




TAGORE INTERNATIONAL SCHOOL
VASANT VIHAR, NEW DELHI
PARENTS SYLLABUS (2020-21)
CLASS XII C & D
OCTOBER- MARCH

Subject	Topics Covered / No. of Periods	Learning Outcomes	Activities	Assessments
OCTOBER				
Math	Three Dimensional geometry / 7 periods	Each child will be able to -define direction ratios, direction cosines of a line - state the relation between the direction cosines of a line -find the direction cosines of a line passing through two points -list the various forms of line - apply the various equations of line in solving problems - define skew lines - calculate the distance btw two lines-skew and parallel lines - list various equations of a plane - state the condition for coplanarity of two lines	Quiz https://in.ixl.com/math/class-xii/find-the-component-form-of-a-three-dimensional-vector	Class Work Home Work Google Form

<p>Physics</p>	<p>SEMICONDUCTOR DEVICES(8) Energy bands in semiconductors and</p> <p>(qualitative ideas only) Semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier; Special purpose p-n junction diodes: LED, photodiode, solar cell.</p>	<ul style="list-style-type: none"> ● Explain the band theory and use it to differentiate between metals, insulators and semiconductors ● List the differences between intrinsic and extrinsic semiconductors ● Describe the functioning of p-n junction, depletion layer. ● Graph the behaviour of semiconductor diodes in forward bias and reverse bias ● Explain the construction and working of diodes as rectifiers, solar cell photocell, photo diode LED, diode laser. 	<ul style="list-style-type: none"> • Silicon (Si), germanium (Ge) and arsenic (As) are metalloids that are semiconductors. • Look at your phone for uses of semiconductors!  <p>Write the semiconductor components used in cellphones and write the applications.</p> <p>Practicals:</p> <ol style="list-style-type: none"> 1. To draw the I-V characteristic curve for a p-n junction diode in the forward and reverse bias. 2. To find the focal length of a convex lens by plotting graphs between u & v 3. To find the focal length of a convex mirror, using a convex lens. 	<p>Worksheet Assignment Sheet Reasoning Questions Class Test using Google Forms</p>
<p>Economics</p>	<p>Sustainable development Balance of payments/Foreign Exchange/</p>	<ul style="list-style-type: none"> ● Discuss Current Scenario of pollution and its effect on Indian farmers. ● Discuss Pollution in India ● Define foreign exchange ● Determine the rate of exchange 	<p>Song or Lyrics allow students to showcase talent and simultaneously learn content through preparing songs and lyrics.</p> <p>Application activities:</p> <p>Discussion on the Earth Summit in Rio de Janeiro, Brazil</p>	<p>Worksheet Assignment Sheet(A) Reasoning Questions Class Test using Google Forms</p>

PLACARDS made by students



Chemistry

Co-ordination Chemistry :VBT and CFT (1)

Biomolecules(3)

Carbohydrates
-monosaccharides
Structure of glucose
Protein-Types,enzymes,
Denaturation of protein
Nucleic acid DNA & RNA

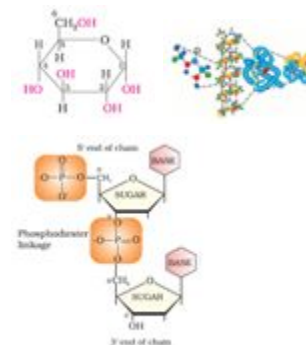
Surface chemistry
Adsorption and absorption
Characteristics of adsorption (1)
Classification of colloids(1)
Coagulation

Understand the nature and geometrical shapes of complexes by VBT,CFT.

Define bio-molecules Like carbohydrates,Protein & nucleic acid
Explain the reactions showing linear chain and-OH group in glucose
Explain the difference between DNA and RNA
Appreciate the role of these Biomolecules In biosystem

Describe interfacial phenomena and its importance.
Distinguish between adsorption and absorption.
Characterize physisorption and chemisorption.
List at least three properties of colloids and their applications

Draw the shape of $[\text{Ni}(\text{CN})_4]^{2-}$



Analyze the structure of biomolecules and their properties.

