



# Ganga International School

## Class IX

### **ENGLISH**

#### **READING SKILLS**

Unseen Comprehension

#### **WRITING SKILLS**

Notice, Letter writing (Formal & Informal), Paragraph writing, Story Writing, Diary writing, Message Writing, Email writing, Article Writing, Speech writing, Biographical Sketch.

#### **GRAMMAR**

Nouns, Adjectives, Pronouns, Tenses, Verb, Active/Passive Voice, Direct/Indirect Narration, Modals, Determiners, Adverbs, Prepositions, Connectors, Synonyms/Antonyms, Idiomatic Expressions, Articles.

### **SCIENCE**

#### **CROP PRODUCTION**

Crop Plants, Methods of Crop Production, Green Revolution, Nitrogen Cycle, Types of Crops.

#### **MICROORGANISMS**

Types of microorganism, shape, nutrition, reproduction of bacteria, harmful & useful bacteria, size & structure of algae, useful & harmful algae, protozoa-useful & harmful, kinds of fungi- reproduction, useful & harmful, viruses-size & structure shape, useful & harmful.

#### **MAN MADE MATERIALS**

Man-made materials, Polymers & Plastics, Synthetic fibers.

#### **METALS & NON-METALS**

Occurrence, properties, uses of metals and non-metals, reactivity series of metals, corrosion of metals, alloys, Methods of prevention of Corrosions.

#### **FUELS & COMBUSTION**

Characteristics of good fuel, classification of fuels, fossil fuels, combustion and conditions necessary for combustion, zones of candle flame, parts of extinguisher and its working.

#### **CONSERVATION OF FORESTS AND WILD LIFE**

Bio diversity, flora & fauna, conservation of forests and wildlife.

#### **CELLULAR LEVEL OF ORGANISATION**

The cell theory, unicellular & multicellular organisms, plant & animal cells, Various Cell Organelles and their functions, growth & division.

#### **REPRODUCTION**

Sexual reproduction, Development in multicellular organisms, Internal & External Fertilization, endocrine glands. Puberty and adolescence, Endocrine System, Related organs and hormones, Metamorphosis.

## **FORCE & PRESSURE**

Types of forces and its effects, force of friction & its effects on us, pressure & its application in our daily life, pressure by liquids, the atmospheric pressure, Types of friction, Advantages and Disadvantages of Friction How to increase and decrease friction.

## **SOUND**

How is sound produced, characteristics of sound, how does sound travel in a medium, functioning of human ear, reflection of sound and its applications, musical sound and noise.

## **ELECTRIC CURRENT**

Electric Current and its source, Potential Difference, Electric Circuits, Conductors and insulators, Chemical Effect of Current, Hazards of electricity.

## **LIGHT**

Types of reflection (regular, multiple and diffused), Laws of reflection, Characteristics of image formed by plane mirror

## **COAL AND PETROLEUM**

Occurrence, Fractional Distillation, Uses of by products, Destructive distillation of coal.

## **SOME NATURAL PHENOMENA**

Concept of charges, Lightning, Gold Leaf electroscope, Earthquake (precautions mainly).

## **REFRACTION AND DISPERSION OF LIGHT**

Refraction of light, refraction by Glass slab, Lenses, Structure of human eye, Role of nutrition in relation to blindness.

**THE UNIVERSE** The universe, galaxies, stars, planets, satellites, and constellations, Measuring distances in the universe, The solar system, The origin of the Universe, Earthquakes.

**POLLUTION OF AIR AND WATER** Pollution and conservation of water, Pollution and conservation of air.

## **MATHEMATICS**

### **RATIONAL NUMBERS**

Addition, Subtraction, Multiplication & Division of Rational Numbers, Properties of Rational Numbers, Representation of Rational Numbers on Number line.

### **ALGEBRA**

Linear Equations in One Variable & its Applications.

Algebraic Expressions: - Addition, Subtraction & Multiplication.

Factorization:- By Grouping, Using Identities & Splitting Middle Terms of Quadratic Expressions. Division of Polynomials (By Long Division Method).

### **COMMERCIAL MATHEMATICS**

Percentage, Profit & Loss, Discount, Sales Tax & VAT, Compound Interest & its Applications.

## **RATIO & PROPORTIONS**

Direct & Inverse Proportions, Time & Work.

## **MENSURATION**

Area of Polygons, Volume & Surface Area of Cube, Cuboids & Cylinder.

## **EXPONENTS & POWER**

Laws of Exponents & use of Exponents.

## **SQUARES & SQUARE ROOTS, CUBES & CUBE ROOTS**

Squares & Square Roots of Integers & Rational Numbers, Pythagorean Triplets. Cubes & Cube Roots of Integers & Rational Numbers.

## **GEOMETRY**

Types of Polygons, Sum of Angles of Regular Polygons (Interior & Exterior), Finding of Numbers of Diagonals, Types of Quadrilaterals & Their Properties, Constructions of Quadrilaterals. Visualizing Solid Shapes:- Applications of Euler's Formula

## **STATISTICS**

Data Handling:- Classification & Tabulation of Data, Bar Graphs, Histograms, Pie Charts & Probability. Introduction to Graph:- Cartesian Co-ordinates of A Point, Reading & Drawing Linear Graphs & Its Applications.

## **SOCIAL SCIENCE**

Indian Struggle freedom, 1857 Revolt,

Expansion of British Empire, Economics effects of British Empire, Types of Government, Parliamentary Govt. , Union Govt. , Social Justice, Judiciary, Agriculture , natural Resources , Industries, India and Neighbouring Countries.