

TAGORE INTERNATIONAL SCHOOL VASANT VIHAR, NEW DELHI PARENTS SYLLABUS (2022-23) CLASS XII C & D April - March

April				
Subject	Topics to be Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	 Continuity and Differentiability Bridge course on differentiation(Chain rule, Exponential and logarithmic functions and their differentiation) Derivatives of implicit functions Derivatives of inverse trigonometric functions Logarithmic differentiation Derivatives in parametric form Higher Order Derivatives Limits(Bridge course) Continuity Differentiability Application of Derivatives Bridge course on trigonometric equations and straight lines. 	 Each student will be able to: recall the chain, quotient and product rule. list the properties of logarithms. analyze the graphs of Exponential and Log functions. solve questions on derivatives involving Exponential and Log functions. find the derivative of implicit function and inverse trigonometric functions. use inverse trigonometric functions. use inverse trigonometric functions to find derivatives. apply the concept of logarithms to find derivative of functions of the form y = u(x)^{v(x)}. find derivatives of functions in parametric form. find higher order derivatives. recall the concept of limits. define continuity of a function. 	 Activity: To sketch the graphs of a^x and log_a x, a > 0, a ≠ 1 and to examine that they are mirror images of each other. Flipped Learning: Read the text from NCERT related to derivatives in parametric form, second order derivative and continuous functions. Videos related to derivatives and continuous functions. Videos related to derivatives and continuous functions. Watch the video on increasing and decreasing functions. Handout to understand the equation of tangent and normal. Art integration Identify Increasing and decreasing functions from Madhubani paintings. 	Short test NCERT Questions(Class work/Homework) Google forms Assignment Case study

	 Increasing and Decreasing Functions Tangents and Normal 	 find points of discontinuity. describe continuous functions graphically. define differentiability of a function at a point. examine if a function is differentiable at a given point or not. explain the concept of critical points. determine critical points of a function both algebraically and graphically. identify the function to be increasing and/or decreasing. find the intervals in which the function is increasing or decreasing. determine from the graph of a function, the intervals where it is increasing or decreasing. recall the relation of derivative at a point with the slope of tangent. find the slope of tangent and normal and hence their equation. 		
English	Prose Lost Spring	 Each student will be able to comprehend the text and answer questions(Short,long and value based) Justify the title Interpret the metaphorical statements Comment on the paradoxes found in our society 	Flipped Learning <u>https://www.youtube.com/watch?v=ZQ-wxr-2K98</u> (Bangle makers of Firozabad) <u>https://youtu.be/K9I0K8Of7aU</u> (Reality of Ragpickers) Art Integration Create a poster on 'The Evils of Child	Worksheet Analytical Questions NCERT Questions Google forms Periodic test

	 develop sensitivity towards the problems of child labour. 	Labour'	
Third Level	 Each student will be able to comment on the human tendency to constantly move between the past, the present and the future comment on the intersection of time and space in the story. analyze how an author's choices concerning how to structure a text, order events within it (e.g.parallel plots), and manipulate time (e.g., pacing, flashbacks) justify the statement in the context of the chapter support philately as a hobby that helps keep the past alive and highlight other ways in which the past can be kept alive. appreciate what it might be like to discover a way to time travel contrast life in the United States in 1894 with life today 	https://youtu.be/I7Uv2loGGVk (Documentary on time travel) Class Discussion: • Brainstorm and record five insecurities that grip man in the modern world.	
Poetry An Elementary school classroom in a slum Writing Skill Article	 Format, content and expression 	DELETED <u>https://youtu.be/r-q5V6LDxEY</u> (Reference for article writing) Urban Waste Management : It's time to think different	

Physics18 classes Electrostatic Potential and Capacitance. Electric Field Electrostatics Equipotential Electrostatic Potential Electric Charges	 Determine the variables that affect how charged bodies interact. Predict how charged bodies will interact. Describe the strength and direction of the electric field around a charged body. 	https://www.youtube.com/embed/yU5kP oc7sL4 (touchscreen laptops, cell phones) Research Resource Link : https://www.redzone2u.com/all-in-on e-pos-terminal-touch-screen-monitor	 Worksheets Lab activity MCI assessment Class Test Google form Diksha Practice Module
 Parallel Plate Capacitor Capacitance RC Circuit Circuits Resistivity Resistance Circuits Ohm's Law Circuits Current Kirchoff's laws Metre bridge Potentiometre	 Use free-body diagrams and vector addition to help explain the interactions. Determine the variables that affect the strength and direction of the electric field for a static arrangement of charges. Investigate the variables that affect the strength of the electrostatic potential (voltage). Explain equipotential lines and compare them to the electric field lines. For an arrangement of static charges, predict the electric field lines. Verify the prediction using vector addition. Practical : To determine resistivity of two / three wires by plotting a graph for potential difference 	Concept map for all the related, relevant formulae. Capacitors using Comic strip:	

		versus current. To verify the laws of combination (series) of resistances using a metre bridge. To compare the EMF of two given primary cells using potentiometer.	Independent Inquiry activity resources and questions. Battery Voltage: Learning Goals Do the small blue spheres represent positive or negative charges? Research Resource Link : https://testbook.com/blog/meter-bridge-experiment/	
Chemistry	Haloalkanes and haloarenes Classification Types and Methods of preparation Physical and chemical properties Stereochemical aspect of Alkyl halides SN1 andSN2 mechanism Chemical properties of	Each child will be able to: •Follow IUPAC rules of nomenclature of these organic compounds. •Classify haloalkanes and haloarenes into various categories. •Enlist at least four methods of preparation of these compounds (two each) •compare Physical properties of haloalkanes and haloarenes. •conceptualise o-p substitution of haloarenes	Model of enantiomers to understand the concept of optical activity instructional Videos: <u>-https://www.youtube.com/watch</u> ?v=h5xvaP6bIZI (SN2 Mechanism)	 Worksheet – short questions Google form Worksheet – Objective questions (Assessment) Assignment In text practice questions

