HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF MATHEMATICS

CLASS: I

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Numbers 1 to 9	Students will understand that numbers are related to the numbers around them (numbers 1 to 9, number names, bigger or smaller, more or less, before, after, between, equal or not equal and ordering)	Constructive Inquiry Based	Worksheet Hands on activity Asking riddles Home assignments	Approach meeting exceeding Based on topic, Sequence, neatness	Draw missing numbers, before, after, between, ordering in the note book. Make a necklace with beads and string	Video based on topic
JULY	Addition	Students will understand that adding '+' means finding how many in all when groups are put together or something new is added.	Constructive, Inquiry Based	Worksheet Hands on activity Asking riddles	Approaching meeting exceeding. Relevant to the topic, creativity, neatness	Make story based on addition,	Animated video based on addition
August	Subtraction	Students will understand that subtraction shows things away & there are strategies for subtracting quickly.	Constructive, Integrative	Worksheet and different objects	Approaching meeting exceeding.	Draw three colourful strings and paste Bindi in the strings and match the numbers in notebook.	Animated video on different numbers.

SEPTEMBER	Position	Students will understand that we can describe the position of different objects around us using everyday language. On - under, above - below, before, between, after, inside - outside, top- bottom, near - far	Constructive, Integrative, Inquiry Based	Worksheet Hands on activity Home assignment	Approaching meeting exceeding	Make or draw a picture story about position	Animated video. Show different objects
OCTOBER	Shapes	Students will understand about different shapes, similar shapes, same size shapes, shapes that slide and roll	Constructive, Integrative	Worksheet Hands on activity Home assignment	Approaching meeting exceeding. Relevant to the topic, creativity, neatness	Colored paper folding activity	Video based on addition.
	Numbers 10 to 20	Students will understand that numbers are related to the numbers around them (numbers 10 to 20), number names, tens or ones concept, more or less, backward counting, ordering.	Constructive, Inquiry based	Worksheet Hands on activity Home assignment	Approaching meeting exceeding	Toothpick activity	Video based on subtraction.
NOVEMBER	Numbers 21 to 99	Students will understand that numbers are related to the numbers around them (21 to 99), number names, more or less, backward counting, ordering	Constructive, integrative	Hands on activity	Relevant to the topic, creativity, neatness	Draw abacus and paste colourful bindi	Video based on length.

	Addition and Subtraction	Adding 2-digit and 1- digit number, addition of 2 - digit numbers, number line, carry over method, word problems. Subtracting 1- digit number from 2- digit number, subtracting 2- digit number, number line, subtraction by borrowing, word problems.	Constructive, Inquiry	Worksheet Hands on activity	Approaching meeting exceeding.	Number stickers activity	Animated video based on activity.
	Patterns	Students will understand that a pattern repeats and patterns can be seen around us.	Constructive, Inquiry	Class test	Relevant to the topic, creativity, neatness	Pattern activity using different objects.	Animated video based on patterns.
December	Time	Students will understand the reading of time, days of the week.	Constructive, Inquiry	Home assignment		Draw and colour watch	Animated video based on time
	Money	Students will understand that Indian currency uses coins and notes that can be combined in different ways (rupees up to 2000)	Constructive, Inquiry based	Worksheet Hands on activity	Approaching meeting exceeding	Draw/paste stickers of currency notes and coins.	Video based on Money
	Measurement	Students will understand that length measures how long something is, weight measures how heavy something feels and capacity measures the	Constructive, integrative	Class test Home assignment	Relevant to the topic, creativity, neatness	Students will check the length, weight and capacity according to the given objects..	Video based on topic.

		amount a container can hold.					
JANUARY	Data handling	Students will understand that things with different uses and features can be organized into tables	Constructive, Inquiry based	Worksheet	Approaching meeting exceeding.	Counting back, and find the difference	Animated video based on data handling.
	Ordinal Numbers	Students will understand that we place things in order to tell their positions.	Constructive, integrative	Hands on activity	Approaching meeting exceeding.	Activity using some objects.	video based on ordinal numbers
FEBRUARY	Multiplication	Students will understand that multiplication means adding the same number repeatedly to get the product.	Constructive, Inquiry based	Worksheet Home assignment	Approaching meeting exceeding		Animated video based on multiplication

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
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CLASS: II

