Math Olympiad Syllabus Class 6

1. Knowing the numbers
   - International System of Numeration
   - Roman Numbers
   - Addition and Subtraction of Large Numbers
   - Multiplication and Division of Large Numbers
   - Number Operations
   - Estimations and Rounding
   - Brackets and Multiplication

2. Whole numbers
   - Introduction to Whole numbers
   - Properties of operations on whole numbers
   - Patterns in whole numbers
   - Greater than and less than
   - Whole Number Predecessor and Successor
   - Arithmetic operation based on the number line.
   - Representation of Roman Numerals to Whole number
   - Evaluate using Arithmetic Properties
   - Arithmetic Properties of multiplication and addition for whole numbers.

3. Playing with numbers
   - Factors and Multiples of a Number
   - Prime and Composite Numbers
   - Divisibility Test : 2,3,4,5,6,8,9,10,11
   - LCM and HCF of Numbers
   - Special Cases of LCM and HCF
   - Application of LCM and HCF in the Real World

4. Integers
   - Comparing and ordering integers
   - Adding Integers
   - Subtracting Integers

- Multiply and Divide integers
- Addition and Subtraction of integer on number line
- Evaluate numerical expressions involving integers
- Compare temperature above and below zero degree celsius

5. Fractions
- Types of fractions
- Equivalent Fractions
- Comparing fractions
- Multiply and divide fractions and mixed numbers
- Sum and differences of mixed numbers
- Arrange fractions in ascending and descending order
- Compare Fractions using models
- Convert Fractions and mixed numbers to decimals
- Word problems

6. Decimals
- Comparison of decimals
- Converting units using decimals
- Adding Decimals
- Subtracting Decimals

7. Data Handling
- Collecting and organizing data
- Interpret line graph
- Interpret bar graph
- Interpret frequency table
- Study the categorized data and solve the questions
- Interpret Pictograph

8. Mensuration
- Perimeter of a square and rectangle
- Area of a rectangle and a square
- Application: Area of square and rectangles
- Application: Area and perimeter of square and rectangles

9. Algebra

- Introduction to Algebra
- Algebraic Expressions
- Writing algebraic expressions
- Introduction of equations
- Evaluate linear equation
- Identify the equations for the given statements
- Find the value of the variables

10. Ratio and proportion
- Concept of ratio and difference between fraction and ratio
- Equivalent Ratios
- Unit Rates
- Solve the given proportions and ratios
- Find the ratios of shaded and unshaded figures