

SYLLABUS CLASS V - SESSION 2024-25 MATHEMATICS

BOOKS: Maths Beyond

Month	Unit/Chapter/Topic	Learning Objective	Pedagogy Tools Used	E- Content	Learning Outcomes	Skills Learnt by Students
APRIL	Chapter - 1 Large Numbers	The learners will be able to * Read and write 7- digit and 8-digit numbers and their number names in both Indian and International Number System. * Write the place value and face value of digits in 7- digit and 8-digit numbers. * Compare Numbers and arrange them in ascending and descending orders. * Round off numbers to the nearest 10 , 100 and 1000 * Compare the Indian Number System and International Number System. * Form 7-digit and 8-digit numbers using the given digits. * Learn to write Hindu Arabic Numerals in Roman Numerals.	* Brainstorming * Pose purposeful Question. * Demonstration Approach * Memorization of facts/ Rules.	ACTIVITY : Write about things (paste pictures of objects) which are connected to 7- , 8- and 9-digit numbers in some way or the other . Support your sentence by pictures, drawings , sketches , etc .Colour/illustrate the pictures . https://www.math-salamanders.com/image-files/roman-number-worksheet-match-the-roman-numbers-1-to-100a.gif	After completing this chapter the students will be able to : * Read and write large numbers upto crores using Indian numeration System. * Read and write numbers using International Numeration System. * Use place value to write a number in expanded form and vice -versa. * Find the successor and predecessor of a given number. * Use place value to form greatest and smallest numbers from the given digits . * Compare and order large numbers using place value. * Read and write Roman Numerals.	* Initiative and Self-Direction * Logical Reasoning * Critical Thinking * Art integration * IMT Skills
	Chapter - 2 Number Operations	The learners will be able to * Add and subtract large numbers . * Multiply and Divide large numbers. * Solve word problems based on Addition , Subtraction , Multiplication and Division. * Simplify Problems of Addition and Subtraction.	* Explicit Instruction * Cooperative learning * Visual strategies * Hands-on learning * Strategic questioning	Activity: The world map is divided into seven continents: 1) Research and find the largest and the smallest continent in terms of area . 2) What is the difference in the areas between the largest and the smallest continents ?	After completing this chapter the students will be able to * Compute the sum and difference of 7-digit and 8-digit numbers without and with regrouping. * Apply the properties of addition and subtraction. * Apply the concept of addition , subtraction , Multiplication and Division in solving real life problems. * Multiply and Divide large numbers.	* Initiative and Self-Direction * Critical Thinking * Creativity and Innovation * Experiential Learning
MAY	Chapter - 3 Factors and Multiples	The learners will be able to * Check divisibility of number by 2,3,4,5,6,8,9 and 10. * Find Factors and Multiples of given number. * Find the HCF and LCM of given numbers. * Understand properties of factors and Multiples. * Solve word problems on HCF and LCM .	* Accessing Prior Knowledge and Skills * Application of facts * Introduce and reinforce the concepts by using problem-solving contexts. * Discussion Method * Content - focussed method.	https://www.mathsisfun.com/greatest-common-factor.html LETS PLAY A QUIZ https://www.softschools.com/quizzes/math/finding_the_lcm/quiz3262.html	After completing this chapter the students will be able to * Write factors and Multiples of a number . * Test divisibility of numbers . Differentiate between Prime and Composite numbers. * Compute the Highest Common Factor (HCF) using prime factorisation method and long division method. * Compute Lowest common multiple (LCM) using prime factorisation method. * Establish the relation between HCF and LCM.	* Experiential Learning * Creativity and Innovation * Art Integration * Logical Reasoning * Critical Thinking
JUNE	SUMMER BREAK					