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Let's Revise	Students will understand that the numbers from 0 to 99. number name, after and before, smallest and biggest pattern	Constructive, Inquiry based	Worksheet, Hands on activity	Approach Meeting Exceeding	Draw place value blocks	video
	Number 100 to 200	Students will understand number from 100 to 110, expanded form, face value, place	Constructive, Inquiry based	Worksheet Home assignment	Sequence neatness	Diagram and chart, balloon based activity	Number Song
JULY	Number up to 200 to 999	Students will understand Number from 201 to 300,401 to 500,601 to 700,801 to 900, counting in hundreds tens and one's place value and face value, numbers ordering of numbers. And numbers from 301 to 400,501 to 600,701 to 800,901 to 1000, counting on the because expanded form before after and between making new numbers	Constructive, Inquiry based	Worksheet,	Approach Meeting exceeding	Use a number line, the numbers are marked at equal distances and in order from left to right Match ordinal with their cardinal numbers	video on a number line
August	Addition	student will understand adding 2-digit and 3-digit numbers, addition on a number line, expanded form, carry over method, skip counting, word problems	Constructive, Integrative	Worksheet Class test	Approach meeting exceeding	Demonstration by objects	Video on addition and subtraction

SEPTEMBER	Subtraction	Students will understand addition and subtraction facts, column method, checking subtraction, word problems, subtraction by borrowing, finding the missing digits add or subtract	Constructive, Integrative, collaborative	Worksheet, Hands on activity	Approach meeting exceeding	Smash play doh	Video song on subtraction
October	Measurement	Student will understand measuring length (paper clip) and subtraction of length measuring weight (Clay balls)	Constructive, Collaborative, Integrative	Concept Interesting involvement	Approach meeting exceeding	Make a model of beam balance with waste material, Activity for judge capacity using drum and water	Video of measurement
	Measurement	Students will understand addition and subtraction of weight, measuring capacity (Cups), addition and subtraction of capacity	Constructive, integrative, Inquiry method	Home assignment and class test	Approach meeting Exceeding	Learn to use of beam balance	video
NOVEMBER	Multiplication	Students will understand station on a number line tables, multiplication, offer two-digit number by one digit number, multiplication of a three-digit number by a one-digit number, carry over multiplication facts, multiplication methods, multiplication by 10,20,30,40….	Constructive, integrative, Inquiry method	Worksheet	Approach meeting Exceeding	Activity through ice-cream stick, beads Activity	
		Students will understand division as a repeated	Constructive, integrative, Inquiry method	Worksheet home	Approach meeting	Division through story of MP	Animated video on

	Division	subtraction, relation between multiplication and division, facts concept of remainder long division method, word problems			assignment	Exceeding		division
DECEMBER	Basic Geometry	Students will understand solid shapes, vertical and horizontal line, tracing shapes, straight and curved line	Constructive Inquiry based integrative	Worksheet	Approach Meeting Exceeding	Draw or make different types of shapes	Video Based on songs on shapes
	Time	Students will understand how to read time calendar and word problem	Constructive Inquiry based integrative	Worksheet	Approach Meeting Exceeding	Draw a clock of chart paper and color it	Video song on time
JANUARY	Money	Students will understand that we can pay and get back change using different combinations of rupees and paise.	Constructive Integrative	Worksheet	Approach meeting exceeding	Role play for currency game, Money market	Video on money
FEBRUARY	Data handling	Students will understand that we can organize and display data in different way to understand and use the information quickly	Constructive	Make a graph	Approach meeting exceeding	Draw and make table according to given data.	
	Pattern	Students will understand that a pattern can repeat or grow in a way that we can predicts.	Integrative	Worksheet	Approach meeting exceeding	Draw your own pattern with matchstick.	

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
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CLASS: III

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Numbers up to 9999	Number Name. Place value and face value. Understand 4-digit number. Ascending and descending order	Constructive, Integrative. Inquiry based	Worksheet	Approach, Meeting, Exceeding	Make abacus using clay.	Animated video on mental problem solving
JULY	Addition and subtraction.	Adding and subtracting by carrying or borrowing	Constructive, Story based	Worksheet	Approach, Meeting, Exceeding	Lady bug game	Animated video on addition
		FIRST PERIODIC ASSESSMENT					
AUGUST	Multiplying	Multiplying 2-digit by 1-digit number	Constructive Inquiry based	Worksheet survey	Approach, Meeting, Exceeding Concept presentation	Multiplying flower	Animated video on multiplying by skip counting
SEPTEMBER	Division	Davison of 2-digit by 1-digit number	Constructive	Worksheet Block assessment	Approach, Meeting, Exceeding	Division with kidneybeans	
		REVISION FOR MID TERM EXAM					
		MID-TERM EXAMINATION					
OCTOBER	Money	Symbol of Rupee, Conversion of Rupee into paisa and paisa into Rupee	Constructive integrative	Worksheet	Approach, Meeting, Exceeding	Identification of currency	Animated video on multiplication
NOVEMBER	Fraction	Part of whole, as half, one third and one fourth	Constructive, Integrative	Worksheet MCQ	Approach, Meeting, Exceeding	Activity	Animated video
		REVISION FOR SECOND PERIODIC ASSESSMENT					
		SECOND PERIODIC ASSESSMENT					
	Measurement of	Understand capacity and	Constructive	Worksheet	Approach,	Balance model	Animated

