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| **ASSAM RIFLES PUBLIC SCHOOL, PALLEL HQ 26SECTOR**  **SPLIT UP SYLLABUS 2023**  **CLASSIV SUBJECT:MATHEMATICS** | | | | | |
| **Term1** | | | | | |
| **MONTH** | **CHAPTERS** | **COMPETENCY** | **LEARNING OUTCOME** | **SUGGESTED ACTIVITIES** | **ASSIGNMENT** |
| **April** | **1. Building with bricks** | Concepts  Shapes and Spatial understanding  Drawing of patterns of wall, floor, jharokas and jaalies.  Introduction of basic concept of arch Number and operations- up to one lakh (place value chart)  Knowledge of price and quantity of differentthings.  Tessellation (Tiling) | To know the difference between 2D and 3D shapes  Able to understand different patterns of wall, floor and jaalies.  Write number names andnumerals.  Understands Indian and International place value chart (up tolakh)  Able to write greatest and smallest number using the givendigits.  Able to solve simple wordproblems.  Able to understandthe relation between Price andQuantity.  Patterndesigning | Explore some more 2D and 3D shapes/objects related to daily life and compare them on the basis of Edges Corners Faces  Length, breadth and height.  Make models of cube and cuboids.  Make a jaali pattern in a wall.  Make a floor pattern in a circle.  Visit to bridges, religious worship places, historical monuments etc. to show the different types of arches.  Solves problems inreal life context.  Visit to the nearest shop and make a list of different things with their prices.  Paste coloured pieces of shapes and formpatterns ofchoice | .  Worksheet based on–  Indian and International place values  Forming greatest and smallestnumber.  Wordproblems. |

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|  | **2. Long and Short** | Understand the basic concept of measuring length.  Estimation and comparisons of length of various figures and things  Ability to compute the distance,tallest  /shortest member in your group, guessing the approx. height.  Analyzing and differentiating things as long or short.  Calculatingthe  height of different people. | Recognize the standard units.  Compare length using an improvised standard unit or metric system.  Identify long length are measured in (m) and short lengths are measured in (mm) and (cm) and distance through (km), able to calculate dm, dam, hm,etc.  Able to measure longer and shorter distances using the tape orscale. | Find the shortest and tallest from the class.  Find the length of Maths text book, desk, and teacher’s table.  Measuring table, desk and chairs in the classroom.  Measure the racing track in yourschool | .  Worksheet based on metric measures of length.  Make them to collect information about  Who is tallest in yourfamily?  Who is shortest in yourfamily? |
| **June** | **3. A Trip to Bhopal** | **NUMBER OPERATIONS**  **Number Operations (+, -**  **,x,÷):-**  Add and subtract 3- or 4- digit numbers.  Multiply and divide 2- or 3- digit numbers by 1- or 2-digit number  Smallest and Greatest 3/4/5 digit numbers  Number puzzle | Understands the properties of addition, subtraction, multiplication, division.  Identifies greatest and smallest number from the givennumbers.  Solves Numberpuzzles  Solves basic problems related to everyday life based onnumbers.  Frames wordproblems.  To Compare the numbers andSolve | The students will be given different situations to add and subtract hours and minutes mentally.  Children can be asked to solve many more similar questions or puzzles, both orally and inwriting.  Plotting different places inmap. | Worksheet based on 4 operations andmoney. |
| Apply four basic number operations(+,-  ,X, ÷) to life situations  **Mental arithmetic:**  Add, subtract & multiply  Multiples of 10 & 100. | addition/ subtraction/ multiplication sums mentally involving  multiples of 10 & 100  To estimate sum, difference, product of given numbers. | Using duplicate money playing games by arranging a field trip. |  |

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| **July** | **4. Tick, Tick, Tick.** | Time  Different ways to measure time  Introduction of Calendar  Introduction of Clock  Basic mathematical operations in time measurement  Introduction of 12 hrs clock  Introduction of 24 hrs clock.  Find approximate and elapsed time | Importance of time  knowledge about Different ways to measure time  Learners would appreciate the use of calendar and different format of date  Calculate hours/minutes using given twodates  Addition and subtraction  Concept of AM &PM  Difference between normal watch and a 24 hrs.clock  Understanding the manufacture and expiry dates on edibles, medicines, etc. | Make a clock and draw thehands  Make your daily routine time table.  List the activities done in 5 minutes, less than 1 hour, more than 1hour.  Making of calendar and mark Sundays and any special day comes in the month  Draw hand of watch for the given time.  Growth of plant or life span  Observe the calendar and write the sunrise/sunset. Calculate day span. | Worksheets based on finding AM and PM,  converting 12 hours to 24 hours, converting hours to minutes, minutes to seconds and solving word problems. |
| **August** | **5. The way the world looks** | Front, side & top view of different object  Route map & Directions  Shapes of cubes and cuboids | To able to understand concepts of different views of objects from your surroundings.  Visualization of objects from different angles.  To able to mark the directions on route maps. | Make shapes of cube and cuboid using nets  Draw a map on the floor and ask the children to stand on the map and locate different things and places |  |

