KOTHARI INTERNATIONAL SCHOOL , NOIDA

ANNUAL ACADEMIC PLAN- IGCSE-2

SUBJECT: MATHEMATICS SESSION: 2023-24

NAME OF THE TEACHER: JAGRITI KALRA

MONTH	CHAPTERS AND CONCEPTS TO BE COVERED	LEARNING OBJECTIVES
MARCH	**UNIT 4** **Chapter - 14** **Further Solving of equations and inequalities**	Learners should be able to: Understand how to derive and solve simultaneous linear equations graphically and algebraically.
APRIL	**Chapter - 14** **Further Solving of equations and inequalities**	Learners should be able to: How to solve linear inequalities algebraically and derive Linear Inequalities and find regions in a Plane. Further to solve quadratic equations by completing the square and using quadratic formula. They will be able to factorise quadratics where the coefficient of x square is not 1.
	Chapter - 13 **Understanding Measurement**	Learners should be able to: Convert between units in the metric system and should be able to find lower and upper bounds of numbers that have been quoted to a given currency. Further solving problems involving upper & lower bounds using conversion graphs to change units from one measuring system to another.
MAY	**Chapter - 14** **Scale drawings, bearings and trigonometry**	In the student should be able to learn about: How to make scale drawings , interpret scale drawings, calculate bearings , calculate sine, cosine and tangent ratios for right angled triangles. Further using these ratios calculating the length of sides and angles of right angled triangles. Students will learn to solve trigonometric equations finding all the solutions between o to 360 degrees. Then calculating the area of a triangle that is not right angled using the sine ratio and using all three ratios together with Pythagoras theorem in three dimensions.

	Chapter - 15 **Scale Diagram and Correlation**	Student should be able to draw a scatter diagram for bivariate data • identify whether or not there is a positive or negative correlation between the two variables. • decide whether or not a correlation is strong or weak • draw a line of best fit • use a line of best fit to make predictions and to decide how reliable your predictions are
	Chapter - 19 **Symmetry**	In this chapter students should be able to • identify line symmetry of two-dimensional shapes and find the order of rotational symmetry of two dimensional shapes .Further to recognise and use symmetrical properties of triangles, quadrilaterals and circles. They will be abe to recognise symmetry properties of prisms and pyramids and then to apply symmetry properties of circles to solve problems.
JUNE **SUMMER VACATION**		
JULY	**Chapter - 17** **Managing Money**	In this chapter students will get the understanding to calculate earnings (wages and salaries) in different situations • use and manipulate a formula to calculate simple interest payable and due on a range of loans and investments • solve problems related to simple and compound interest • apply what you already know about percentages to work out discounts, profit and loss in everyday contexts • use a calculator effectively to perform financial calculations • read and interpret financial data provided in tables and charts.
	Chapter - 18 **Curved Graphs**	In this chapter students will get the understanding to construct a table of values to draw graphs called parabolas • sketch and interpret parabolas • construct a table of values to draw graphs called hyperbolas • interpret curved graphs and use graphs to find the approximate solutions to quadratic equations . Further to recognise, sketch and interpret graphs of functions • estimate the gradients of curves by drawing tangents • use graphs to find the approximate solutions to associated equations • differentiate functions to find gradients and turning points.

AUGUST	**Chapter - 20** **Histograms and frequency distribution diagrams**	Students should be able to: construct and use histograms with equal intervals and construct and use histograms with unequal intervals . To draw cumulative frequency tables and use tables to construct cumulative frequency diagrams • identify the modal class from a grouped frequency distribution.
	Chapter - 21 **Ratio, Rate and proportion**	In this chapter students will learn how to: • record relationships using ratio notation • find one quantity when the other is given • divide amounts in a given ratio • make sense of scales on maps, models and plans • read and interpret rates • calculate average speed • solve problems using distance–time and speed– time graphs • understand what is meant by direct and inverse proportion • solve problems involving proportionate amounts • use algebra to express direct and inverse proportion
	Chapter - 23 **Vectors & Transformation**	In this chapter students will learn how to: reflect, rotate, translate and enlarge plane shapes • recognise and describe transformations • use vectors to describe translations • add and subtract vectors and multiply them by scalars • calculate the magnitude of a vector and to represent vectors in conventional ways • use the sum and difference of vectors to express them in terms of coplanar vectors • use position vectors • recognise and use combined transformations • precisely describe transformations using co-ordinates
SEPTEMBER	**MOCK/ HALF YEARLY EXAMINATION**	
REVISION FOR BOARD EXAMINATION		