	haloarenes Alcohol,Phenol, Ethers nomenclature and methods of preparation physical properties chemical properties mechanism of important reactions comparing alcohols and phenols Ethers Preparation and properties	 Each child will be able to: State rules for nomenclature of these organic compounds. Describe methods of preparation of these compounds (at least two) Discuss and compare Physical properties of alcohol and phenol Explain ring substitution of phenol and ethers Predict major products in the reactions of phenol Outline industrial method of preparation of ethanol and ,phenol Appreciate use of organic compounds in everyday life. 	https://www.youtube.com/watch?v=Jmc VgE2WKBE (SN1 Mechanism) Create a comic strip to show reactivity of ethers. Study of Antiseptic properties of phenol in dilute solution https://www.youtube.com/watch?v=eC0 -ANompz8&list=RDCMUC4TkXPuAVne UYNWPVQRmyyg&start_radio=1&t=61 https://www.youtube.com/watch?v=qbY XVztddJs	 Google form Worksheet – Objective Class test
Computer Science	 UNIT 1: Programming and computational thinking Ch : Revision Tour (Bridge Course) Revision of Python basics Flow of Control Lists and Tuples and methods like len(), index(), sort(), sorted(), count(0 etc Dictionaries methods like keys(), values(), popitem() etc File handling: Text Files-(5 periods) 	 Each student will be able to: use keywords and differentiate among various tokens. implement matrices using python nested lists Implement mutable and immutable data type concepts in programming Each student will be able to- read/write text files read files letter by letter/word by word/sentence by sentence 	Mutable/Immutable Data objects 4 STRING TUPLE UST DICTIONARY IMMUTABLE COLLECTION Learning Activity: Implementing lists and tuples to solve various codes. Using predefined methods like sort(), reverse(), index() etc in programming Teacher's Resources https://docs.google.com/presentatio n/d/1-hvHjtU5becVKUIf-HIsZnacnHhh	 Worksheets Assignments in Google Classroom Error/ output based assignments Weekly test Functions, text files, Binary files

	open and close a file, read, write, and append to a file, standard input, output, and error streams, relative and absolute paths. Binary Files-(10 periods) Basic operations on a binary file: Open (filename – absolute or relative path, mode) / Close a binary file, Pickle Module – methods load and dump; Read, Write/Create, Search, Append and Update operations in a binary file. Basic operations on a binary file: Open (filename – absolute or relative path, mode) / Close a binary file, Pickle Module – methods load and dump; Read, Write/Create, Search, Append and Update operations in a binary file, Pickle Module – methods load and dump; Read, Write/Create, Search, Append and Update operations in a CSV FILES Introduction (3) Reader, writer, writerows()	 Each student will be able to- Create Binary Files apply tell() and seek() for random file pointer movement insert and display records Search Records Modify records Delete Records 	UWeigYvuyxZOP40/edit?usp=sharin g Worksheets Lab Assignments Quizzes Teacher's resource https://docs.google.com/presentatio n/d/1xhEwfH1fyRJ7UDP-2NZ1NjXL10 yUSLHD/edit?usp=sharing&ouid=115 343870033980011109&rtpof=true&sd =true	
Economics	Government Budget and the Economy- Meaning Objectives Structure Public revenue & Public expenditure	Each student will be able to: Identify the spending categories and major revenue sources in the Union budget State the various objectives of the Budget.	 Prepare a budget of your own assuming ` 1000 pocket money. Newspaper articles- note the impacts on – a) farmers b) GST collection c) Introduction of RBI Bitcoins 	Class tests Worksheets Google forms Peardeck

Types of deficit Meaning Objectives Structure Public revenue & Public expenditure	Define fiscal policy, identifying the roles of tax rates and government spending Differentiate between the three types of budget.	d) Health Designing the budget as presented in the Parliament using Worli art.	Nearpod Kahoot quiz
FIVE YEAR PLANS a. Common Goals of Five Year Plans Meaning of Five Year Plans b. Objectives of Planning. c. Analyzing the importance of Planning in development. d. Features of Economic Policy under Planning till 1991. e. Achievement of the Goals of planning f. Failures of Planning	The importance of planning in life-Individual as well as an economy To comprehend the meaning of planning by think pair and share method. Identify the goals of five year plan Analyze the importance of planning in development and the achievements as well as the failures of planning	Find the first chairman of the planning commission and when it was established. Why was there a need to concentrate efforts into agriculture in the first plan? Art integration Experiential learning Group discussions	Worksheets Google forms Peardeck
New Economic Policy 1991 Liberalization Globalization Privatization Reasons for adoption of the New Economic Policy	Identify and discuss the causes for the adoption of the New Economic policy. 1. Critically understand the background of the reform policies. 2. Critically point out the mechanism through which reform policies were introduced. 3. Discuss the causes for the adoption of the New Economic policy.	Debates 1. watch the video and understand the need for reforms: https://www.youtube.com/watch?v=lzW OsS3D0l4 2. watch the video and analyze the changes adopted during reforms. https://www.youtube.com/watch?v=Oqc yjiZoXiY Interview of Dr. Manmohan Singh 4. watch the video and understand the concept of liberalization https://www.youtube.com/watch?v=JW GV4OWnKlw	Class tests Worksheets Google forms Peardeck Nearpod Kahoot quiz

