

TERM-WISE SYLLABUS: SESSION 2019-20

CLASS-V

SUBJECT-Mathematics

Term-I (Upto September 2019)

Textbook Chapters	Learning Outcomes	Activities	Work sheets
Revision	- Performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers.	<ul style="list-style-type: none"> • Revisiting idea of ‘times’ through a story context and giving meaning to the symbol for multiplication ‘X’. • Word problems based on multiplication and division 	3, 4, 9, 10, 38, 39
Revision	- Relates different commonly used larger and smaller units of length	<ul style="list-style-type: none"> • Estimates the length of an object and measures it to find the length in centimetres. For eg. Children measure their foot length in centimetres • Estimates the distance and measures in metres and centimetres according to the distance • Estimating and drawing a 1 metre line on the board, finding its actual measure and difference from the estimate. 	2, 11, 12, 23, 24, 57
Revision	-Explores idea of angles and shapes	<ul style="list-style-type: none"> • Activities for comparing angles using jhaadu ki tilli and making bigger or smaller angles • Children make a figure of their choice using jhaadu ki tilli or drinking straws and count the number of closed figures and the number of sides of each figure. They see that the number of sides is the same as number of angles inside the figure. They name figures based on the number of sides – triangle, quadrilateral etc. • Group activity - Making many different triangles using straws. They identify which triangles are different by super-positioning them. 	16, 17, 18
Unit 1 The Fish Tail Problems based on speed distance time, number and number names, large number up to 1 crore, introducing concept of buying, selling and loan	-Works with large numbers -Reads and writes numbers bigger than 1000 being used in her/his surroundings. -Performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers.	<ul style="list-style-type: none"> • Make different sea animals using various geometrical shapes. • Organize a role play of a fish market in the class. • Make a fish by paper-cutting. • Rounding off numbers to the nearest hundreds, thousands and lakhs. • Organize a bank scene in classroom for introducing loan and interest • To read the entries in your bank passbook and make the same in your notebook • Collecting pictures of different types of boats • Word problems on addition, subtraction, speed, time, distance and weight 	1, 5, 6, 7, 8, 13, 14, 15, 19, 20, 21, 22, 25, 26, 27, 28, 29, 36, 37, 40, 42, 49, 50, 59, 62, 65, 74

		<ul style="list-style-type: none"> • (Before WS 19) Group activity - Free play with balance , followed by each group writing on the board combinations of items which have been balanced, using '=' sign. <p>Mental Maths</p>	
<p>Unit 4</p> <p>Parts and Wholes</p> <p>Fraction, equivalent fraction, dividing different shapes and things into fraction, shading a part of whole and make fraction, patterns in parts, Ramu's vegetable fields, part to whole, conversion of time and money into fractions</p>	<p>-Acquires understanding about fractions</p> <p>- Finds the number corresponding to part of a collection.</p> <p>- Identifies and forms equivalent fractions of a given fraction.</p>	<ul style="list-style-type: none"> • Consolidating idea of unit fractions through context involving equal sharing • Making $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{6}$ in different ways with rectangular sheets of paper • Games with fraction cut-outs, for example, making a whole cake • Group activity – Each group picks up a chit (chits have numbers like $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$ etc. or for a challenge $\frac{1}{3}$, $\frac{1}{6}$). Each group cuts paper plates to make fractions written on the chit. • Comparison and ordering unit fractions (with and then without cutouts) • Draw our National Flag. Write the fraction of the different colours • Use of fraction kit. • Within a circular area context introducing non-unit fractions as multiples of unit fractions. For e.g., $\frac{5}{8}$ is seen as 5 times $\frac{1}{8}$ and $\frac{9}{8}$ as 9 times $\frac{1}{8}$. • Making and identifying different fractions • Game for common fractions – each child tries to make the fraction as per the chit with fraction cutouts • Comparison of fractions – more than whole or less than whole • The idea of equivalence can be initiated with $\frac{1}{2}$. Children are given cut-outs of various unit fractions like $\frac{1}{3}$, $\frac{1}{8}$, $\frac{1}{6}$ etc. and asked to find how many different ways they can make half. • Comparison – more than $\frac{1}{2}$ or less than $\frac{1}{2}$. • Use concrete objects such as marbles, sticks, bottles caps etc. to show equivalent fractions. • Word problems involving fractions from daily life activities. • Take a square grid.Colour and make a design.Write the fraction for the coloured part. <p>Mental Maths</p>	<p>44, 45, 46, 47, 48, 66, 67, 68, 69, 70, 71, 72, 73</p>
<p>Unit 5</p> <p>Does it look the same?</p>	<p>- Identifies 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and</p>	<ul style="list-style-type: none"> • Dividing different shapes and things into half vertically and horizontally • Making windmill with paper • Mirror game: putting the mirror at different places on the figure and drawing the shapes obtained. 	<p>63, 64, 101</p>

