

KENDRIYA VIDYALAYA SANGATHAN: CHENNAI REGION
CLASS VI MATHEMATICS SPLIT - UP SYLLABUS (2021-22)

MONTH	CHAPTER/ No. OF PERIODS	TOPIC TO BE COVERED	LEARNING OBJECTIVES	LEARNING OUTCOMES	ACTIVITES / PRACTICALS	DELETED TOPICS
APRIL/MAY	1. KNOWING OUR NUMBERS (10 PERIODS)	1.1 Introduction 1.2 Comparing Numbers 1.3 Large Numbers in Practice 1.5 Roman Numerals	1. To encounter situations having numbers up to 8 digits. Eg. cost of property, population of a country etc. 2. Compare numbers through situations like cost of two houses, number of spectators etc.	1. Solves problems involving large numbers by applying appropriate operations (addition, subtraction, multiplication and division). 2. Recognises and appreciates (through patterns) the broad classification of numbers as even, odd, primes, co-primes etc.	1. To frame 3 digit, 4 digit or 5 digit numbers from the given flash cards and select and compare them. 2. To verify distributive property of multiplication over addition of whole numbers. 3. (ACTIVITY4) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	1.4 Using Brackets
	2. WHOLE NUMBERS (8 PERIODS)	2.1 Introduction 2.2 Whole numbers 2.3 The Numberline	1. Classify numbers based on their properties like even, odd, prime, composite etc. 2. To construct and solve word problems based on basic operations on whole numbers.			
JUNE/JULY	2. WHOLE NUMBERS.....Contd	2.4 Properties of Whole Numbers	1. To explore properties of whole numbers like closure, commutative, associative, distributive, additive & multiplicative identity.			2.5 Patterns in Whole Numbers
	3. PLAYING WITH NUMBERS (15 PERIODS)	3.1 Introduction 3.2 Factors and Multiples 3.3 Prime and Composite Numbers 3.4 Tests for Divisibility Of Numbers 3.5 Common Factors and Common Multiples 3.7 Prime Factorisation	1. To observe patterns that lead to divisibility by 2, 3, 4, 5, 6, 8, 9, 10 & 11 2. To visualise the factors and multiples of a number, similarity and differences. 3. To understand the concept and use of LCM & HCF of numbers. 4. Applies prime factorisation to find HCF & LCM of numbers.	1. Applies HCF or LCM in a particular situation.	1. To find the HCF of two given numbers. 2. To find LCM of two given numbers. 3. (ACTIVITY5) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	3.6 Some More Divisibility Rules
PERIODIC TEST - 1						
AUGUST	3. PLAYING WITH NUMBERS.....Contd	3.8 Highest Common Factor 3.9 Lowest Common Multiple 3.10 Some Problems on HCF & LCM	1. To develop his own strategy to identify appropriate situation to use the concept of LCM & HCF.		(ACTIVITY6) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	
	4. BASIC GEOMETRICAL IDEAS (8 PERIODS)	4.1 Introduction 4.2 Points 4.3 Line Segment 4.4 A line 4.5 Intersecting Lines 4.6 Parallel Lines 4.7 Ray 4.8 Curves 4.9 Polygons 4.10 Angles 4.11 Triangles 4.12 Quadrilaterals 4.13 Circles	1. To understand the basics of geometry and defines them. 2. To understand about the shapes and generalise that a closed figure divides the surface into 3 parts. 3. To link the shapes available in the nature to the classroom learning and differentiates them. 4. Classifies figures as open and closed. 5. Classifies angles into different types based on their measurements and describes elements of angles like vertices, arms, interior and exterior. 6. To describe vertex, sides, angles, altitude, median and interior and exterior and exterior of a triangle. 7. To classify different parts of a quadrilateral. 8. To understand circles and its components like centre, radius etc.	1. Describes geometrical ideas like line, line segment, open and closed figures, angle, triangle, quadrilateral, circle, etc., with the help of examples in surroundings. 2. Demonstrates an understanding of angles by identifying examples of angles in the surroundings.	1. To collect pictures from surroundings/environment representing ray, parallel lines, intersecting lines. 2. To make different types of polygons using colour paper identifying the shapes and pasting them in the notebook by writing their names. 3. (ACTIVITY24) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	