		 4. Comprehend the process of globalization and its implications for India. 5. Be aware of the impact of the reform process in various sectors. 6. Identify and discuss the causes for the adoption of the New Economic policy. 	On Liberalization Mind map: Observe around you—you will find State Electricity Boards (SEBs),BSES and many public and private organizations supplying electricity in a city and states. Compare the differences .There are private buses on roads alongside the government bus services? Why has private transport increased? Case study-Air India or BPCL Art Integration	
Psychology	 Chapter 1 – Variations in psychological attributes Individual differences in Human Functioning Assessment of Psychological Attributes Intelligence Theories of Intelligence Culture and Intelligence Emotional Intelligence 	 Each student will be able to: Understand how individuals differ from one another. Identify different psychological attributes and use various methods to assess these psychological attributes Explain how psychologists assess intelligence to identify mentally challenged and gifted individuals 	 Using Multiple Intelligence theory as base – Interview your 5 friends and evaluate the areas possessed by them. Identify the top 3 competence/ capacity you have learnt from your culture and explain with highlighting real-life incidents from your life. Write a real-life story of a person who is successful because of his/her EQ. 	 Assignment Group Discussion s Kahoot Quiz Class Test

	 Special Abilities Creativity Practical – Raven's Standard Progressive Matrices (RSPM) 	 State how intelligence has different meaning in different cultures State the diff. between intelligence and aptitude Discuss the relationship between culture and intelligence Explain the importance of emotional intelligence for being successful 		
Biology	REPRODUCTION IN HUMANS- Classses-9 classes Pre fertilization events- 1.The male reproductive system, 2Female reproductive system, 3. Gametogenesis, 4. Menstrual cycle, Fertilization Post fertilization events- 5.Pregnancy & embryonic development 6.Parturition	 Each child will be able to- Explain the structure of male & female reproductive system. Graphically explain gametogenesis Specify the role of hormones in the process of gametogenesis. Relate the changes taking place during various phases of menstruation to changes in the hormones in female reproductive system 	For the flipped learning- https://www.slideshare.net/neelamdevp ura/human-developmental-biology Gametogenesis and oogenesis,https://www.youtube.com/watch?v=tOl uxtc3Cpw menstrual cycleMake a graphic organizer – Venn diagram onImage: Complete Barrier Barrie	Short test based on uterine cycle , embryogenesis & gametogensis using Google form Google docs for assignment.

	List the stages of embryogenesis & fetal developments in uterus after pregnancy & at the time of parturition	Differentiate sperm & female gamete on the basis of structure & function https://www.youtube.com/watch?v=mVu tXcycUjQ Video on stages of growth of human fetus. Activity - Group activity Make a flow mind map on the events of fertilization & post fertilization events Extended learning activity Research on the traditional information used (any five) to check abortion.	
Reproductive Health (4 classes) 1. Reproductive health- Problems & Strategies 2. Population Explosion & birth control 3. 4. Sexually transmitted diseases 5. Infertility	 Each child will be able to- Discuss the issues related to reproductive health in humans Specify the factors responsible for STD,s List the various methods of birth control & their functioning Specify the method for assisting infertile couples for successful child birth. 	https://www.quantamagazine.org/choos y-eggs-may-pick-sperm-for-their-genes- defying-mendels-law-20171115/?fbclid= IwAR0JreK7Ol2id4626RrQH2BtFJSS2 NAmHsIS9EakjokKE8rp9FxYKz7KBto How egg participates in selection of sperm? Practical activity 1.Observations of slides (T.S.male & female gonads,& blastula slide) virtual slides/ permanent slides & draw the labelled diagrams of each slide observed	

UNIT-GENETICS and EVOLUTION Principles of Inheritance (9 classes) 1. Mendel's laws of Inheritance-	 Each child will be able to- Recall various laws. Explain the method used by Mendel in his experiments. Interpret the law by studying the ratios of F_{2.}generation. 	 For flipped learning- Class discussion on Reproductive health problems & need to develop strategies Completing graphic organizer on ART and Birth control measures. 	Google docs, Google form
2. One gene Inheritance		ART INTEGRATION- Design a poster for creating awareness on reproductive health of females in India.For the flipped classes: www.flipcart.com.org.nz/.inheritanc e/ on Mendelhttps://www.youtube.com/watch?v= cWt1RFnWNzk Mendel's expt.Activity- Individual List alternative form of each trait studied by Mendel & make a flow chart on Mendel's work.Solve the given crosses based on two gene inheritance.Write the conclusions based on F I & F 2 generation for each given problem based on one gene inheritance.	

Мау					
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments	
Mathematics	 Application of Derivatives Maxima and Minima Integrals Integration by substitution Integration by Trigonometric Substitution Special integrals Integration by parts 	 Each student will be able to: identify the points of local maxima and local minima graphically and algebraically. state the first and second derivative test to find points of local maxima and minima. apply the first and second derivative test to examine local maxima and local minima. differentiate between absolute and local maxima and local minima. use derivatives to find points of absolute maxima and minima. use derivatives to find points of absolute maxima and minima. use derivatives to find points of absolute maxima and minima. use derivatives to find points of absolute maxima and minima. apply the concept of max/min to solve word problems. define the concept of antiderivative. learn the integral of basic functions by method of inspection. integrate by substitution. apply the method of substitution to solve problems of integration. state special integral formulae. apply special integral formulas to find the integral. state the formula for Integration by parts. integrate using the method of Integration by parts. 	 Math Lab Activities To understand the concepts of local maxima, local minima and point of inflection. To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner. Flipped learning: Read solved examples from NCERT book. Videos on Maxima, Minima and Integrals. Handouts on Maxima/Minima and integrals. 	Short test NCERT Questions(Class work/Homework) Google forms Assignment Case study Periodic Test-1	

English	Prose • Deep Water	 Each student will be able to Describe the plot and Theme of the lesson Sequence events that took place in the lesson Write answers long-short-reference to context analyze how clinging to past fears can spoil one's present 	Flipped learning https://youtu.be/xrWvPo-KaVs (TED Talk on how to overcome fear by Trevor Ragan) A class discussion on 'Overcoming fear is necessary for growth' Independent Learning https://www.mind.org.uk/media/7065/ph obias-2021.pdf (Understanding Phobias) https://www.funtrivia.com/trivia-quiz/Sci Tech/Everyones-Afraid-Of-Something-1 48707.html (Fun Trivia Quiz)	Worksheet NCERT questions Quiz Google forms
	• The Tiger King	 Each student will be able to Infer the pun in the title Attempt critical analysis of the theme Appreciate the satire on the corrupting influence of power Comment on the dramatic irony in the plot(Kinds of Irony) Identify subtle tones of humour 	https://youtu.be/33TmXRtG_dQ (Plight of depleting tiger population) https://youtu.be/RZaSYUxwRYM (History of hunting for pleasure during the British Rule)	Written assignments
	PoetryKeeping Quiet	 Each student will be able to Recall and identify poetic devices used 	Flipped learning : Video Resources https://youtu.be/EWXdTwFHETA (What if all humans disappeared from the Earth)	

		 Infer symbolism used in poetry Analyze the theme of the poem- necessity of intuitively following the adage 'Live and Let live'. Critically evaluate impact of human actions on earth and various Species 	Class discussion on the topic Man needs Earth not vice-versa Raise a debate on –'War has no Winners' Ukraine -Russian https://youtu.be/LK6Aek7gBbo	
W Le	/riting Skill etter to the Editor	Format, content and expression		
Pr	rose attrap	 Interpret title of the lesson Sequence the events Identify plot and theme Evaluate whether the peddler was honest or a cheater Synthesize possible alternate end of the story 	Brainstorming on the following questions. Are you tempted by any thing in life or have you fallen to any of the temptation which made you do even wrong? Do you think a sense of guilt after committing a crime is punishment in its own right? Can a person ever change his perspective towards life? • Vocabulary enrichment Independent Learning Link: htps://www.youtube.com/watch ?v=pGgnyj8Oyvo	

			How one act of kindness a day can change your life? Or Monologue on understanding your faults and its redemption	
Physics	18 olossos	Calculate the force experienced by a	WAR of Currents	Liveworksheet:
	18 classes Moving Charges and	moving charged particle in a crossed electric and magnetic field	Dialogue between Edison and Tesla using pictures.	https://www.livework sheets.com/ao14707
	Magnetism	Solve numerical based on Lorentz force		<u>14ii</u> Practice Module on
	Magnetic Force Lorentz Force Magnetic force on a current carrying	Explain the working of a velocity selector.		Diksha
	conductor Motion in a magnetic field	State Biot Savarts law	I am o buincuman How can you change	nttps://diksna.gov.in/r esources/play/collecti on/do_31310347539
	Cyclotron Galvanometer Conversion of galvanometer	Express it mathematically in vector notation	Testal Socily care about the money and resources!	<u>90656001756?conte</u> <u>ntType=TextBook</u>
	into ammeter and voltmeter.	Apply Biot Savart law to calculate the magnetic field due to different current carrying elements.		Practice module 2: https://diksha.gov.in/r
	Faradays laws	State Ampere's circuital law		on/do 31310347539
	Lenz's law	Apply Ampere's circuital law to derive the magnetic field due to a	E) These (Algor (E	<u>ntType=TextBook</u>
	Self Induction	long conductor.		Dura tina Madala an
	Mutual Induction	Apply Ampere's circuital law to	Art Integration on Michael Faraday:	Practice Module on Diksha
	Eddy currents	toroid.	Story telling:	
	Alternating current	Solve numericals based on conversion of galvanometer into	<u>https://www.youtube.com/watch?v=a</u>	Practice module 3: <u>https://diksha.gov.i</u>

Ac and Dc current Average and rms values of current and voltage	ammeter and voltmeter. Explain the working of a galvanometer. How can a galvanometer be converted into an ammeter and a voltmeter? Justify the use of radial field in a	rf8wDP_MJE Hands on Activity: Build your own Motor. https://www.nationalgeographic.org/a	n/resources/play/co llection/do 3131034 753990656001756?c ontentType=TextBo ok Practice module 4: https://diksha.gov.i n/resources/play/co
	 galvanometer State Lenz's law Define self inductance Define mutual inductance State application of eddy currents Differentiate between the alternating and direct current draw phasor diagrams of various circuits Calculate impedance of an LC, RC and RLC circuit Practical To determine resistance of a galvanometer by half-deflection method and to find its figure of merit. 	Mind Map: https://diksha.gov.in/play/collection/ do 3131034753990656001756?conte ntld=do 31308508568118067211189	Ilection/do3131034753990656001756?contentType=TextBookPractice module 5:https://diksha.gov.in/resources/play/coIlection/do3131034753990656001756?contentType=TextBookStudents will practicethe questions onQuizziz.https://quizizz.com/admin/quiz/61003c72c97
	with a sonometer.		<u>11e001b0e8d6a/flemi</u> ngs-left-hand-rule

