English education had ensalved us.

	Working towards change in position of Women and Reforms in caste system.	Analyse the agenda of National education as given by Tagore and Mahatma Gandhi. Analysing the role of Raja Rammohan Roy and Swami Dayanand Saraswati in initiating changes in caste system. Value the respect given to widows Respect the education of girl child and women writing about women. Describe the caste and social reforms Evaluate the demands for equality and justice by Dr. Ambedekar.
NOVEMBER	**The changing world of visual arts**	Evaluate the portrait painting and landscape pictures. Describe what happened to the court artist Appreciate and value the new popular form of Indian Art Realize the importance of national art
DECEMBER	**The Making of National Movement**	Evaluate the emergence of Nationalism and Sovereign state. Analyize the aim behind 'Freedom is our birthright'. Describe and explain the growth of mass Nationalism by Mahatma Gandhi . Value and respect the sacrifice of freedom fighters . Evaluate the elections to provinces in 1946.
JANUARY	**India after**	Realise the difficulties of Muslims

	independence	and Indians during partition. Value and respect the Written Constitution. Explain the role of constituent assembly. Evaluate the formation of states. Mark the prepensely states and other states On the outline map of India.

SOCIAL AND POLITICAL LIFE (CIVICS)

Month	Concepts	Objectives
APRIL	The Indian Constitution	Analyze the need of constitution in a democratic country. Evaluate the key features of Indian Constitution. Value and respect the constitution.
MAY	Understanding Secularism	Evaluate the separation of religion from the state. Describe the features of Indian Secularism Realize the importance of Secularism in India.
July	The Making of laws	Analyze the reasons for people taking decisions.

		Explain the formation and functions of parliament. Evaluate the functions of parliament. Value the right to choose given people.
August	Understanding Laws	Analyze the role of Indians in the rule of law during colonial period. Describe the process of law formation. Evaluate the consequences of unpopular or controversial laws.
SEPTEMBER	The Judiciary	Evaluate the role of Judiciary. Explain independent Judiciary. Describe the structure of courts in India. Compare and contrast Criminal law. Evaluate the problems of access to courts. Realize the difficulties in the whole process of justice.
OCTOBER	Understanding our Criminal justice system.	Analyze the role of police in investigating the crime. Evaluate the role of public prosecutor judge. Realize the importance of fair trial.

NOVEMBER	Understanding MArginalisation	Realize the difficulties faced by Adivaris and their development. Analyze the provision in constitution for minorities. Evaluate muslim as a marginalzed community.
DECEMBER	Confronting Marginalization	Analyze the laws made for marginalization Respect the polices of promoting social justice and rights of Evaluate the SC and ST prevention of act 1989.
JANUARY	Economic presence of the government	Analyze the role of government in providing public facilities Value the provision provided by the government for our welfare. Evaluate the facilities in Chennai

Geography

Month	Concepts	Objectives
APRIL	Resources	Classify the resources on the basis of origin, renewability and development . Distinguish between biotic and non biotic resources, renewable and non – renewable. Recognizing the value of human resources for a country. Collect and paste pictures of various resources in the scrap file. Reherssing the conservation of

		resources through practice.
MAY/ July	Land , Soil, Water, Natural Vegetation and Wild life Resources.	State the factors that determine land use. How to conserve land resource. How to conserve land resource Prepare soil profile. Factors of soil formation. State the reason for degradation of soil and rehearse the conservation of land resources. Understand water as a resource Describe the problems of water availability. How to conserve water resources. State the features influencing the growth of natural vegetation. Name the types of natural vegetation. Define biosphere and ecosystem. Determine the steps to conserve wildlife.
JULY & AUGUST	Mineral Resources	Define metallic and non- metallic minerals Identify the types of mining. Write a brief account on mineral resources of world. Distinguish between conventional and conventional resources.
SEPTEMBER	Agriculture	Define the types of farming. List the geographical requirement fro the growth of major crops. Compare the agricultural development in India and U.S.A.
	Industries	How can the industries be classified. Identify the factors affecting location of

		Industries. What is Industrial disaster. Suggest Risk reduction. **Measures:-** Distributions of Major Industries. Compare the Industries of India , America and Japan . What do you know about Information Technology.
DECEMBER	Human Resources	What do you mean by Human resource State the factors affecting distribution of population. What is population composition
JANUARY		Revision

COMPUTER SCIENCE

Month	Topic
April / May	**Operating System** Introduction to software, Operating system, Types of operating system, Functions of an operating system, Popular operating systems. **Computer Viruses** Meaning, Types of viruses, Worms and Trojan Horses, Effects of viruses, Precautions to protect the system, Anti virus software.
July / August	**Visual Basic** Introduction to Controls, Events, Properties, PRINT statement, Different controls – Text box, Label box, Command Button, etc. , If – Then – Else statement.

August / September	**Multimedia** Meaning, Hardware requirements, Multimedia presentation, Applications, Designing a multimedia presentation.
October	**Visual Basic** For – Next loop, Creating applications using For – Next loop.
November	**Managing Databases – Access 2000** Meaning of database, Advantages of a database, Components of a database, Starting Access, Table structure, Creating a table, Saving and printing the table.
December	**Computer Networking** Meaning, Terminology of networks, Types of networks, Networking components, Topology, Communication channels.
January	**E – Commerce** Meaning of commerce, Its elements, Elements of E – Commerce, Meaning of E- Commerce, Advantages of E – Commerce.
February	**Revision**

GENERAL KNOWLEDGE

Month	Topic	
April	Chp	1,2,3,4,5,6,7
May	Chp	8,9,10,11,12
July	Chp	13,14, 15,16,17,18
August	Chp	19, 29, 21, 22, 23.
September	Chp	24, 25, 26, 27
October	Chp	28, 29, 30 , 31
November	Chp	32, 33, 34, 35, 36, 37, 38
December	Chp	39, 40, 41, 42, 43, 44
January	Chp	45, 46, 47, 48, 49, 50.

February Chp 51, 52, 53