BUDHA DAL PUBLIC SCHOOL , SAMANA ANNUAL CURRICULUM PLAN SESSION 2023-24

CLASS: VII

SUBJECT: MATHS

Month	Theme/ Sub-	Learning Object	tives	Activities	Expected Learning Outcomes	Assessment
& Workin g Days	theme	Subject Specific (Content Based)	Behavioral (Application based)	&Resources		
April	Integers	Students will able to/ recall/ learn/apply/ find Concept and examples of Integers. (K) Representation of integers on number line. Reading of integers on number line. To find additive inverse of an integer. Learn to solve magic squares involving integers. DMAS rule for integers(U) Addition, subtraction as well as properties of integers (AP) Multiplication, Division and properties of integers (AP) Application of integers in daily life situations.	Students will develop understanding about use of integers such as in banks (credit and debit), Measuring temperatures, marking scheme (when there is minus marking) etc.	1. Create patterns of integers. 2. Framing Real life situations of Integers.	 Students would be able to Understand concepts and examples of Integers. Representation of integers on number line. Reading of integers on number line. To find additive inverse of an integer. Learn to solve magic squares involving integers. DMAS rule for integers Addition, subtraction as well as properties of integers Multiplication, Division and properties of integers Application of integers in daily life situations. To develop Application skill, Higher order thinking and Numeracy skill, Ability of reasoning and team spirit They would be able to relate the content with practical life like every number has its negative number e.g. every coin has two faces +ve and -ve integers are used in measuring temperature. 	Assessment will be done on the basis of decided Rubrics.

April	Fractions and Decimals	The students will be able to: Define fraction as a part of whole (U) Understand the concept of different types of fraction and decimals. (K) Learn how to convert any one type of fraction or decimal to other (A) Recognize the difference between different types of fractions and decimals. (Ay) Compute addition, subtraction, multiplication and division of fraction and decimals. (A) Solve word problem involving fractions and decimals. (A) Applications on fractions and decimals. (A)	Following behavioral objectives will be achieved- • A part of a whole is important to make up the whole, for example, students are a part of their class, but they are important to form the whole class because even if one student is missing, the class wouldn't be complete. • In event managements like parties. • the operations on fractions in dealing with money. • They can check their progress by calculating the fractions of the work they've done and whole work they've to do. • A record can be broken by a difference of a few decimal places. • A life can be saved or	1. Making Fraction flower. 2. Framing questions of multiplication and division of decimals.	 Realization of –ve marking in competitive exams. Altitude that below sea level is represented with negative integers Banks and credit unions represent debit and credit through integers Students would be able to: Apply the concept of different types of fraction and decimals. Recognize the different types of fractions and decimals. Learn how to convert any one type of fraction or decimals. to other. Compute addition, subtraction, multiplication and division of fractions and decimals. Solve word problems involving fractions and decimals Learn to value the smallest part or unit regardless of how insignificant it might seem. Learn to manage events like parties. learn to calculate their progress by using fractions Manage time and value each and every second. Learn the use of decimals in various daily life aspects like calculations 	Assessment will be done on the basis of decided Rubrics.
			A life can be saved or lost by a difference of a few decimal places in		 daily life aspects like calculations relating to money. Applications on fractions and decimals develop observatory skills. 	

			seconds. • Seemingly insignificant things can make a huge difference, so we must never underestimate small things. • Proper and accurate concentration of chemicals is very important in drugs and medicines. Even a difference by 0.001 or smaller can cause severe health issues.		 Develop analytical skills. Develop problem solving skills. 	
Septemb	Rational Numbers	Students will be able to understand / learn /define /apply/ find Concept and examples of Rational numbers. (K) Positive and negative Rational numbers. (K) Equivalent Rational numbers. (U) Representation of rational numbers in standard form. (U) Additive inverse and multiplicative inverse of a rational number. (K) Representation of Rational numbers on the number line. (U) Comparison of Rational numbers. (AY) Rational numbers between two rational numbers. (U) Addition, Subtraction, Multiplication	Students will be able to • Develop comparative skills by arranging rational number in ascending or descending order. • Develop problem solving ability in real life situations.	1. Arranging rational numbers written on coloured strips in ascending or descending order. 2. Representation of rational number on the number line.	Students would be able to learn /define /apply/ find Concept and examples of Rational numbers. Positive and negative Rational numbers. Equivalent Rational numbers. Representation of rational numbers in standard form. Additive inverse and multiplicative inverse of a rational number. Representation of Rational numbers on the number line. Comparison of Rational numbers.	Assessment will be done on the basis of decided Rubrics.

