



*(Makes the Base, Shapes the Future)*

# Base Model Sr. Sec. School

(Affiliated to CBSE, New Delhi. Regd. No. 530959, School No. 20662)

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## Social studies

### ➤ History

- 1.The Rise of Nationalism in Europe
- 2.Nationalism in India
- 3.The Making of a Global World
- 4.The Age of Industrialisation
- 5.Print Culture and the Modern World

### ➤ Geography –

- 1.Resources and Development
- 2.Forest and Wildlife Resources
- 3.Water Resources
- 4.Agriculture
- 5.Minerals and Energy Resources
- 6.Manufacturing Industries
- 7.Lifelines of National Economy

### ➤ Political Science (Civics)

- 1.Power Sharing
- 2.Federalism
- 3.Democracy and Diversity
- 4.Gender, Religion and Caste
- 5.Popular Struggles and Movements
- 6.Political Parties
- 7.Outcomes of Democracy

### ➤ Economics

- 1.Development
- 2.Sectors of the Indian Economy
- 3.Money and Credit
- 4.Globalisation and the Indian Economy

## English

## **Grammar & Writing Skills**

- Tenses
- Modals
- Subject-Verb Concord
- Reported Speech
- Commands, Requests, Statements, Questions
- Determiners
- Letter Writing (Formal & Informal)
- Article Writing
- Story Writing
- Debate / Speech

## **Maths**

**Chapter-1 Real Number**

**Chapter-2 Polynomials**

**Chapter-3 Pair of Linear Equations in Two Variables**

**Chapter-4 Quadratic Equations**

**Chapter-5 Arithmetic Progressions**

**Chapter-6 Coordinate Geometry**

**Chapter-7 Triangles**

**Chapter-8 Circles**

**Chapter-9 Introduction to Trigonometry**

**Chapter-10 Trigonometric Identities**

**Chapter-11 Heights and Distances**

**Chapter-12 Areas Related to Circles**

**Chapter-13 Surface Areas and Volumes**

**Chapter-14 Statistics**

**Chapter-15 Probability**

## **Science**

Subject -Science

### **Unit I: Chemical Substances - Nature and Behaviour**

**Chemical Reactions and Equations:** Chemical reactions, Chemical equation, Balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions ,oxidation and reduction.

**Acids, Bases and Salts:** Acids and Bases – definitions in terms of furnishing of  $H^+$  and  $OH^-$  ions, identification using indicators, chemical properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required),importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

**Metals and Non-metals:** Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

**Carbon and its Compounds:** Covalent bonds – formation and properties of covalent compounds, Versatile nature of carbon, Hydrocarbons – saturated and unsaturated ,Homologous series. Nomenclature of alkanes, alkenes, alkyne and carbon compounds containing functional groups , Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

## **Unit II: World of Living**

**Life processes:** 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plant and animals.

**Control and co-ordination in animals and plants:** Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.

**Reproduction:** Reproduction in animals and plants (asexual and sexual) reproductive health – need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.

**Heredity and Evolution:** Heredity; Mendel's contribution- Laws for inheritance of traits; Sex determination; brief introduction.

## **Unit III: Natural Phenomena**

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification. Refraction; Laws of refraction, refractive index. Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens. Functioning of a lens in human eye, defects of vision and their corrections, applications Of spherical mirrors and lenses. Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding colour of the sun at sunrise and sunset).

## **Unit IV: Effects of Current**

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

**Magnetic effects of current:** Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.

## **Unit V: Natural Resources**

**Our environment:** Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances