INDIAN SCHOOL MUSCAT
DEPARTMENT OF MATHEMATICS
YEAR PLAN (2019- 2020)
CLASS : IX
COURSE STRUCTURE

MONTH	UNIT / CHAPTER	DS MAPPING
APRIL 2019	❖ **BRIDGE COURSE** • Number system- Introduction - BODMAS rule • HCF and LCM • Rational numbers ❖ **NUMBER SYSTEM** • Irrational Numbers • Real Numbers and their Decimal Expansions • Representing Real Numbers on the Number Line • Operations on Real Numbers • Laws of Exponents for Real Numbers	❖ **Relevant topics from the lower classes which need more emphasis for better application in senior classes, are selected and to be taught in this bridge course. This will be done prior to the respective chapters.** ❖ **Hand outs (if necessary) and Worksheets for each topic are prepared and to be given to the students.** ❖ **NUMBER SYSTEM** * Irrational Numbers http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Irrational%20Numbers/shell.html * Rational numbers http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Rational%20Number/shell.html • Operations on Real Numbers http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/operations_on_real_numbers/shell.html
MAY 2019	❖ **BRIDGE COURSE** • Algebraic expression • Factorization ❖ **POLYNOMIALS** • Polynomials in One Variable • Zeroes of a Polynomial • Remainder Theorem • Factorization of Polynomials • Algebraic Identities ❖ **EUCLID'S GEOMETRY** • Euclid's Definitions, Axioms and Postulates • Equivalent Versions of Euclid's Fifth Postulate	❖ **POLYNOMIALS** * Remainder and factor Theorem http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Remainder%20and%20Factor%20Theorem/shell.html * Factorization of Polynomials http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Factorisation%20of%20Polynomial/shell.html • Algebraic Identitieshttp://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/Algebraic%20identities/shell.html ❖ **EUCLID'S GEOMETRY** * Points and lines- concepts and constructions http://172.161.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Points%20and%20Lines%20-%20Concepts%20and%20Constructions/shell.html

	❖ **BRIDGE COURSE** • Lines and angles • Triangles and its properties ❖ **LINES AND ANGLES** • Basic Terms and Definitions • Intersecting Lines and Non-intersecting Lines • Pairs of Angles • Parallel Lines and a Transversal • Lines Parallel to the same Line • Angle Sum Property of a Triangle ❖ **SUMMER VACATION**	❖ **LINES AND ANGLES** * Intersecting lines http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Intersecting%20Lines/shell.html * Properties of angles made by a transversal http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Properties%20of%20Angles%20Made%20by%20a%20Transversal/shell.html
JULY 2019	❖ **LINES AND ANGLES(conti…..)**	* Angle Sum Property of a Triangle http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Sum%20of%20Angles%20of%20a%20Triangle/shell.html
AUG 2019	❖ **COORDINATE GEOMETRY** • Cartesian System • Plotting a point in the Plane if its Coordinates are given ❖ **BRIDGE COURSE** • Simple equations and rearranging ❖ **LINEAR EQUATIONS IN TWO VARIABLES** • Introduction • Solution of a Linear Equation • Graph of a Linear Equation in Two Variables • Equations of Lines Parallel to *x*-axis and *y*-axis ❖ **BRIDGE COURSE** • Congruence of triangles ❖ **TRIANGLES** • Congruence of Triangles • Criteria for Congruence of Triangles • Some properties of a Triangle	❖ **COORDINATE GEOMETRY** * Cartesian System. http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/cartesian_system/shell.html ❖ **LINEAR EQUATIONS IN TWO VARIABLES** *Solutions of a Linear Equation in two variables **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/solution_of_linear_equations_in_two_variables/shell.html** ❖ **TRIANGLES** *Congruence of two Triangles http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Congruence%20of%20two%20Triangles/shell.html

