



CLASS 3
YEARLY LEARNING OUTCOMES FOR MATHS
YEAR 2020-21

By the end of the year, students should be able to-

Number System:

M1. Use place value understanding and properties of operations to perform multi-digit arithmetic (Algorithms may be used).

- M 1.1 Count in thousands, hundreds, tens and ones (0 to 9,999)
- M 1.2 State the place value of a digit in a 4 digit number (from 10-9999) by expanding and also converting expanded form to a 4 digit number
- M 1.3 Write thousands as hundreds, hundreds as tens and tens as ones
- M 1.4 Distinguish between place value and face value of the digit
- M 1.5 Compare the numbers from 1000 to 9999 using $<$, $>$ and $=$
- M 1.6 Identify the numbers before, after or between (1000 to 9999)
- M 1.7 Identify the greatest or least from a set of 4-digit numerals
- M 1.8 Arrange 3 digit, 4 digit numerals in ascending and descending order
- M 1.9 Demonstrate the understanding of odd and even numbers, using patterns
- M 1.10 Understand the properties of addition (order property, grouping property, zero property)
- M 1.11 Know the properties of subtraction (subtracting zero from any number, subtracting a number from the number itself)
- M 1.12 Add and Subtract upto 4 digit numbers with and without regrouping , vertically & horizontally
- M 1.13 Represent problems, involving both addition and subtraction, as mathematical statements OR interpret mathematical statements and create real life situations appropriately and use computing skills learnt to solve them.

M2. Multiply and divide within 100.

- M 2.1 Multiply a multi digit numeral by a single digit numeral, with or without regrouping.
- M2.2 Divide a multi digit numeral by a single digit numeral

M3. Understand properties of multiplication and the relationship between multiplication and division.

- M 3.1 Memorise multiplication tables for 1 to 10 through multiplication drill
- M 3.2 Understand the relationship between multiplication and division and write connected facts

M4. Represent and solve problems involving multiplication and division.

- M 4.1 Solve problems involving multiplication and division using the skills learnt.
- M 4.2 Solve shopping problems on money using the 3 operations of addition, subtraction, multiplication

Algebra:

M5. Identify and explain patterns in arithmetic.

- M 5.1 Recognize the simple and complex number patterns
- M 5.2 Create own number patterns using knowledge of skip counting
- M 5.3 Choose a correct operation (+,-) and write an equation to solve a story problem

Geometry:

M6. Understand concepts of perimeter and area and relate area to multiplication and to addition (Geometric measurement).

- M 6.1 Have the experience for covering a square or a rectangle with small equilateral triangles, circles and squares (tessellation)
- M6.2 Recognise that a boundary (a perimeter) is required to create a shape
- M6.3 Distinguish between linear and area measures

M7. Reason with shapes and their attributes.

- M 7.1 Identify a point, line, line segment and note their characteristics; Draw a line segment
- M 7.2 Measure the distance between two points
- M 7.3 Recognize and identify the figures like square, rectangle, triangle, circle, identify the corners, edges, and region enclosed
- M 7.4 Relate 2D shapes and 3D solids to drawings of them
- M 7.5 Classify 3D shapes according to the number and shape of faces, number of vertices and edges (cube, cuboid, cylinder, cone, sphere)
- M 7.6 Understand that solids occupy space
- M 7.7 Predict how shapes can be changed by combining or dividing them
- M 7.8 Recognize circular shapes, the region enclosed by a circle and between circles
- M 7.9 Use the language of position, direction and movement, including clockwise and anti clockwise
- M 7.10 Make ink devils, recognize symmetry and find lines of symmetry by paper folding; draw the lines of symmetry of a square, a rectangle and an equilateral triangle
- M 7.11 Identify uses of triangular, square and rectangular shapes

Measurement:

M8. Solve problems involving measurement and estimation of length, weight and capacity and lapsed intervals of time (on the clock and the calendar).

Time

- M 8.1 Name the days of the week and months of the year in sequence (Revision from Class 1)
- M 8.2 Read the time (i) as quarter to, quarter past, half past (ii) in 5 minute intervals (ii) the exact minute (on analogue and digital clocks)
- M 8.3 Read the time in 3 ways and solve daily life problems on time involving addition and subtraction in minutes, hours and hours-minutes

Length

- M 8.4 Use a centimeter ruler and understand the need for the units metre and kilo metre
- M8.5 Awareness that the unit for measures of distances is the kilometre.
- M 8.6 Express metres in centimeters and centimeters in metres and centimetres
- M 8.7 Compare, add and subtract, lengths in mixed units namely m-cm

Weight (Mass)

- M 8.8 Measure in kg and g and have awareness that the unit for measures of weight is the kilogram
- M 8.9 Compare, add and subtract in kg and g with or without regrouping and solve problems

Capacity

- M 8.10 Understand the relation between litre and millilitre
- M 8.11 Use litre and millilitre in addition, subtraction, and word problems

Money

- M 8.12 Use the dot to separate rupees and paise and express money in words and figures
- M 8.13 Convert rupees to paise and paise to rupees.

Data Handling:

M9. Represent and interpret data.

- M 9.1 Prepare a pictograph for the given information
- M 9.2 Read and interpret information from a pictograph
- M 9.3 Compare and contrast using Venn diagram to sort data / objects using two criteria (through practical experiences)
- M 9.4 Read and prepare a Tally chart for recording, interpreting and visualising data

Mathematical Reasoning:

M10. Make decisions about how to approach problems

- M 10.1 Analyse problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information and observing patterns
- M 10.2 Determine when and how to break a problem into simpler parts

M11. Use strategies, skills and concepts in finding solution

- M 11.1 Apply strategies and results from simpler problems to more complex problems.
- M 11.2 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models to explain mathematical reasoning

M12. Move beyond a particular problem by generalizing to other solutions

- M12.1 Develop generalisations of the results obtained and apply them in other circumstances