

SPLIT UP OF SYLLABUS 2008-09

MATHS

TEXT BOOK — MATH-MAGIC FOR CLASS IV

Month	Unit or Lesson	Competency	Expected Learning Outcome	Suggested Activities	Integrated Learning	Values
April	L-1 Building with bricks	Knowledge Understanding the basic concept	<ul style="list-style-type: none"> — Gets concrete idea about construction of buildings. — Knows the difference between 2D and 3D shapes like Square – Cube, Rectangle – Cuboid. 	<ul style="list-style-type: none"> — Children may be taken to any construction site. — Children will be taken around the school building to observe different features like wall designs, floor designs, arches, jaalis etc. — The children will be shown a brick. They will observe and count its faces, edges and vertex (corners) — Identification of different cuboidal objects like matchbox, pencil box, book etc. — The children will measure the length, width and height of the brick. — The children will calculate the number of bricks required to make 1 m long line. — The children will estimate 	— With EVS	<ul style="list-style-type: none"> Skill of observation Skill of measurement Skill of estimation Creative thinking

		Problem solving ability (Application)	<ul style="list-style-type: none"> — Makes different wall and floor patterns, Jaalis and Jharokhas. — Draws lines of symmetry in different patterns. — Solves simple problems mentally. 	<p>the number of bricks a truck can carry no. of bricks required to make a wall, room etc.</p> <ul style="list-style-type: none"> — Relation between one hundred, thousand and lakh. (Idea of Indian place value chart and international place value chart) — Distinguish between symmetrical and asymmetrical designs. — Solves problems of mental maths, arising in day to day life. — Children will make beautiful wall / floor design using eraser and red ink pad. 	
June & July	L – 2 Long and Short	Understanding the basic concepts	<ul style="list-style-type: none"> — Guesses the distance between any two points. — Knows that a line has indefinite length. — Knows the relation between metre and kilometre. — Have the concept 	<ol style="list-style-type: none"> 1. The children will guess the distance between any 2 points and then actually measuring it. 2. One child will draw a line on the board / ground and other one will be asked to draw line longer than that. 3. The children will draw the figures which are longer / shorter than the given 	Skill of estimation develops mathematical attitude

			of boundary length (perimeter)	figure. 4. The children will be asked to throw the ball and they will be asked to find out whose throw is longest / shortest. 5. The children will be taken for 1 km walk in / around the school premises. 6. The children will be asked to find the length of boundary of their maths text book, desk, teacher's table, etc.		
		Ability to compute (Skill)	— Finds the distance through addition, subtraction and multiplication.	1. The children will be given Indian and world records of some sports / Distance between different cities. They will find the answers for the different questions asked by the teacher related to these distances.		
		Problem solving ability (Application)	— Estimates the different lengths. — Solves the problems presented through pictures and verbal description to get the idea of "How many	2. The children will guess the length of thread in a reel / string of kite reel. 3. The children will guess the height of different towers like Kutub Minar, TV tower etc. in terms of height of their classroom. 4. The children will solve the		

			times”.	problems of running exercise given in the book. 5. The children will find the tallest / shortest number of their family, tallest / shortest boy / girl of their own class.		
	L – 3 A Trip of Bhopal	Knowledge Understanding of basic concept Ability to compute (Skill)	<ul style="list-style-type: none"> — Develops the skill of estimation. — Compares the time taken and fares changed by different means of transport. — Develops the concept of big-small. — Gets the data of “How many times”. — Gets the concept of Hundreds, thousands, ten thousands etc. — Addition and subtraction of $\frac{3}{4}$ digit numbers. — Multiplication and division of $\frac{2}{3}$ 	<ul style="list-style-type: none"> — A school trip can be arranged to explain this chapter. 1. Activity “which boat do we take” given in the book. 2. The teacher will narrate “The trip to Bhopal” in her own words. The children will get the concept of big / small boat, big / small bus etc. 3. Activity “To Bhimbetka” given in the book. (The teacher can take examples of other cities also). 1. The children will find out the total number of children going to Bhopal (looking at the table given in the book). 		<ul style="list-style-type: none"> — Skill of four basic operations of

