

Shri Gujrati English Medium Hr. Sec. School

Class- XII A

Subject- Mathematics(041)

Teacher's Name-Dr. Badri Vishal Padamwar

Lesson plan for the month- April 2020

Week	Chapter/Topic	Learning outcomes	Resources	Activity	Inculcation of art integration
2 nd week	Inverse of Trigonometric Functions.	(1)To study the nature of trigonometric functions. (2)Observe the behaviour of inverse trigonometric functions through graphical representations. (3)To be able to understand how to restrict the domain & co-domain of trigonometric function to make them bijective function to define their inverses.	NCERT Book, NCERT Exemplar Book, Chalk, Duster, Desktop, Wifi Connection.	(1)Write the principle & general value of $\sin^{-1}(-1/2)$, $\operatorname{cosec}^{-1}(-\sqrt{2})$ & $\cos(1/\sqrt{2})$. (2)Prove that (i) $\sin^{-1}x + \cos^{-1}x = \pi/2$ (ii) $\tan^{-1}x + \cot^{-1}x = \pi/2$ (3)Derive the properties of inverse trigonometric functions from that of trigonometric functions. (4)How do we restrict the domain of a T.F. To make it one-one. (5)Find the value of $\cos(\pi/3 - \sin^{-1}(-\sqrt{3}/2))$. (6)Solve for x: $\tan^{-1}(2x) + \tan^{-1}(3x) = \pi/4$ (7)Prove $2\tan^{-1}(1/2) - \tan^{-1}(1/7) = \tan^{-1}(3/17)$.	
3 rd week	Matrices	(1)Introduction of concepts of matrices with definition addition, subtraction, multiplication & transpose of the matrices.	NCERT Book, NCERT Exemplar Book, Chalk, Duster, Desktop, Wifi Connection.	(1)Transpose of a matrix and its properties symmetric & skew-symmetric matrix. (2)Existence of non-zero square matrix whose product is zero.	
4 th week	Matrices	(2)Concept of elementary Row & Column operations. (3)Method of finding the inverse of matrices if exist using elementary operations.	NCERT Book, NCERT Exemplar Book, Chalk, Duster, Desktop, Wifi Connection.	(3)Inverse of matrix using elementary row & column method. (4)Invertible matrix & proof of uniqueness of inverse.	