Chemistry	Biomolecules Carbohydrates Classification structure importance Protein-Types, enzymes Denaturation of protein Vitamins deficiency diseases Nucleic acid DNA & RNA Solid state Interatomic force Types of solids Packing in solids Density calculation Common defects	Each student will be able to: •Define bio molecules Like carbohydrates, Protein & nucleic acid •Learn different type of proteins •Explain different type of carbohydrates •Learn about deficiency diseases •Explain the difference between DNA and RNA •compile the role of these Biomolecules In biosystem Each student will be able to: •Classify solids on the basis of binding forces •Understand structure of solids and unit cells, lattice, •Describe packing pattern in solids in 2D and 3D. •Calculate efficiency of packing. •Explain structure of ionic solids •Analyze the effect of dislocation in solids	Study of Classification of proteins and properties Digital Collage of different biomolecules properties and uses Justify: DNA is the chemical basis of heredity and may be regarded as the reserve of genetic information. <u>https://www.youtube.com/watch?v=MkqtHP9Mh</u> Ds&t=103s <u>https://www.youtube.com/watch?v=MkqtHP9Mh</u> Ds Make a list of different Types of Solids around you Create a mind map of the formula used in structure of solids Packing in crystal: <u>https://www.youtube.com/watch?v=iPb8</u> <u>vRtroLU</u> <u>https://www.youtube.com/watch?v=RcG</u> <u>9e2Bg3eE</u> <u>https://www.youtube.com/watch?v=B1J</u> <u>zFAD1GAo</u>	Assignment NCERT questions Open book test Worksheets Google form:MCQ
Computer Science	CSV files –(5 days) Insert, Delete, Search, Modify, Display Unit III: Database -Management:- (11 days) REVISION	Students will – =>be able to read/write text files =>be able to read files letter by letter/ word by word/ sentence by sentence Students will be able to– =>Create Binary Files	Resources: Online demonstration of programming codes using Python software,MYSQL Computer & projector Text Book	Worksheets Lab Assignments Quizzes Class Test on MYSQL table creation, Queries and Stating Output of

	Database Concepts: Introduction to database concepts and its need. Relational data model: Concept of domain, relation, tuple, attribute, degree, cardinality, key, primary key, candidate key, alternate key and foreign key; Structured Query Language: General Concepts: Advantages of using SQL, Data Definition Language and Data Manipulation Language; Data Types: number / decimal, character / varchar / varchar2, date; SQL commands: SELECT, DISTINCT, FROM, WHERE, IN, BETWEEN, LIKE, NULL / IS NULL, ORDER BY,GROUP BY, HAVING; SQL functions: SUM (), AVG (), COUNT (), MAX () and MIN (); Joins: equi-join and natural join PROJECT WORK – (2 DAYS)	=>apply tell() and seek() for random file pointer movement =>Insert and display records =>Search Records =>Delete Records	PYTHON PROJECT - CSV FILES	queries based on CBSE papers
Economics	Money and Banking-8 Meaning Supply of money Credit creation	Each student will be able to: Comprehend the meaning of money and its functions. Supply of money and its measures.	Identify different banks from logos. Able to identify a fake currency from genuine one.	Weekly test Google forms Quiz

	Central bank, its role and Functions	Develop the understanding of money creation by commercial banks and functions of central banks. Explain the process of credit creation by commercial banks.	Understand how important is RBI for the country and how it controls the supply of money in the economy. Debate on E-currency	
	Human Capital formation How people are a resource.6 Role of human capital in development	Role of human capital formation Problems Factors affecting human capital Each student will be able to identify the importance of human capital formation. Identify the ways its done. Comprehend the difference between human development and capital formation. Critically appraise the current education scenario. The concepts of Human Resource, Human Capital Formation and Human Development The links between investment in human capital, economic growth and human development	Image: A state of the picture and identify the components. Image: A state of the picture and identify the components. Image: A state of the picture and identify the components. Image: A state of the picture and identify the components. Image: A state of the picture and identify the components. Image: A state of the picture and identify the differences along with examples.	Worksheets Google forms Peardeck Worksheets Google forms
				MCQ
Psychology	Chapter 2 – Self and PersonalitySelf and Personality	 Students will be able to: Explain the concept of Self and ways of 	 Interpret the personality of your friend by using Sentence Completion Test. 	

	 Concept of Self Cognitive and Behavioural aspects of Self Concept of Personality and Major approaches to Personality Assessments of Personality 	 self-regulation of behaviors Define important terms like self-esteem, self-concept, self-efficacy and self-regulation Differentiate between the Indian and western view of self Differentiate between type and trait approaches Explain the approaches to personality in detail (Especially highlighting the keywords) Discuss techniques of personality assessment 	 For conducting, the students have to make 10 incomplete statements on self and administer on their friend. If you were asked to change one aspect of your life, what would you like to change and why? If not, why? Which aspect of your personality you would never like to change? Share it with the class. 	 PowerPoint Presentation by students (group activity) Quiz Class Test - Google form
Biology	 Principles of Inheritance (6 classes) CONTD. 1. Inheritance of two genes 2. Sex determination 3. Mutations 4. Genetic disorders 	 Each child will be able to- Draw analogy between gene inheritance & chromosomal behaviour. Relate Morgan's work to discovery of phenomenon of Linkage Explain the relationship of linkage & crossing over. Analyze human genetic disorders using pedigree. Explain the scientific process that led to identifying the process of sex determination in different organisms Write differences as well as 	Elipped learning- https://www.youtube.com/watch?v= Wuk0W10EveU pedigree https://www.youtube.com/watch?v= svtHWJdQYOk analysis of pedigree https://www.youtube.com/watch?v= GieZ3pk9YVo mutations Class activity- identify the given pedigrees based on human traits Make a mind map illustrating mutations Research activity-	Weekly test Class assignments Worksheets Google form