		Problem solving ability (Application)	<p>digit numbers by $\frac{1}{2}$ digit numbers.</p> <ul style="list-style-type: none"> — Solves word problems. — Solves puzzles. — Forms smallest and greatest number using the given digits. 	<ol style="list-style-type: none"> 2. The teacher can take more examples of based on addition, subtraction, multiplication and division. 3. The students will be given different situations to add and subtract hours and minutes mentally. <ol style="list-style-type: none"> 1. The children will solve the problems given in “Lunch time” and at the end of the lesson. 2. The children will be given more problems based on the exercises given in the book. 3. The children will be given different digits to make smallest / greatest number. 	<p>mathe- matics. — Logical thinking</p>
August	L – 4 Tick- Tick- Tick	Understanding of basic concept	<ul style="list-style-type: none"> — Reads the time from clock face and adjusts the hands of the clock according to the given time. — Understands the use of time. — Write the dates in numbers and words. — Converts the 12 	<ol style="list-style-type: none"> 1. The children will show the time on the clock face. 2. The children will tell how much time they take to reach school. 3. Arrange the pages from Ram’s diary in proper sequence (making Muniya’s time line). 4. Comparison between Rani’s puppy’s time line and Muniya’s time line. 	

			<p>hour clock time to 24 hour clock time and vice-versa.</p> <p>— Understands that smaller activities takes less time and bigger and complex activities take long time.</p>	<p>5. Children will write their daily routine first in 12 hour clock time (AM, PM) and then in 24 hours clock time.</p> <p>6. Children will find out the arrival and departure time of some important trains (Rajdhani, Shatabdi etc.)</p> <p>7. The children will be asked to do few activities in one minute like snapping the finger, jumping, clapping etc. and then they will count how many times they have done that activity in 1 minute.</p> <p>8. The children will be encouraged to read manufacturing and expiry dates written on medicines, eatables etc.</p>		
		Ability to compute (Skill)	<p>— Finds out how long the minute hand and hour hand take to move from one number to other.</p> <p>— Finds the duration of time (days) between two given dates.</p>	<p>1. Using working model of a clock the students of 1st group will ask questions from the 2nd group.</p> <p>2. From the school diary children will find out the duration of different holidays (summer, autumn, winter).</p> <p>3. Compares the ages of Ram's, Chuchoo rat's and</p>		

		Problem solving ability (Application)	<ul style="list-style-type: none"> — Learns to find the time before and after the given time. — Solves the problems related to the time arising in day to day life. 	<p>Elephant Appu's grandfather.</p> <ol style="list-style-type: none"> 1. Draw "where the hands will be." 2. List the activities that take about one hour to complete. 3. Find the time taken by the minute and hour hand to come back to the same position. 		
	L – 5 The way the world looks	<p>Understanding the basic concept</p> <p>Skill</p> <p>Problem solving ability (Application)</p>	<ul style="list-style-type: none"> — Identifies top view side view and front view of different objects. — Draw top, side and front view of the different objects. — Understands the directions are related to one's position. 	<p>Elephant Appu's grandfather.</p> <ol style="list-style-type: none"> 1. Match the two views of the same pose. 2. The teacher will show different views of an object. The children will identify them. 1. Draw pictures of a shoe, pressure cooker, a chair, a bowl from the side top and front. 1. The park behind Gappu's house. 2. Ismail's home. 3. The children will draw the route map of their house from the school. 4. Gibli and the big box. 	With EVS with art and craft	<ul style="list-style-type: none"> — Skill of imagination and thinking. — Develops creative thinking. — Drawing skill.