DECEMBER	length and weight	conversion	integrative		Meeting, Exceeding		video
JANUARY	Capacity	Understanding concept of capacity	Constructive integrative			Activity using liters	
	Time	Understand, Reading and writing the time, Conversion time to days, hours, minutes and seconds	Constructive, Integrative Inquiry based	Worksheet		Making clock using cardboard	Animated video
FEBRUARY	Data Handling	Understand Data By pictograph	Constructive, Integrative Inquiry based	Test	Lab Activity		Animated video
	Pattern	Identify pattern	Constructive, Integrative Inquiry based	Worksheet		Make a neckless using different pattern	Animated Video
	REVISION FOR EXAM						
MARCH	ANNUAL EXAMINATION						

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CLASS: IV

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Numbers upto 9,99,999	Write the place value, face value and value of digits in 5-digit numbers. Write in expanded form and number names of 5-digit numbers. Compare 5-digit numbers using symbols. Arrange 5-digit numbers in ascending and descending order.	Constructive and Inquiry based	Worksheet	Approaching Meeting, Exceeding	Place value mystery number	Video
JULY	Roman Number	Write in Hindu Arabic to roman and roman to Hindu Arabic	Constructive and Inquiry based	Worksheet	Approaching Meeting, Exceeding	Rangoli by using roman number.	
	Fraction Number	Understand Equivalent fraction, lowest form. Comparison, Addition and subtraction	Constructive and Inquiry based	Worksheet	Accuracy	Fraction Album	
REVISION FOR FIRST PERIODIC ASSESSMENT							

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	FIRST PERIODIC ASSESSMENT						
AUGUST	Addition	Adding by the column method with carrying over.	Story Drill and practice	Class test	Approaching Meeting, Exceeding	Prepare bill	Animated video
	Subtraction	Understanding subtraction of 5-digit and 6-digits number	Constructive, Integrative and Inquiry based	Lab activity	Analysis, accuracy, presentation Creativity Performance,	Subtraction wheel	Video
SEPTEMBER	Multiplication	Multiplying 3-digit by 2-digit numbers.	Constructive, Integrative and Inquiry based	Worksheet	Approach Meeting Exceeding	Role and multiply	Animated Video
	Revision FOR MID TERM EXAMS						
	MID TERM EXAM						
OCTOBER	Dividing by 3-digit numbers by 1-digit	Divide 3-digit by 1-digit numbers.	Constructive, Integrative and Inquiry based	Quiz	Approach Meeting Exceeding	Division wheel	Animated video
NOVEMBER	Multiple and factors	Factor tree, LCM and HCF using prime factor	Constructive, Integrative and Inquiry based	Worksheet	Analysis Approach Meeting Exceeding	Venn diagram	
	Geometrical shapes.	Understand 2-D and 3-D shapes	Constructive, Integrative and Inquiry based	Work sheet	Analysis Approach Meeting Exceeding	Make a robot by using shape	
	Revision FOR SECOND PERIODIC ASSESSEMNT						
	SECOND PERIODIC ASSESSEMNT						
DECEMBER	Measurement of length, Mass and capacity.	Convert bigger to smaller and smaller to bigger unit.	Constructive, Integrative and Inquiry based	Work sheet	Analysis Approach Meeting	Class room activity	Video

JANUARY	Time	Reading and writing time through clock. Conversion of Time	Constructive, Integrative and Inquiry based	Lab activity	Research Analysis Presentation	Make a clock using waste material	
	Data Handling	Understanding data using pictograph and bar graph	Constructive, Integrative and Inquiry based			Making pictograph by using shape	video
FEBRUARY	Pattern	Understanding the pattern, Interpret relationship	Inquiry based	Lab Activity Story			
MARCH	**Annual Examination**						

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CLASS: V

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Large Numbers	Represent 7digit numbers in the Indian and International system. Write in words, figures, Predecessor and successor of 7- and 8-digit numbers	Constructive and Inquiry based	Home assignment	Performance, Accuracy	Lab activity Use different colures to circle the numbers in the number grid	
JULY	Roman Numerals	Write Roman to Hindu Arabic and Hindu Arabic to Roman Numerals.	Constructive and Inquiry based	Worksheet	Accuracy	Housie game based on roman number	
	Operations on large numbers	Understanding operations on large numbers.	Constructive, Integrative and Inquiry based	Class test Mental math's Lab activity	Performance, Accuracy Analysis, accuracy		Animated video
REVISION FOR FIRST PERIODIC ASSESSMENT							
FIRST PERIODIC ASSESSMENT							
AUGUST	Fractions	Addition and Subtraction of fraction with unlike denominators. Multiplication of fractional numbers.	Constructive, Integrative and Inquiry based	Worksheet	Approach Meeting Exceeding	Fractions face(emoji)	PPT
SEPTEMBER	Decimals	Represent the tenth and hundredth of a decimal number. Identify the place of the digits in a decimal number up to the thousandths and expanded	Constructive, Integrative and Inquiry based		Approach Meeting Exceeding	Collage(shoping key)	Animated video

