

**YEAR PLAN 2018-2019  
Grade VI MATHEMATICS**

The academic year is divided into **two** sessions

**Session One:** June 2018 to October 2018

**Session Two:** November 2018 to March 2019

**Continuous assessments:** July, August, September, December, January, February

**Summative Assessment I:** October 2018

**Summative Assessment II:** March 2019

- Please check the **index page** in the notebooks for Continuous Assessment marks.

**Aim:** To

- learn and enjoy the subject by developing confidence.
- develop problem solving & logical reasoning skills and apply the same in daily life situations.

**Enduring Understanding:** To understand and appreciate the importance of the subject for the smooth functioning of day to day activities.

**Objectives:** To

1. become successful learners who enjoy learning.
2. successfully apply core concepts learnt from various subjects.
3. understand texts of different subjects so as to communicate knowledge and ideas in ways specific to the subject.
4. articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts.
5. use technology to access and provide information and to communicate with others.
6. understand cross-curricular linkages- connect learning across subject areas.
7. become confident individuals who are able to live safe, healthy and fulfilling lives.
8. become responsible citizens who make a positive contribution to society.
9. understand and apply knowledge to real life experiences.
10. develop a sense of responsibility towards others.
11. function successfully in the local and world community.
12. respect diversity (in terms of religion, gender, regions, etc. and differences of opinions and beliefs).
13. exhibit sensitivity towards environmental issues.
14. learn to manage and utilise resources judiciously.

**Projects: Applications of Geometrical shapes in real life.**

**Application of Area and Perimeter in real life situations.**

**Session One: June – October 2018**

Duration	Topics	Specific Learning Objectives	Thinking Skills/Learning Process
June	Number system (Indian & International System, Place value, Patterns)  Estimation  Playing with numbers  HCF and LCM(work sheet)	Consolidates the sense of numbers (upto 5 digits).Compares numbers. Solves word problems including conversion of units. Recalls the place value chart of Hindu Arabic system. Rounds off numbers to the nearest tens, hundreds, thousands etc. Estimates outcome of number operations. Recalls numbers, divisibility rules (numbers from 2 to 11). Recalls factors, multiples, prime factorisation, formula.	Planning what to do, Sequencing Comparing and contrasting  Finding alternative methods to solve a problem Estimating  Analysing Relationships
July	Fractions Ratio and Proportion Fundamental concepts of Geometry	Recalls the concept of fraction, their types and operations. Solving simple problems involving fractions. Correlates ratio and fraction. Recalls Fundamental Concepts of Geometry.	Classifying Sequencing Evaluating Reasoning
August	Integers & Number line  Decimals	Explains the purpose of using integers. Computes accurately. Correlates fractions and decimals. Solves problems involving measurement.	Analysing Relationships Looking for alternative solutions Classifying Comparing and contrasting Sequencing

				measurement.
September	Algebra: Fundamental Concepts Angles (Excluding Ex.24(A)-Qn.4 and 13 and on Ex.24(B)-Qn. 5 and 10)	Explains the purpose of learning Algebra and its applications. Identifies constants, variables, like & unlike terms, polynomials, coefficient etc. Recalls and explain angles, their properties and types.	Analysing Relationships Sorting Extending ideas to life related problems. Making judgment based on reasoning.	Eliciting the definitions of the key words in algebra. Activity: (Oral work) Converting various situations into algebraic form  Integrating Geometry and Algebra.
<b>Summative Examination I Session Two : October 2018 – March 2019</b>				
October	Framing Algebraic Expressions Substitution Triangles (Excluding construction)	Evaluation of Algebraic Expressions by substituting value for the variable. Applies Algebraic operations. Applies the properties of triangles and solves problems.	Classifying  Evaluating Making judgment based on reasoning.	Finding values of various algebraic expressions by substitution. Mind mapping types of triangles based on sides and angles.
November	Properties of Lines and angles Excluding Ex.25(B)-Qn.8 Construction of angles (30°, 60°, 90°, 45°, 120°) Polygons  Algebra: Fundamental Operations	Identifies measures of angles using properties of transversal. Draws angles accurately. Explains the concept of polygon, regular polygon. Calculates sum of interior and exterior angles of a polygon. Applies rules of integers and exponents in doing Fundamental Operations.	Comparing and contrasting Making judgment based on reasoning or evidence. Improving drawing skills  Drawing inferences.  Applying Imagination	Activity: Finding the measures of various angles formed by the clock and naming them. Construction of angles using ruler and compasses. Activity: Cutting different triangles placing together to form a polygon thus understanding the formula.  Reinforcement of operations on a daily basis.
December	Simple linear Equations Data handling Circle Ex.29(A)-Qn. 1 to 3 only	Balances an equation. Organises and interprets the given data and draws graphs. Identifies the terms & parts related to circles.	Drawing inferences. Locating and collecting information Sorting Classifying Making judgments and decisions by reasoning or evidence.	Explaining simple equations using the concept of a weighing balance. Activity: Black board work by students to solve simple equations and problems based on it. Analysing the given data and plotting graphs. Identifies the terms & parts related to circles. Peer questioning. Activity: Worksheet - puzzles on Circles.
January	Sets  Perimeter and Area of Plane Figures Ex.32(A)-Qn. 1 to 11 only Ex.32(B)-Qn. 1 to 10 only Quadrilaterals Ex.27 (A)-Qn1,2,5,9,10 only.	Differentiates between Set and Collection. Represents Sets in different forms. Classifies finite, infinite, empty sets. Applies the concepts and formulae related to perimeter and area. Identifies different types of Quadrilaterals. Solving problems applying angle sum property.	Making Deductions Classifying Testing conclusions  Making judgements and decisions by reasoning or evidence.	Classification of different types of sets. Eliciting examples from classroom on different types of sets. Reinforcing the concepts of area and perimeter with real life situations. Classifying different types of quadrilaterals with their properties.
February	Recognition of solids(Excluding Ex : 31 -Qn. 2,3,4,8,9) Idea of Speed Distance Time Ex17(A) only	Recognizes different solids with net given. Recognizes the concept of linear symmetry. Draws lines of symmetry for the given 2-D figures and English alphabets.	Making judgments and decisions by reasoning or evidence.  Applying Imagination Extending Ideas.	Making nets of cube and cuboid. Activity: Observe different shapes and alphabets/letters identify the lines of symmetry. Stick five pictures and state the number of lines of symmetry.
<b>Resources</b>				
<b>Books</b>				
<ul style="list-style-type: none"> <li>• <b>Textbook: Middle School Mathematics– Grade VI (Selina Publications)</b></li> <li>• Mathematics Today (O.P.Malhotra), Frank Mathematics, Galaxy, Mastering Mathematics, Maths and U-Class VI (Kirti Prakasan),</li> </ul>				
<b>Interactive Software/Websites.</b>				
Websites				
<ul style="list-style-type: none"> <li>• Class edge</li> <li>• <a href="http://www.math-aids.com">www.math-aids.com</a></li> <li>• <a href="http://www.edhelper.com">www.edhelper.com</a></li> <li>• <a href="http://www.alphamath.in">www.alphamath.in</a></li> </ul>				

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**Approved by the Principal**