

Class 2

Section I
Pedagogical processes suggested by NCERT
The learner may be provided opportunities in pairs /groups / individually and encouraged to —
Identify number naming and number writing patterns, read and write numbers up to 99
Apply the understanding of place value of numbers while grouping & recognising them
Add 2-digit numbers up to 99 by using addition facts up to 9
Develop and use alternate strategies for addition and subtraction of numbers
Explore situations in which addition and subtraction of numbers is required. For example, combining two groups, enlarging a group by adding more objects
Develop their own contextual situations / questions based on subtraction and addition
Create situation / context in which a number has to be repeatedly added
Trace different faces of 3D objects on paper and name their corresponding 2D Shapes
Classify shapes based on their physical attributes through cut out / paper folds of different shapes
Use observations / sense of touch to describe the shapes and their physical attributes
Add up to numerical value of Rs. 100, by using concrete play money of different denominations
Measure different lengths / distances by using uniform but non-standard unit
Discuss and share the experiences of children while they observe different balances for weighing objects
Construct their own balance (simple) and weigh and compare the weights of different things around them
Compare the capacity of two or more containers
Discuss about the special day / particular day of a week when children share time and house related work with their family members
Verbalise the unit of repeat in a pattern and make ideas about their extension
Extend patterns created by using shapes, thumb print, leaf print and numbers, etc.
Collect information from people around, record it and draw some inference from it.

Section II	
Learning Outcomes of NCERT	Measuring the Los
Works with two-digit numbers <ul style="list-style-type: none"> a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits) 	Works with two-digit numbers <ul style="list-style-type: none"> a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) forms the greatest and smallest two-digit numbers (with and without repetition of given digits)

<p>d) Solves simple daily life problems / situations based on addition of two-digit numbers</p> <p>e) Solves daily life situations based on subtraction of two-digit numbers</p> <p>Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)</p>	<p>d) solves simple daily life problems /situations based on addition of two-digit numbers</p> <p>e) solves daily life situations based on subtraction of two-digit numbers</p> <p>f) represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)</p>
<p>Describes basic 3D and 2D shapes with their observable characteristics</p> <p>a) Identifies basic 3d-shapes such as cuboid, cylinder, cone and sphere by their names</p> <p>b) Distinguishes between straight and curved lines</p> <p>Draws / represents straight lines in various orientations (vertical, horizontal, slant)</p>	<p>Describes basic 3D and 2D shapes with their observable characteristics:</p> <p>a) identifies basic 3D-shapes such as cuboid, cylinder, cone and sphere by their names</p> <p>b) distinguishes between straight and curved lines</p> <p>Draws / represents straight lines in various orientations (vertical, horizontal, slant)</p>
<p>Estimates and measures length /distances and capacities of containers using uniform non-standard units like a rod /pencil, cup / spoon /bucket etc.</p>	<p>Estimates and measures length /distances and capacities of containers using uniform non-standard units like a rod /pencil, cup / spoon /bucket etc.</p>
<p>Compares objects as heavier /lighter than using simple balance.</p>	<p>Compares objects as heavier /lighter than using simple balance.</p>
<p>Identifies the days of the week and months of the year</p>	<p>Identifies the days of the week and months of the year</p>
<p>Sequences the events occurring according to their duration in terms of hours /days; for example, does a child remain in school for a longer period than at home?</p>	<p>Sequences the events occurring according to their duration in terms of hours /days.</p>
<p>Draws inference based on the data collected such as the number of vehicles used in Samir's house is more than that in Angelina's</p>	<p>Collects data and draws inference based on it.</p>

MAPPING OF GRADE 2 MATHEMATICS TOPICS WITH NCERT LEARNING OUTCOMES

Important Note: It must be ensured by the teachers that learners are able to use mathematical learning in day to day life and unfamiliar contexts/ situations about which they are not exposed earlier. Learning Objectives should also focus on enhancing the ability of the learner to convert a real life problem into a mathematical problem and the ability to interpret and evaluate mathematical results in the real life contexts.

Chapter no	Learning Objectives	Learning Outcomes
Chapter 1: What is Long, What is Round	Matches and sorts everyday 3D objects and common 2D shapes based on observable features	Describes basic 3D and 2D shapes with their observable characteristics a) Identifies basic 3d-shapes such as cuboid, cylinder, cone and sphere by their names b) Distinguishes between straight and curved lines Draws / represents straight lines in various orientations (vertical, horizontal, slant)
Chapter 2: Counting in Groups	Numerals (1-99): Counts (concretely, pictorially and symbolically) and recites number names	Works with two-digit numbers a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits) d) Solves simple daily life problems / situations based on addition of two-digit numbers e) Solves daily life situations based on subtraction of two-digit numbers Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)
	Numerals (1-50): Recognizes and writes numerals	
	Numerals (51-99): Recognizes and writes numerals	
	Numerals (1-50): Completes number sequences by counting onwards and backwards (without skips)	
	Numerals (51-99): Completes number sequences by counting onwards and backwards (without skips)	
	Numerals (1-99): Compares groups and numbers and understands < and > symbols	

	Numerals (1-99): Sequence numbers in increasing or decreasing order	
Chapter 3: How much can you carry	Compares weights of everyday objects in relative terms (concrete, pictorial)	Compares objects as heavier/lighter than using simple balance.
	Compares and orders relative weights of everyday objects using a simple balance	
Chapter 4: Counting in Tens	Counts up to 100 by grouping in 10s	<p>Works with two-digit numbers</p> <p>a) Reads and writes numerals for numbers up to 99</p> <p>b) Uses place value in writing and comparing two-digit numbers.</p> <p>c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits)</p> <p>d) Solves simple daily life problems / situations based on addition of two-digit numbers</p> <p>e) Solves daily life situations based on subtraction of two-digit numbers</p> <p>Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)</p>
	Composes and decomposes 2-digit numbers into 10s and 1s(concrete, pictorial)	
	Composes and decomposes 2-digit numbers into 10s and 1s (numerical)	
	Compares 2-digit numbers using place value	
Chapter 5: Patterns	Numerals (1-100): Completes numbers sequence with skip counting forward in 2s, 5s, 10s	<p>Works with two-digit numbers</p> <p>a) Reads and writes numerals for numbers up to 99</p> <p>b) Uses place value in writing and comparing two-digit numbers.</p> <p>c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits)</p> <p>d) Solves simple daily life problems / situations based on addition of two-digit numbers</p> <p>e) Solves daily life situations based on subtraction of two-digit numbers</p> <p>Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)</p>
	Numerals (1-100): Completes numbers sequence with skip counting forward in 3s and 4s	
	Numerals (1-100): Completes numbers sequence with skip counting backward in 3s and 4s	

Chapter 6: Footprints	Traces 2D images of 3D objects and compares the shape, size and orientation of the images	<p>Describes basic 3D and 2D shapes with their observable characteristics</p> <p>a) Identifies basic 3d-shapes such as cuboid, cylinder, cone and sphere by their names</p> <p>b) Distinguishes between straight and curved lines</p> <p>Draws / represents straight lines in various orientations (vertical, horizontal, slant)</p>
	Names and classifies common 2D shapes (circle, rectangle, square, triangle) by their key features	
	Describes the key, differentiating features of common 2D shapes and draws these shapes	
	Identifies and counts simple 2D shapes within an image; and creates own images using 2D shapes	
	Classifies 3D objects on the basis of match of the shape of their trace with identified 2D shapes (triangle, circles, rectangle, square)	
	Recognizes common 3D-shapes by name (cuboid, cylinder) and establishes correspondence with everyday objects	
	Recognizes common 3D-shapes (cone, sphere) and establishes correspondence with everyday objects	
	Describes common 3D objects using key vocabulary	
Chapter 7: Jugs and Mugs	Measures capacities of everyday objects using nonstandard units	<p>Estimates and measures length /distances and capacities of containers using uniform non-standard units like a rod /pencil, cup / spoon /bucket etc.</p>
	Compares capacities of everyday objects and orders them using nonstandard units	
	Appreciate the principle of volume conservation (liquids)	

