

# SYLLABUS (2017–2018)

## Class VI

### SUBJECT- MATHEMATICS

#### Syllabus for April to September:

#### Chapters:

- 1 Knowing Our Numbers
- 2 Whole Numbers
- 3 Playing with Numbers
- 4 Basic Geometrical Ideas
- 5 Understanding Elementary Shapes
- 6 Integers
- 7 Fractions

#### April:

**1<sup>st</sup> week (6<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup> April): Basic Concepts**

**2<sup>nd</sup> week (11<sup>th</sup> to 15<sup>th</sup> April): Chapter 1 – Knowing Our Numbers**

Numbers in our daily life, Hindu Arabic Number System, Comparing and ordering large numbers,

**3<sup>rd</sup> week (17<sup>th</sup> to 22<sup>nd</sup> April):**

Building numbers, The Indian System of Numeration.

The International system of numeration, use of numbers in everyday life, Estimation, Estimating sums, Differences, Products, Products and Quotients, Roman Numerals.

**4<sup>th</sup> week (24<sup>th</sup> to 29<sup>th</sup> April): Chapter 2 – Whole Numbers**

Natural numbers, Whole numbers, comparing two whole numbers, operations on whole numbers (Operation of addition and subtraction)

#### May

**1<sup>st</sup> week (1<sup>st</sup> to 6<sup>th</sup> May):** Operations on whole numbers. (Operations of Multiplication and Division), Mental Math's, Introduction of Data

**2<sup>nd</sup> week (8<sup>th</sup> to 12<sup>th</sup> May): Chapter 3 – Playing with Numbers**

Simplification of Numerical impressions (Using BODMAS and types of brackets).

Factors, Multiples, Prime and composite numbers

**3<sup>rd</sup> week (15<sup>th</sup> to 20<sup>th</sup> May):** facts about Prime numbers, Perfect Numbers, Tests for Divisibility, HCF (Prime factorization & continued division method)

**4<sup>th</sup> week (22<sup>nd</sup> to 27<sup>th</sup> May ):** Word problems, LCM (By listing multiples, prime factorization & division method), problems on LCM, properties of HCF and LCM, and the LCM by using the HCF, Mental Math's.

**July:**

**1<sup>st</sup> week (3<sup>rd</sup> to 7<sup>th</sup> July): Chapter 4 – Basic Geometrical Ideas**

Introduction, few facts about line, open and closed figures, naming an angle, Types of angles.

**2<sup>nd</sup> week (10<sup>th</sup> to 15<sup>th</sup> July):** Triangles, Parts of a triangle, medians & Altitudes of a triangle.

**3<sup>rd</sup> week (17<sup>th</sup> to 22<sup>nd</sup> July):** Quadrilateral: Sides, Angles and Diagonals of a quadrilateral, Circle, parts of a Circle, relation between radius and diameter, and circumference and diameter.

**4<sup>th</sup> week (24<sup>th</sup> to 29<sup>th</sup> July): Chapter 5 – Understanding Elementary Shapes**

Comparing and measuring two line segments, measure of angles, Directions, Degrees, minutes and seconds, Types of angles, pairs of lines.

Classification of triangles, Classification of quadrilaterals, simple and regular polygons.

**August:**

**1<sup>st</sup> week (1<sup>st</sup> to 5<sup>th</sup> August): Chapter 6– Integers**

Introduction, Representing integers on the number line, ordering of integers, absolute value, Addition and subtraction of integers on number line.

**2<sup>nd</sup> week (8<sup>th</sup> to 11<sup>th</sup> August):** Addition and subtraction of Integers.

**3<sup>rd</sup> week (16<sup>th</sup> to 19<sup>th</sup> August): Chapter 7 – Fractions**

Equivalent Fractions, Simplest form of a fraction, types of fractions, to convert unlike fractions into like fractions.

**4<sup>th</sup> week (21<sup>st</sup> to 26<sup>th</sup> August):** Comparing and ordering fractions, finding a fraction of a quantity, addition and subtraction of fractions.

**5<sup>th</sup> week (28<sup>th</sup> to 31<sup>st</sup> August):** Revision

**September:** Revision and SA 1

**Activities:**

1. Activity based on numeration
2. Activity based on divisibility rule
3. Grid activity based on properties of quadrilaterals.
4. Activity based on integers.
5. Activity based on fractions and worksheet

## **Syllabus for October to December:**

### **Chapters:**

- 8 Decimals
- 9 Data Handling
- 10 Mensuration
- 11 Algebra
- 12 Symmetry
- 13 Ratio and Proportion
- 14 Practical Geometry

### **October:**

#### **1<sup>st</sup> week (3<sup>rd</sup> to 7<sup>th</sup> October): Chapter 8 – Decimals**

Place value and Decimals, Expanded form, changing a decimal numeral to a fraction, comparison of two decimal numbers, and use of decimals.

#### **2<sup>nd</sup> week (9<sup>th</sup> to 14<sup>th</sup> October): Chapter 9 – Data Handling**

Addition and subtraction of decimal numbers, word problems.

Organization of data, read and draw pictograph, read and draw bar graphs.

#### **3<sup>rd</sup> week (16<sup>th</sup> to 18<sup>th</sup> October): Chapter 10 – Mensuration**

Introduction, find perimeter of given figures, formula or perimeter of rectangle, applications to find perimeter of rectangle, perimeter of regular shapes.

#### **4<sup>th</sup> week (23<sup>rd</sup> to 28<sup>th</sup> October):**

Concept of area of a rectangle and square, measures of area, word problems, Finding areas of compound figures.

### **November:**

#### **1<sup>st</sup> week (2<sup>nd</sup> to 4<sup>th</sup> November): Chapter 11 – Algebra**

Use of letters as symbols for numbers, indicating multiplication & division with symbols, translating words into algebraic symbols, substitution.

#### **2<sup>nd</sup> week (6<sup>th</sup> to 10<sup>th</sup> November): Chapter 12 – Symmetry**

Introduction, reflecting shapes, reflection line, symmetry in alphabets and in plane figures, obtain the image of a point after reflection, finding reflection line.

#### **3<sup>rd</sup> week (13<sup>th</sup> to 18<sup>th</sup> November): Chapter 13 – Ratio and proportion**

Solving two steps equation, Comparing numbers, concept of ratio, simplest form of ratio, word problems on ratio

**4<sup>th</sup> week (20<sup>th</sup> to 25<sup>th</sup> November):** Division of a given quantity in a given ratio, proportion – introduction, find missing term of a proportion, problems.

**5<sup>th</sup> week (27<sup>th</sup> to 30<sup>th</sup> November):** Unitary Method (Meaning and concept) problems.

**December:**

**1<sup>st</sup> week (1<sup>st</sup> to 8<sup>th</sup> December): Chapter 14 – Practical Geometry**

Construction of a circle when its radius is known.

**2<sup>nd</sup> week (11<sup>th</sup> to 16<sup>th</sup> December):** Construction of a line segment, draw a perpendicular to a given length.

**3<sup>rd</sup> week (18<sup>th</sup> to 23<sup>rd</sup> December):** The perpendicular bisector of a line segment, to construct an angle equal to a given angle, angles of special measure using compasses and a ruler.

**4<sup>th</sup> week (26<sup>th</sup> to 30<sup>th</sup> December):** Revision

**Activities:**

1. Worksheet based on decimals
2. Activity based on bargraph and pectograph
3. Activity based on perimeter of compound figures
4. Activity based on symmetry
5. Activity based on practical geometry

**January:** Revision

**February:** Final Exams