	S	and Division of Rational numbers.(U)		1 To identifica	Students would be able to:	
Augus t	Symmetry	 Recall line symmetry and reflection symmetry(U) Identify the axis of symmetry. (K) Lines of symmetry for regular polygons Identify and apply the concept of rotational symmetry of 2 -D figures. U) Find the centre, order and angle of rotation for a simple figure. (AN) Identify the figures having both reflection and rotational symmetry. 	 Students would learn to visualize the things Students would learn to find symmetrical figure. 	1. To identify symmetrical designs from the surroundings. 2. To find axis of symmetry and order of rotational symmetry.	 Identify the axis of symmetry. Draw Lines of symmetry for regular polygons Identify and apply the concept of rotational symmetry of 2 -D figures. Find the centre, order and angle of rotation for a simple figure. Identify the figures having both reflection and rotational symmetry 	Assessment will be done on the basis of decided Rubrics.
Octob er	Data Handling Perimete r and Area	 The students will be able to understand: organization of data (U) preparation of frequency distribution table (Ap) Measures of central tendencies: Mean, Mode, Median and Range 	Following behavioral objectives will be achieved- • It's important to keep things and information organized to work	1. Collection of situations where mean, mode and median can be used. 2. To Prepare	 Students would be able to Organize data prepare frequency distribution table Measure of central tendencies: Mean, Mode, Median and Range 	Assessment will be done on the basis of decided Rubrics.

		 (Ev) Construction and interpretation of different types of bar graphs (Sy) Chance and Probability. (AN) 	properly. In our life, there will be both, ups and downs, we should be always grateful while the ups and should have enough courage to make it through the downs. Every unit is important in a group. Learning can be fun if you take it in a positive way. While comparing any two things or situations, or people, the parameters and scales must be same Students will also be able to develop observation and calculation skill.	double bar graphs.	 Construct and interpret different types of bar graphs Construction and interpretation of different types of bar graphs Learn Chance and Probability Solve problems and situation-based questions. Learn that studying can be enjoyable. Realize importance of keeping things and information organized to work properly. develop observation and calculation skill. 	
Janu ary	Algebraic Expressions	The students will be able to understand: • About like terms and unlike terms. (U, AN) • About, terms factors and coefficient. (U) • About Monomial, Binomial, Trinomial and Polynomial. (U) • Addition and subtraction of Algebraic Expression (A) • Applications of Algebraic Expressions. (A)	Following behavioural objectives will be achieved Not all people are alike; however, each and every one of us is a human and holds his own importance. Every unit is important in a group. Learning can be fun if you take it in a positive	 Addition and Subtraction of algebraic expression. To frame algebraic expressions 	 The students would be able to understand: About like terms and unlike terms. About Terms Factors and coefficient. About Monomial, Binomial, Trinomial and Polynomial. Addition and subtraction of Algebraic Expression Applications of Algebraic Expressions. Not all people are alike; however each and every one of us is a human and holds his own importance. 	Assessment will be done on the basis of decided Rubrics.

			 way. While comparing any two things or situations, or people, the parameters and scales must be same. A single wrong step can deviate us from the path. There is more than just one way to solve any problem. The smallest seeming mistake can completely change the situation and we won't get outcomes as we wanted. Situations can be handled in many ways 		 Every unit is important in a group. Learning can be fun if you take it in a positive way. While comparing any two things or situations, or people, the parameters and scales must be same. A single wrong step can deviate you from the path. There is more than just one way to solve any problem. The smallest seeming mistake can completely change the situation and we won't get outcomes as we wanted. 	
May	Simple Equations	The students will be able to: • Understand about Linear Equations. (U) • Frame Linear Equation (K) • Solve an Equation with different methods. (K) • Solve story sum based on	Following behavioural objectives will be achieved. • It's necessary to know all variables to solve an unsolved mystery. • We need to keep trying to succeed.	1. To frame algebraic expressions by using variable and constant. 2. To frame linear equation.	 Students would be able to: Frame Linear Equations. Apply transposition method to solve equations. Solve word problems based on applications of simple equation Solve situation-based questions. 	Assessment will be done on the basis of decided Rubrics.