	Estimates capacities of different everyday objects as well as water consumption in daily activities	
Chapter 8: Tens and Ones	Represents an amount (up to Rs. 99) using 10 rupees and 1 rupee	<p>Works with two-digit numbers</p> <p>a) Reads and writes numerals for numbers up to 99</p> <p>b) Uses place value in writing and comparing two-digit numbers.</p> <p>c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits)</p> <p>d) Solves simple daily life problems / situations based on addition of two-digit numbers</p> <p>e) Solves daily life situations based on subtraction of two-digit numbers</p> <p>Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)</p>
Chapter 9: My Funday	Recognize, sequences and writes the days of the week	Identifies the days of the week and months of the year
	Recognizes, sequences and writes months of the year	Sequences the events occurring according to their duration in terms of hours /days.?
	Compare the duration of different months	
Chapter 10: Add our points (sum up to 99)	Adds 2-digit numbers horizontally without regrouping (sum not exceeding 99)	<p>Works with two-digit numbers</p> <p>a) Reads and writes numerals for numbers up to 99</p> <p>b) Uses place value in writing and comparing two-digit numbers.</p> <p>c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits)</p> <p>d) Solves simple daily life problems / situations based on addition of two-digit numbers</p> <p>e) Solves daily life situations based on subtraction of two-digit numbers</p>
	Adds 2-digit numbers in vertical algorithm without regrouping (sum not exceeding 99)	
	Identifies missing addend in 2-digit addition statements	
	Adds 3 one-digit numbers and understands that addition is associative (pictorially and numerically)	

	Decompose numbers into a combination of 3 one-digit numbers (sum up to 20)	Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)
Chapter 11: Lines and Lines	Identifies and draws straight lines in different orientations (vertical, horizontal, slanting).	Describes basic 3D and 2D shapes with their observable characteristics a) Identifies basic 3d-shapes such as cuboid, cylinder, cone and sphere by their names b) Distinguishes between straight and curved lines Draws / represents straight lines in various orientations (vertical, horizontal, slant)
	Differentiates between straight lines and curved lines and recognizes shapes with straight and curved lines	
	Creates shapes and images using straight lines and curved lines (concrete, pictorial)	
Chapter 12: Give and Take (sum up to 99)	Adds 2-digit numbers horizontally with regrouping (sum not exceeding 99)	Works with two-digit numbers a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits) d) Solves simple daily life problems / situations based on addition of two-digit numbers e) Solves daily life situations based on subtraction of two-digit numbers Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)
	Adds 2-digit numbers in vertical algorithm with regrouping (sum not exceeding 99)	Works with two-digit numbers a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits) d) Solves simple daily life problems / situations based on addition of two-digit numbers e) Solves daily life situations based on subtraction of two-digit numbers Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)
	Uses addition of 2-digit numbers with and without regrouping (sum not exceeding 99) to solve problems in day to day life.	
	Subtracts 2-digit numbers horizontally without regrouping	
	Subtracts 2-digit numbers in vertical algorithm without regrouping	
Subtracts 2-digit numbers horizontally with regrouping (with concrete and pictorial support)		

	Subtracts 2-digit numbers in vertical algorithm with regrouping (with concrete and pictorial support)	
	Uses subtraction of 2-digit numbers with and without regrouping in solving problems in day to day life.	
Chapter 13: The Longest Step	Measures and compares length/distance using non-standard units	Estimates and measures length /distances and capacities of containers using uniform non-standard units like a rod /pencil, cup / spoon /bucket etc.
	Begins to appreciate that the length of objects remains the same when moved (Length Conservation)	
	Compares and states the difference in length/distance using non-standard units	
Chapter 14: Birds Come, Birds Go	Adds 2-digit numbers in vertical algorithm with regrouping without concrete and pictorial support (sum not exceeding 99)	Works with two-digit numbers a) Reads and writes numerals for numbers up to 99 b) Uses place value in writing and comparing two-digit numbers. c) Forms the greatest and smallest two-digit numbers (with and without repetition of given digits) d) Solves simple daily life problems / situations based on addition of two-digit numbers e) Solves daily life situations based on subtraction of two-digit numbers Represents an amount up to Rs. 100 using 3-4 notes and coins (of same / different denominations of play money)
	Subtracts 2-digit numbers in vertical algorithm with regrouping without concrete and pictorial support	
	Matches real life problems to correct number statement (addition and subtraction, 2-digit numbers).	
	Solves problems based on real-life situations using both addition and subtraction of 2 digit numbers	
	Represents 2-digit numbers using multiple combinations of smaller numbers	
Chapter 15: How many ponytails	Records data using tally marks, simple tables and pictographs.	Draws inference based on the data collected such as the number of vehicles used in Samir's house is more than that in Angelina's
	Interprets data and answers questions on simple tables and pictographs	