



**MATHEMATICS SCHEME**  
**S.S.2**

SN	TOPIC	TOPICS
1.	Approximation	<ul style="list-style-type: none"> <li>- Logarithm of numbers greater than one (1)</li> <li>- Logarithms of numbers less than one (1)</li> <li>- Powers and roots of logarithms of numbers greater than one (1), multiplication and division of logarithms of numbers less than one (1)</li> </ul>
2.	Linear Inequalities	<ul style="list-style-type: none"> <li>- Linear inequalities in one variable, combining inequalities, representation of linear inequalities using number lines</li> <li>- Graph of linear inequalities in two variables</li> <li>- Solutions of simultaneous inequalities in two variables, using inequalities to solve practical problems</li> </ul>
3.	Quadratic Equations	<ul style="list-style-type: none"> <li>- Derivation of quadratic formula from the general equation</li> <li>- Word problems leading to quadratic equations</li> </ul>
4.	Probability	<ul style="list-style-type: none"> <li>- Experimental probability</li> <li>- Theoretical probability</li> <li>- Mutually exclusive events (addition of probability)</li> <li>- Independent events (multiplication of probability)</li> <li>- Representation and calculation using TREE diagram</li> <li>-</li> </ul>
5.	Sequence and Series	<ul style="list-style-type: none"> <li>- Arithmetic progression (AP)</li> <li>- Recognition of sequence</li> <li>- Determining the common difference and the nth term of arithmetic progression sum of the n-terms of arithmetic progression</li> <li>- Geometric progression (GP)</li> <li>- The common ratio of a geometric progression</li> <li>- Sum of n-terms of geometric progression</li> </ul>
6.	Quadratic Graph	<ul style="list-style-type: none"> <li>- Using quadratic graph to solve a related equation for example. Graph of <math>y = x^2 + 5x + 6</math> to solve <math>x^2 + 5x + 4 = 0</math></li> </ul>

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7.	Graphical solution of a pair of equation	<ul style="list-style-type: none"> <li>- Solving graphically a pair of equations</li> <li>- One linear one quadratic for example, <math>y = ax^2 + bx + c</math> and <math>y = mx + k</math> where <math>a, b, c, k</math> and <math>m</math> are constants</li> </ul>
8.	Plane geometry	<ul style="list-style-type: none"> <li>- Angle and plane</li> <li>- Congruent triangles</li> <li>- Parallelogram</li> <li>- Intercepts and midpoint</li> </ul>
9.	Angles and Polygon	<ul style="list-style-type: none"> <li>- Sum of interior angles of a polygon</li> <li>- Sum of exterior angles of a polygon</li> <li>- Number of sides of a polygon</li> </ul>
10	Trigonometry	<ul style="list-style-type: none"> <li>- Trigonometric ratio of angle <math>30^\circ, 45^\circ, 60^\circ</math>, etc</li> <li>- Pythagoras theorem</li> <li>- Sine, cosine and tangent of angles from <math>0^\circ - 360^\circ</math>, sine and cosine graphs</li> <li>- Solution of triangles, angles of elevations and depression</li> </ul>
11	Bearings and Distances	<ul style="list-style-type: none"> <li>- Bearings and distances</li> <li>-</li> </ul>
12	Circle Theorem	<ul style="list-style-type: none"> <li>- Steps in a formal proof of a theorem</li> <li>- Steps in solving a rider theorems and riders</li> <li>- Angles at the centre</li> <li>- Circumference of a circle</li> <li>- Angles in the same segment of a circle etc</li> </ul>

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13.		<ul style="list-style-type: none"> <li>- Surface area and volume of solids</li> <li>- Cube, cuboid</li> <li>- Prism</li> <li>- Pyramid</li> <li>- Surface area of frustum of a cone and pyramid</li> <li>- Composite shapes</li> </ul>
14.	Data Presentation	<ul style="list-style-type: none"> <li>- Revision of collection, tabulation and presentation of data</li> <li>- Frequency distribution</li> <li>- Linear graphs, Bar chart (graph) and Histogram</li> <li>- Pie chart</li> <li>- Frequency polygon</li> </ul>
15.	Measurement of Central Tendency	<ul style="list-style-type: none"> <li>- Mean, Mode and Median</li> <li>- Mode from Histogram</li> <li>- Mean and median from tables</li> <li>- Range</li> <li>- Variance and Standard deviation</li> </ul>
16.	Trigonometric ratio $0^\circ < \theta < 360^\circ$	<ul style="list-style-type: none"> <li>- Trigonometric ratios</li> <li>- Graphs of sine and cosine for <math>0^\circ &lt; \theta &lt; 360^\circ</math></li> </ul>

		- Deduction from the sine and cosine graphs
17.	Construction	- Locus of points from 2 lines - Locus of points from 2 points - Locus of points from a constant point