BUDHA DAL PUBLIC SCHOOL, SAMANA, PUNJAB ANNUAL CURRICULUM PLAN SESSION 2022–2023

CLASS: VIII SUBJECT: MATHEMATICS

Month &	Theme/ sub-	Learning ob	ojectives	Art integrated activities	Expected learning outcomes	Assessment
working days	theme	Subject specific	Behavioral	and resources		
		(content based)	(application			
			based)			
	Rational number	Students will be able	Through the	Activities:	Students would be able to:	Assessment
Working days in		to:	practice of these	1. To arrange the rational	1. Define and apply	will be done
April: 21 Days		1. Define and apply	concepts students	numbers written on colored	properties of rational	on the basis of
APRIL: 17 Days		properties of rational	will acquire the	strips in ascending or	numbers like closure,	decided
		numbers like closure,	skill of	descending order of rational	commutative, and associative	Rubrics.
		commutative, and	1.Representing	number	property for addition,	
		associative property	any rational	2. Representation of rational	subtraction, division and	
		for addition,	number on	number on number line	multiplication.	
		subtraction, division	number line as	_	2. Distributive property over	
		and multiplication.	well as they will	Resource:-	addition and subtraction of	
		2. Distributive	develop the	N.C.E.R.T book(questions	rational numbers	
		property over addition	analytical and	from reference book	3.Writeadditive inverse of a	
		and subtraction of	calculation skill	practiced in the class)	rational number	
		rational numbers			4. write multiplicative inverse	
		3.Writeadditive	2. They will be		of rational number	
		inverse of a rational	able to develop		5. Plot of rational numbers on	
		number	problem solving		number line	
		4. write multiplicative	ability in day today		6.Find Rational numbers	
		inverse of rational	situation.		between two rational	
		number			numbers	
		5. Plot of rational			7. Through the practice of	
		numbers on number			these concepts students will	
		line			acquire the skill of	
		6.Find Rational			representing any rational	
		numbers between two			number on number line as	

		rational numbers			well as they will develop theanalytical and calculation skill. 8. Develop problem solving ability in day to day situation.	
Working days in April: 21 Days APRIL: 14 DAYS	Linear Equations	Students will be able to 1. Frame linear equation. 2.Solve equation when variable lies on one side 3. Solve equation when variable lies on both sides. 4. Understand process of cross multiplication. 5. Understand rules of solving linear equation. 6.Solve an equation by transposition. 7. Solve an equation by cross- multiplication. 8. Understand application of linear equation.	Through the practice of these concepts students will be able to solve day to day life problems based on algebraic equations such as 1.Speed & time 2.Age related problems 3.Area and perimeter	Activities:- 1. To solve the linear equation through Grid and Square Paper 2. Frame a real life situation which can be expressed as linear equation involving one variable whose solution (value of variable) is 10. Resource:- N.C.E.R.T book	 Students would be able to: 1. Frame linear equation. 2. Understand rules for solving linear equations 3. Transpose the terms 4. Solve equation when variable lies on one side 5. Solve equation when variable lies on both sides. 6. Understand process of cross multiplication. 7. Solve an equation by cross- multiplication. 8. Understand application of linear equations. 9. To solve day to day life problems based on algebraic equations such as Speed & time Age related problems Area and perimeter 	Assessment will be done on the basis of decided Rubrics.

	Data handling	Students will be able to	Through the	Activities:-	Students would be able to	Assessment
Working days in May:	_	1.Prepare frequency	practice of these	1. Students will cite three	1.Prepare frequency	will be done
25 Days		distribution table	concepts students	examples from their day to	distribution table	on the basis of
		2.Collect, Organize and	will be able to	day life where they can use	2. Collect, Organize and group	decided
MAY: 12 DAYS		group the data	1.Analyze and	graphs, double bar graph and	the data	Rubrics
		3.Draw Double bar	represent the data	histogram as the best way to	3.Draw Double bar graph	
		graph	from day today life	represent the data.	4. Draw Histogram and use of	
		4. Draw Histogram and	2.Uses of data		kink if needed.	
		use of kink if needed.	handling in real	2.Students will write their	5. Identify the usage of	
		5. Identify the usage of	world e.g.	daily routine time table in	different graphs based on the	
		different graphs based	3. In libraries -to	the tabular form and will	specific data.	
		on the specific data.	keep record of	represent it with pie - chart	6. Differentiate between Bar	
		6.Differentiate	books.		graph and Histogram	
		between Bar graph and	4.Doctors keep	Resource:- N.C.E.R.T book	7.Contruct Pie charts	
		Histogram	records of		8. Understand and apply the	
		7.Construct Pie charts	patients		concept of probability	
		Understand and apply	5.Meteorologists		9.Develop Observatory skill,	
		the concept of	take records of the		Systematic approach, Critical	
		probability	weather		thinking, Graph interpretation	
			6.to display scores			
			of matches			

Working days in May: 25 Days MAY:13DAYS	Square and Square root	Students will be able to 1. Identify the squarenumbers. 2. learn about perfect square 3.learn properties of squares 4.know the triangular numbers 5.calculate square root by the prime factorization method , long division method and estimating square roots	By practicing the properties of square and square root numbers in their daily life students will be able to Develop the skills of logic and calculation like finding the length of diagonal of square play ground, cuboidal room etc.	Activities:- Teacher will teach some easy calculation trick to find the square of numbers. To find the square of any digit number by DIAGONAL METHOD Resource:- N.C.E.R.T book	Students would be able to: 1. Identify the perfect squarenumber using property. 2. Identify the properties of squares 3. Know the triangular numbers 4. Calculate square by diagonal method 5. Calculate square root by the prime factorization method, long division method and estimating square roots. 6. Develop the logical thinking and calculation skill.	Assessment will be based on rubrics
Working days in July: 18 Days JULY : 12 DAYS	Understanding Quadrilaterals	Students will be able to:	Through the practice of these	Activities:-	Students would be able to:	
		 Recall 2-d shapes Understand and define polygons, types of polygon and diagonals Properties of types of polygon Solve questions based on polygons Apply their own logic to solve situation based questions. 	concepts students will be able to: 1. Develop observatory, analytical and application skills. 2. Apply the properties of these shapes in architecture, tiling the floor etc.	 1.To verify the sum of measure of exterior angles of polygon is 360°. 2.To verify the sum of the interior angles of a quadrilateral is 360°. 3.To verify various properties of different types of parallelogram Resource:- N.C.E.R.T book 	 1.Recall 2-Dshapes 2.Understand and define polygons, types of polygon and diagonals 3.Properties of types of polygon 4. Solve questions based on polygons 5. Apply their own logic to solve situation based question 6. Students would be able to learn how to design the things in the life and also would be able to develop Observatory 	Assessment will be done on the basis of decided Rubrics.

		skills, Analytical and Application skills. 7.By engaging them in group activity they would develop co-operation and team spirit.	

Working days in August:	Comparing	Students will be able to:	Students will be	Activities:-	Students would be able to	Assessment
23 Days	quantities	1.Define ratio, percentage	able to		1.Define ratio, percentage and	will be based
	1	and interest	1.Distinguish	To find the amount received on	interest	on rubrics
AUGUST: 16 DAYS		2.Calculate increase or	between	the same principal and rate and	2.Calculate increase or	
		decrease in percentage	appreciating and	time when the interest is	decrease in percentage	
		3.Calculate discount	depreciating	compounded annually, half	3.Calculate discount	
		4.Find profit. loss. profit	assets	yearly and quarterly.	4.Find profit. loss. profit	
		nercentage and loss	2. Practice of		nercentage and loss	
		percentage	concepts of		percentage	
		5. Find sales tax and value	comparing		5. Find sales tax and value	
		added tax	quantities will	Decourse, NCED Thesh	added tax	
		6.Calculate compound	help students to	Resource:- N.C.E.K.I DOOK	6. Calculate compound	
		interest	deal with some		interest	
		7. Apply compound	banking functions		7. Apply compound interest	
		interest formula for	easily		formula for calculating	
		calculating compound			compound interest annually.	
		interest annually, half			half vearly and quarterly.	
		vearly and quarterly.			8.Distinguish between	
					appreciating and depreciating	
					assets	
					9. Practice of concepts of	
					comparing quantities will	
					help students to deal with	
					some banking functions easily	
					g	