September	L – 6 The Junk Seller	<p>Knowledge</p> <ul style="list-style-type: none"> — Compares the prices of certain items. — Awareness about loan. <p>Ability to compute</p> <ul style="list-style-type: none"> — Adds and subtraction amounts using column + and – — Multiplies and divides using multiplication table. <p>Problem solving ability</p> <ul style="list-style-type: none"> — Solves problems related to transaction (buying and selling). 	<ul style="list-style-type: none"> — Compares the prices of certain items. — Awareness about loan. — Adds and subtraction amounts using column + and – — Multiplies and divides using multiplication table. — Solves problems related to transaction (buying and selling). 	<ol style="list-style-type: none"> 1. How much for a cup of tea? 2. The children will get idea of loan through discussion. <ol style="list-style-type: none"> 1. How much to pay for this junk ? 2. Fill my diary. 3. First guess the answer and then calculate. <ol style="list-style-type: none"> 1. What will Dinu pay for 152 kg. newspaper ? 2. Kiran sells 32 kg. iron. 3. How much Kiran earns through rickshaws in a day? 	<ul style="list-style-type: none"> — Dignity of labour — Value of money — Logical thinking — Skill in addition, subtraction, multiplication. — With English — Vocabulary enrichment — With EVS — Types of houses
	L – 7 Jugs and mugs	<p>Knowledge</p> <ul style="list-style-type: none"> — Knows the relations between litres and 	<ul style="list-style-type: none"> — Knows the relations between litres and 	<ol style="list-style-type: none"> 1. The teacher will narrate the story “Long live Bunny and Banno” and explains the 	

			<p>millilitres.</p> <p>— Finds the different combination to make 1 litre.</p>	<p>relation between litres and millilitres through demonstration.</p> <ol style="list-style-type: none"> 1. Who can have 1 litre kheer. 2. List 3/5 items which are measured in litres. 3. List 3/5 items which are measured in millilitres. 4. My litre bottle. 5. How much do we use at a time ? 		
		Understanding of basic concept			With English and EVS	<p>— Connecting maths to day to day life.</p> <p>— Water is very precious we should not waste it.</p>
		Skill	<p>— Make their own measuring bottle.</p> <p>— Adds and subtracts the given quantities of the liquid.</p>	<ol style="list-style-type: none"> 1. The children will make their own measuring bottle using a bottle of known capacity. 2. Water water. 		
		Problem solving ability (Application)	<p>— Solves word problem</p> <p>— Solves puzzles</p>	<ol style="list-style-type: none"> 1. Practice time. 2. The children will solve the small problems related to capacity mentally. 3. Drop and drop make an ocean. 4. Puzzle. 		

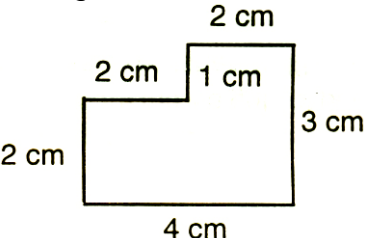
October	L – 8 Carts and Wheels	<p>Knowledge</p> <p>— Identifies circular objects.</p> <p>Understanding the basic concept</p> <p>— Learns to draw circles of different sizes with the help of rope.</p> <p>— Knows about centre and radius of the circle.</p> <p>— Knows that circle has no corners (vertex).</p> <p>Skill</p> <p>— Makes different designs using circles.</p> <p>— Finds the centre of a circle.</p> <p>Problem solving ability (Application)</p> <p>— Solves simple problems related to circle and its elements (centre and radius)</p>	<p>1. The children will collect 5 circular (objects) like coins, bangles, bindies, rings, polo, toy wheels etc.</p> <p>2. Round wheels.</p> <p>3. Games with circles.</p> <p>1. Making a circle with a rope.</p> <p>2. Making circles using circular things like coins, bangles etc.</p> <p>3. Making circles using compass.</p> <p>4. Games with circles.</p> <p>1. Daljeet’s design.</p> <p>2. Find the centre of a circle by paper folding method.</p> <p>1. Find out Kali and Lali).</p> <p>2. Balancing act.</p> <p>3. Spin the top.</p>	<p>— With drawing.</p> <p>— With games and sports.</p>	<p>Drawing skill with accuracy, creativity and imagination skills are developed.</p>
November	L – 9	<p>Knowledge</p> <p>— Gets the idea of</p>	<p>1. Story of “Monkey and</p>		