SEPTEMBER	5. UNDERSTANDING ELEMENTARY SHAPES (15 PERIODS)	5.1 Introduction 5.2 Measuring Line Segments 5.3 Angles - Right & Straight 5.4 Angles - Acute, Obtuse & Reflex 5.5 Measuring Angles 5.6 Perpendicular Lines 5.7 Classification of Triangles 5.8 Quadrilaterals 5.9 Polygons 5.10 Three Dimensional shapes	1. To understand the measuring techniques and measures accordingly. 2. To understand the elementary shapes and defines them. 3. To classify angles based on the amount of rotation. 4. Link plane shapes to solid shapes, or 2D to 3D. 5. To classify given set of triangles based on their angles and sides. 6. To classify the given set of quadrilaterals based on their properties. 7. To identify and draw various polygons. 8. To discuss the various aspects of a 3D object like edges, vertices and faces.	1. Demonstrates an understanding of angles by Classifying angles according to their measure. 2. Estimating the measure of angles using 45°, 60° and 90° as reference angles. 3. Classifies triangles into different groups/types on the basis of their angles and sides. For example - scalene, isosceles or equilateral on the basis of sides, etc. 4. Classifies quadrilaterals into different groups/ types on the basis of their sides/ angles. 5. To identify and draw various polygons. 6. Describes and provides examples of edges, vertices and faces of 3-D objects	1. To make a parallelogram, rectangle, square and trapezium using set square. 2. (ACTIVITY22) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf 3. To find the sum of fractions with different denominators. 4. (ACTIVITY22) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf 6. Describes and provides examples of edges, vertices and faces of 3-D objects	
	6. INTEGERS (7 PERIODS)	6.1 Introduction 6.2 Integers 6.3 Addition of Integers 6.4 Subtraction of Integers	1. To understand and need of extending the number family from natural numbers to integers through whole numbers. 2. To visualise the number line and uses that for operations. 3. To relate integers to daily life situations.	1. Solves problem involving addition and subtraction of integers	1. To add and subtract integers using counters (or button). 2. (ACTIVITY1) - https://ncert.nic.in/pdf/school-kit/kit_manual_UP_math.pdf	
OCTOBER	7. FRACTIONS (15 PERIODS)	7.1 Introduction 7.2 A Fraction 7.3 Fractions on a Number Line 7.4 Proper Fraction 7.5 Improper and Mixed Fraction 7.6 Equivalent Fraction	1. To represent pictorial form to fraction and vice-versa. 2. To understand and need of extending the number family from natural numbers to fractions through integers. 3. To link the fractions to the situation outside the class. 4. To apply the basic operations on fractions to find the sum & differences of fractions to enhance the computational skill.	1. Uses fractions in different situations which involve money, length, weight etc. For example, 7½ metres of cloth, distance between two places is 112.5 km etc.		
	PERIODIC TEST - II / HALF- YEARLY EXAMINATION					
NOVEMBER	7. FRACTIONS.....Contd	7.7 Simplest Form of a Fraction 7.8 Like Fraction 7.9 Comparing Fractions 7.10 Addition & Subtraction of Fractions	1. To be able to simplify the given fraction to its simplest form. 2. To identify different types of fractions. 3. To solve word problems and real life problems using fractions.	1. Solves problems on daily life situations involving addition and subtraction of fractions.	1. To understand various fractions and their various comparisons 2. (ACTIVITY2) - https://ncert.nic.in/pdf/school-kit/kit_manual_UP_math.pdf 3. To find the sum of fractions with different denominators. 4. (ACTIVITY9) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	
	8. DECIMALS (10 PERIODS)	8.1 Introduction 8.2 Representing Decimals on a Number Line 8.3 Hundredths 8.4 Comparing decimals 8.5 Using Decimals 8.6 Addition of Decimals 8.7 Subtraction of Decimals	1. To understand the concept of decimals and extends the place value system. 2. To compare & convert fractions into decimals and vice-versa. 3. To develop computational skill by applying basic operations on decimals. 4. To apply to real life word problems to find proper solution.	1. Uses decimals in different situations which involve money, length, weight etc. For example, 7½ metres of cloth, distance between two places is 112.5 km etc. 2. Solves problems on daily life situations involving addition and subtraction of decimals.	1. To multiply two fractions 2. (ACTIVITY3) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem104.pdf 3. To understand the concept of place values of decimals with the help of abacus 4. (ACTIVITY3) - https://ncert.nic.in/pdf/school-kit/kit_manual_UP_math.pdf 5. To add decimals. 6. (ACTIVITY14) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	