Working days in	Exponents and	Students will be able to	Student will be	Activity:-	Students would be able to:	Assessment
August: 23	Powers	1. Define exponents	able to,		1. Define exponents	will be based
		withnegative power	1.Follow the	verification of the laws of	2. State the laws of exponents	on rubrics
AUGUST: 07DAYS		2. State the	principles/ethics	exponent x0=1 and x-	3. Express numbers in the	
SEPTEMBER:		laws of	to make their live	m=1/xm	exponential form	
03DAYS		exponents	easier		4. Compare very large and	
		3. Express numbers in	2.Students will	Pasourco, NCED Thook	very small numbers.	
		theexponential form	learn to elaborate	reference book	5.To connect exponents in	
		4. Compare very large	/briefs their	Telefence book	real life situations as we use	
		andvery small	views as per		units like square feet, square	
		numbers	requirement.		meters, cubic meters	
			3.To connect		6. Use the concept in science,	
			exponents in real		astrology like representing	
			life situations as		the speed of light, mass of	
			we use units like		electron etc.	
			square feet,			
			square meters,			
			cubic meters			
			4.Use the conceptin			
			science, astrology			
			like representing			
			the speed of light,			
			mass of electron			
			etc.			

	Cubes and Cube	Students will be able to	students will be	Activities:-	Students would be able to:	Assessment
Working days in	roots	1. Identify the cubes of	able to	By giving tricky and probing	1.Identify the cubes of a	will be based
October: 22		a number	Apply concept of	questions based on	number	on rubrics
Days		2. Identify the prime	cube and cube root	application of properties of	2.Identify the prime numbers	
		numbers to apply the	in daily life	cube will be explain in class	to apply the prime	
Ο ΓΤΟ ΡΕΒ.ΟΟΒΑΥς		prime factorization	situations such as:	like	factorization method	
UCIUDER:UODAIS		method	1.while finding	1. If a ² ends in 9, then a ³ ends	3.Understand Properties of	
		3. Understand	volume of cube,	in	cube	
		properties of cube.	2.while finding		4. Differentiate between cube	
		4. Identify the perfect	edge of cube which	2. If a^2 ends in 5, then a^3 ends	and cube root	
		cubes.	in turn develop	in	5. To calculate cube root of a	
		5. Differentiate	their logical and	3 finding volume of cube	perfect cube.	
		between cube and cube	calculation skill	through its not	6. Solve word problems based	
		root.		through its net	on cube and cube root.	
		6. Calculate cube root			7. Word problems based on	
		of a perfect cube.		Pasourco: NCEPThook	cube and cube root.	
		7. Estimate the cube		Resource N.C.E.K.I DOOK	8.Apply concept of cube and	
		root of a number			cube root in daily life	
		without prime			situations such as	
		Factorization			* While finding volume of	
		8.Word problems based			cube.	
		on cube andcube root.			* While finding edge of cube	