	symptoms of Mendelian & chromosomal disorders.	Collect information on genetic disorders related to X chromosomes	
		https://diksha.gov.in/play/content/do 31 320396775774617614257 for extended learning	
		https://filmpulse.net/a-banquet-review/	
		watch the movie Banquet based on heredity followed by the class discussion	
		Class activity https://quizlet.com/17830784/men dels-work-flash-cards/ https://www2.palomar.edu/anthro /mendel/flashcards 1.htm	
Molecular basis of Inberita	nce Fach child will be able to-	Flash cards	
(9 classes)	▲ Identify DNA as the		
The DNA The search for Genetic Material	genetic material giving its features.	For flipped learning	
RNA world Replication	of molecules making DNA. Label the components	Quizzes- on the structure of DNA as genetic material	
	of DNA molecule Compare DNA & RNA Molecule	https://www.youtube.com/watch?v=uXd zuz5Q-hsDNA	
	 Recall the experiment establishing DNA as the genetic material. 	https://www.youtube.com/watch?v=t9xB HPz_3roGriffiths expt. https://www.youtube.com/watch?v=X1c d68YkVdMHersey chase expt.	

			https://www.youtube.com/watch?v=uXd zuz5Q-hs DNAhttps://www.youtube.com/watch?v=t9xB HPz_3ro_Griffiths expt.Draw a labelled diagram of DNA molecule.Make a flowchart on Griffiths & Hershey & Chase experiment.Make a well labelled diagram of the replication fork	
		JULY		
Subject	Topics to be Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	 Integrals Integration by partial fractions Definite integral Properties of Definite Integrals 	 Each student will be able to- apply the method of partial fractions to integrate ★ make sense out of concept of definite integral of a function ★ evaluate definite integral using the fundamental theorem of calculus. ★ apply the properties of definite integrals in solving questions 	• Math Lab Activity: To evaluate the definite integral $\int_{a}^{b} \sqrt{1 - x^{2}} dx$ as the limit of a sum and verify it by actual integration.	Through small tests in fundamentals Class work Home work Google Forms Oral questioning Quiz

	 Application of Integrals Area under a curve 	 Each student will be able to ★ sketch the various standard curves ★ calculate the area under simple curves, area of the region bounded by a curve and a line 	 Quiz to test on standard equations of conic sections. Experiential Activity : To find the area of a leaf To observe the types of curves formed when a bucket of still water is disturbed by throwing a coin in it 	MCQs https://diksha.gov.in/ play/content/do_313 08876685309542412 14
	 Differential Equations Order and degree General and particular solution Variable separable form 	 ★ identify an equation involving derivatives of the dependent variable with respect to independent variable as a differential equation. ★ distinguish between order and degree of any differential equation and state the order and degree(if any) ★ solve a differential equation and also particular solution ★ apply variable separable method to solve an equation in which variables can be separated completely 	 Quiz on degree and order of a differential equation Art Integrated Learning:Find a pattern of family of curves in a picture of S H Raza and also sketch it. 	
English	Prose : The Enemy (06)	Every Student will be able to 1.answer short and long answer questions 2sensitised towards humaneness in war	Flipped Learning students will be shown a clipping from the movie, 'Pearl Harbour' and asked the following questions: a)What do you think is happening here? How many World Wars have taken place so far?	

Poetry- A Thing of Beauty	 3. Critically evaluate the statement 'Fanatic behavior corrodes practical thinking' 4. Acquire personality traits like generosity,love, trust, honesty, care and concern Every student will be able i.to understand the poem. ii. Critically analyze the poem. iii. Find out the figures of speech used in the poem. iv. read the poem with proper voice modulation, punctuation, and intonation. 	 b) Elaborate upon the conflict in Sadao's mind in light of the Hippocratic oath for doctors https://i.etsystatic.com/9418101/r/il/6df2 e6/2644915730/il_fullxfull.2644915730_ s0md.jpg The session would begin with an interaction. The learners would interpret the title of the poem Independent Practice Based on the poem, express your views on 'Grandeur associated with the 'mighty dead' Brainstorming (Buzz Session) Do we experience things of beauty only for short moments or do they make a lasting impression on us? (Relational) 2.Nature promises man comforts against all odds. But it is for man to recognize them. Explain 	CBSE question answers Google forms Worksheet and assignments
Prose- Going Places	 Acquire an ability to form opinions and express them with clarity. , be able to develop sensitivity towards their culture, aspects of 	An Antidote to Dissatisfaction <u>https://youtu.be/WPPPFqsECz0</u> A brainstorming on dissatisfaction among young adults Hero worship and adolescents A way	CBSE question answers Google forms

	contemporary life. 3. students will be able to analyse the themes. <i>Fantasy vs. Reality</i> <i>Family vs. Individuality</i> <i>Class vs. Ambition</i> <i>Limitations of Gender Roles</i>	of escape ; hope Song songLab - Hero ft. Seph Schlueter (Lyrics) <u>https://youtu.be/lr5hTLQVeFw</u> discussion / brainstorming /Q+A	Worksheet and assignments
Report Writing	 Learn the proper format of report writing Understand the purpose and types of report writing Understand the difference between News and Magazine reports Recognize the distinctive features of each type of report Write a report in a clear, concise, effective manner 	https://create.kahoot.it/share/duplicate-o f-report-writing-2021/c86f36ec-e88b-412 b-aa2f-2722f08e5250	
Prose- The Interview	Every student will be able to Explain the positive and negative aspects of interviews Enumerates the characteristics of Umberto Eco's writings Answer a test on the lesson Prepares a questionnaire for an interview with a writer.	(Genesis of interviews) <u>Genesis of Interview 2376-Article</u> <u>Text-7157-1-10-20140114.pdf</u> (Worksheet 1) <u>https://drive.google.com/file/d/1Cq_XRT</u> <u>RqZDWROI_moVh1vuBBqQH3Cwgq/vi</u> <u>ew?usp=sharing</u>	https://drive.google.c om/file/d/1N9UnKgm LgauF_qYFkf9-Q3o7 ZqInj9fj/view?usp=sh aring (Assignment)

