



Pakistan Urdu School- Kingdom of Bahrain

Curriculum Implementation Plan for MATHEMATICS Grade XI Sc.

**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 9 – Fundamentals of Trigonometry</b>					
1	April/4 <sup>th</sup>	23-04-2018	Fundamental Identities	<b>Measurement and Geometry</b> <ul style="list-style-type: none"><li>Recognize trigonometric identities and its relationship.</li></ul>	10
2			Values of Trigonometric Functions		
<b>Unit 10 – Trigonometric Identities</b>					
3	May/ 2 <sup>nd</sup>	06-05-2018	Application of Basic Identities	<b>Measurement and Geometry</b> <ul style="list-style-type: none"><li>Use appropriate laws of trigonometry to solve the triangle.</li></ul>	13
4			Sum , Difference & Product of Sin & Cos		
<b>Unit 11 – Trigonometric Functions &amp; their Graphs</b>					
5	May/4 <sup>th</sup>	23-05-2018	Period of Trig. Functions	<b>Measurement and Geometry</b> <ul style="list-style-type: none"><li>Recognize trigonometric functions, draw and interpret graphs.</li></ul>	8
6			Graph of Trig. Functions		

## 2<sup>nd</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 11 – Trigonometric Functions &amp; their Graphs (Cont.)</b>					
7	Aug./4 <sup>th</sup> 28-08-2018		Graph of Trig. Functions	<b>Measurement and Geometry</b> <ul style="list-style-type: none"> <li>Recognize trigonometric functions, draw and interpret graphs.</li> </ul>	1
<b>Unit 12 – Application of Trigonometry</b>					
8	Aug/4 <sup>th</sup> & Sep/1 <sup>st</sup> 29-08-2018		Law of Sin & Cos	<b>Measurement and Geometry</b> <ul style="list-style-type: none"> <li>Apply trigonometric formulas to find the areas of different triangles.</li> </ul>	13
9			Half angle Formula		
10			Solution of Oblique Triangles		
11			Area Of Triangle		
12			Circles connected with Triangles		
<b>Unit 13 – Solution of Inverse Trigonometric Functions</b>					
13	Sep/3 <sup>rd</sup> 17-09-2018		Domain & Range of Trigonometric & Inverse trigonometric Functions	<b>Measurement and Geometry</b> <ul style="list-style-type: none"> <li>Identify domain and range of trigonometric &amp; inverse trigonometric functions.</li> </ul>	5
14			Addition & Subtraction Formulae		
<b>Unit 14 – Solution of Trigonometric Equations</b>					
15	Sep/4 <sup>th</sup> 24-09-2018		Solution of General Trigonometric Equations	<b>Measurement and Geometry</b> <ul style="list-style-type: none"> <li>Use appropriate laws of trigonometry and solve general trigonometric equation.</li> </ul>	3

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<b>Unit 1 – Number System</b>					
16	Sep/4 <sup>th</sup> 27-09-2018	Rational , Irrational , Real numbers and their properties	<b>Numbers and operation</b> • Identify complex number and their properties and carry out basic operation on complex numbers.	6	
17		Complex numbers			
18		Properties of Complex Numbers			
<b>Unit 2 – Sets , Groups &amp; Functions</b>					
19	Oct/2 <sup>nd</sup> 07-10-2018	Symbolic Logics	<b>Numbers and operation</b> • Identify function, Domain, Co domain and range of the function.	10	
20		Function & its Inverses			
21		Binary Operations			
<b>Unit 3 – Matrices &amp; Determinants</b>					
22	Oct/4 <sup>th</sup> 21-10-2018	Matrices	<b>Numbers and operation</b> • Evaluate determinant, find inverse and rank of matrices.	10	
23		Algebra of Matrices			
24		Determinants			
25		Properties of Determinants			
26		Row & Column operations, Solving system of Linear Equations			

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<b>Unit 4 – Quadratic Equations</b>					
27	Nov/1 <sup>st</sup>  04-11-2018	04-11-2018	Solution of Quadratic Equations	<b>Algebra</b> • Model and solve contextualized problems.	11
28			Solution of Equations Irreducible to Quadratic Equations		
29			Cube roots of Unity , Fourth root of Unity	<b>Algebra</b> • Evaluate cube roots of unity and also fourth root of unity	
30			Polynomial Function	<b>Algebra</b> • Apply remainder and factor theorem to find the first degree polynomial.	
31			Relation between roots & coefficient of Quadratic Equation	<b>Algebra</b> • Model and solve contextualized problems.	

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<b>Unit 4 – Quadratic Equations (Cont.)</b>					
32	Dec/4 <sup>th</sup> 29-12-2018		Nature of roots	<b>Algebra</b> • Form quadratic equation by given roots and also find nature of roots.	4
33			Systems of two equations involving two variables		
34			Problems on Quadratic Equations		
<b>Unit 5 – Partial Fractions</b>					
35	Jan/1 <sup>st</sup> 03-01-2019		Resolution of Rational Fractions into Partial Fractions : (i) When Denominator has only non-repeated linear factors	<b>Algebra</b> • Resolve rational fraction into partial fraction.	4
36			(ii) When Denominator has only repeated linear factors		
37			(iii) When Denominator has only non-repeated irreducible Q. factors		
38			(iv) When Denominator has only repeated irreducible Q. factors		
<b>Unit 7 – Permutation , Combination &amp; Probability</b>					
39	Jan/2 <sup>nd</sup> 08-01-2019		Permutation	<b>Informational Handling</b> • Solve problems involving permutation and combination. • Use various methods to solve probability problems.	
40			Combination		
41			Probability		

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<b>Unit 8 – Mathematical Induction &amp; Binomial Theorem</b>					
42			Principal of Mathematical & Extended Mathematical Induction	<b>Information Handling</b> <ul style="list-style-type: none"> <li>• What is Mathematical Induction?</li> <li>• Tell about principle of mathematical induction?</li> </ul>	13
43			Binomial Theorem		
<b>Unit 6 – Sequences &amp; Series</b>					
44		Jan/5 <sup>th</sup>	Arithmetic Progression	<b>Information Handling</b> <ul style="list-style-type: none"> <li>• Solve real life problems involving Arithmetic and geometric sequence and series.</li> </ul>	16
45		27-01-2019	Arithmetic Mean		
46			Geometric Progression		
47			Geometric Mean		
48			Harmonic Progression		
49			Harmonic Mean		
50			Summation Formula		

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