• Errors and mistakes

make us learn more and

• Understand that knowing every argument

correctly matters to reach a conclusion.

applications of simple equation. (A)

January	Visualizing Solid Shapes	Student will be able to: • Identify and draw 2- dimensional and 3 dimensional figures.(U) • State the number of vertices, edges and faces of 3 dimensional figures. .(K) • Draw nets for cubes, cuboids, cylinders, pyramid, prism and cones.(AP) • Identify the solid formed by a given net. (U) • Draw oblique and isometric sketches. (K)	Following behavioral objectives will be achieved1; • Students will be able to visualize all the faces of the images of 3D shapes. • Students will be able to develop drawing skills by using isometric dotted paper for representing various 3 D shapes. • Team spirit will be developed while	1. To draw front, side and top view of Rubik's cubes. 2.To solve questions based on Net of Dice.	 Realize that we need to keep trying to succeed. Learn that errors and mistakes make us learn more and teach us new ways to look at the problem. Students would be able to: Identify and count vertices, edges and faces of 3D figures. Recognize 2D and 3D figures from the surroundings Understand the nets for various solid shapes Identify the solid obtained by a given net. Verify Euler's formula. Draw solids on a flat surface. Draw different views. Visualize cross sections (horizontal and vertical) of solid objects. Get knowledge and will develop observation skill by identifying number of 	Assessment will be done on the basis of decided Rubrics.
August	Exponents and Powers	 Verify Euler's formula. (A) Draw different views. (U) Visualize different cross sections (horizontal and vertical) of solid objects(AP) The students will be able to: Write number in its expanded form and will be able to compare 	working in group to prepare nets of 3D shapes. Following behavior objectives will be achieved:	1. To prove laws of exponent by paper folding	faces, edges and vertices of the solid. • Learn application part by using Euler's formula for verification and The students would be able to: • Write number in its expanded form and will be able to compare any two	Assessment will be done on the basis
		any two numbers. U Express a given number in its	The students will be able to understand that	and pasting. Ex 3 ⁿ and 2 ⁿ	numbers. • Express a given number in its prime	of decided Rubrics.

		prime factorization in their powers. K • Define exponents for natural numbers. A • Know various laws of exponents. A • Apply the laws of exponents to solve the problems with different operations. A • Know standard form / scientific notation for numbers. K	some common characteristics/qualities are required to be a part of a group. • The students will be to follow the principles/ethics to make their lives easier (as they study the different laws of exponents to make the calculations easier). • The students will be able to elaborate / brief their views as per requirement. • The students will be able to connect exponents in real life situations as we use units like square feet, square meters, cubic meters, etc.		 factorization in their powers. Define exponents for natural numbers. Know various laws of exponents. Apply the laws of exponents to solve the problems with different operations. Know standard form / scientific notation for numbers. Follow the principles/ethics to make their lives easier (as they study the different laws of exponents to make the calculations easier). Elaborate / brief their views as per requirement. Connect exponents in real life situations as we use units like square feet, square meters, cubic meters, etc. 	
August	Comparing Quantities	 The students will be able to Recall the concept of ratio as an extension of fraction. (K) Find the equivalent ratios as an extension of equivalent fraction. (U) Recall the concept of proportion as an equality of two ratios. (K) To recall unitary method and apply it in word problems. (A) Understand the term percentage as a fraction with denominator 100.(K) 	 The students will be able to Develop comparative skills by finding percentage. Develop understanding related to profit and loss while dealing with prices of different commodities. Develop Problem solving skills by 	1. Find Increase or decrease % 2. Calculate the Interest as well as Amount (of SBI) for given Principal	 The students would be able to: Recall the concept of ratio as an extension of fraction. Find the equivalent ratios as an extension of equivalent fraction. Recall the concept of proportion as an equality of two ratios. To recall unitary method and apply it in word problems. Understand the term percentage as a fraction with denominator 100. 	Assessment will be done on the basis of decided Rubrics.