Physics	UNIT 4 Electromagnetic Induction (5) · Faradays laws (1) · Lenz's law(1) · Self Induction (1) · Mutual Induction (2) · Eddy currents (1)	State faradays laws of electromagnetic induction • State lenz's law • Define self inductance • Define mutual inductance • State application of eddy currents	WAR of Currents Dialogue between Edison and Tesla using pictures.	Liveworksheet: <u>https://www.liveworksheets.com/ao147</u> <u>0714ii</u> Practice Module on Diksha
	Ac and Dc current Alternating current (9) • Ac and Dc current (1) • Average and rms values of current and voltage (1) • Power (1) • Power factor (1) • Impedance triangle (1) • Quality factor (1) • Phasor Diagrams(2) • Transformers (1)	 Differentiate between the alternating and direct current draw phasor diagrams of various circuits Calculate impedance of an LC, RC and RLC circuit Ac generator and transformer Describe transient current, electric oscillatons, electrical resonance Analyse graphs to predict the circuits with better quality factor Explain the construction of a transformer. 		https://diksha.gov.in /resources/play/coll ection/do_3131034 753990656001756? contentType=TextB ook Practice module 2: https://diksha.gov.in /resources/play/coll ection/do_3131034 753990656001756? contentType=TextB ook Practice Module on Diksha Practice module 3: https://diksha.gov. in/resources/play/

	Mind Map: <u>https://diksha.gov.in/play/colle</u> <u>ction/do_313103475399065600</u> <u>1756?contentId=do_31308508</u> <u>568118067211189</u>	collection/do 3131 0347539906560017 56?contentType=T extBook Practice module 4: https://diksha.gov. in/resources/play/ collection/do 3131 0347539906560017 56?contentType=T extBook
		Practice module 5: https://diksha.gov. in/resources/play/ collection/do 3131 0347539906560017 56?contentType=T extBook
		Students will practice the questions on Quizziz.
		https://quizizz.com/a dmin/quiz/61003c72c 9711e001b0e8d6a/fl emings-left-hand-rule

Chemistry	Electrochemistry(12) Electrochemical cells and Emf calculation Relation between Equilibrium constant and Gibb's free energy change Movement of ions and conductivity Measurement of conductivity of electrolytic solutions Kohlrausch law and its applications; Quantitative aspect of electrolysis Commercial cells and fuel cells	Define an electrochemical cell and represent it Predict cell reactions at electrodes of a galvanic cell. Differentiate between electrochemical and electrolytic cell Calculate emf of the cell from Nernst equation Correlate equilibrium constant ,free energy and work done by the cell Define terms: conductivity, resistivity,Molar conductivity, State Kohlarsch law and express it mathematically Differentiate between electrolytic and metallic conductance Correlate mass of substance deposited with quantity of electricity Predict the product of rusting ,harmful effect of rusting	www.funsci.chem\fun3-en\elecrochem https://www.youtube.com/watch?v=0oSq PDD2rMA (for working) https://www.youtube.com/watch?v=0oSq PDD2rMA Flipped learning - Based on shared links and NCERT book Experiential activity- Construction of Galvanic cell and study of EMF .	Assessment of Numericals and derivations done Qs from board paper
	Chemical Kinetics (6) Introduction and expression for rate of reaction. Rate constant and rate laws Factors affecting rate of reaction Concentration,Tempera ture,Catalyst Integrated rate law Zero and first order reaction Collision theory	Each student will be able to: •Define and distinguish between average and instantaneous rate •Express the rate of reaction in terms of concentration .of reactants •Enlist at least three factors on which rate depend. discuss the dependence of rate of reactions on concentration, temperature and catalyst •Distinguish between order and	Study of nuclear disintegrations	

		molecularity •Derive the integrated rate law for zero, first and second order reactions	http://study.com/academy/topic/chemistr y-kinetics-lesson-plans.html http://study.com/academy/lesson/collisio n-theory-definition-significance.html https://diksha.gov.in/play/content/do_31 3069529091948544190	
Computer Science	MySQL-PYTHON Connectivity: (20 days) + project work Interface of Python with an SQL database -Connecting SQL with Python -Creating database connectivity Applications - Performing Insert, Update, Delete queries - Display data by using fetchone(), fetchall(), rowcount	 Each student will be able to : Create interface of Python with an SQL database Connect SQL with Python Create Database connectivity Applications - Perform Insert, Update, Delete queries Display data by using fetchone(),fetchall(), rowcount Apply aggregate functions in queries Integrate SQL with Python by importing the MySQL module 	Connecting Python with SQL Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Database Dat	Lab Test on Creating a library of mathematical functions Database queries Jam board Test/ Class test - SQL queries

			https://docs.google.com/presentation/d /17ENZYc0U4vmGSiGyAyb-zwCSSv3t g2NR/edit?usp=sharing&ouid=1153438 70033980011109&rtpof=true&sd=true	
			Worksheets - Lab Assignments Solve SQL queries Project work	
Economics	National Income National Income and Related aggregates. Methods of calculating national income Deriving the formulas Aggregates related to national income Real and Nominal GDP	 Each student will be able to: Identify the different methods for the measurement of national income Define income method Know expenditure method Classify factor income Analyze the circular flow of income Discover the flow of income in various sectors. Analyze the interdependence of the 3 methods 	 Playing a game may be able to create a spirit of competition and challenge through which Learning may be enhanced. Flashcards of different NIA aggregates such as NDP at factor cost, NNP at market price. Flipped Classroom The students will watch the link on you-tube and practice numerical in class. Collect articles related to changes in GDP from the newspaper for discussion. 	Class tests Pear deck revision question- for classroom assessment Google forms Jam boards Worksheets Use Economic Times newspaper, Economic magazines as yojana, to know