		* Properties of an isosceles triangle http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Properties%20of%20an%20Isosceles%20Triangle/shell.html
SEP 2019	❖ **TRIANGLES(cont.)** • Some more Criteria for Congruence of Triangles • Inequalities in a Triangle ❖ **BRIDGE COURSE** • Squares, square roots, Cubes and cube roots ❖ **HERON'S FORMULA** • Area of a Triangle – by Heron's Formula • Application of Heron's Formula in finding Areas of Quadrilaterals ❖ **REVISION FOR FIRST TERM EXAMINATION** ❖ **FIRST TERM EXAMINATION**	❖ **TRIANGLES** * Greater side has greater angle opposite to it http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Greater%20Side%20has%20Greater%20Angle%20Opposite%20to%20it/shell.html ❖ **HERON'S FORMULA** *Area of a Triangle and related plane figures **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Area%20of%20Triangle%20and%20Related%20Plane%20Figures/shell.html**
OCT 2019	❖ **QUADRILATERALS** • Angle Sum Property of a Quadrilateral • Types of Quadrilaterals • Properties of a Parallelogram • Another Condition for a Quadrilateral to be a Parallelogram • The Mid-Point Theorem ❖ **STATISTICS** • Collection of Data • Presentation of Data • Graphical Representation of Data • Measures of Central Tendency	❖ **QUADRILATERALS** * Properties of a Parallelogram I **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Properties%20of%20a%20Parallelogram%20-%20I/shell.html** * Properties of a Parallelogram II **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Properties%20of%20a%20Parallelogram-II/shell.html** * The Mid-Point Theorem and intercept theorem http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Mid%20point%20Theorem%20and%20Intercept%20Theorem/shell.html ❖ **STATISTICS** * Tabular representation of statistical data http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Tabular%20Representation%20of%20Statistical%20Data/shell.html *Graphical Representation ofstatistical Data http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Graphical%20Representation%20of%20Statistical%20Data/shell.html

		• Measures of Central Tendency http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Measures%20of%20Central%20Tendency/shell.html
NOV 2019	❖ **AREAS OF PARALLELOGRAMS AND TRIANGLES** • Figures on the same base and between the same parallels • Parallelograms on the same base and between the same parallels • Triangles on the same base and between the same parallels ❖ **SURFACE AREAS AND VOLUMES** • Surface Area and Volume of a Cuboid and a Cube • Surface Area and Volume of a Right Circular Cylinder • Surface Area and Volume of a Right Circular Cone • Surface Area and Volume of a Sphere and Hemisphere	❖ **AREAS OF PARALLELOGRAMS AND TRIANGLES** * Areas of parallelograms and triangles http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Area%20of%20Parallelogram%20and%20Triangles/shell.html ❖ **SURFACE AREAS AND VOLUMES** * Volume and Surface Area of a Cuboid **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Volume%20and%20Surface%20Area%20of%20a%20Cuboid/shell.html** * Volume and Surface Area of aRight Circular Cone **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Volume%20and%20Surface%20Area%20of%20Right%20Circular%20Cone/shell.html** * Volume and Surface Area of aRight Circular cylinder http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Volume%20and%20Surface%20Area%20of%20Right%20Circular%20Cylinder/shell.html * Volume and Surface Area of aSphere and Hemisphere http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Volume%20and%20Surface%20Area%20of%20Sphere/shell.html
DEC 2019	❖ **CIRCLES** • Circles and its Related Terms : A Review • Angle subtended by a chord at a point • Perpendicular from the Centre to a Chord • Circle through three points Equal chords and their distances from the centre • Angle subtended by an arc of a circle • Cyclic Quadrilateral	❖ **CIRCLES** * Chord properties of a circle http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Chord%20Properties%20of%20a%20Circle/shell.html * Arc and angle properties of a circle **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Arc%20and%20Angle%20Properties%20of%20a%20Circle/shell.html** *** Sum of opposite angles of a cyclic quadrilateral** **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/cyclic_quadrilaterals/shell.html**

	❖ **WINTER VACATION**	
JAN 2020	❖ **CONSTRUCTIONS** • Basic Constructions • Some Constructions of Triangles ❖ **PROBABILITY** • Empirical Probability	❖ **CONSTRUCTIONS** * Constructions of lines and Triangles http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Construction%20of%20Lines%20and%20Angles/shell.html * Some constructions of Triangles **http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/PH_II/Class-9/some_constructions_of_triangles/shell.html** ❖ **PROBABILITY** * Probability- An Experimental approach. http://172.16.1.12/schcontent/math/content/destination_math/DSM_9_10/src/Class-9/Probability/shell.html
FEB 2020	❖ **REVISION** ❖ **FINAL EXAMINATION**	