Outline the properties of colloids (experiment Tyndall effect)
preparation of sols (jelly)

Google Form (MCQ)
Worksheet
Assignment

	Peptisation(1) Solid state(1)	Demonstrate an experiment to show Tyndall effect Classify solids on the basis of binding forces Understand structure of solids and unit cells,lattice,	Application in daily life (Dialysis,purification) Practicals: 1. Calculate Rf values of different dyes present in mixture 2. Find out the molarity of given KMnO_4 solution by using standard M/10 mohl solution	
Computer Science	Joins in SQL (Recapitulation) Cartesian Product Table Aliases Equi Join, Natural Join Additional search conditions in joins Interface Python with MySQL Connecting MySQL with Python Parameterized queries Insert and update queries	The students will be able to: <ul style="list-style-type: none"> Recapitulate the joins and queries Apply different types of joins on multiple tables The students will be able to : <ul style="list-style-type: none"> Connect MySQL with Python Perform various queries on connectivity 	The students will: <ul style="list-style-type: none"> Create two tables and perform queries on both Access multiple records from both the tables using joins The students will connect a table with a python interface and perform queries on it.	<ul style="list-style-type: none"> Google Forms Assignments Class tests Practicals done in the class
Psychology	Revision of the entire Syllabus	<ul style="list-style-type: none"> Association with keywords Clarification of any concepts that are still not clear Learning of Definitions, Acronyms and Psychologists names and contributions CBSE Sample Paper introduction 	Practice tests Quizzes Topic Discussions	Class Tests Worksheets CBSE Sample paper
English	Revision	Each student will be able to attempt CBSE previous years' question papers.	Quizli Peer Teaching	Class Work Home Work

		Each student will be able to answer all the questions posed to them in class.	Flipped Class	Worksheets
Biology	BIODIVERSITY/8 FINAL DRAFT submission of the Projects by ach student./ 2	Each child will be able to: <ul style="list-style-type: none"> Specify the levels of biodiversity present. Explain the distribution of biodiversity along temperate and tropic regions. Specify the correlation between stability of ecosystem and species richness. List & explain the causes of biodiversity loss. Explain the conservation strategies of biodiversity. 	<p>ALL- The introduction to biodiversity using mythological character. Presentation on the Biodiversity https://www.slideshare.net/nayak.tu/sharkanti5/ppt-of-biodiversity</p> <p>Questions - Based on species area relationship Causes of biodiversity loss Strategies of biodiversity conservation & Reflecting on the pie charts based on biodiversity plants, invertebrates & vertebrates.</p> <p>1. Practical activity-Study the water samples from two different location for pH, turbidity & microbes in it. 2. Pollination of flowers by wind & insects.</p>	<p>Google docs Google forms Making mind maps on the sub concepts of the topic</p> <p>Submission of Projects (Final)</p> <p>Submission of File work.</p>
NOVEMBER				
Math	<p>Three Dimensional geometry / 2 periods(continued)</p> <p>Relations and Functions(6 periods)</p>	<p>Each child will be able to</p> <ul style="list-style-type: none"> - state the types of relations ie , reflexive , symmetric and transitive - prove whether a given relation is an equivalence relation (one which satisfies all three above) - write the equivalence classes - state the types of functions, one -one and 	<p>Lab Activity: To verify that the relation R in the set L of all lines in a plane , defined by $R = \{ (l,m) : l \parallel m \}$ is an equivalence relation.</p> <p>Lab Activity: To demonstrate a</p>	<p>Class Work Home Work Google Form</p>

