

**ARMY PUBLIC SCHOOL, MUMBAI (2019-2020)**  
**STANDARD CURRICULUM**

**CLASS: XII**

**SUB: MATHEMATICS**

<b><u>S NO</u></b>	<b><u>MONTH</u></b>	<b><u>CHAPTER NAME</u></b>	<b><u>CORE VALUES / VALUES AND SKILLS</u></b>	<b><u>METHODOLOGY</u></b>	<b><u>LEARNING OUTCOMES</u></b>
1.	April	Relations and functions	<ul style="list-style-type: none"> <li>• Self awareness</li> <li>• Confidence and motivation</li> </ul>	<ul style="list-style-type: none"> <li>• Practice of high order thinking skills (hots) questions.</li> </ul>	Students will be able to <ul style="list-style-type: none"> <li>• State whether equation is equivalence or not</li> <li>• Explain different types of functions and difference between them</li> </ul>
2.	June	Inverse trigonometric functions	<ul style="list-style-type: none"> <li>• Team work</li> <li>• Courage</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on use of trigonometry in architecture.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems based on inverse trigonometry</li> </ul>
3.	July	Matrices	<ul style="list-style-type: none"> <li>• Environmental awareness</li> <li>• Understanding</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on application of matrices.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain concept of matrices and different types of matrices</li> </ul>
4.	August	determinants and continuity - differentiability	<ul style="list-style-type: none"> <li>• Patriotism and nationalism</li> <li>• Loyalty, honesty and bravery</li> </ul>	<ul style="list-style-type: none"> <li>• Discussions on contribution of indian mathematicians.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve determinants and explain its properties</li> <li>• Check function is continuous or not and check its differentiability at particular point</li> </ul>
5.	September	Applications of derivatives and integration	<ul style="list-style-type: none"> <li>• Discipline and diligence</li> <li>• Hardwork and sincerity</li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion on use of derivatives in physics.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve word problem based on real life</li> <li>• Find maxima and minima</li> </ul>
6.	October	Definite integrals and area bounded under the regions	<ul style="list-style-type: none"> <li>• Diversity and togetherness</li> <li>• Unity and teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• Explanation on use of integrals in forensic science</li> </ul>	<ul style="list-style-type: none"> <li>• Find area under curve</li> <li>• Solve definite integrals using its properties</li> </ul>

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7.	November	Differential equations and vectors	<ul style="list-style-type: none"> <li>• Gender sensitivity</li> <li>• Respect</li> </ul>	<ul style="list-style-type: none"> <li>• Explanation of difference between equations, expressions and inequalities</li> </ul>	<ul style="list-style-type: none"> <li>• Solve differential equation using different methods</li> <li>• Explain vectors ,its properties and solve questions based on vectors</li> </ul>
8.	December	Three dimension coordinate geometry and linear programming	<ul style="list-style-type: none"> <li>• Perseverance</li> <li>• Patience and faith</li> </ul>	<ul style="list-style-type: none"> <li>• Hots questions and discussions on use of 3d coordinate geometry in real life.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve questions based on LPP graphically and algebraically</li> <li>• Define octants in 3D geometric system</li> </ul>
9	January	Linear programming ( cont) and probability	<ul style="list-style-type: none"> <li>• Effective communication</li> <li>• Intelligence and public speaking</li> </ul>	<ul style="list-style-type: none"> <li>• Real life problem solving of questions using probability.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain conditional probability</li> <li>• Explain independent events</li> <li>• Bayes theorem and its real life word problems</li> </ul>