mber	Halves and quarters	<p>Understanding of basic concept</p> <p>Skill (Ability to compute)</p> <p>Problem solving ability (Application)</p>	<p>full, half and quarter.</p> <ul style="list-style-type: none"> — Knows that 1 part out of 2 is half and 1 part out of 4 (equal parts) is quarter. — Knows half of half is a quarter. — Divides the given shapes into half and quarter in many ways. — Finds the cost of given objects (1 kg, half kg, $\frac{3}{4}$ kg, $\frac{1}{4}$ kg). — Solves different problems related to a whole, half and quarter. 	<p>cats”.</p> <ol style="list-style-type: none"> 1. The children will get the idea of halves and quarters through various activities like cutting of cake, apple, roti etc. 1. Many ways to cut into half / quarter. 2. Using a price list. 3. Practice time. 1. Cutting the cake. 2. Greedy Kundu. 3. Sharing milk. 4. Balance the wright. 5. Practice time given at the end of the chapter. 	<ul style="list-style-type: none"> — With English — With EVS 	<p>Develops analytical ability and comparison.</p>
December	L – 10 Play with patterns	<p>Understanding of basic concept</p>	<ul style="list-style-type: none"> — Observe and understands the patterns. — Recognise the basic unit which generates the 	<ul style="list-style-type: none"> – Observing the pattern around them e. g. Grill of windows, tiles, print on a saree, dupatta, bedsheet. Continues the pattern by observing the pattern. 		

		<p>Forming number correctly</p> <p>Ability to compute (Skill)</p> <p>Problem solving ability (Application)</p>	<p>patterns.</p> <ul style="list-style-type: none"> — Realizes the rule of creative a pattern, — Makes pattern with numbers and letters. — Computes the given pattern using four basic operation of mathematics. — Applies the knowledge to form patterns 	<ul style="list-style-type: none"> — Creates patterns of their own. — Making patterns using numbers and letters both. — By observing the rule complete the “Number tower”. — The same sum rule. — Activity “Secret Messages”. — Activity “Upside down” and “Floor patterns”. 	<p>With Art with EVS</p>	<ul style="list-style-type: none"> — Ability to observe correctly — Develops thinking, reasoning and creativity
	L – 11 Tables and Shares	<p>Understanding of basic concept</p> <p>Forming number correctly (Knowledge)</p>	<ul style="list-style-type: none"> — Relates the concept of multiplication of the arrangement of things in an array. — Builds new multiplication tables through Easy Tricks. 	<ul style="list-style-type: none"> — Arranging the desks in the classroom with different combinations (multiplication facts). — Activity “Shyama’s Garden”. — Children will make multiplication tables of large numbers using the multiplication tables of smaller number for eg. 		

		<p>Ability to compute (Skill)</p> <p>Problem solving ability (Application)</p> <p>Ability to compute</p>	<p>— Skip counting by the jumps of 3, 5, 8 steps.</p> <p>— Divides the number by repeated subtraction.</p> <p>— Solves problems related to real life contexts.</p> <p>— Divides by distributing objects repeatedly.</p>	<p>Table of 9 can be formed by adding the products of (i) $3 + 5$ (ii) $4 + 5$ (iii) $2 + 7$ etc.</p> <p>— Activity “Jumping animals”.</p> <p>— Activity “Sea shells”.</p> <p>— Children will be encouraged to solve more questions based on division with large numbers using repeated subtraction.</p> <p>— Activity Gangu’s sweets.</p> <p>— How man cats.</p> <p>— Practice time (given at the end of the chapter).</p> <p>— “Story problems”.</p> <p>— Activity “Children and their Grandfather” using both the methods.</p> <p>— More example can be given for practice.</p>	<p>— With EVS</p> <p>— Useful in day to day life situations (buying and selling)</p>	<p>— Logical thinking</p> <p>— Equal distribution</p> <p>— Mental arithmetic</p> <p>— Reasoning</p>
January	L – 12 How heavy, how light	Understanding the basic concept	<p>— Compares the items which is heavier/heaviest ?</p> <p>— Estimates weights</p>	<p>— The teacher will show the chart displaying weights of certain objects. The students will compare the</p>		