JULY	Chapter- 4 Fractions	The learners will be able to * Learn about fractions and it's types. Find equivalent fractions for a given fraction. * Compare fractions and arrange them. * Reduce a fraction to its lowest term. * Add and Subtract fractions. * Solve word problems.	* Use of physical and visual models that are flexible, doable, and clearly connect fraction concepts * Recognize connections between fraction concepts and whole number concepts . * Learn how fraction concepts are interrelated * Experience challenging problems with fractions that extend and assess student understanding.	https://worksheetdigital.com/wp-content/uploads/2021/11/Reducing-Fractions-W3.jpg https://worksheetdigital.com/wp-content/uploads/2024/03/Mixed-Numbers-to-Improper-Fractions-2.png	After completing this chapter the students will be able to * Classify fractions as like , unlike , proper , improper , mixed and unit fractions. * Define equivalent fractions and find equivalent fractions of a given fraction. * Reduce a fraction to its lowest terms. * Compare and order two or more fractions. * Add and subtract two or more fractions. * Find the product of two or more fractions. * Find the reciprocal of a fraction. * Divide one fraction by another fraction.	* Initiative and Self-Direction * Experiential Learning * Creativity and Innovation * IMT Skills
AUGUST	Chapter - 6 Symmetry Pattern and Nets	The learners will be able to * Understand symmetry in plane and solid shapes. Identify nets of 3D shapes. * Learn about Line of symmetry. * Learn about rotational symmetry in shapes and centre of rotation. * Learn about Patterns	* Activity based learning * Experiential Learning * Discussion Method * Application of Facts	https://mathmonks.com/wp-content/uploads/2020/11/Lines-of-Symmetry-in-Polygon.jpg https://www.math-salamanders.com/image-files/geometric-nets-information-sheet-1.gif	After completing this chapter the students will be able to * Observe symmetrical figures and draw their lines of symmetry. * Draw figures after giving turns . * Add rotational symmetry. * Observe patterns . * Identify nets of 3D shapes.	* Initiative and Self-Direction * Experiential Learning * Art Integration * IMT Skills
SEPTEMBER	TERM - 1 EXAMS					
OCTOBER	Chapter - 5 Decimals	The learners will be able to * Convert Decimal numbers into fractions and vice-versa. * Compare decimal numbers. * Add and subtract decimal numbers . * Multiply and divide decimal numbers. * Solve word problems involving decimal numbers.	* Inductive Method * Direct Instruction * Memorization of facts * Drill and Practice Activities	https://www.math-salamanders.com/image-files/5th-grade-place-value-to-3dp-1a.gif https://diksha.gov.in/play/collection/do_312291614191992832113?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3122825826661683221276	After completing this chapter the students will be able to * Relate fractions with denominator 10, 100, 1000 as decimal numbers. * Find place value of decimal fractions as tenths , hundredths and thousandths. * Compute the sum and difference of two or more decimal numbers. * Multiply and divide decimal numbers. * Apply the concept of operations on decimal numbers in solving real life problems.	* Critical Thinking * Problem Solving * Creativity and Innovation * Experiential Learning
	Chapter - 10 Geometry	The learners will be able to * Learn about different types of angles and lines * Measure angles using protractor. * Identify intersecting , perpendicular and parallel lines * Learn about circle and its parts. * Understand the relation between diameter and circumference of a circle.	* Demonstration Method * Inquiry Based Learning * Application of Concepts * Pose purposeful Questions * Discussion Method	https://teachmint.storage.googleapis.com/public/707669663/Assignment/fedca1ff-5e26-4e18-8be3-47d533d5afc8.jpg https://mathmonks.com/wp-content/uploads/2020/12/Triangle-Worksheet.jpg	After completing this chapter students will be able to * Identify basic geometrical terms like a point, a plane, a line, a line segment and a ray. * Identify an angle * Measure and draw an angle using a protractor. * Define triangle and identify the vertices, sides and angles of triangle. * Classify triangles based on the length of their sides and measures of angles. * Define and identify various types of quadrilateral. * Define a circle and identify parts of circle.	* Initiative and Self-Direction * Experiential Learning * Art Integration * IMT Skills
NOVEMBER	Chapter - 9 Area and Volume	The learners will be able to * Determine the perimeter of simple geometrical shapes using formulae. * Determine the area of simple geometrical shapes using square grid and formulae. * Determine the volume of cuboid and cube. * Solve word problems involving the use of perimeter , area and volume.	* Inquiry Based Learning * Heuristic Approach * Demonstration Method * Lecture Method * Activity Based Learning * Use of Audio Visual Aids	https://www.liveworksheets.com/sites/default/files/styles/worksheet/public/def_files/2022/10/26/210260426122526996/210260426122526996001.jpg?itok=QDNpBzu8	After completing this chapter students will be able to * Define perimeter of a plane figure understand the unit of perimeter and express the perimeter with appropriate unit. * Compute perimeter of triangle , rectangle and square. * Compute area of rectangle and a square. * Define volume of solid shape , understand the unit of volume and express the volume with appropriate unit . * Compute Volume of a cuboid and a Cube . * Apply the concept of perimeter, area and volume in real life situations.	* Critical Thinking * Flexibility and Adaptability * Creativity and Innovation * Art Integration * IMT Skills

DECEMBER	Chapter - 12 Money	The learners will be able to * Understand the terms Cost price (CP) , Selling Price (S.P) , Profit and Loss. * Understand and Apply unitary Method . * Solve Word problems based on Profit, loss and unitary Method .	* Use of prior knowledge of students * Demonstration Method * Activity Based Learning * Role Play * Implement tasks that promote reasoning and problem solving. * Timed Testing	https://www.liveworksheets.com/sites/default/files/styles/worksheet/public/default_files/2021/12/23/112230939553247455/112230939553247455001.jpg?itok=mR296MUW Prepare a Bill of stationery items that you purchase for your exams.	After completing this chapter students will be able to * Apply the concept of four operations to solve problems based on money. * Comprehend and analyse the information given in the bill . * Prepare the bill . * Explain the unitary method. * Apply the concept of unitary method in solving real life problems.	* Initiative and Self-Direction * Critical Thinking * Problem Solving * Experiential Learning * Art Integration * IMT Skills
JANUARY	Chapter - 13 Data Handling	The learners will be able to * Represent raw data in a tabular form . * Use a pictograph to visualise data. * Create and analyse bar graphs . * Analyse and create pie charts and line graphs.	* Direct Instruction * Reflective Teaching * Mentoring * Heuristic Approach * Adaptive Teaching * Inquiry Based Learning	https://www.k5learning.com/worksheets/math/data-graphing/grade-3-circle-graphs-a.gif	After completing this chapter students will be able to * Collect data and represent it in tabular form using tally marks. * Interpret and represent data pictorially in pictograph. * Interpret and create bar graph based on the given information. * Interpret pie chart and line graph.	* Initiative and Self-Direction * Experiential Learning * Art Integration * Creativity and Innovation * IMT Skills
	Chapter - 14 Mapping Skills	The learners will be able to * Explain the purpose of maps. * List and identify the features of a map including the title, directions , map key, map scale.	* Group Discussion * Activity Based Learning * Visualization * Incidental Learning * Pose purposeful Questions	https://cdn.teacherspayteachers.com/cdn-cgi/image/format=avif,quality=70,width=525,height=525,onerror=redirect/thumbitem/Map-our-Classroom-2530940-1500873560/750f-2530940-1.jpg	After completing this chapter students will be able to * Develop a mental map of the real world information by processing the symbolised information on the map.	* Initiative and Self-Direction * Critical Thinking * Experiential Learning * Art Integration * IMT Skills
FEBRUARY	FINAL EXAMS					
Note:	Chapter -1 Large Numbers will be repeated in Term - II Exams					