

**O.P JINDAL SCHOOL, SAVITRINAGAR, TAMNAR**

**Annual Syllabus Break-up for session 2023-2024**

**Subject : MATHEMATICS      Class : VIII**

Sl.	Month	No. of Instructional Days	No. of Periods	Chapters to be taught	Subject enrichment Activities	Values to be Imparted	Extra content to be taught
1	April	21	14	1. Rational numbers	* To learn addition of rational numbers with the help of number line.	* Students will be able to add, subtract, multiply and divide two rational numbers.	Mental maths
11			2. Linear Equation in one variable	* To find the unknown in Magic square.	* It will help student to solve problems related to daily life like speed and time, distance, boat and stream etc.	Mental maths	
2	June	11	13	3. Understanding quadrilaterals	*To verify that the sum of the measures of the exterior angles of any polygon is $360^\circ$ by paper cutting and pasting.	* It creates a concept that helps to differentiate between polygons and solve related problem.	Mental maths
3	July	23	8	4. Practical geometry	* To make a kite by paper folding and cutting.	*Students will be able to construct triangles and quadrilaterals.	Mental maths
10			5. Data handling	* To represent the marks of different subjects of 1 <sup>st</sup> term and 2 <sup>nd</sup> term of class 7 in a Bar graph.	*Students will be able to find mean, median and mode as well as probability of given data.	Mental maths	
9			6. Square and square root	* To verify that the sum of the first $n$ odd natural numbers is $n^2$ .	*It creates understanding to find square and square of natural numbers.	Mental maths	
4	August	23	9	7. Cubes and cube roots	* To prepare a chart of cube for first 20 natural numbers.	*Students will be able to calculate cube and cube roots of given natural numbers.	Mental maths
17			8. Comparing quantities	*Collect the marks of PT-1 of your classmates and find out the percentage.	*Student will be able to calculate percentage, ratios, profit-loss, discount, VAT etc.	Mental maths	
5	September	12		<b>Revision &amp; Term-1 (Half Yearly)</b>			
6	October	20	17	9. Algebraic expressions and Identities	* Verification of $(a+b)^2 = a^2 + 2ab + b^2$ .	* Students need to be able to read and write expressions and to be skilled in computations and manipulations of algebraic expressions.	Mental maths

			6	10. Visualising solid shapes	*To make a pentagonal pyramid.	* It helps to develop intellectual and logical thinking in students to look 3D objects or shapes.	Mental maths
7	November	13	7	11. Area of polygon	* To show that the area of a rhombus is equal to half the product of its diagonals.	*It helps to create understanding to find area of different polygons.	Mental maths
			8	12. Surface area and Volume of solids	* To verify the formula for surface area of a cuboid by activity method.	*It helps student to find the surface area and volume of solids.	Mental maths
8	December	19	10	13. Exponents and powers	* To prepare a collection of all formulas of exponents and power in a chart paper.	*It help students to abbreviate or write in short something that would otherwise be really long and difficult to write.	Mental maths
			12	14. Direct and inverse proportions	* To develop the concept of inverse variation by activity.	* Students will able to solve problem that is directly or inversely proportion.	Mental maths
9	January	22	14	15. Factorisation	* Collect real life situations and convert into algebraic expressions.	* It helps to simplify expressions, simplify fractions and solve equations.	Mental maths
			8	16. Introduction to graphs	* Locate different quadrants in a graph including the sign of abscissa and ordinate in each quadrants.	*Graph help students to present data that are too numerous or complicated to be described adequately in the text and in less space.	Mental maths
			4	17. Playing with numbers	* To observe the following number patterns and generate it up to next three steps i) $1^2 = 1$ ii) $11^2 = 1\ 2\ 1$ iii) $111^2 = 1\ 2\ 3\ 2\ 1$	*It develop logical reasoning and critical thinking of students and enhance speed of calculation.	Mental maths
10	February & March			Revision & Term-2 annual Exam			

### SYLLABUS FOR EXAMINATION

S. NO.	EXAMINATION	SYLLABUS FOR EXAMINATION
1	Test - 1	Ch-1,2
2	Term -1 (Half yearly Exam)	Ch- 1, 2, 3, 4, 5, 6, 7, 8
3	Test - 2	Ch- 9, 10
4	Term -2 (Annual Exam)	Ch- 3, 5, 9, 10, 11, 12, 13, 14, 15, 16, 17