

Subject : **Mathematics**  
Text Book – **Math Magic**

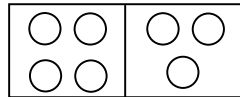
**Class – I**

Month	Unit Or lesson	Competency	Expected learning Outcome	Suggested activities	Integrated Learning	Values
April / May	School	Understanding Basic Concepts	<ol style="list-style-type: none"> <li>1. Develops vocabulary of spatial relationship like top-bottom, far-near, inside-outside etc.</li> <li>2. Learns to recognise, sort and classify 3D and 2D shapes.</li> <li>3. Develops cognitive skills like sorting, classifying and thinking in sequence.</li> <li>4. Learns lots of number rhymes and number games.</li> </ol>	<ol style="list-style-type: none"> <li>1. Organise small learning games/number games/ activities in the classroom or playground.</li> <li>2. Number rhymes to be taught by the teacher.</li> <li>3. Create situations/play activities in the class where the words big-small, top-bottom, far-near are used extensively.</li> <li>4. Stories with stress on vocabulary of spatial relationship.</li> <li>5. Use of sequential thinking cards.</li> <li>6. Collect objects of different shapes and sizes eg. beads, marbles, leaves, bangles, matchsticks, bottle caps and then encourage the students to</li> </ol>	English 1. Developing vocabulary 2. Listening 3. Speaking	Team spirit Helping each other.

				sort and classify them. This will be followed by the teacher asking the students questions about the particular way they have sorted or classified the objects.	English 1. Opposite words w. Developing vocabulary.	Co-operation Learning to work in group
July	1. Shapes and space 2. Numbers from one to nine	Understanding basic concepts	<ol style="list-style-type: none"> <li>1. Develops and use the vocabulary of spatial relationships—inside-outside, bigger-smaller, biggest-smallest, top-bottom, nearer-farther, nearets-farthest, on-under, above-below.</li> <li>2. Classifies and describes the collection of objects on the basis of shapes.</li> <li>3. Recognises 3D shapes—spherical, cylindrical, cuboidal and conical.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reading the story 'The Arab and the Camel' by the teacher with stress on inside-outside.</li> <li>2. The concept of top-bottom, big small, above-below, nearer-farther should be made clear by play activities in the classroom or playground. Creating situations in the classroom, showing pictures and use of activity sheets to supplement the activities given in the book can further clear the concept.</li> <li>3. Different objects of 3D and 2D shapes are mixed up children are told up to put them in different boxes.</li> <li>4. Activity sheets of shapes— <ol style="list-style-type: none"> <li>1. Make pairs of similar shapes.</li> <li>2. Match the similar shapes.</li> </ol> </li> </ol>		

			<p>4. Recognises 2D shapes—circle, square, rectangle and triangle.</p>	<p>3. Sort shapes by joining similar shapes.</p> <p>5. Objects of different shapes are distributed to the students. The teacher draws one shape on the black-board. The students having objects of that shape will come out and form a group. This can be repeated with different shapes.</p> <p>6. The teacher will take the students to the swing and will demonstrate rolling and sliding objects on the swing.</p> <p>7. Activity sheets—                  (1) Tick the objects that will roll.                  (2) Tick the objects that will slide.                  (3) Encircle the objects that will slide/roll.</p>		
		Formation of numbers	<p>1. The child is able to recognise and recite number 1-9.</p> <p>2. Can write number 1-9.</p> <p>3. Can write number names 1-9.</p>	<p>1. The teacher will count the objects like pebbles, sticks, pens loudly. The children will follow. This can be done by counting the number of doors, windows, fans, lights in the class—first in groups and then individually.</p>		