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		REVISION FOR MID TERM EXAMS					
OCTOBER		**MID-TERM EXAM**					
	1. Perimeter and Area.	Find the perimeter and area of a square and rectangle using a formula	Constructive, Integrative and Inquiry based	Mental math's	Analysis, accuracy	Design your dream garden	PPT
NOVEMBER	2. Length, Mass and Capacity.	Convert meters to other units of length. Add or subtract length.	Constructive, Integrative and Inquiry based	Mental math's	Analysis, accuracy	Squared paper.	
		REVISION FOR SECOND PERIODIC ASSESSMENT					
		SECOND PERIODIC ASSESSMENT					
DECEMBER	HCF and LCM	Understand Factors and Multiples	Constructive, Integrative and Inquiry based		Research Analysis Presentation		Animated Video
	Angles and Triangles	Draw angles with help of protractor.	Constructive, Integrative and Inquiry based		Research Analysis Presentation	Draw an angle with the help of protector	Animated Video
JANUARY	Time on a clock	Convert minutes to second and second to minute. Elapsed time	Constructive, Integrative and Inquiry based	Lab activity	accuracy, presentation		Animated video
	Money	Making bills, Making expense list, profit and loss.	Story		Creativity Research Analysis	Role play	
FEBRUARY	Data Handling	Learn to draw and interpret data in bar graph, pie chart, line graph.	Constructive, Integrative and Inquiry based		Accuracy	Draw a bar graph of 5 districts of MP based on literacy rate	
	Patterns	Understand patterns	Story	Making a 3x3 magic square			Video

	Symmetry,Nets	Line of symmetry	Constructive, Integrative and Inquiry based		Research Analysis Presentation	Make the nets of different 3 D shapes	Animated Video
MARCH	**ANNUAL EXAMINATION**						

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CLASS - VI

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Patterns in Mathematics	Patterns in Numbers and Pattern in Shapes, Relation among numbers, Visualizing number and shape sequences.	Constructive, Integrative and Inquiry based	class test	Performance, creativity and accuracy	Pictorial representation of number and shape sequences	Types of numbers
	Number Play	Super cells, Patterns on number line, Palindrome, Magic number of Karprekar , Collatz conjeture	Constructive, Integrative Inquiry based	Worksheet	Performance, creativity and accuracy	Number Game (Games and winning strategies)	Collatz conjecture, Magic number of Karprekar
JULY	Lines and Angles	Point , Line , Ray , Line segment, Angles and its types, Measurement and Comparison	Constructive, Integrative Collaborative Reflective	Worksheet, Class test	Accuracy, Performance	Paper folding , Draw angles in the given grid	Video on lines and angles
	First Periodic Assessment						
AUGUST	**First Periodic Assessment**						
	Prime time	Factors and multiples,HCF,LCM, Prime Factorisation, Divisibility test	Constructive, Integrative Inquiry based	Worksheet	Performance accuracy	Fun with numbers (Puzzle)	Video on Factors and Multiples

SEPTEMBER	Fractions	Fraction on number line, types of fractions, comparing fractions, addition and subtraction of fractions .	Constructive, Integrative and Inquiry based	Worksheet	Creativity, Performance, Accuracy	Paper art, fraction disc (let's speak)	Video on types of fraction
	MID TERM EXAM						
	Mid Term Exam						
OCTOBER	Perimeter and Area	Perimeter of irregular and regular polygons, area of regular shapes .	Constructive, Integrative Inquiry based Collaborative	Class test	Creativity, Performance, Accuracy	Cut out the tangram pieces and find out the area of shapes	Animated video
NOVEMBER	Data handling and presentation	Introduction of data, arrangement of data in tabular form, interpretation and drawing of pictograph , Bar Graph	Constructive, Integrative Inquiry based	Worksheet	Content Research Analysis	Presentation Chart making	Video on Pictograph
	Revision for Second Periodic Assessment		Drill and Practice				
	Second periodic assessment						
JANUARY	Playing with constructions	Circle, Square , Rectangle	constructive, Integrative Inquiry based Reflective	Hands on activity	Creativity, Accuracy	Drawing rangoli including shapes	Animated Video
FEBRUARY	The other side of	Integers , Comparing	constructive,	Worksheet	Creativity ,	Hollow integer	

