INFANT JESUS CONVENT SCHOOL
ANNUAL PLAN(24-25)
MATHEMATICS
CLASS: VII

MONTH/NO OF DAYS	TOPIC: SUB TOPIC	OBJECTIVES	AIDS/ACTIVITIES	MULTIPLE INTELLIGENCE SKILLS	LEARNING OUTCOME
APRIL No of Days: 18	**INTEGERS** ● Addition/subtraction of integers on number line ● Addition/subtraction of integers and their properties. ● Multiplication of integers with properties. ● Division of integers with properties. Application of integers in day-to-day life.	Students will be able to: ● Add/ subtract integers on number line. ● Identify different properties of integers. ● Compare, add, subtract, multiply and divide integers. Apply knowledge to solve daily life situations related to integers.	**KNOWLEDGE:** ● List integers in ascending order. ● Locate integers correctly on number line. ● Brainstorming by comparing different integers. **SKILLS:** ● Reasoning Skills ● Writing Skills ● Critical Thinking **APPLICATION:** ● Discussing temperature of different cities using integers. ● Computing marks for a test in case	● Logical-mathematical ● Interpersonal ● Intrapersonal	Students will be able to: ●Evaluate sum or difference of integers. ●Apply properties of integers to find product of integers. ●Practice division of integers and their application ● Compute day-to-day life problems related to integers.

			of negative marking. ● Classifying and using different properties of integers. **UNDERSTANDING:** ●Calculate profit/loss using integers. ●Compare maximum and minimum temperature.		
MAY No of Days: 14	**VISUALISING SOLID SHAPES:** ● Different 3-D shapes ● Views of 3-D shapes ● Nets of solid figures. ● Views of solids after cutting/slicing ● Shadow play **FRACTIONS AND DECIMALS** ● Fractions and it's types. Addition, subtraction, multiplication and	Students will be able to: ● Differentiate 2-D and 3-D shapes. ● Identify top, front and side views of solid figures. ● Recognize nets of solids. ● Predict shadows of solids. Distinguish different fractions and decimals.	**KNOWLEDGE:** ● Name various 3-D figures with their edges, faces and vertices. ● Identify and differentiate different fractions. **SKILLS:** ● Reasoning Skills ● Aesthetic skills ● Critical Thinking	● Spatial ● Logical-mathematical ● Interpersonal ● Intrapersonal	Students will be able to: ●Recognize each solid and its net. ● Express the properties of a solid based on its net, shadow and different views. Solve fractions

	division of fractions. **FRACTIONS AND DECIMALS** ● Decimals and it's types. ● Addition, subtraction, multiplication and division of decimals	Students will be able to: ●Apply different basic operations on fractions and decimals.	**APPLICATION:** ● Drawing nets of solid figures. ● Identifying solids by their shadows. ● Calculating ra. **UNDERSTANDING:** ● Observe area of cross section after cutting/slicing of a solid shape. Discussing addition and subtraction of fractions **KNOWLEDGE:** Identify and differentiate different fractions. **APPLICATION:** ● Discussing addition, subtraction, multiplication and division of different fraction and decimals. ● Discussing the properties of		and decimals. Students will be able to: Apply knowledge of fractions and decimals to solve daily life situations.

			integers under addition,subtraction,multiplication,division. **UNDERSTANDING:** ● Apply basic operations on fraction and decimals.		
	REVISION: PT-1				
CONDUCTION OF PT-1 ASSESSMENT (Third Week Of May)					
JULY No of Days: 27	**DATA HANDLING** ● Arithmetic mean ● Mode ● Range ● Median ● Bar graph Double bar graph	Students will be able to: Students will be able to find difference between mean mode and median	**UNDERSTAND** ● the difference between mean mode and median and draw bar graph **SKILLS:** ● Reasoning Skills	●Logical-mathematical ●Interpersonal ●Intrapersonal	Students will be able to apply mean mode in daily life situations.