<p>Making patterns with a drop of colour and paper folding, line of symmetry objects in the mirror, half rotation, one fourth rotation, one third rotation, one sixth rotation</p>	<p>shapes.</p>	<ul style="list-style-type: none"> • Making flashcards of alphabets and numbers for rotation • Find out which letter in the English alphabet looks the same after half a turn • Finding figures which look the same after 1/2, 1/4, 1/3 and 1/6 rotation <p>Mental Maths</p>	
<p>Unit 7</p> <p>Can you see the Pattern?</p> <p>Patterns from our daily life, turns and patterns, look for a pattern, magic square, magical hexagon, pattern in number series, calendar magic, puzzles and word problems related to number series</p>	<p>- Identifies the pattern in triangular number and square number.</p>	<ul style="list-style-type: none"> • Finding patterns in the given series. • Making different patterns. • Complete the magic square. • Find 3×3 boxes in the calendar and patterns in them. • Find 5 patterns from your surroundings e.g. windows, tiles. • Making beautiful patterns using leaves and flower petals. <p>Mental Math</p>	<p>78, 79, 80, 81, 102, 103, 104</p>
<p>Unit 8</p> <p>Mapping your Way</p> <p>Know about map of Delhi, distance between two points on the map, scale reading in maps, hexagons in map and angles made in between, journey of Red Fort: understanding of directions, scaling of images; big and small, map of India and its States, map of school and classroom</p>	<p>-explores idea of angles, shapes and space</p>	<ul style="list-style-type: none"> • Finding different places in the given map • Finding the distance between two places according to the given scale in the map. • Show 4 states in the map of India in 4 different directions. • Draw a map from your home to school. • Find different stations on the Metro map. • Given two places, locate one place in respect of the other place(in terms of direction) <p>Mental Maths</p>	<p>120</p>
<p>REVISION AND MID TERM EXAMINATION</p>			
<p>TERM-II (October 2019 to March 2020)</p>			

Revision	- Estimates Sum, difference, product and quotient of numbers and verifies the same using different strategies	Revisit – number sense and word problems	88, 94, 100, 107, 108, 109, 117, 118, 122, 123 , 129, 149
Revision	- Relates different commonly used larger and smaller units	Revisit - measurement	41, 43, 75, 86, 96, 98, 99, 137, 138, 139, 145,
Unit 2 Shapes and Angles Closed and open shapes, introduction of angles, angles in geometrical shapes, measuring angles with divider, types of angles, angles in alphabets, changing shapes and angles, angles in clock, introduction to protractor D and measuring angles with it	- Explores idea of angles and shapes. -Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing.	<ul style="list-style-type: none"> • Making different geometrical shapes with matchsticks and finding angles in them. • Make different shapes by paper cutting and measure its angles. • Making different angles by bending your arms and legs. • Measuring the given angles with a protractor. • Make a clock and show different angles using the arms of the clock. • Making a degree clock with cardboard and matchsticks. • Children identify the biggest and smallest angles given inside figures. • The right angle is introduced as a special angle and children are asked to mark the angles according to whether they are more than or less than a right angle. After these experiences, the terms acute and obtuse angles can be introduced. • Understands rectangles as quadrilaterals having equal angles that is right angles and squares as special rectangles Mental Maths	51, 52, 53, 54, 55, 56, 124, 125, 126
Unit 6 Be my Multiple, I will be your Factor Introduction about multiples using tables, finding out the multiples of different number, common multiple, introduction of factors: multiplication chart, common	- Performs four basic arithmetic operations on numbers beyond 1000	<ul style="list-style-type: none"> • Divide a given number of things (for e.g. pencils, beads, marbles etc.) into groups of the same size. Do it in different ways. • Tic tac toe game - Get 3 multiples in a row. List the factors of the given two numbers and write the common factors in the common region. (Refer textbook ‘Common factor’) Mental Maths	58, 60, 61

<p>factors, factor tree, LCM and HCF related word problems</p>			
<p>Unit 10</p> <p>Tenths and Hundredths</p> <p>Understanding 10th part and representing it in decimal and fraction form, understanding 100th part and representing it in decimal and fraction form, understanding relation between higher and lower units of length, weight and money, conversion of higher unit into lower unit or vice versa, currency of different countries and their value with respect to the Indian currency, temperature (in degree Celsius)</p>	<p>- Acquires understanding about fractions</p>	<ul style="list-style-type: none"> • Estimate and then measure lengths of different things like pencil, geometry box etc. and write it in cm and mm • Practice sums on conversion - cm into mm or vice versa • Make groups of 10-10 students, measure their heights in m and cm with the help of a measuring tape. Collect token currencies of any 5 countries, measure their length and breadth. Find the value of the currency in terms of the Indian currency • Write the temperatures of 5 major cities for the same day from the newspaper and compare their climatic conditions • With the graph papers, teacher will explain decimals, fractions and their relation between them <p>Mental Maths</p>	<p>90, 91, 92, 93, 110, 111, 112, 113, 114, 115, 146</p>
<p>Unit 3</p> <p>How many Squares?</p> <p>Perimeter and area, use of a square boxes grid to find area, comparison of areas of different objects, area of triangle and comparison of area of different triangle in a grid, complete the shapes, puzzle with 5 squares</p>	<p>- Explores idea of angles and shapes</p>	<ul style="list-style-type: none"> • Measuring area with informal units - Children find out who has the biggest foot in the class using square paper or Rangometry pieces. • Introducing square cm • Further activities for comparison of figures to see which has a bigger area children measure by drawing grid themselves • Find the area of different objects by using graph paper • Find the perimeter of Maths notebook, geometry box, lunch box etc. with the use of scale and thread • Trace your hand on a graph paper and find out its area. • Make different triangles by cutting a graph paper and compare their area. • Make different shapes using 5 squares and compare their perimeters. • Make your own tiles by cutting a graph paper, measure its area and form a pattern using the tiles. <p>Mental Maths</p>	<p>30, 31, 32, 33, 34, 35, 76, 77, 82, 83, 84,</p>