		Understanding basic concepts	Understands the concept of the more, less, equal, before, after, next.	<ol style="list-style-type: none"> <li>2. Number rhymes.</li> <li>3. Counting the number of holes in the dominoes.</li> <li>4. Number name rhymes.</li> <li>5. Magnetic board activity– Matching numerals with pictures.</li> <li>6. Use of OHP–Matching numerals with pictures.</li> </ol> <ol style="list-style-type: none"> <li>1. The teacher will use collection of easily available objects and will make the concept clear.</li> <li>2. Using flash cards/pictures.</li> <li>3. Activity sheets.</li> </ol>		
August	3. Addition	Understanding basic concepts	The child understands the concept of putting collections together with emphasis on the number of objects in the collection using concrete material.	<ol style="list-style-type: none"> <li>1. Collect some objects like leaves, pebbles, seeds etc. Keep them in two different groups and ask the children to count the number of objects in each group. Combine the objects and then tell them to count again. This activity should be repeated with wide variety of objects.</li> <li>2. Take two cards with pictures of different number of objects (of the same kin). Ask the students to tell how many</li> </ol>	English 1. Structure How many 2. Forms simple sentences in English	Group work caring and sharing


			<p>The child understands the concept of 'Zero'. 'Zero' means nothing and when zero is put together with any other number we get the same number altogether.</p>	<p>objects are there altogether.</p> <p>3. Ask a child to come to the blackboard and draw three balls. Ask another child to draw two balls. Ask the third child to tell how many balls are drawn on the blackboard altogether.</p> <p>4. Take a domino say 4-3 domino. Ask a child to count the holes on its two parts. Ask another child to tell the total number of holes in the domino.</p>  <p>5. Take a container and put some objects in it. Ask the children to count the objects. Now put three objects more and ask the children to say three more objects have been added. Finally ask them to count the objects now.</p> <p>Take another container and put say four objects in it. Do not put any more objects. Ask children to say zero objects have been added in the container. The children should</p>		
--	--	--	---	--	--	--

		<p>Formation of numbers</p> <p>Ability to compute</p> <p>Problem solving</p>	<p>The child understands the commutative property of addition.</p> <p>Is able to add two numbers without using concrete objects.</p> <p>The child uses his ability to compute in solving problem of practical utility.</p>	<p>understand that 'four and zero make four only'.</p> <p>1. The activities involving commutative aspect of addition will be carried out using concrete objects and dominos.</p> <p>1. The teacher will speak out two numbers, say 2 and 4. Ask the child what does 2 and 4 make. The child should say 6. If the answers is wrong, help her/him to get the right answer. Continue this process with several pairs of numbers.</p> <p>2. Sums on the blackboard</p> $\begin{array}{r} 2 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 4 + 2 = \\ 3 + 1 = \\ \hline \end{array}$ <p>The teacher will present problems orally to a child and ask him/her to answer. The children will work out these problems mentally.</p>		
September	Subtraction	Understanding basic concepts	Understands the concept of subtraction as taking away, as	1. Collect some objects like pencils, books, water bottles etc. Ask the students how	English 1. Developing vocabulary	Developing the power of

			comparison and a s complementary. Use of 'zero' in subtraction.	<p>many are there. Take out some objects from the collection and tell the students how many you took away. Now ask them how many are left.</p> <p>2. Collect objects of 2 different colours. Ask the students– how many are there ? How many are red ? How many are not red ? How many are not red ?</p> <p>3. Take a domino. Ask the students to count all the holes. Hide one of the two parts. Ask the students how many holes are there in the hidden part.</p>	2. Speaking & listening	reasoning and thinking.
	Ability in computation	Having sufficient experience in subtraction with concrete objects and pictures, the child is now able to compute sums like $4 - 2 = \dots\dots\dots$		<p>1. (a) Sums on the blackboard.                  (b) Sums in the book and notebook.                  (c) Activity Sheets                  (d) Rhymes based on subtraction.</p>		
	Problem solving	Children are able to connect the operation of subtraction with a range		1. The teacher will develop a large number of simple word problems based on taking	English 1. Learns to pronounce	Develops positive attitude