	SIMPLE EQUATIONS ● What an equation is? ● Solving an equation. ● Applications of simple equations to practical situations.	● Write a simple equation. ● Solve equation with different methods. ● Use simple equation in solving daily life situations. ●	● Aesthetic skills ● Critical Thinking Identify constants and variables in a simple equation. ● Forming and solving simple equation. **KNOWLEDGE** ● To frame simple equation and find its solution. .		● Frame simple equation with given statement. ● Find solution of an equation and a situation from daily life.
AUGUST No of Days: 23	**LINES AND ANGLES:** ● Complementary angles ● Supplementary angles ● Intersecting lines ● Vertically opposite angles ● Parallel lines and transversal	Students will be able to: ● Define and interpret complementary and supplementary angles ● Identify vertically opposite angles. ● Understand the angles	**KNOWLEDGE:** ● Identify parallel and intersecting lines. ● Differentiate between different triangles.	● Logical-mathematical ● Interpersonal ● Intrapersonal ● Spatial	Students will be able to: ● Recognize Pair of angles formed by transversal ● Know conditions of parallelism.

	TRIANGLE AND ITS PROPERTIES: - Median and altitude of triangles - Exterior angle property of a triangle - Isoceles and equilateral triangle - Angle sum property of a triangle - Sum of lengths of two sides of a triangle - Pythagoras Property of right triangle	formed by transversal and conditions for parallel lines - Differentiate between median and altitude of triangles. - Distinguish exterior angle, angle sum, triangle inequality and Pythagoras property of triangles.	**SKILLS:** - Reasoning Skills - Writing skills - Critical Thinking **APPLICATION:** - Discussing about different types of angles. - Finding missing angles when a transversal cut two parallel lines. - Discussing about median, altitude, exterior angle, angle sum properties and their applications. - Determining sides of a triangles by using triangle inequality and Pythagoras property. **UNDERSTANDING:** - Distinguish different angles.		- Find the value of unknown angle by using properties of triangle. - Draw median and altitude of different triangles. - Use Pythagoras property in right triangle.

			● Identify different angles formed by transversal. ● Find each element of a triangle by using different properties of triangles. ●		
SEPTEMBER No of Days: 05	**REVISION: TERM-1**				
CONDUCTION OF TERM-1 ASSESSMENT (Second Week of September)					
OCTOBER No of Days: 22	**COMPARING QUANTITIES:** ● Meaning of percentage ● Converting fractions/decimals to percentage ● Converting percentage to fractions/decimals ● Use of percentage ● Ratio to percent ● Increase or decrease as percent ● Profit and loss 　● Simple interest	Students will be able to: . ● Find equivalent ratios and percentage from fraction/decimal and vice-versa. ● Determine profit/loss and simple interest numbers	**KNOWLEDGE:** ● know about percentage and conversion of fractions into percentage **SKILLS:** ● Reasoning Skills ● Analytical Skills ● Critical Thinking ● Observational Skills **APPLICATION:**	● Spatial ● Logical-mathematical ● Interpersonal ● Intrapersonal	Students will be able to ● Convert and compare different quantities such as percentage, ratio, fractions and decimals. ● Apply knowledge of profit/loss and

			● Calculating ratio, proportion and percentage. ● Solving daily life situations and finding simple interest or profit/loss. **UNDERSTANDING:** ● Compare different quantities and determine percentage, profit/loss and simple interest.		simple interest in day-to-day life.
NOVEMBER No of Days: 23	**RATIONAL NUMBERS** ● Positive and negative rational numbers ● Rational no on a no line. ● Equivalent rational numbers.	● Students will be able to define and compare rational numbers ● Students will be able to multiply and divide	**KNOWLEDGE** ● Computing rational numbers between given two rational numbers. ● Adding, subtracting, multiplying and dividing rational numbers.	Logical Mathematical Interpersonal intrapersonal	● Students will be able to: ● Arrange rational numbers in ascending /descending orders. ● Locate rational