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|  |  |  | To get an intuitive idea ofmap.  Understands the four directions and is able to locate the given area in the map.  Understands the directions related to one’s position  To be able to make shapes of cube and cuboids using nets. | Draw any picture like bowl, chair, etc. and draw top, side and front views of different objects  By showing route map  from any place.  Read a map of your school or city and write precise directions to reach different places. | Worksheets based on top, front and side views, routes, directions and nets |
| **6. The junk seller** | Addition and subtraction of money.  Conversion of rupees into paise and vice versa  Multiplication of two- and three- digit numbers using lattice algorithm and standard algorithm.  Concept of loan, profit and loss.  Estimate roughly the total cost  Daily life problems | Addition, Subtraction, Multiplication and Division.  Awareness about loan, profit, loss.  Understands basic operations on money.  Solves problems related to money transactions.  Can purchase things from the market and  compare their prices.  Illustrate lattice multiplication using expanded notation.  Knows the value of different currency notes and coins.  Makes the bill. | Make a shopping bill.  Ask the students to go to nearby market and purchase a few things. At home they will check the price tags. They will prepare a bill and find how much money did he/she spend.  Mock bank showing lending and borrowing money  Make different combination for a given amount using different denomination of notes. | Word problems  Estimate the answer and then calculate.  Worksheets based on addition, subtraction and multiplication of money.  Worksheets based on conversion of money. |

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| **September** | **7. Jugs and mugs** | Understanding and measuring the capacity of a given liquid using containers marked with standardunits.  Determining sums and differences of capacity  **Volume**- Estimating the capacity of a liquid containing in a vessel and verifying by measuring.  Understanding the units of capacity in liters and milliliters.  Solving Puzzles related to capacity | Understanding which unit of capacity is to be used for smaller quantities and bigger quantities Making liters in different ways  Solving word problems related to capacity  Know which items are measured in liters and milliliters. Making own measuring bottles Sums on Addition and subtraction related to  capacity.  Conversion of larger unit into smaller and vice versa  Solving puzzles | Showing measuring containers available in the market for oil, milk, soft drinks etc.  Observe the different capacities in mL andL  Guess how much water can jugs,mugs, bottles and glassesof different measures hold  List 5 items which are measured in liters/ milliliters  Find the capacity in wrappers/labels like plastic bottle of water, cooking oil, tetra packet of milk etc.  Make own measuring bottles/cups of different capacities | Problems related to capacity  Puzzles  Worksheet based on converting smaller unit to larger unit and vice versa  Matching correct units to the object Solving word problems |

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| **October** | **8. Carts and wheels** | Drawing a circle free hand or with compass  Knowledge about round objects  Understanding to draw circle using compass  Relationship between length of the string and size of thecircle.  Finding the centre | Make circles using coins, bangles etc.  Observe and identify round and circular objects from the surroundings  Collect objects which are circular like bottle cap bangles, rings, coin etc.  Teacher will show the geometrical instruments and children will name and identifythem.  Finding the centre of a circle by paper folding.  Finding the radius of different types of wheels.  Using compass make designs in circles of differentradii  Drill and practice exercises to find radius anddiameter | Children will play some games by making circles with a string /rope and nail.  Identify round &circular objects from surroundings.  Play game using spin top.  Children will draw Rangoli Designs using circles  Construction of circle of given radius.  Take a wire and make a bangle/ anklet for yourself  Cut out circles of different radii on a paper and find the centre by folding it. | Worksheets based on finding radius, anddiameter  Drawing circles with different radius using compass |

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| **November** | **9. Halves and quarters** | Knowledge of the fractional numbers. Concept offraction.  Introduction of thenew terms like half,quarter  Types of fractions, Ability to draw half part of thepictures.  To show equivalent fractions  Conversion of mixed fraction to improper fraction and vice versa | Understands the part or a fraction of the whole.  Able to shade the said part of the given shape  Able to write the fractional number for the shaded part of the shape.  Understanding the concepts half, quarter and three- fourth and etc.  Understands the types offractions  like/ unlike fractions.  Find the cost of ½ kg, ¼ kg, ¾ kg of differentobjects  Able to make half of given objects.  Identify equivalent fraction and generate equivalent fraction to a given fraction. | Divide the given objects into halves in different ways.  Finding fraction of a collection.  Complete the picture by drawing the other half  Solve day- to-day problem  Role play-Mock shopping. find the cost of given items and make list  Solve day-to-day problems using a pricelist | Worksheets based on identifying like, unlike, proper, improper and unit fractions  Worksheet based on conversion offractions |