	Algebraic	Students will be able to	Students will be	Activity :-	Students would be able to:-	Assessment
	Expressions					
	And Identities					
Working days in		1. Add and	able to	verification of (a + b) ² by	1. Add and subtract algebraic	will be based
October: 22		subtract algebraic	1. Share their	paper cutting and pasting	expressions.	on rubrics
Days		expressions.	ability of	method	2. Apply concept of addition	
		2. Apply concept of	reasoning, logical		and subtraction while solving	
OCTOBER: 14 DAYS		addition and	thinking and	Resource:- N.C.E.R.T book	word problem.	
		subtractionwhile	problem solving in		3.Understand that small	
		solving the word	a group.		mistakes also make huge	
		problem.	2.Understand that		difference in a life so one	
		3.Understand	small mistakes		should never ignore it.(while	
		Product of algebraic	also make huge		opening brackets)	
		expression	difference in a life		4.Understand Product of	
		4. Understand that	so one should		algebraic expression	
		Multiplication does	never ignore		5. Understand that	
		not depend on	it.(while opening		Multiplication does not	
		degree of the	brackets)		depend on degree of the	
		polynomial.			polynomial.	
		5. Understand			6. Understand Product of two	
		Product oftwo			Monomials & product of	
		Monomials &product			Monomial with Binomial.	
		of a Monomial with			7. Product of two or more	
		Binomial.			than two polynomial.	
		6.Product of two or			8.Prove identities	
		morethan two			9. Apply identities.	
		polynomial.			10. Share their ability of	
		7.Prove Identities.			reasoning, logical thinking	
		8. Apply identities.			and problem solving in a	
					group.	

	Mensuration	Students will be able	students will be	Activities:-	Students would be able to:	Assessment
Working days in		to 1.Calculate area	able to : 1.imagine	1. By solving warm up	1.Calculate area and	will be based
November: 20 Days		and perimeter of	and visualize the	exercise on the board to	perimeter of regular and	on rubrics
		regular andirregular	objects along with	recall the content of previous	irregular polygon	
NOVEMBER: 15 DAYS		polygon 2.Calculate	their nets	class.	2.Calculate area and	
		area and	2.develop problem	2.convert 2 – d shape	circumference of circle	
		circumference of	solving approach	(rectangle) into 3 – d shape	3.Calculate CSA, TSA and	
		circle 3.Calculate	3.to estimate the	(cylinder) and finding	volume of cube	
		CSA, TSA andvolume	area of painting ,	CSATSA and volume of	4.Calculate CSA, TSA and	
		of cube 4.Calculate	tiling the floor,	cylinder obtained	volume of cuboids	
		CSA, TSA andvolume	area to be		5.Calculate CSA, TSA and	
		of cuboids	carpeted etc		volume of cylinder	
		5.Calculate CSA, TSA	4.save themselves		6. Compare the areas of	
		andvolume of	from being	Resource:- N.C.E.R.T book	twofigures.	
		cylinder	cheated like		7. Compare the volumes of	
		6. Comparethe	whether exact		two shapes.	
		areas oftwo figures.	quantity of petrol		8.Compare the	
		7. Compare the	is filled or not,		circumferences of two circles	
		volumes oftwo shapes.	exact rate is		9.Apply concept of perimeter	
		8.Compare the	charged or not by		while preparing track to	
		circumferences of	contractor or any		conduct sports; in drawing	
		twocircles	dealer		boarder around rectangular	
					soft board; while counting	
					distance covered by an	
					athlete, while fencing their	
					park to keep cattle away	
					10.Apply concept of area in	

NOVEMBER: 05	Direct and	Students will be	Students will	Chapter will be	Students would be able to:	Assessment
DAYS	Inverse	able to	beable to:	introducedby using the	1. Define variation.	will be
DECEMBER:05	Proportions	1. Define variation.	1.If we will	video, teacher will	2. Understand types	basedon
DAYS		2. Understand	workalone we	discuss about real life	ofvariations.	rubrics
		types of	requiremore	examples.	3. Differentiate between	
		variations.	time to finish it.	Students will be given a	direct proportion and	
		3. Differentiate	. 2.We increase	task according to that	inverseproportion.	
		betweendirect	speed of efforts	each student will frame 5	4. Apply the concept of	
		proportion and	we can achieve	Question related to direct	directand inverse	
		inverse	our goal in a	proportion or inverse	proportion in daily life.	
		proportion.	shorttime.	proportion and will also	5. Give examples of	
		4. Apply the	. 3. As the	findthe solutions of these	direct proportion and	
		concept of direct	numberof	problems.	inverse proportion from	
		and inverse	articles will		daily life.	
		proportion in daily	increase the		6. Understand if we will	
		life. 5.Give	overall cost will	Resource:- N.C.E.R.T	workalone we require	
		examples of direct	also increase.	bookreference book	more time to finish it.	
		proportion and			7.If we increase speed of	
		inverse proportion			efforts we can achieve	
		from daily life			ourgoal in a short time	