		Formation of numbers correctly	of problems using the idea of taking away.  Understands how to compare and tell how many more than and how many more to be added.	away and present them orally one by one to the children.  1. Geeta has 6 pencils. Prachi has 4 pencils. How many more does Geeta have than Prachi ? i.e. $6 - 4 = 2$ 2. Use objects to show how many more to be added.	words correctly 2. Developing vocabulary	Mutual respect.
October	Numbers from ten to twenty	Formation of numbers.  Understanding basic concepts	1. The child is able to recite numbers till 20. 2. Writes numerals from 10–20. 3. Compares (bigger, smaller) numbers up to 20. 4. Orders the numbers up to 20 (missing, before, after, in between). 5. Writes the number names till 20. 1. The child is able to handle numbers up to 19 in the form of bundles and sticks. 2. Is able to write the	3. Picture representation to arrive at the next number. eg. $9 + 1 = 10$ . 4. Use of concrete objects, pictures, flash cards. 5. Joining numbers to develop a picture puzzle. 6. Activity sheets to supplement the activities given in the book. 7. Number games and rhymes.  Ask the children to collect 20 sticks and make one bundle of ten sticks by tying them together with a rubber band and keep the remaining 10		

			number of bundles and sticks below them in proper places of tens and ones.	sticks loose Then as the children to give you 14 sticks without opening the bundle. The teacher will also demonstrate the same in the class. The teacher will give enough time on this activity by repeating with many numbers. After this the teacher will draw say one bundle and seven sticks on the board and ask children to give as many sticks and name the number. Last step is to enable the students to write the number of bundles and sticks below them in proper places of ones and tens.		
Novem-ber	Time	Understanding basic concepts	<ol style="list-style-type: none"> <li>1. The child gets acquainted with the sequence of daily routine that they follow.</li> <li>2. Gets familiarised with certain time based activities.</li> <li>3. Gets quantitative feel of long and short</li> </ol>	<ol style="list-style-type: none"> <li>1. Rhymes related to our daily routine.</li> <li>2. Chart on daily routine.</li> <li>3. Number the activities in a sequence using activity sheets.</li> <li>4. A simple time measuring device like a pendulum is made. This can be used to keep track of the time based activities. This enables the</li> </ol>	Time Management Importance of time	EVS Good Habits / cleanliness

	<p>Measure- ment</p>	<p>Understanding basic concepts</p>	<p>duration.</p> <ol style="list-style-type: none"> <li>1. The child differentiates the two aspects in any comparison. longer – shorter taller – shorter thinner – thicker heavier – lighter</li> <li>2. Learns to order objects according to length, width, weight and size.</li> <li>3. Uses his hand, feet, pencil to measure length and small distances.</li> </ol>	<p>child to have a feel of the time passing by.</p> <ol style="list-style-type: none"> <li>1. Showing objects, different pictures in length, thickness, weight to the children. This is to be followed by questions such as, which pencil is longer / shorter ? Which animal is taller / shorter ? and so on so as to draw out the two aspects in any comparison.</li> </ol> <p>The teacher can ask these questions also :</p> <ul style="list-style-type: none"> <li>– Find objects longer than this pen.</li> <li>– Find objects shorter than this stick.</li> <li>– Who all are taller than you ?</li> <li>– Who all are shorter than you ?</li> </ul> <ol style="list-style-type: none"> <li>2. The teacher collects objects of different length, width, weight and size and shows it to the student eg. leaves of different sizes.</li> </ol> 	
--	--------------------------	---	---	--	--



	Data Handling	Understanding basic concepts	<p>places of tens and ones.</p> <p>1. The child is able to illustrate given information using picture symbols. The child is able to interpret the given data and solve the problem.</p>	<p>1. The children are given paper strips of different colours with their names written on it. The class divided in pairs. Each child will be told to make her/his partner's strip equal to the length of his/her arm. Collect all the strips. A sample of ten arm-lengths will be chosen. Display the strips on the wall. Now the children will be told to interpret the data.</p> <p>1. Who has the longest arm ? .....</p> <p>2. Who has the shortest arm ? .....</p> <p>3. Name the child having a particular arm length. .....</p>		
January	Patterns	Understanding basic concepts	<p>1. Learns to observe relationships to find connections, and to make deductions, generalizations and</p>	<p>1. Clapping in patterns. Eg. 1-1-1 2-2-1 1-2-3-1-2-3</p>	AHPL–Pattern making, cutting, pasting, thumb painting,	Developing sequential thinking