DECEMBER	9. DATA HANDLING (6 PERIODS)	9.1 Introduction 9.2 Recording Data 9.3 Organising Data 9.7 Bar graph	1. To learn why and how data should be organised. 2. To organise data using tally marks 3. To develop skill in representing data in bar graph.	1. Arranges given/collected information such as expenditure on different items in a family in the last six months, in the form of table and bar graph and interprets them.	1. To collect data and represent this through a bar graph. 2. (ACTIVITY6) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem105.pdf 3. To obtain area of different geometrical figures using a geo board and verify the result using known formula.	9.4 Pictograph 9.5 Interpretation of Pictographs 9.6 Drawing a Pictograph
	10. MENSURATION (10 PERIODS)	10.1 Introduction 10.2 Perimeter 10.3 Area	1. To understand the concept of perimeter and area. 2. To derive the formula for perimeter and area of a rectangle and a square. 3. To apply formulae and solve different real life problems.	1. Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc.	1. (ACTIVITY17) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf 2. To obtain the formula for area of a rectangle. 3. (ACTIVITY24) - https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/class10VII/mathematics/ahem103.pdf	
JANUARY	11. ALGEBRA (10 PERIODS)	11.1 Introduction 11.2 Matchstick Patterns 11.3 The Idea of a Variable 11.4 More Matchstick Patterns 11.5 More Examples on Variables 11.6 Use of Variables in Common Rules 11.7 Expressions with Variables 11.8 Using Expressions Practically 11.9 What is an Equation 11.10 Solution of an Equation	1. To use variables in different contexts in mathematics and also appreciate the necessity of representing unknowns by variables. (alphabets) 2. To represent statements in expressions using variables and vice-versa. 3. To classify quantities as variables and constants. 4. To understand algebra as generalisation of arithmetic. 5. To find the value of the variable by solving the equation. 6. To represent life situations in the form of an expression.	1. Uses variable with different operations to generalise a given situation. For example, Perimeter of a rectangle with sides x units and 3 units is 2(x+3) units.	1. Making different Matchstick Patterns of various alphabets to arrive at a general formula.	
	12. RATIO AND PROPORTION (6 PERIODS)	12.1 Introduction 12.2 Ratio 12.3 Proportion 12.4 Unitary Method	1. To understand the meaning and importance of ratio and proportion. 2. Comparing the quantities and computing using appropriate methods. 3. To understand and apply unitary method to solve problems.	1. Compares quantities using ratios in different situations. For example the ratio of girls to boys in a particular class is 3:2 2. Uses unitary method in solving various word problems. For example, if the cost of a dozen notebooks is given she finds the cost of 7 notebooks by first finding the cost of 1 notebook.		
PERIODIC TEST - III						
FEBRUARY	13. SYMMETRY (4 PERIODS)	13.1 Introduction 13.2 Making Symmetrical Figures 13.3 Figures with Two Lines of Symmetry 13.4 Figures with Multiple Lines of Symmetry	1. To understand the meaning and existence of symmetry in our life. 2. To develop the skill of drawing and identifying lines of symmetry of some basic plane figures. 3. To develop aesthetic sense and appreciating beauty of maths.	1. Demonstrates an understanding of line symmetry by identifying symmetrical 2-Dimensional (2-D) shapes which are symmetrical along one or more lines Creating symmetrical 2-D shapes.	1. Identifying and drawing lines of Symmetry of different plane figures.	13.6 Reflection and Symmetry
	14. PRACTICAL GEOMETRY (6 PERIODS)	14.1 Introduction 14.2 The Circle 14.5 Angles- Constructing 60° & 120°	1. To gain the knowledge of geometrical apparatus. 2. To draw and construct angles, lines and circles. 3. To discuss and construct special angles like 60° & 120° using compass and ruler also to maintain neatness and accuracy.	1. Constructing simple special angles like 60° and 120°.	1. Identifying various instruments present in the geometry box and constructing 60° and 120° using compass and ruler.	14.3 The Line Segment 14.4 Perpendiculars 14.5.2 Constructing of a copy of an Angle of an Unknown Measure 14.5.3 Bisector of an Angle Special angles: 30°, 90°, 45° & 135°
REVISION SESSION ENDING EXAMINATION						
MARCH						