			<p>of familiar objects.</p> <ul style="list-style-type: none"> — Differentiates to things bought in grams and kilograms. 	<p>weights.</p> <ul style="list-style-type: none"> — The children will make pan balance and then they will compare the weights of pencil, eraser, sharpner, bottle caps, pencil box, sketch pens, crayons etc. — Name 5 things they buy in grams/kilograms. — Activity “Dinesan went shopping”. — Story Elephant’s weight and its conclusion. 		
		Forming the numbers correctly (Knowledge)	<ul style="list-style-type: none"> — Compares the weights and heights of his friends of different age groups. 	<ul style="list-style-type: none"> — Write the age, height and weight of 5 friends and compare. — Activity Am I fit of fat ? — From the medical chart find your year’s weight and present weight and compare. 	With EVS	<ul style="list-style-type: none"> — Estimation — Logical thinking and reasoning.
		Ability to compute (Skill)	<ul style="list-style-type: none"> — Adds and subtracts the given weights. 	<ul style="list-style-type: none"> — Activity “Shifting house”. — The teacher will write weights of different objects and asks the questions related to addition and subtraction from the given table. — The children will make their own weights using some known weights for 		

		Problem solving ability (Application)	<ul style="list-style-type: none"> — Solves the problems related to weights. 	<ul style="list-style-type: none"> eg. toothpaste, soap, packet of biscuit, chocolate etc. — Find the weights of different objects using your own weights. — Practice time. — Activity “Broken stones”. — Post-office. — “Our weight together”. — Puzzle. — Arrange a trip to the Post office. 		
February	L – 13 Fields and fences	Understanding of basic concept	<ul style="list-style-type: none"> — Understands the meaning of fields (area) and fences (boundary of perimeter). — Understands that the boundary is the sum of the sides of given figure. 	<ul style="list-style-type: none"> — The teacher shows the flash cards of different shapes with their measurements. The students will find the boundary of the given figures.  <ul style="list-style-type: none"> — The students will find the boundary of their maths book, pencil box etc. 	<ul style="list-style-type: none"> — With EVS — With Art 	<ul style="list-style-type: none"> — Development of drawing skill — Skill of measurement — Skill of reasoning and thinking.

		<p>Ability to compute (Skill)</p> <p>Problem solving ability (Application)</p>	<ul style="list-style-type: none"> — Knows that the boundary of circle with smaller radius is smaller than the boundary of the circle with bigger radius. — Finds the perimeter (boundary) and field (area) of given figure. — Solves simple problems related to field & fences. 	<ul style="list-style-type: none"> — The students will find the boundary of irregular figures using thread and their area by counting squares. — The teacher can explain this activity by drawing circles of different radii and measuring their boundaries using thread/rope. — The teacher can give more questions apart from the questions given in the book. (Practice Time) — Draw different shapes joining 2/3 squares on a squared sheet and find their boundary. — Activity “which is the biggest leaf”. — Activity “School garden”. — Puzzle. 	<ul style="list-style-type: none"> — Recognition — Observation — Classification — Collection of data interpretation
L – 14	Forming	— Learns to collect	— The children will collect		

	Smart charts	<p>number correctly</p> <p>Understanding of basic concept</p> <p>Ability to compute (Skill)</p> <p>Problem solving ability</p>	<p>data.</p> <ul style="list-style-type: none"> — Represents the data in tabular form. — Understands fractions through chapati chart. — Draws conclusion and inferences from the data. — Compares the data (Bar chart) — Solves simple problems using charts/data. 	<p>the data eg. different brands of chocolate liked by the students, different modes of transport used by children to reach school, games/sports liked by them etc.</p> <ul style="list-style-type: none"> — The children will make the table for representing collected data. — Chapati chart. — Drama chart. — Whose head is bigger. — Getting wet in the rain. — Tea, coffee or milk. 		
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