	Zero	integers , addition and subtraction through number line , Token model	Integrative Inquiry based Reflective		accuracy	grid	
MARCH			ANNUAL EXAM				

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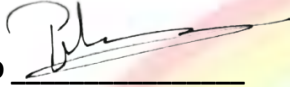
CLASS: VII

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Integers	Introduction of integers and operations on integers with the properties	Constructive, Integrative Inquiry based	Home assignment	Performance Accuracy Approach		Online module, Phet simulation
JULY	A peak beyond the point	Understanding fractions and decimals along with their operations	Constructive, Integrative Inquiry based	Class test	Creativity, Performance, accuracy, presentation	Fraction story (Role play) on Manipur/ Nagaland	
	Working with fractions	Multiplication and division of fractions	Constructive, Integrative Inquiry based	Class test	creativity, concentration presentation		Online module
	REVISION FOR FIRST PERIODIC ASSESSMENT						
	FIRST PERIODIC ASSESSMENT						
AUGUST	Parallel and intersecting lines	Understanding the concept of geometry, Differentiation between parallel and intersecting lines and angles forming between them	Constructive, Integrative Inquiry based	Home assignment	Research Analysis, accuracy, presentation	Using sticks explain different angles	Animated video, geo-gebra

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SEPTEMBER	A tale of three intersecting lines	Understanding the concept of triangles, Types of triangles and their properties along with their construction	Constructive, Integrative Inquiry based	Lab activity	Creativity Performance, accuracy, presentation	Drawing and scketing	Animated video
	Simple equation	Making and solving of equations Applications of simple equations to practical situations	Constructive, Integrative Inquiry based	Home assignment	Concentration, performance, Accuracy		Equation story
	REVISION FOR MID TERM EXAMS						
	MID TERM EXAMS						
OCTOBER	Expressions using letters	Terms (like and unlike), coefficient and constants Types of expressions, Addition and subtraction of algebraic expressions	Constructive, Integrative Inquiry based	Work sheet	Concept map	Performance, creativity	Animated video
NOVEMBER	Large Numbers around us	National and International number name and operations between them.	Constructive, Integrative Inquiry based, research based	Home assignment	Research Analysis, accuracy, presentation	Place value chart of National and International number system	Module and case study on MP, Nagaland/ Manipur

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	Area and perimeter	To calculate area and perimeter of different types of geometrical figures	Constructive, Integrative Inquiry based	Home assignment/lab activity/field visit	Research Analysis Presentation		Online module
	REVISION FOR SECOND PERIODIC ASSESSMENT						
	SECOND PERIODIC ASSESSMENT						
DECEMBER	Exponents and powers	Understanding of Exponents and powers Decimal number system Standard form	Constructive Integrative Inquiry based	Lab activity (cards game), Class test	Creativity Performance, accuracy, presentation	(cards game)	Online module
	Arithmetic expression	**Solving the multiple operations between the numbers using BODMAS**	**Constructive Integrative Inquiry based**	**Home assignment**	**Creativity Research Analysis Presentation**	**Number game**	**Animated video**
JANUARY	Rational numbers	Introduction of rational numbers, operations and Comparison between them and their representation on number line	Constructive, Integrative Inquiry based,	Class test	Relevance to theme, coordination, presentation	Role Play	Online module
	Number Play	**Finding patterns in numbers, solving magic square**	**Constructive Integrative Inquiry based**	**Home assignment**	**Research Analysis Presentation**	**Forming and solving magic square**	**Online module**

