c) CLASS WISE ACADEMIC STANDARDS AND LEARNING INDICATORS

CLASS : I MATHS

Area	Key concepts	AS₁ (Problem Solving)	AS₂ (Reason & Proof)	AS₃ (Communication)	AS₄ (Connection)	AS₅ (Representation)
Geometry shapes and spatial understanding	• Develops and uses vocabulary of special relation • Slip (top) bottom, on, under, inside, outside, below, near, far, before, after	• Sorts 2D objects using character • Stick of the shapes (edges, faces and other observable)	• Pupils can compare 2-D and 3-D shapes (without mathematical terms) and gives reasons • Observe And describes the way shapes affect moments like rolling and sliding.	• Pupils can observe things and speak about them • They can use terms like bottom, on, under, inside, outside, above, below, near, far, before, after etc.	• Pupils connects the concepts of 2-D and 3-D shapes in understanding them.	• Pupils can draw different 2D shapes • Pupils can represent different shapes with different colours in a given picture.
Numbers	• Developing a sense of numbers, counting and operations of numbers 1-9 and o, introduction of Tens from (10-100) • Numbers 21 to 99	• Pupils can count numbers 1-9 and 10-20 by using things in groups. • Pupils can arrange the things in sequences according to their numbers (Ascending and descending order) • Pupil can add and subtracts using real objects and pictures (sum not to exceed 9) and difference not to go below 1.	• Pupils can compare numbers by counting using things and (1-20). • Pupils can identify things of equal numbers • Pupils can give reasons for their conclusion in comparing numbers.	• Pupils can read and write numbers 1-9, 10-20 and 10-100 (in tens), and 21-99 • Pupils can say the first, middle, previous, after numbers w.r.t particular numbers. • Pupils can say '0' before '1' • Pupils can develops the vocabulary 'ones' and tens	• Pupils connect the value of one number with that of another number in arranging them in an order.	• Pupils can represents the numbers 1-9, 10-20 and 10-100 in tens and 21-99 by using thing (marbles, pebbles, beeds etc) • Pupils can show group of tens and ones by drawings.

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		• Pupils can count the number of tens and ones in a given number.				
	• Additions and Subtractions (up to 20)	• Pupils can add and subtract numbers upto 20 (vertically & horizontally) • Pupils can subtract numbers up to 20 not exceeding 20 (vertically and horizontally)	• Pupils verify the result of addition and gives reasons. • Pupils verify the result of subtraction and give reasons.	• They can use symbols +, - and write mathematical form for addition and subtraction (vice-versa).	• Pupils connect "number sense" in under standing addition & subtraction. • Pupils apply addition & subtraction in daily life.	• Represents addition & subtraction in the form of beeds and sticks bundles.
DAY – TO-DAY mathematics	• Money (currency notes and coins)	• Identifying currency notes and coins and can understand the value of each coin and note. • Pupils can put together smaller amounts of money	• Pupil can distinguish and compare difference currency notes and coins.	• Pupils can say the value of a note and coin (Notes 5,10,20,50 coins 1,2,5 and 50 paise)	• Pupils connect number sense in understanding currency & its operation.	• Pupils can represent the value of given money with currency notes and coins.
Measurements	• Length, Weight, size	• Pupil can segregates objects according their lengths • Pupils can measure short lengths in terms of non standard units (span, hand)	• Pupils can compare the lengths of objects and verify. • Pupil can compare between heavy and higher objects. • Pupil can compare the capacity of different vessel (more, less)	• Pupil can estimate and say the length, weight given objects. • Pupils use the terms "morning", "afternoon", "evening" to express time of event.	• Pupils apply concepts of length, weight and time in daily life.	

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TIME	• Time	• Pupil can identify different time of complete day (Morning, daytime, evening, night)		• The pupil can say what people can do at these times. • And they can say what they must do at what time		
Data Handling	• Collecting data • Recording Data • Drawing inferences	• Pupil can collect the data from surroundings and draws inferences from the data	• Pupil can analyse the given data	• Explains about the data		• Pupil can record the data in given space
Patterns	• Finding simple patterns in shapes in the surroundings and also in numbers	• Pupils can find the patterns in shapes and in numbers. • Completes a given sequences of a pattern	• Pupil can give reasons for a sequence of a pattern	• Pupil can describes the pattern.		

Developing children's abilities for mathemtisaation is the main goal of mathematics education. The narrow aim of school mathematics is to develop 'use full' capabilities, particularly those relating to numeracy – numbers, number operations, measurements, decimals and percentages. The higher aim is to develop the child's resources to think and reason mathematically, to pursue assumptions to their logical conclusion and to handle abstraction. It includes a way of doing things and the ability and the attitude to formulate and solve problems.