<p>Unit 11</p> <p>Area and its Boundary</p> <p>Introduction of area and perimeter, comparison of area of different objects, simple word problems based on area and perimeter, puzzles related to area and perimeter, dividing grid into different areas, objects with different shapes and perimeter can have same area and vice versa, finding side when area/ perimeter is given</p>	<p>- Explores idea of angles and shapes</p>	<ul style="list-style-type: none"> • Use a thread to measure the perimeter of the given figure • Arriving at formula for area of rectangle- Children are given cut-outs of two rectangles – 16x16 and 22x12 and asked to find out the rectangle with bigger area. Most would use the scale to measure the sides and then calculate. • Given a rectangle children work out how it can be divided further into two, three or more rectangles. • Measure the length and width of objects present in immediate surroundings and find their area and perimeter • Making rectangles of different sizes with the same length of rope in the school ground and finding out their area and perimeter and comparing them. <p>Mental Maths</p>	<p>130, 131, 132, 133, 134, 135, 136, 148</p>
<p>Unit 12</p> <p>Smart Charts</p> <p>Use of Tally marks, frequency table, reading of Tally marks, reading of Chapati chart (pie chart) and bar graph, making of bar graph and chapati chart, family tree, reading a graph using growth chart of a plant, solving questions based on bar graph and pie chart</p>	<p>- Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it.</p>	<ul style="list-style-type: none"> • Bringing cuttings of bar graph and chapatti chart (pie chart) from newspapers and discussing them • Make a frequency table of the favourite TV programs of the students in the class and represent it with a pie chart. • Make a frequency table of the favourite dishes of the students in the class and represent it with the help of a bar graph. • Frame the questions based on a bar graph drawn by the students in a group and ask question to the students of the other group. <p>Mental Maths</p>	<p>142, 143, 144</p>
<p>Unit 13</p> <p>Ways to Multiply and Divide</p> <p>Simple multiplication, multiplication by breaking method, daily life problems for multiplication, patterns in multiplication, simple division problems, division by long methods, mental puzzles of multiplication and division, checking</p>	<p>-estimate product and quotient of numbers and verifies the same using different strategies -does division</p>	<ul style="list-style-type: none"> • Create a mock shopping situation in the class. • Give a situation and ask students to frame questions related to the concept of division and multiplication <p>Mental Maths</p>	<p>85, 87, 89, 105, 106, 116, 128, 140, 141, 147</p>

answer of division			
<p>Unit 9</p> <p>Boxes and Sketches</p> <p>Comparison of 2-D and 3-D figures, 3-D figures with respect to Length, breadth, height, vertices, faces and edges, visualize the net of box to think of how it looks when flattened and also to check which nets do not makeup box, deep drawings to get a sense of the need to represent depth, understanding deep drawings and layout plans, top, front and side view of 3-D figures to understand the dimensions which we can see</p>	<p>-identifies 2D shapes from the immediate Environment</p> <p>-makes cube, cylinder and cone using nets designed for this purpose</p>	<ul style="list-style-type: none"> • List objects from your surroundings and classify them as 2D and 3D shapes • Counting faces, edges and vertices of 3-D figures. • Finding area of each face of a cube and a cuboid. • Making of cube, cuboid, cylinder, cone using empty matchboxes and other objects • Make a layout drawing and deep drawing of the classroom. • Make a 3-D figure by using matchboxes, observe it from top, front and side <p>Mental Maths</p>	
<p>Unit 14</p> <p>How Big? How Heavy?</p> <p>Understanding the concept of volume, measuring of volume, unit of volume</p> <p>volume of cube and cuboid, simple word problems related to volume, concept of weight, unit of weight, word problem related to weight</p>	<p>-relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa</p> <p>-estimates the volume of a solid body in known units like volume of a bucket is about 20 times that of a mug</p>	<ul style="list-style-type: none"> • Comparing the volume of different things by putting them into a jar filled with water • Finding volume of a matchbox by measuring its length, breadth and height • Take two rectangular sheets of the same size and make 2 cylinders - length wise and width wise. Fill one with sand and put it into another and compare their volume. • Make a list of grocery items used at home in one month along with their quantity. <p>Mental Maths</p>	95, 97, 119, 121, 127
Revision and Annual Examination			