		<p>onto</p> <ul style="list-style-type: none"> - prove whether a given function is one one onto or not - prove whether a given function is bijective (one-one and onto) 	function which is not one-one but is onto	
Physics	<p>Atomic nucleus(3)</p> <p>Composition and size of nucleus Nuclear force</p> <p>Mass-energy relation, mass defect,nuclear fission, nuclear fusion.</p>	<ul style="list-style-type: none"> ● Analyse the structure of atom, size of nucleus, composition of nucleus-protons and neutrons ● Explain Alpha particle scattering experiment ● Explain nuclear instability-radioactivity. Describe Mass energy relation, mass defect, binding energy per nucleon. ● Explain nuclear forces, nuclear reactions- fission and fusion 	File work and Activity file work completion and submission.	Worksheet Assignment Sheet Reasoning Questions Class Test using Google Forms
Economics	India's relation with China and Pakistan	<ul style="list-style-type: none"> ● Analyze India's relation with neighboring countries, its development vis a vis development experience of neighbors. 	Draw pictures to show the different currencies and also the products that are exchanged	<ul style="list-style-type: none"> ● Assignments on Google ● Classroom ● Oral questioning ● collectively summarizing ● Google Forms - Assessment
Chemistry	<p>Interatomic force, Types of solids,Packing in solids(2)</p> <p>Density calculation</p>	<p>Describe packing patterns in solids in 2D and 3D.</p> <p>Calculate density of solids with the help of length of unit cell</p>	Short test	Assessment -Google form and doc

	Common defects In Solids (2) Revision	Explain the type of defects in solids Unit wise recapitulation of key concept Practice of Questions based on analysis		
Computer Science	Working on CBSE Program and Project Files Revision of all the chapters based on Python	The students will be able to clarify their doubts while creating the project file. They will be able to recapitulate previous done contents.	<ul style="list-style-type: none"> ● Group Discussion ● Practicals in Python ● Flipped learning 	<ul style="list-style-type: none"> ● Class tests ● Practicals done in the class ● Google forms
Psychology	Revision of the entire Syllabus	<ul style="list-style-type: none"> ● Association with keywords ● Clarification of any concepts that are still not clear ● Case studies practice ● EPQ Test for Practicals 	Practice tests Quizzes Case studies Discussions	Class Tests Worksheets Case studies
English	Revision	Each student will be able to attempt CBSE previous years' question papers. Each student will be able to answer all the questions posed to them in class.	Quiz Peer Teaching Flipped Class	Assessment-Sample Paper
Biology	Biodiversity & Its Conservation (Contd)/2 Practical activity/2	<ul style="list-style-type: none"> ● Identifying the conservation sites Exsitu as well as insitu ● Discussion on climate change. 	Students will create a digital poster on Biodiversity conservation of Sikkim highlighting endemic trees and animals using Indian Art form (Gonda art.) Students will also	Google docs google forms as a short assessment test.

	REVISION Unit wise	<p>Recapitulate the content information of each topic.</p> <p>Apply & analyze each concept by doing Hots.& comprehension based questions.</p>	<p>specify the latitude and the latitude of the area.</p> <p>Practical activity- Study of Meiosis from permanent slides.</p> <p>File work completion</p> <p>Short test- unit wise</p> <p>Feedback on the responses</p>	
DECEMBER				
Math	Revision	Revision of all the topics by doing practice assignments	Pre board Examination	Sample Paper and previous years papers
Physics	Revision	Unit Wise test	Pre board Examination	Previous years board papers
Economics	Revision	<p>Unit wise</p> <p>Apply & analyze each concept by doing Hots.& comprehension based questions.</p>	Pre board examination	Previous year papers
Chemistry	Revision	Unit wise practice test	Pre board examination	Test papers based on board pattern

Computer Science	Revision	The students will be able to recapitulate previous done contents.	Pre Board Examination	<ul style="list-style-type: none"> ● Sample Papers ● Previous years' papers
Psychology	Revision of the entire Syllabus	<ul style="list-style-type: none"> ● Clarification of any concepts that are still not clear ● Case studies practice 	Practice tests Quizzes Case studies Discussions	Full syllabus Mock Test papers Worksheets Case studies
English	Revision	Each student will be able to attempt CBSE previous years' question papers. Each student will be able to answer all the questions posed to them in class.	Pre Board Examination	Sample Papers
Biology	Revision - Full syllabus	Recapitulate the content information of each topic. Apply & analyze each concept by doing Hots.& comprehension based questions.	Complete syllabus test as per syllabus.	Test Papers