 Convert fractions and decimals into percentage and vice-versa. (U) Find the increase and decrease of a quantity in terms of percentage. (A) Apply percentage in problems involving profit and loss. (A) Find simple interest and amount. (U) To find rate, principal and time using formula. (U) To find CP, SP, Profit% and Loss% (A) 	applying various formulae. • Develop ability of reasoning by finding rate of interest on different schemes available.	 Convert fractions and decimals into percentage and vice-versa. Compare quantities Find the increase and decrease of a quantity in terms of percentage. Apply percentage in problems involving profit and loss and interest Find simple interest and amount. To find rate, principal and time using formula To find CP, SP, Profit% and Loss% Develop calculative skills by using unitary method. Develop comparative skills by finding percentage. Develop understanding related to profit and loss while dealing with prices of different commodities. Problem solving skills will be developed by applying various formulae. Develop ability of reasoning by finding rate of interest on different schemes available.
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Novem ber	The Triangle and its Properties	 Understand Medians and Altitudes of a Triangle. (U) Understand Angle Sum Property of a triangle. (U) Understand Exterior angle of a triangle and its properties (U) Understand Pythagoras Property of Right-angled Triangle. (U) Solve application-based question. (A) Inequality properties of triangle. Specific Properties of types of triangle 	Following behavioural objectives can be achieved- • All shapes are beautiful in their own way. • Learning can be fun if you take it in a positive way. • Some common characteristic is required to be a part of a group (properties of triangles).	 Verification of Exterior angle property. Verification of Pythagoras Property. 	Student would be able to: • Understand Medians and Altitudes of a riangle. (U) • Understand Angle Sum Property of a iangle. (U) • Understand Exterior angle of a triangle nd its properties (U) • Understand Pythagoras Property of Rightngled Triangle. (U) • Solve application-based question. (A) • Inequality properties of triangle. • Specific Properties of types of triangle. • All shapes are beautiful in their own way. • Learning can be fun if you take it in a ositive way. • Some common characteristic is required to be a part of a group (properties of triangles).	Assessment will be done on the basis of decided Rubrics.
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October	Perimeter	Students will be able to	Following behavioural	1. To find	Students would be able to:	Assessment
	and Area	 Understand formula for area of 	objectives will be achieved:	Perimeter and	 Generate formula for area of 	will be done
		Parallelogram, Triangle, Rhombus	 Students will apply 	Area of the	Parallelogram, Triangle, Rhombus and	on the basis
		and Circle.	concept of perimeter	things from	Circle.	of decided
		 Generate formula for perimeter of 	while preparing track to	surrounding	 Find formula for perimeter of 	Rubrics.
		Parallelogram, Triangle, Rhombus as	conduct sports; in	_	Parallelogram, Triangle, Rhombus as	

 well as circumference of circle Apply the formulae to solve the problems. Recall conversion of units. Learn concept of π. 	drawing boarder around rectangular soft board; while counting distance covered by an athlete, while fencing their park to keep cattle away Students will apply concept of area in deciding how much carpet size is needed for a dining room; in determining how much paint is needed Students will be able to develop the skills like Observatory, Analytical, Application, and Estimation	 well as circumference of circle Apply the formulae to solve the problems. Recall conversion of unit. Learn concept of π. Also, they would be able to Apply concept of perimeter while preparing track to conduct sports; in drawing boarder around rectangular soft board; while counting distance covered by an athlete, while fencing their park to keep cattle away. Apply concept of area in deciding how much carpet size is needed for a dining room; in determining how much paint is needed Develop the skills like Observatory, Analytical, Application, and Estimation
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