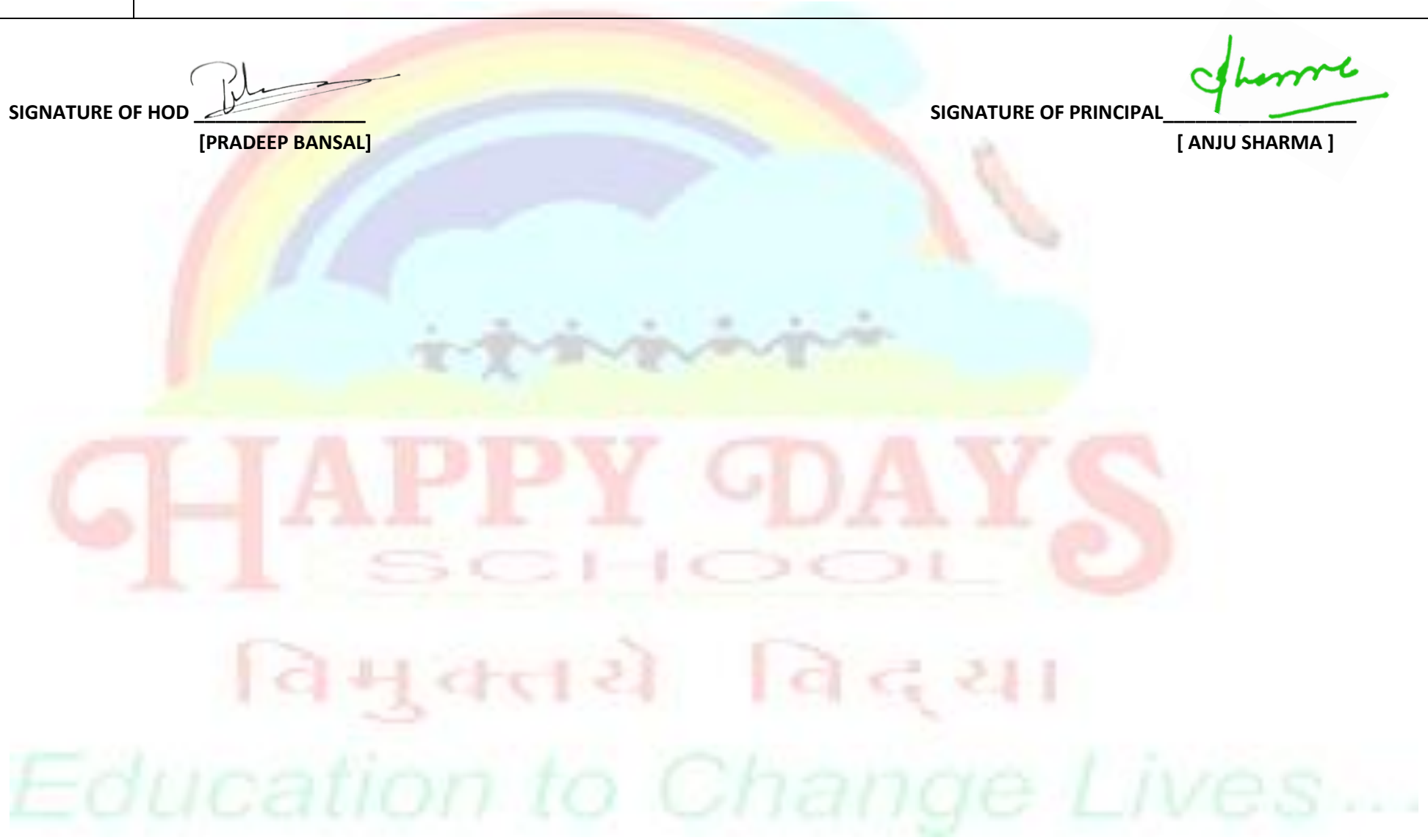| MARCH	ANNUAL EXAMS

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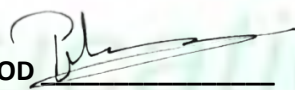SIGNATURE OF PRINCIPAL_____

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CLASS: VIII

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHINGMETHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Rational numbers	Differentiation between numbers, calculation skill, differentiation between the properties	Constructive Integrative	Concept map Class test, homework	Relevance, Sequencing, Presentation		Online module
	Linear equation in one variable	Forming of equations and solving of equations	Constructive, integrative, real life simulations	homework	Creativity Performance Accuracy		Equation Story
JULY	Understanding quadrilaterals	Types of quadrilaterals, properties of parallelogram	Constructive Integrative	Lab activity, concept map	Performance Accuracy	Identifying the quadrilaterals and illustration of their properties	
	Data handling	Understanding and drawing of pie chart , understanding the concept of probability	Constructive Integrative Inquiry based	Homework on Class test	Relevance Sequencing Creativity Presentation	Case Study on education rate of MP, Nagaland and Manipur (Pie Chart)	
	Revision for First **periodic** **assessment**			Worksheet, Drill and practice			
AUGUST	First periodic assessment						
	Squares and square roots	Properties of squares and square numbers, Pythagoras theorem	Constructive Integrative Inquiry based Real life simulation	Square maze game/ Lab activity Home assignment	Timing Performance Accuracy	Preparation of square number board game, short tricks to find	

						square and square roots	
SEPTEMBER	Cubes and cube roots	Properties of cubes and cube roots	Constructive, Integrative Inquiry based Real life simulation		Accuracy Performance creativity	Short tricks to calculate cube and cube roots of given number	
	Algebraic expressions	Variables constants and operations on algebraic expressions	Constructive Integrative Inquiry based Reflective	Class test	Accuracy Creativity		Online module
	Revision for **MID TERM EXAMS**			Worksheet, Drill and practice			
	Mid- Term Exam						
OCTOBER	Factorization	Factorization of algebraic expressions, division of algebraic expressions	Constructive Integrative Inquiry based	Class test	Calculation accuracy		Online module
NOVEMBER	Mensuration	Surface areas and volume of different kinds of 3D-figures	Constructive, Integrative, Inquiry based, Real life simulation	Lab activity, Class test	Creativity Performance	Cut and paste activity to find area	
	Exponents and powers	Identifying the base and power, expanded form, scientific notation of exponents	Constructive Integrative Inquiry based	Home assignment, Class test	Accuracy Creativity Performance	Exponent law's disc	

