



**MAHARAJA AGARSAIN PUBLIC SCHOOL**  
**a Cambridge International School**  
**Ashok Vihar, Delhi**  
**REVISED AS PER CBSE**  
**CLASS - 9**  
**SUBJECT-MATHEMATICS**  
**SESSION: 2023-24**

DURATION	SYLLABUS COVERED	SYLLABUS TESTED	SUBJECT ENRICHMENT/PRACTICAL/ ENGLISH/ CONVERSATION/ VISUAL STIMULUS	LEARNING OUTCOMES	RESOURCES	SDG
PT1 (APR -MAY)	Ch1.Number System	Ch1.Number System	Draw a spiral of Irrational Numbers.	Applies logical reasoning in classifying real numbers, and proving their properties in order to use them in different situations.	<a href="https://www.youtube.com/watch?v=lueVrMlmQ2I">https://www.youtube.com/watch?v=lueVrMlmQ2I</a>	LIFE ON LAND
	Ch6.-Lines And Angles	Ch6.-Lines And Angles	Verify angle sum property by paper cutting and pasting.	Applies axiomatic approach and derives proofs of mathematical statements particularly related to geometrical concepts, like parallel lines, triangles etc. in order to solve problems using them.	<a href="https://www.youtube.com/watch?v=c0RWBk6wonk">https://www.youtube.com/watch?v=c0RWBk6wonk</a>	CLEAN WATER AND SANITATION
	Ch.3- Co-ordinate geometry	Ch.3- Co-ordinate geometry	Draw Mirror Image of a point w.r.t. x – axis an y - axis	Develops strategies from understanding of coordinate geometry in order to locate points in a Cartesian plane	<a href="https://www.youtube.com/watch?v=gaH">https://www.youtube.com/watch?v=gaH</a>	LIFE UNDER WATER.

	Ch 5 Euclid geometry			<p>Give examples of theorems, postulates and axioms and differentiate between them with examples</p> <p>Reproduce Euclid's axioms in your own words and give examples for each.</p> <p>List Euclid's five postulates and visualize and illustrate them through a diagram Analyze given statements /postulates and determine if they are extensions of Euclid's postulates Apply Euclid's postulates and prove basic geometrical concepts about lines, points, planes, shapes, etc.</p>	<a href="https://www.youtube.com/watch?v=CYQps3_1-H0">https://www.youtube.com/watch?v=CYQps3_1-H0</a>	QUALITY EDUCATION
	Ch 2 Polynomials		Verify $(a + b + c)^2$ paper cutting and pasting.	Identifies /Classifies polynomials among algebraic expressions in order to apply appropriate algebraic identities to factorise them.	<a href="https://www.youtube.com/watch?v=wSMHWy_IQyA">https://www.youtube.com/watch?v=wSMHWy_IQyA</a>	QUALITY EDUCATION
	Ch.14- Statistics			Represents given data in different forms like, tabular form (grouped or ungrouped), bar graph, histogram (with equal and varying width and length), and frequency polygon in order to analyse given data.	<a href="https://www.youtube.com/watch?v=vOcgQETAy08">https://www.youtube.com/watch?v=vOcgQETAy08</a>	GOOD HEALTH AND WELL BEING
TERM 1(JUNE - JULY		SYLLABUS COVERED TILL MAY.				

PT2 (JULY-AUG)	Ch.12-Heron's Formula	Ch.12-Heron's Formula		Applies appropriate formulae in order to find areas of all types of triangles.	<a href="https://www.youtube.com/watch?v=l4KD7Grk4lQ">https://www.youtube.com/watch?v=l4KD7Grk4lQ</a>	REDUCED IN EQUALITIES LOGO
	Ch.7- Triangles	Ch.7- Triangles Ch.14- Statistics		Applies axiomatic approach and derives proofs of mathematical statements particularly related to geometrical concepts, like parallel lines, triangles, quadrilaterals, circles etc. in order to solve problems using them.	<a href="https://www.youtube.com/watch?v=VA6XGfiqfSw">https://www.youtube.com/watch?v=VA6XGfiqfSw</a>	DECENT WORK AND ECONOMIC GROWTH
HALF YEARLY (SEP)		SYLLABUS COVERED TILL SEPTEMBER				
PT3 (NOV-DEC)	Ch.13 -Surface Area And Volumes	Ch.13 -Surface Area And Volumes		Derives formulas for surface areas and volumes of different solid objects like, cubes, cuboids, right circular cylinders / cones, spheres and hemispheres in order to apply them to objects found in the surroundings. Solve problems based on 3D shapes by applying formulae.	Ch13 <a href="https://www.youtube.com/watch?v=gK9OgZ6eLx0">https://www.youtube.com/watch?v=gK9OgZ6eLx0</a>	SUSTAINABLE CITIES AND COMMUNITIES.
	Ch .4 – Linear Equations	Ch .4 – Linear Equations		Relates the algebraic and graphical representations of a linear equation in one /two variables in order to apply the concepts to daily life situations.	<a href="https://www.youtube.com/watch?v=skC8O86gbKY">https://www.youtube.com/watch?v=skC8O86gbKY</a>	GENDER EQUALITY

	Ch.8-Quadrilaterals	Ch.8-Quadrilaterals	<p>1. Verify quadrilateral formed by joining mid points of a quadrilateral is a parallelogram by paper cutting and pasting.</p> <p>2. Verify mid – point theorem by paper cutting and pasting.</p>	Applies axiomatic approach and derives proofs of mathematical statements particularly related to geometrical concepts, like parallel lines, triangles, quadrilaterals, circles etc. in order to solve problems using them.	<a href="https://www.youtube.com/watch?v=CXNIUvoEIM">https://www.youtube.com/watch?v=CXNIUvoEIM</a>	SUSTAINABLE CITIES AND COMMUNITIES.
PRE FINAL (JAN)	Ch.10-Circles	Ch.10-Circles	<p>1. Verify that central angle made by an arc is double the angle made by the same arc on the circle by paper cutting and pasting.</p> <p>2. Verify that opposite angles of a cyclic quadrilateral are supplementary by paper cutting and pasting.</p> <p>3. Verify that Angles in the same segment are equal by paper cutting and pasting.</p>	Applies axiomatic approach and derives proofs of mathematical statements particularly related to geometrical concepts, like parallel lines, triangles, quadrilaterals, circles etc. in order to solve problems based on them.	<a href="https://dontmemorise.com/courses/circles/#gr ef">https://dontmemorise.com/courses/circles/#gr ef</a>	LIFE UNDER WATER.
FINAL TERM (FEB)	100% SYLLABUS WILL BE REVISED	100% SYLLABUS COVERED TILL DATE WILL BE TESTED				

## **PORTFOLIO ACTIVITIES**

### **TERM 1:**

1. Make a design from land using spiral of rational numbers.
2. Make a logo using triangles on the topic reduced inequaities or any shape that can be converted into triangles and thus find its area.

### **TERM 2:**

1. Make a model on the topic **SUSTAINABLE CITIES AND COMMUNITIES** using 3-D shapes.
2. Make a rangoli using quadrilateral and circles having the objects from under water.

## **MULTIPLE ASSESSMENT ACTIVITIES:**

### **TERM 1:**

- 1.MCQ from Polynomials.
- 2.Make histogram and frequency polygon on any data related to health and well being.

### **TERM 2:**

- 1.MCQ on Surface area and Volume.
- 2.Graph activity on Linear Equations.