

**ARMY PUBLIC SCHOOL, MUMBAI (2018-2019)****STANDARD CURRICULUM****CLASS -X****SUBJECT – MATH**

<b>Sr. No.</b>	<b>Month</b>	<b>Topic</b>	<b>Activities</b>	<b>Values</b>	<b>Core Values</b>
1	April	Real Numbers	Interactive interaction, discussion, direct instruction and problem solving. To verify the prime factorization of composite number through activity	Curiosity Team work Logical Thinking Problem solving	<b>Knowledge</b>
2	April	Polynomials	Interactive interaction, discussion, direct instruction and problem solving. To obtain the zeros of a quadratic polynomial Geometrically	Thinking Skills Arithmetic Skills	<b>Knowledge</b>
3	May	Pair of Linear Equations in Two Variables	Interactive interaction, discussion, direct instruction and problem solving. To obtain the conditions for the number of solutions/inconsistency of a pair of linear equations in two variables by an activity.	Time Managements Environment Awareness and conservation	<b>Environmental Awareness</b>
4	July	Triangles	Interactive interaction, discussion, direct instruction and problem solving. 1. To verify the basic proportionality Theorem using parallel lines board 2. Using paper cutting , and pasting method to prove the Pythagoras Theorem	Curiosity Confidence Positive outlook	<b>Positive Attitude</b>
5	August	Introduction to Trigonometry	Interactive interaction, discussion, direct instruction and problem solving. To verify experimentally a trigonometric identity $\sin^2\theta + \cos^2\theta = 1$ .	Innovative mindset Critical Thinking Logical Thinking	<b>National Pride Scientific Temper</b>
6.	September	Statistics	Interactive interaction, discussion, direct instruction and problem solving. To find the median of given data graphically	Environment Awareness and conservation Decision Making Gender Sensitive	<b>Time Management</b>
7	October	Quadratic Equations	Interactive interaction, discussion, direct instruction and problem solving. To obtain the solution of quadratic equation $x^2 + 6x + 8 = 0$ by completing the square method.	Innovative mindset Problem solving	
8	October	Arithmetic Progression	Interactive interaction, discussion, direct instruction and problem solving. Using paper cutting and pasting method , verify that the given sequence	Creating Thinking Reasoning/ logical thinking	<b>Respecting Differences</b>

			is an arithmetic progression. To verify that the sum of first n odd natural number is $n^2$ .		
9	November	Circles	Interactive interaction, discussion, direct instruction and problem solving. To show that length of the tangents drawn from an external point to a circle are equal.	Creative Thinking Network ability	<b>Health and wellness</b>
10.	December	Some Applications of Trigonometry	Interactive interaction, discussion, direct instruction and problem solving. To find the height of an object (Tower)	Environment Awareness and Conservation Long term vision	<b>Camaraderie</b>
11	January	Constructions	Interactive interaction, discussion, direct instruction and problem solving. 1.To draw similar triangle using given ratio. 2. To draw two tangents to a circle from a point outside the circle.	Decision making Confidence Discipline	<b>Self Direction</b>
12	January	Area Related to Circles	Interactive interaction, discussion, direct instruction and problem solving. To obtain the formula of area of the circle. Using paper cutting and pasting method.	Network ability Curiosity Problem solving	<b>Self Direction</b>
13	January	Surface Areas & Volumes	Interactive interaction, discussion, direct instruction and problem solving. 1.To obtain the total surface area of a cylinder by an activity. 2. To obtain the formula for the volume of a right circular cylinder in terms of its height and base radius, using an activity 3. To obtain the formula for the volume of a right circular cone by an activity. 4. To find the surface area of sphere with help of an activity.	Problem solving Creative thinking Reasoning / logical thinking	<b>Self Direction</b>
14	February	Coordinate Geometry	Interactive interaction, discussion, direct instruction and problem solving. To find the co-ordinates of points when a geometrical figure is transferred by moving 7 units down and 5 units to left.	Creative Thinking Environment Awareness and Conservation	<b>Right Conduct</b>
15	February	Probability	Interactive interaction, discussion, direct instruction and problem solving. To be familiar with the idea of probability of an event (using toss of two coins simultaneously).	Teamwork Positive attitude	<b>Right Conduct</b>