DECEMBER	Revision second **periodic assessment**			Worksheet, Drill and practice			
	Second periodic assessment						
	Direct and inverse proportions	Dependency of one quantity to another quantity	Constructive Integrative Inquiry based	Home assignment Sclass test	Accuracy Presentation		Video on proportion (Demand and supply)
JANUARY	Comparing quantities	Understanding the concept of Ratios and percentage profit and loss, simple and compound interest	Constructive, Integrative, Inquiry based	Home assignment	Calculation accuracy	Case Study on marketing values	
	Introduction to graphs	Making of graphs, plotting of points on the graph, finding the coordinates of the points on the graphs	Constructive Integrative Inquiry based	Home assignment		Trace and identify the figure and explain	
FEBRUARY	Revision for **ANNUAL EXAMS**		Drill and practice			Activity	
MARCH	**ANNUAL EXAMS**						

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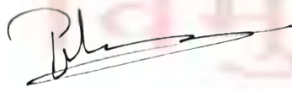**[PRADEEP BANSAL]** **[ANJU SHARMA]**

CLASS: IX

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Number systems	Basics of number systems, irrational numbers and their representation on number line, real numbers and their decimal expansions, operations on real numbers, laws of exponents for real numbers	Constructive Integrative Constructive Integrative	Class Test Extra Question Activity (Game related to Numbers)	Approach, Performance Accuracy	Draw a square root spiral	Video on Square Root Spiral
	Polynomial	Meaning, degree, coefficients, types of polynomial value and zeroes of a polynomial	Constructive Integrative Reflective	Extra Question	Relevant accuracy		Animated Video
JULY	Polynomial	Factor theorem, factorization of polynomial, algebraic identities	Constructive Integrative Reflective	Class Test Extra Question	Relevant accuracy	Factorization of quadratic polynomial on sheet Verification of algebraic identities	
	Coordinate geometry	Cartesian system, coordinate axes, plotting of points in the Cartesian plane	Constructive Integrative Reflective	Class Test Extra Question	Relevance Creativity Presentation	Draw a graph of different points	Video on drawing graph

	Introduction to Euclid's geometry	History - geometry in India and Euclid's geometry, Postulate and axioms	Constructive Integrative	Class Test Extra Question	Approach, Performance Accuracy		Animated video on Euclid's geometry
	FIRST PERIODIC ASSESSMENT						
AUGUST	Lines and angles	Basic Terms, intersecting and non-intersecting lines, pair of angles (parallel lines and transversal), lines parallel to the same line, sum of the angles in a triangle, exterior angle theorem	Inquiry based Integrative Constructive	Lab activity Class Test Extra Question	Performance Accuracy	Demonstrate through role play The lines and the angles	Animated Video
	Triangles	Basics terms, congruency of triangles and its criteria, some properties of triangles, triangle inequalities	Inquiry based Integrative Constructive	Class Test Extra Question	Draw set of congruent triangles		Video on congruency of triangle
SEPTEMBER	Linear equations in two variables	Basic terms, linear equations in one variable, linear equations in two variables and their solution (algebraic and graphical), plotting of graph of linear equation in two variables	Inquiry based Integrative Constructive	Problem based learning and Class test	Accuracy Concept	Graph of linear equation in two variables	Animated Video
	Quadrilaterals	Basic terms, properties of a parallelogram, the mid-point theorem	Inquiry based Integrative Constructive	Lab activity Class Test Extra Question	Relevant concept Performance		Animated video on midpoint theorem

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	MID TERM EXAM						
OCTOBER	Circles	Definition of circle and related concepts, angle subtended by a chord at a point, perpendicular from the centre to a chord, equal chords and their distance from the centre, angle subtended by an arc of a circle, cyclic quadrilateral, number of circles passing through three non – collinear points	Inquiry based Integrative	Lab activity Worksheet	Analysis Performance Involvement	By folding paper, prove angle of semicircle is right angle	Power point presentation on circles
	Constructions	Construction of bisectors of line segments and angles of measure 60°, 90° , 45° etc., equilateral triangles. Construction of a triangle given its base, sum/difference of the other two sides and one base angle.	Inquiry based Integrative Constructive	Class Test	Relevant content Performance		
NOVEMBER	Heron's formula	Area of triangle and quadrilateral by Heron's formula	Integrative Inquiry based	Class Test Extra Question	Relevant content Performance		Power point presentation on the biography of Heron
	Surface areas and volumes	Surface area & volume of cubes, cuboids, right circular cylinder, right circular cone, sphere & hemisphere.	Inquiry based Integrative Constructive	Class Test Extra Question	Concept presentation	Learning by doing	Animated Video

