Syllabus Mathematics

Section-A (Mathematical Reasoning)

This section develops over all mathematical skills in students to help students devise strategies to solve a wide variety of math problems. It enables student to answer vital mathematical questions and problems, formulating them clearly and precisely.

- It gathers and assesses relevant mathematical data and information, using abstract ideas to interpret them effectively by the students
- As a result students comes to well-reasoned mathematical conclusions and solutions

Section-B (Everyday Mathematics)

This section has been designed keeping in mind the application of Maths in our day to day life. This enables student to rationalize on topics such as basic math facts, which provides answer to common questions about the everyday mathematics and develop the ideas of counting in fives, tens, and multiples of hundreds, as well as number relationships, including comparing quantities.

Section-C (Logical reasoning)

This is based on verbal and non- verbal reasoning. Verbal reasoning includes topics like- blood relation, coding- decoding, direction sense test and number series and alphabet series. This helps in enhancing the collective ability of students to gather, analyze and understand information in the form of words and languages.

Non- verbal reasoning is a problem solving based around pictures, diagrams and shapes rather than word. It includes classification (odd one out), images, matrix, spotting out the embedded figure, clock and calendar. Non-verbal reasoning questions are designed to see how your child can use critical thinking and logic to solve problems.

Syllabus Mathematics (Core)

Grade -2

Chapters Involved

- **Unit- I -Fun with Numbers**

  Numbers to 1000, Addition and Subtraction upto 1000, Multiplication and Division
- **Unit- II- Usual Mathematics**

  Length, Mass, Money, Fractions, Time, Volume, Graphs,
- **Unit- III- Geometry**

  Lines and Surfaces, Shapes and Patterns

Grade 3

Chapters Involved

- **Unit- I -Fun with Numbers**

  Numbers to 10000 Additions and Subtraction within 10000, Addition and Subtraction within 10000, Multiplication and Division

- **Unit II - Usual Mathematics**

  Money, Length, Mass, Volume, Bar Graph, Time

- **Unit III- Geometry**

  Geometry, Area and Perimeter

Grade 4

Chapters Involved

- **Unit- I -Numbers and Operations**

  Numbers, Decimals, Fractions, Time, Geometry

- **Unit- II -Building blocks of Geometry**

  Area and Perimeter, Tables and Line graphs, Symmetry and Tessellations

Grade 5

Chapters involved

- **Unit-I- Application of Numbers**

  Numbers, Fractions, Decimals, Ratio, Average, Percentage

- **Unit-II- Building blocks of Geometry**

  Geometry, Area, Volume

GRADE 6

Chapters involved

- **Unit- I- Arithmetic**

  Whole Numbers, Fractions, Ratio and Proportion, Percentage, Speed and Time,

- **Unit- II- Algebra**

  Algebra

- **Unit-III- Building blocks of Geometry**

  Lines and Angles, Area and Perimeter, Graphs

Grade 7

Chapters involved

- **Unit- I- Arithmetic**

  Integers and Rational Numbers, Fractions and Decimals, Ratio and Proportion and Comparing Quantities

- **Unit- II- Algebra**

  Algebraic Expression and Equations

- **Unit-III- Building blocks of Geometry**

  Geometry and Perimeter and Area

- **Unit-IV- Statistics**

  Data Handling

Grade 8

Chapters involved

- **Unit- I- Arithmetic**

  Rational Numbers, Squares and Square Roots, Cubes and Cube Roots, Exponents and Powers, Comparing Quantities, Direct and Inverse Proportions

- **Unit- II- Algebra**

  Linear Equations in One Variable, Algebraic Expressions & Identities and Factorisation

- **Unit-III- Building blocks of Geometry**

  Understanding Quadrilaterals, Practical Geometry and Mensuration

- **Unit-IV- Statistics**

  Data Handling

Grade 9

Chapter involved

- **Unit- I- Arithmetic**

  Number Systems

- **Unit- II- Algebra**

  Polynomials, Linear Equations in Two Variables

- **Unit-III- Building blocks of Geometry**

  Introduction to Euclid's Geometry, Lines and Angles, Triangles, Quadrilaterals, Areas of Parallelograms and Triangles, Circles

- **Unit-IV- Coordinate Geometry**

Grade 10

Chapter involved

- **Unit- I- Arithmetic**

  Real Numbers,

- **Unit- II- Algebra**

  Polynomials, Pair of Linear Equations in Two Variables, Quadratic Equations, Arithmetic Progressions

- **Unit-III- Coordinate Geometry**
- **Unit-IV- Trigonometry**

  Introduction to Trigonometry, Trigonometric Identities and Some Applications of Trigonometry

- **Unit-V- Mensuration**

  Circles, Areas Related to Circles, Surface Areas and Volumes

- **Unit-VI- Statistics**

  Statistics and Probability

Grade 11

Chapters involved

- **Unit- I- Algebra**

  Sets, Principle of Mathematical Induction, Complex Numbers and Quadratic Equations, Linear Inequalities, Permutations and Combinations, Binomial Theorem, Sequences and Series, Infinite Series

- **Unit- II- Calculus**

  Relations and Functions, Limits and Derivatives

- **Unit- III- Geometry**

  Introduction to Three Dimensional Geometry, Straight Lines, Conic Sections

- **Unit- IV- Trigonometry**

  Trigonometric Functions

- **Unit-V- Statistics**

  Statistics and Probability

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