MATHS SYLLABUS

Class – 7

7th Class Maths Syllabus – An Overview

Mathematics is a subject that needs to be practised extensively in order to get the best results. The preparation for students aiming for higher studies in Mathematics starts from a very young age. In addition, CBSE Class 7 Mathematics is considered an important step for all students studying in schools affiliated with CBSE. The CBSE Class 7 Mathematics Syllabus has been designed in a way that it can provide students with much-needed insights into Mathematics and its different applications. There may be much more difficulty in the Syllabus of CBSE Class 7 Math as compared to the preceding Class.

Chapter – 1 (Integers)

Introduction, Recall, Properties of addition and subtraction of integers, multiplication of integers, properties of multiplication of integers, division of integers, properties of division of integers.

1.1) Division of Integers.

1.2) Multiplication of Integers.

1.3) Properties of Addition and Subtraction of Integers.

1.4) Properties of Multiplication of Integers.

Chapter – 2 (Fractions and Decimals)

- Revision of fractions, Proper fractions and Improper fractions, addition and subtraction of fractions.
- Multiplication of fractions.

- Division of fractions
    - Multiplication of Decimal numbers
    - Division of decimal numbers

Chapter – 3 (Data Handling)

- Collecting data
- Organization of data
- Representative values, mean, mode, median
- Use of bar graphs with a different purpose, chance and probability.

Chapter – 4 (Simple Equations)

- Generating an equation.
- Solving Simple Equations.
- From solution to Simple equation.
- Application of simple equation to practical situation.

Chapter – 5 (Lines and Angles)

Introduction, related angles, pair of lines, checking of parallel lines.

- Related angles: Complementary angles, Supplementary angles, vertically opposite angles.

- Pairs of Angles.
- Pairs of Lines.
- Relation Between Angles.

Chapter – 6 (The Triangle and its Properties)

Angle sum property (with notions of proof & verification through paper folding, proofs using property of parallel lines, difference between proof and verification.)

• Exterior angle property

• Sum of two sides of a it's third side.

- Lengths of the Sides of a Triangle.

- Medians and Altitudes of Triangles.
- Properties of a Triangle.

- Pythagoras Theorem (Verification only).

Chapter – 7 (Comparing Quantities)

1.1) Application of Percentage.
1.2) Equivalent Ratios and Comparison.
1.3) Introduction to Percentage.
1.4) Profit and Loss Percent
1.5) Simple Interest

Chapter - 8 (Power and Exponents)

Exponents only natural numbers.

- Laws of exponents (through observing patterns to arrive at generalisation.)

(i) $a^m \cdot a^n = a^{m+n}$

(ii) $(a^m)^n = a^{mn}$

(iii) $a^m / a^n = a^{m-n}$

- Exponents and Their Uses.
- Large Numbers in Standard Form.

Chapter – 9 (Ratio and Proportion)

- Ratio and proportion (revision)
- Unitary method continued, consolidation, general expression.
- Percentage- an introduction.
- Understanding percentage as a fraction with denominator 100
- Converting fractions and decimals into percentage and vice-versa.
- Application to profit and loss (single transaction only)
- Application to simple interest (time period in complete years).

Chapter – 10 (Mensuration)

- Area of Squares and rectangles.

- Triangles as part of rectangles.
- Generalizing for other congruent parts of rectangles.
- Area of a parallelogram.
- Area of a triangle.
- Circles: circumference of a circle.
- Area of circle.
- Conversion of units, Applications.