			<p>predictions.</p> <p>2. Nurtures the kind of mathematical thinking that helps the child to become problem solver and thinker.</p>			
	Numbers 51-100	Formation numbers correctly	<p>Can recite numbers till 100.</p> <p>Can write numbers till 100.</p> <p>Can write numerals in tens and ones upto 99.</p> <p>Can compare and order the numbers upto 100.</p>	<p>2. The teacher will encourage students to make thumb impressions on blank paper using a stamp pad. They will make different patterns.</p> <p>3. Making different patterns using the shape kit.</p> <p>1. Same as in the month of Oct. and Dec.</p>		drawing.
		Understanding basic concepts	<p>1. Handles numbers upto 100 in the form of bundles and sticks.</p> <p>2. Is able to write the number of bundles and sticks below them in proper places of tens and ones.</p>	<p>1. Same as in the month of Oct. and Dec.</p>		

February	Money	Understanding basic concepts	<ol style="list-style-type: none"> <li>1. Understands the denomination of coins and notes.</li> <li>2. Gains experience in dealing with collections of coins and notes.</li> </ol> <ol style="list-style-type: none"> <li>1. The child is able to guess the price of different things.</li> <li>2. Is able to find out the total value of the collection mentally.</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduce coins and currency notes to the children through conversation by asking them             <ol style="list-style-type: none"> <li>(a) From where do we buy things, pencils, erasers, sweets etc. ?</li> <li>(b) What do we give to the shopkeeper for the things we buy ?</li> </ol> </li> <li>2. Ask the children to sort out coins and currency notes from the given collection of coins and notes.</li> <li>3. Ask the students to make a given amount by using coins/ notes of different denominations.</li> </ol> <ol style="list-style-type: none"> <li>1. Show different things such as pencil, book, skirt, watch etc. and encourage children to guess the price.</li> <li>2. Bring empty pack of toothpaste, wrapper of soap etc. Ask the students to read the price tag on the pack and pick up coins or notes from the collection for which the said object can be bought.</li> </ol> <p>Activity sheets</p>	English Developing the competency	Importance of money in our day to day life.
----------	-------	------------------------------	--	--	--------------------------------------	---

	How many	Formation of numbers	<ol style="list-style-type: none"> <li>1. Writes number in figures.</li> <li>2. Writes the number names.</li> <li>3. Compares and orders numbers.</li> <li>4. Can write numerals in tens and ones.</li> <li>5. Can write the number of bundles and sticks in places of tens and ones.</li> </ol>	<ol style="list-style-type: none"> <li>1. Match objects with numbers.</li> <li>2. Match numbers with number names.</li> <li>3. Encircle the bigger number.</li> <li>4. Encircle the smaller number.</li> <li>5. Make the collection equal to the given collection.</li> <li>6. Write the missing number.</li> </ol>		
		Problem solving	<ol style="list-style-type: none"> <li>1. Can solve simple money related problem mentally.</li> </ol>	<ol style="list-style-type: none"> <li>1. Shopping game : With the help of the shopping game the teacher will enable children to handle the problems related to money in our day to day life. Eg.                             <ol style="list-style-type: none"> <li>1. Buying things from the shop.</li> <li>2. Returning the balance.</li> <li>3. Cost of one thing.</li> <li>4. Cost of 3 things.</li> </ol> </li> </ol>		
			<ol style="list-style-type: none"> <li>2. The student writes simple picture based story.</li> </ol>	<ol style="list-style-type: none"> <li>1. Picture sequence cards, flash cards will be shown to the students. They will be encouraged to develop and write the story.</li> </ol>		
March	Revision					