	Factorisation	Student will be able	Students will	Activities:-	Student would be able to.	Assessment
Working days in		to.	learn:	1. A small activity will be	1. Define Factorisation.	will be
December: 20 Days		1. Define	1. To achieve	conducted in class where	2.Understand that factors	basedon
		Factorisation.	large goal by	students have to write	could be constants.	rubrics
DECEMBER:15		2.Understand that	splitting it into	threequadratic	variablesand even algebraic	
DAYS		factorscould be	small aims.	polynomial	expressions	
		constants,	2. Students will be	2. Interpret	3. Factorise a given algebraic	
		variables and even	more confident.	geometrically factors	expression by identifying	
		algebraic		of quadratic	thecommon terms.	
		expressions		expression using	4.Factorise a given algebraic	
		3. Factorise a		squaregrids and	expression by regrouping the	
		given algebraic		strips.	terms.	
		expression by		-	5.Factorise a given algebraic	
		identifying the			expression by using identity.	
		commonterms.		Resource:- N.C.E.R.T book	6.Factorise a given algebraic	
		4. Factorise a		reference book	expression by splitting the	
		given algebraic			middle term terms.	
		expression by			7.Divide an algebraic	
		regrouping the			expression by	
		terms. 5.			anotheralgebraic	
		5. Factorise a			expression.	
		given algebraic			8.To achieve large goal by	
		expression by			splitting it into small	
		using identity.			aims.	
		6. Factorise a			9.Students will be more	
		given algebraic			confident	
		expression by				
		splitting the				
		middle termterms.				
		7. Divide an				
		algebraic				
		expression by				
		another				
		algebraic				
		expression.				

Working days in	Introduction to	Students will be	students will be	Activities-	Students would be able to:	Assessment
January: 20 Days	Graphs	able to	able to know real	1. students will make to sit	1.Understand about Cartesian	will be
		1.Understand	life use of	insix rows and 6 columns	svstem	basedon
JANUARY:12 DAYS		about Cartesian	Cartesian plan are	thenthey will be asked to	2. Understand about	rubrics
		system	1.To locate their	identify their position.	coordinate of a point.	
		2. Understand	position in class	considering the particular	3.Plot a point	
		about	2.Anvtime one has	student as origin	4. Identify dependent and	
		coordinate of a	a need to know	2. With the help of above	independent variable.	
		point.3.Plot a	the location of	digital content students	4. Interpret the line graph.	
		point	something -	willbe able to visualize	5. Draw Line Graph.	
		4. Identify	where something	the construction of Bar	6. To locate their position in	
		dependent and	should be or	graphs, Histograms, Pie	class.	
		independent	where something	chart and Line graph	7.Application in form of GPS	
		variable.	actually is – a	0	8.Application in air traffic	
		4. Interpret the line	coordinate plane		control.	
		graph.	is a very useful	Resource:- N.C.E.R.T book		
		5. Draw Line Graph.	tool.(GPS)			
		*	3 An air traffic			
			controller			
			must know the			
			locationof			
			every aircraft			
			in the sky			
			within certain			
			geographic			
			boundaries. in			
			order to			
			describe			
			where each			
			aircraft is			
			situated,			
			coordinates			
			are assigned			
			to each vehicle			
			in the air.			

ſ	REVISION FOR FINAL EXAMS FROM
	THE END OF JAN AND IN THE MONTH
	OF FEBRUARY
	COURSE COMPLETED

Working days in	Algebraic	Students will be able to	Students will be	Activity :-	Students would be able to:-	Assessment