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|  | **10. Playing with patterns** | Recognizing rules in different number and alphabet patterns.  Identifies geometrical patterns based on symmetry.  Identifies patterns in surrounding. E.g.,  bedsheet, grill and tiles.  Makes pattern and designs from straight line and other geometrical shapes. | To observe and understand the patterns in our surrounding.  To realize the rule of creativity in a pattern.  Able to know about symmetrical and non- symmetrical shapes,  letters, alphabet and numbers.  Able to know patterns involving basic operation.  Ability tocompute  To compute the number pattern using addition/subtraction  /Multiplication/ division.  Understands and applies the rules to floor pattern.  To recognize the rule for coding / decoding the messages.  Able to know the rule used in puzzles and games.  Applies the knowledge to form a pattern. | Observe the pattern in grill, saree, curtains, floor etc. and recognize the sequences  Make patterns with numbers and alphabets encoding and decoding patterns and write theirname in encoded and decoded way.  Complete magic squares and train Making patterns using geometrical shapes.  Make patterns with vegetable cuttings | Worksheet based on number patterns and alphabets  Complete the pattern to encode/decode the message |

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| **December** | **11. Tables and shares** | Able to multiply and divide using different ways.  Multiplication as repeated addition and Division as repeated subtraction.  Able to divide into equal groups Doing daily life calculations based on multiplication n and division.  Arranging the things in different groups in different ways.  Frame word problems | Understand the properties of multiplication.  Multiply and solve problems.  Divide one, two, three digits numbers by 1 digit numeral  Solve word Problems involving division and multiplication.  Understand multiplication is repeated addition and use of symbol ofmultiplication.  Understand that division is repeated subtraction and uses symbol of division.  Multiply a 3- digit number by 2-digit number.  Divides 3-digit numbers with 2- digit number and 1digit number | Arrange bindhi in sequence of the given multiplication fact  Skip counting  Framing questions by looking pictures  Sorting the marbles equally | Worksheet based on all four operations  Solve word problems |

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| **January** | **12. How**  **heavy? How light?** | Weighs objects using a balance and standard units.  Determine sum and difference of weights.  Estimates the weights of an object and verifies using abalance. | Recall imperial system of measurement and metric system of measurement.  Recognizing SI units  List the table used in SI system from the lowest to highestunits  Collect history about fake weighing balance.  Awareness about fake weighing balance.  Observe and understand the higher and lower units of measurement.  Make balance and find weight.  Select the correct unit of weight of givenobjects. | Compare the items which are heavy / heavier/ heaviest  Estimate the weight of objects in class and find exact weight through weighting balance.  List the things bought in grams and kilograms.  Compare the weight and height and the unitsused.  Bring 1kg, ½ kg of some pulses. Tell thestudents to assume that and then make them to weigh the pulses.  Use rolling cards and make them to convert lowest unit to highest unit and viceversa. | Measuring the weights through weighing machine.  Worksheets based on addition, subtraction and conversion of weights.  Draw the table to show the lowest to highest unit of weight. |
|  | **13. Fields**  **and fences** | Understanding the concepts of area and perimeter of simple geometrical figures.  Ability to compute area and perimeter of regular and irregular shapes.  Solving problems based on area and perimeter | Understanding the meaning of fields (area) and fences (perimeter)  Understanding boundary (perimeter) is the sum of the sides of the given figure  Finding area and perimeter of different things in the surrounding using scale or tape.  Calculate the area and perimeter of regular  shapes like rectangle, square etc.  Finding the number of squares in inside a regular shape using 1- | Measure the length and breadth of a given figure and find their area and perimeter.  Measure area and perimeter using ribbons of 1 meter length arrange on the floor.  Determine area and perimeter using square thread of the irregular shapes.  Compare the area and perimeter using threads, graphs paper | Worksheets based on finding area and perimeter of simple geometrical figures.  Solving word problems-based area and perimeter |

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|  |  |  | - centimeter square paper.  Solving day-to-day life problems relatedto  area andperimeter. |  |  |
| **February** | **14. Smart**  **chart** | Collection of data and representation through pictograph.  Conclusion from data | Collect data by tally marks and represent in the form of bar graph.  Draw inferences by discussing with teacher.  Represent data graphically (bar and pie charts) Collect/ interpret data from the newspaper and represent in tabular form.  Solving word problems related to datacollection.  Represent fraction through chappathi or pie  chart. | Collect and record data of favorite hobby, snacks, sports etc. by using tally marks, then make bar graphs and frame own questions based on bargraph.  Make a pie chart to show the different types of books in library.  Draw pie chart to show the number of students in different house color in primarysection. | Collecting data and framing own questions based on bar graph or piechart |
| **MARCH** | **Revision & Final Exam** | | | | |