

ACADEMIC STANDARDS AND LEARNING INDICATORS

CLASS : II MATHS

Area	Key concepts	AS ₁ (Problem Solving)	AS ₂ (Reason & Proof)	AS ₃ (Communication)	AS ₄ (Connection)	AS ₅ (Representation)
GEOMETRY (SHAPES & SPATIAL UNDERSTANDING)	<ul style="list-style-type: none"> • 3-D and 2-D shapes • Observes objects in the environment and identifies the basic 3-D shapes such as cuboid, cylinder, cone, sphere by their names • Traces the faces of 3-D objects, observes the 2-D outlines and identifies these 2-D shapes. • Identifies and makes straight lines by folding and draws with a scale and ruler. • Distinguishes between straight and curved lines. 	<ul style="list-style-type: none"> • Observes the given diagram colours the same shapes with same colour and counts the shapes 	<ul style="list-style-type: none"> • Can identify odd shapes from given shapes • Can identify number of shapes from the given figure • Can identify the sequence of the simple patterns of figures and carry forward 	<ul style="list-style-type: none"> • Can say the objects or things in environment appropriate 2-D / 3-D shapes. 	<ul style="list-style-type: none"> • Can the interlink the concepts of 2-D shapes to the real objects of their surroundings 	<ul style="list-style-type: none"> • Can join the dots to draw different shapes. • Pupil can represent daily life objects which geometrical shapes.

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NUMBERS	<ul style="list-style-type: none"> • Understanding numbers upto 999 – can write expansion form, ascending – descending order, can say place of face value. • Adding & subtracting numbers using the carry over borrowing up to 100 • Understanding the multiplication is nothing but repeated addition and make multiplication tables (1-9) by using repeated addition product of multiplying two digit number by a single digit number • Identifying the symbol of division (). Distributing number of things 	<ul style="list-style-type: none"> • Can say the place value & face value of the given 3-digit no's • Can read and write 3-digit numbers • Can write the expanded & short forms of three digit No.s • Can write ascending and descending order to the gives 3 digit no.s • Can add the 2-digit numbers carry forward by using expansion and short form. • Can subtract using regrouping borrow of two digit no's • Can make the multiplication on table (1-9) by counting the objects in equal no.of objects in each group or repeated addition. 	<ul style="list-style-type: none"> • Can write the 3-digit numbers by using given no's • Can complete the number series and says the reason • Can identify the sum of one pair is different with the sum of other pairs. • Can estimates the results of addition & subtraction of the 2-digit number and verify it, finding errors and rectify it. 	<ul style="list-style-type: none"> • Can write the 3-digit numbers in words and symbols vice-versa • Can compare the two 3 digits numbers using putting <, >, = symbols. • Can write the multiplication & division form by using symbols to given verbal problems. • Can express the process steps of doing addition, subtraction and also preparing the multiplication tables. 	<ul style="list-style-type: none"> • Can write the repeated addition in to multiplication s and repeated subtraction into division form by using symbols. 	<ul style="list-style-type: none"> • Can observe currency notes coins and write the appropriate numbers • Can represent the given 3-digit number by using 100, 10 currency notes and coins. • Can show the multiplication, Division, addition and subtraction on number line.

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		<ul style="list-style-type: none"> • Can distribute the number of objects in equal 				
DAY TO DAY MATHS	<ul style="list-style-type: none"> • Identifies currency notes and coins. • Puts together amounts of money not exceeding Rs : 50. • Adds and subtracts small amounts of money mentally and transacts an amount using 3 or 4 notes / coins. 	<ul style="list-style-type: none"> • Identifies the currency notes and coins. • Can write the value of the given currency and coins together. 	<ul style="list-style-type: none"> • Can give the change to the value in different ways. 		<ul style="list-style-type: none"> • Can give the value of the coins / currency to the price of the item. • Can connect the number sense in saying the value of currency. 	
MEASUREMENT (Length, weight, capacity)	<ul style="list-style-type: none"> • Measures the lengths & distances using non-standard units.. • Compares two or more objects by using non-standard units. • Compares weights of given objects using simple balance. 	<ul style="list-style-type: none"> • Can measure the lengths of garland, table width, length of the room by using non-standard units like cubit, finger widths, feet etc... 	<ul style="list-style-type: none"> • Can estimate the length by using a stick. • Can estimates the and compares the given two objects. 			
TIME	<ul style="list-style-type: none"> • Gets familiar with the days of the week and months of the year. 	<ul style="list-style-type: none"> • Can say the number of days in a week and number of month in a year. 		<ul style="list-style-type: none"> • Can say the activities do in the morning, afternoon, evening 	<ul style="list-style-type: none"> • Can say the activities which takes more / less time in their daily life. 	<ul style="list-style-type: none"> • Can identifies and say the months and weeks by looking the calendar /

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	<ul style="list-style-type: none"> Sequences the events occurring over longer periods in terms of date / days. 					chart.
DATA HANDLING	<ul style="list-style-type: none"> Collects and records the data and draws inferences from data. 	<ul style="list-style-type: none"> Pupil can collect the data from surroundings and draw inferences. 	<ul style="list-style-type: none"> Pupil can analyse the data. 	<ul style="list-style-type: none"> Can express the recorded information in tables by observation. 		<ul style="list-style-type: none"> Can record the given data in the table.
PATTERNS	<ul style="list-style-type: none"> Observes and extends patterns of shapes and numbers. Create block patterns by stamping thumbprints, leaf print, vegetable print and regular shapes. 		<ul style="list-style-type: none"> Can say the relation in between sequence of the given patterns of numbers & shapes. Can extend the series by reasoning 			

Many general tactics of problem solving can be taught progressively during the different stages of school : abstraction, quantification, analogy, case analysis, reduction to simpler situations, even guess – and – verify exercises, are useful in many problem solving contexts. Moreover, when children learn a variety it approaches (overtime), their tool kit becomes richer, and they also learn which approach is the best. Children also need exposure, to the use of heuristics or rules of _____, rather than only believing the mathematics is an ‘exact science’ the estimation of quantities and approximating solutions is also essential skill. When a farmer estimates the yield of a particular crop, he uses considerable skills in estimation, approximation and optimization – School mathematics can play a significant role in developing such useful skills.

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