



**Pakistan Urdu School- Kingdom of Bahrain**  
**Curriculum Implementation Plan for MATHEMATICS-Grade IX Science**

**1<sup>st</sup> Term**

No.	Month/Week	Starting Date	Topics from Textbook or Others (Specify Unit Titles and Numbers)	National Curriculum References (Competency/Standards/Themes)	Total Periods
<b>UNIT 1 –INTRODUCTION TO MATRICES</b>					
1	April	09/04/2018	Introduction to Matrices	<b>Numbers and Operations (S1)</b> <ul style="list-style-type: none"> <li>Identify the matrices, ways of representing matrices</li> </ul>	10
2			Types of Matrices		
3			Addition, Subtraction & Multiplication of Matrices	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Manipulate different types of sequence and apply operations on matrices</li> </ul>	
4			Multiplicative Inverse of a Matrix		
5			Solution of Simultaneous Linear Equations		
<b>UNIT 2 – REAL AND COMPLEX NUMBERS</b>					
6	April	25/04/2018	Properties of Real Numbers	<b>Numbers and Operations (S1)</b> <ul style="list-style-type: none"> <li>Identify the numbers, ways of representing numbers</li> </ul>	8
7			Radicals and Radicands	<b>Numbers and Operations :</b> <ul style="list-style-type: none"> <li>Compute fluently with fractions and decimals</li> </ul>	
8			Laws of Exponents	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Compute fluently with fractions and decimals</li> <li>Manipulate the different form of numbers and apply operations on the numbers</li> </ul>	
9			Complex Numbers & Operations of Complex Numbers		

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<b>UNIT 10 - CONGRUENT TRIANGLES</b>					
10	May	08/05/2018	Congruent Triangles	<b>Measurements and Geometry (S3)</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	3
<b>UNIT 11 – PARALLELOGRAMS AND TRIANGLES</b>					
11	May	13/05/2018	Parallelograms and Triangles	<b>Measurements and Geometry (S3)</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	3
<b>UNIT 4 – ALGEBRAIC EXPRESSIONS AND ALGEBRAIC FORMULAS</b>					
12	May	16/05/2018	Algebraic Expressions	<b>Algebra (S2)</b> <ul style="list-style-type: none"> <li>Analyze number patterns and interpret mathematical situations by manipulating algebraic expressions and relations</li> </ul>	10
13			Algebraic Formulae		
14			Surds and their Application	<b>Algebra :</b> <ul style="list-style-type: none"> <li>Model and solve contextualized problems</li> </ul>	
15			Rationalization		
<b>UNIT 12 – LINE BISECTORS AND ANGLE BISECTORS</b>					
16	May	23/05/2018	Line bisectors	<b>Measurements and Geometry (S3)</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	2
17		24/05/2018	Angle Bisectors		

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<b>UNIT 5 - FACTORIZATION</b>						
18	May	27/08/2018	Factorization	<b>Algebra (S2)</b> <ul style="list-style-type: none"> <li>Analyze number patterns and interpret mathematical situations by manipulating algebraic expressions and relations</li> </ul>	8	
19			Remainder Theorem and Factor Theorem			
20			Factorization of a cubic Polynomial			<b>Algebra:</b> <ul style="list-style-type: none"> <li>Model and solve contextualized problems</li> </ul>
<b>UNIT 6 - ALGEBRAIC MANIPULATION</b>						
21	September	30/09/2018	Highest Common Factor and Least Common Multiple	<b>Algebra (S2)</b> <ul style="list-style-type: none"> <li>Analyze number patterns and interpret mathematical situations by manipulating algebraic expressions and relations</li> </ul>	9	
22			Basic Operations on Algebraic Fractions			<b>Algebra:</b> <ul style="list-style-type: none"> <li>Model and solve contextualized problems</li> </ul>
23			Square Root of Algebraic Expression			<b>Algebra:</b> <ul style="list-style-type: none"> <li>Analyze number patterns and interpret mathematical situations by manipulating algebraic expressions and relations</li> </ul>

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<b>UNIT 3 - LOGARITHMS</b>					
24	October	14/10/2018	Scientific Notation	<b>Numbers and Operations (S1)</b> <ul style="list-style-type: none"> <li>Identify numbers ,ways of representing numbers and effects of operations in various situations</li> </ul>	7
25			Common and Natural Logarithm		
26			Laws of Logarithm		
27			Application of Logarithm		
<b>UNIT 9 – INTRODUCTION TO COORDINATE GEOMETRY</b>					
28	October	23/10/2018	Distance Formula	<b>Measurements and Geometry (S3)</b> <ul style="list-style-type: none"> <li>Identify measurable attributes of objects, construct angles two dimensional figures.</li> </ul>	6
29			Collinear Points		
30			Midpoint Formula		

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<b>UNIT 13 – SIDES AND ANGLES OF A TRIANGLE</b>					
31	November	18/11/2018	Sides of Triangle	<b>Measurements and Geometry (S3)</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	2
32			Angles of Triangle		
<b>UNIT 14 – RATIO AND PROPORTION</b>					
33	November	22/11/2018	Ratio and Proportion	<b>Measurements and Geometry :</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes</li> </ul>	2

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<b>UNIT 7 - LINEAR EQUATIONS AND INEQUALITIES</b>					
34	December	30/12/2018	Linear Equations	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Identify numbers, ways of representing numbers and effects of operations in various situations</li> </ul>	6
35			Equations involving Absolute Value	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Manipulate different types of sequence and apply operations on the numbers</li> </ul>	
36			Linear Inequalities	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Identify numbers, ways of representing numbers and effects of operations in various situations</li> </ul>	
37			Solving Linear Inequalities	<b>Numbers and Operations:</b> <ul style="list-style-type: none"> <li>Manipulate different types of sequence and apply operations on the numbers</li> </ul>	
<b>UNIT 8 – LINEAR GRAPHS AND THEIR APPLICATIONS</b>					
38	January	08/01/2018	Cartesian Plane	<b>Measurements and Geometry:</b> <ul style="list-style-type: none"> <li>Identify measurable attributes of objects, draw two dimensional figures.</li> </ul>	7
39			Conversion Graphs	<b>Measurements and Geometry:</b> <ul style="list-style-type: none"> <li>Draw and interpret graphs of functions.</li> </ul>	
40			Graphical Solution for Equations in two variables		

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<b>UNIT 15 – PYTHAGORAS THEOREM</b>					
41	January	17/01/2018	Pythagoras Theorem	<b>Measurements and Geometry :</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	2
<b>UNIT 16 – THEOREMS RELATED WITH AREA</b>					
42	January	21/01/2018	Theorems Related with Area	<b>Measurements and Geometry :</b> <ul style="list-style-type: none"> <li>Analyze characteristics and properties of geometric shapes and develop arguments about their geometric relationships</li> </ul>	2
<b>UNIT 17 – PRACTICAL GEOMETRY - TRIANGLES</b>					
43	January	23/01/2018	Construction of Triangles	<b>Measurements and Geometry :</b> <ul style="list-style-type: none"> <li>Identify measurable attributes of objects, construct angles and two dimensional figures,</li> </ul>	12
44		20/01/2018	Figures with Equal Areas		

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