	Statistics	Introduction to statistics – collection of data, ungrouped/ grouped data, Representation of data in tabular form, bar graph, histogram and frequency polygon, Mean, Median and Mode of ungrouped data	Reflective Integrative Inquiry based	Class Test Extra Question	Concept Neatness presentation	Represent data on the graph paper	Animated Video
		REVISION FOR SECOND PERIODIC ASSESSMENT					
		SECOND PERIODIC ASSESSMENT					
DECEMBER	Probability	History, Repeated experiments and observed frequency approach to probability.	Reflective Integrative Inquiry based	Class Test Activity (experiments)	Concept presentation		Animated Video
	Areas of parallelogram and Triangle	Theorems related to areas of parallelogram and triangle on the same base and between the same parallels	Inquiry based Integrative Constructive	Class Test	Concept presentation		Animated Video
JANUARY	**REVISION FOR ANNUAL EXAMINATION**						
FEBRUARY	**ANNUAL EXAMINATION**						

SIGNATURE OF HOD _____   SIGNATURE OF PRINCIPAL_____

[PRADEEP BANSAL]   [ANJU SHARMA]

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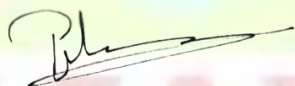
CLASS: X

Month	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Real Number	Fundamental theorem of Arithmetic. Finding LCM and HCF using it, Proving the irrationality of number	Constructive, Reflective Inquiry based	Class Test	Relevance Completion Time	Activity for LCM and HCF	
	Polynomial	Zeros of a polynomial, relationship b/w zeros and coefficients of quadratic polynomial,	Constructive, Reflective Inquiry based	Extra Question	Relevance Completion Neatness	Graph of quadratic polynomial	Video for drawing graph
	Pair of Linear Equations in two variables	consistency / inconsistency, graphical solution, algebraic solutions by various methods, simple situational problems	Constructive, Reflective Inquiry based	Extra Question Class test	Relevance Analysis Presentation	Graphical Representation linear equation	Video
JULY	Quadratic Equations	Standard form, solution of equations by factorization, by formula, discriminant and nature of roots, situational problems	Constructive, Reflective Inquiry based	Class test	Accuracy	Story of Shri Dharacharya	Quadratic Equation Song
	Arithmetic Progression	nth term and sum of the first n terms of A.P. and their applications in daily life.	Constructive, Reflective Inquiry based	Discussion and solving questions	Relevance Analysis Accuracy	Calendar Fun	
	FIRST PERIODIC ASSESSMENT						
AUGUST	Triangle	Similarity of triangles examples, proof of theorems of similarity	Constructive, Inquiry based, Integrative	Lab activity	Performance Accuracy		Animated Video

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SEPTEMBER	Coordinate geometry	Concepts of coordinate geometry, distance formula, section formula,	Constructive, Inquiry based, integrative	Assignment		Derivation of distance and section formula	
	Trigonometry and its applications	Introduction, trig. Ratios of a right-angled triangle, values of t. ratios of 0 to 90 degrees, relationship b/w the ratios. Application of Height and distance	Constructive, Integrated, Inquiry based Collaborative	Assignment Class test	Performance Accuracy	Oral Drill Activity with hand	
		MID TERM EXAM					
OCTOBER	Statistics	Mean, median & mode of grouped data,	Constructive, Inquiry based	Project based	Relevance Analysis Accuracy	Collect data and find mean of Bihar	
	Probability	Definition, simple problems on finding probability of an event	Experiential, Games / Puzzles	Class test	Accuracy	Story of probability	Video on probability
NOVEMBER	Circles	Tangent to a circle, point of contact, Theorems on tangents	Constructive, Integrated, Inquiry based	Assignment	Relevance Analysis Accuracy	Activity based on tangent	
	Areas related to circles	Length of arc, Area of sector and segment	Constructive, Integrated, Inquiry based	Class test	Accuracy		Video on circular tracks
DECEMBER		**FIRST PRE-BOARD EXAM**					

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	Surface Area & Volume	Surface areas and volumes of combinations of two solids – cuboids , cubes, cylinder , cone , sphere and hemisphere	Constructive, Integrated, Inquiry based	Assignment	Approach Performance Accuracy	Model making	
JANUARY		IIND PRE BOARD EXAM, DRILL PRACTICE THROUGH WORKSHEET AND EXTRA QUESTION					
FEBRUARY	Revision		Drill &Practice	Sample Papers		Activity	Video
MARCH 24		BOARD EXAMINATION					

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