	● Comparison of rational numbers ● Rational numbers between rational numbers ● Addition, subtraction, multiplication and division of rational numbers.	rational numbers.			number on number line ● Recognize rational numbers ● Evaluate the compariso n between rational numbers.
	PERIMETER AND AREA: ● Squares and rectangles ● Area of parallelogram and triangle ● Circumference and area of circle ● Application of area and perimeter	● Differentiate area and perimeter ● Find perimeter and area of square, rectangle, parallelogram and triangle **Students will be able to:**	**UNDERSTAND ING** students will be able to find area and perimeter of triangles		● To find the sum,differe nce,produc t,quatient of two rational numbers. ●Determine perimeter and area for a 2D figure. ●Interpret areas of parallelogra m, triangle and circles.

		• Define and differentiate between circumference and area of circle. • Apply knowledge to solve day to day life problems. .			• Stude nt will be able to • Transl ate the uses of area perim eter in the form of examp les. Describe the knowledge of mensuratio n and apply it in day-to-day life problems.

REVISION: PT-2

CONDUCTION OF PT-2 ASSESSMENT (Fourth Week Of November)

DECEMBER No of Days: 11	**ALGEBRAIC EXPRESSIONS:** ● Terms of an expression ● Like and unlike terms ● Types of polynomials ● Term and coefficient of polynomial ● Finding the value of an expression	**Student will be able to** identify the terms of an algebraic expression Differentiate like unlike,monomial,binomial and trinomial. Find the value of and expression	**SKILLS:** ● Reasoning Skills ● Writing Skills ● Critical Thinking ● Observational Skills **KNOWLEDGE:** ● Define constant and variables. ● Brainstorming by comparing constants and variables. **APPLICATION** Discussing about the terms of an expression Identify like and unlike terms Giving examples of different polynomials. **UNDERSTANDING** Classify terms like unlike terms monomial,binomial and trinomials	● Logical-mathematical ● Interpersonal ● Intrapersonal ● Spatial	Students will be able to: ● Identify terms of an algebraic expression. ● Differentiate like and unlike terms. ● Classify monomial, binomial and trinomials.

			SKILLS: ● Reasoning Skills ● Writing Skills ● Critical Thinking **APPLICATION** Expressing large numbers using exponents Solving exponents using laws of exponents. **UNDERSTANDING** Write large numbers in stand form Express numbers using exponents. **KNOWLEDGE:** ● Express the difference between Earth and moon in meters and kilometers.		

JANUARY
No of Days: 21
	EXPONENTS AND POWERS:
	● Exponents
	● Laws of exponents
	● Decimal number system
	    Expressing large numbers in the standard form
		Students will be able to:
		  ● exponents
		  ● Use laws to solve exponents.
		  ● Express large numbers in standard form.
				● Logical-mathematical
				● Interpersonal
				● Intrapersonal
				● Naturalist
				● Spatial
					● Compare different exponential numbers.
					● Apply laws of exponent
					● Express standard form of large numbers.

FEBRUARY
No of Days: 22
	● **SYMMETRY:**
	
	  ● Lines of symmetry for regular polygon
	  ● Rotational symmetry
	  ● Line symmetry and rotational symmetry
		● Know meaning of
		● Distinguish line and rotational symmetry.
		● Find number of lines of symmetry and rotational symmetry for given 2D figures
			● Locate symmetry lines in given figures
			
			● .Differentiating line and rotational symmetry by demonstrating method.
			
			SKILLS:
			● Reasoning Skills
			● Writing Skills
			● Critical Thinking
				● Logical-mathematical
				● Interpersonal
				● Intrapersonal
					Students will be able to:
					  Categorize line and rotational symmetry for a 2D figure.

	REVISION: TERM-2
MARCH	**CONDUCTION OF TERM-2 ASSESSMENT**