			<image/>	about the status of national income of a country
Psychology	Chapter - 4 Psychological Disorders	Each student will be able to:-	 Individual Activity: Reflection journal on how to cope effectively with anxiety 	● Role Play

	 Concepts of abnormality and Psychological Disorders (6 classes) Classification of Psychological Disorders (1 class) Factors Underlying Abnormal Behaviour (4 classes) Major Psychological Disorders (17 classes) 	 Understand the basic issues in abnormal behaviour and the criteria used to identify such behaviours, Identify the factors which cause abnormal behaviour, Explain the different models of abnormal behaviour, Describe the major psychological disorders Identify the symptoms and criterias for diagnosing 	 Group Activity: Presentation on different psychological disorders Assignment: Through a flow chart show how different factors contribute to abnormal behavior. 	 Group Discussions Kahoot Quiz Class Test
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Biology	1.Molecular basis of inheritance: -8 classes DNA structure, search for genetic material, RNA world, Replication, transcription, translation, Genetic code, regulation of gene expression, Human genome project, DNA fingerprinting	List the characteristics of DNA as the genetic material. Describe the chemical structure of DNA molecules. Recall the experiment for establishing DNA as the genetic material. know the properties of genetic code, Explains the process of gene expression , translation & transcription along with illustrations Infers the base assignment of RNA from the base assignment of DNA Explain therole of components of operon for regulation of gene expression. Specify the main points of Human genome project, goals & revelations.	Read concepts from the NCERT & watch the videos assigned AR on DNA structure <u>https://www.youtube.com/watch?v=</u> <u>uXdzuz5Q-hs</u> DNA <u>https://www.youtube.com/watch?v=</u> <u>5qSrmeiWsuc&ebc=ANyPxKqOAoc</u> <u>K4FFX63pAH1qaDT9_K4W-h4ddg</u> <u>G5CexSAwxjh76wh4Q8lbDNA</u> <u>https://www.youtube.com/watch?v=t</u> <u>9xBHPz_3ro</u> _Griffiths expt.	Worksheets, Google docs Class test.
		List the sequence of various steps involved in DNA fingerprinting & principle involved in it.	X1cd68YkVdM –Hersey chase expt. https://www.youtube.com/watch?v= s4E2D 1LIXk&ebc=ANyPxKoD6Dk sNX -rlYmsQN1aK3y0sjYJHHly-2F 3tEyaxf1DieJ Fxd3ovXTmhpE80lz NnXeturTuSKqE_J1G4FI 8d5FfS g Hershey Chase expt. https://www.youtube.com/watch?v= JcUQ TZCG0w messelson & stahl expt. https://www.youtube.com/watch?v=	

	DnM3s5NBJRo&ebc=ANyPxKoVUt pLD8VyyWXLHOPcq4C4Duh7gvU VtYDkPnmwU8XFra-IbUx65raU2 CvbeEXaRH7kv_c5ksH0uKiM3qnz kENgaEGQ messelson & stahl expt	
	REVIEW-	
	<u>https://quizlet.com/20640413/flashc</u> <u>ards</u>	
	molecular basis link	
	For flipped learning- follow up activities-	
	Think, pair & share using	
	Activity sheet having with unlabelled molecular structures & misplaced sequences of the processes for DNA & RNA	
	Make flow charts based on the concepts of gene expression.	
	Brain storming & quizzes as preassessment activity.	
	AIL-Design a cartoon related to molecular basis of inheritance.	
	Experiential learning	

		Study the pedigree analysis of one of the human trait & comment on the genotype regulating the inheritance of the trait.	Worksheets , Google docs. Question answers in the class.
2.Evolution-6 classes Origin of life, theory of evolution, Evidences of evolution, What is adaptive radiation, Biological evolution, Mechanism of evolution, Hardy- Weinberg principle & Origin & evolution of man.	Recall the experiments related to understanding evolution of life. Identifies homology & analogy of different organs in plants & animals. Write the evolutionary timeline of vertebrates & various plant groups.	For flipped class- children will be shown the image of the urey Millers experiment to answer the questions that will be given as the follow up activity.https://study.com/learn/lesson/abiog enesis-theory-experiments-example s.htmlabiogenesis.Make concept map on evidences of evolution.Questions based on mechanisms of evolution.How does Hardy weinberg's principle support evolution?which factors affect it?	

			 Make a graphic organizer on evolution of humans. Art integration-Role play or a song on timeline of evolution of animals on earth. Transdisciplinary activity- Will technological evolution affect evolution in living organisms? Why or why not? Experiential learning- Studying specimens of homologous & analogous organs 	
		AUGUST		
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	 Differential Equations Homogeneous differential Equation Linear differential equation of first order. 	 Each student will be able to identify and solve a differential equation that can be expressed in the form dy/dx = f(x,y) or dx/dy = g(x,y) as homogeneous differential equation identify and solve a differential equation of the form dy/dx + Py = Q and dx/dy + Px = Q as a first order linear differential equation. 	 LA: Students will watch the relevant video at home Read NCERT examples at home 	Through small tests in fundamentals Class work Home work Google Forms Oral questioning

 Inverse Trigonometric Functions Domain, range and graphs Principal values Properties of inverse trigonometric functions. 	 Each student will be able to ★ define inverse trigonometric functions ★ state the domain and range of inverse trigonometric functions ★ sketch the graph of inverse trigonometric functions ★ use properties of inverse trigonometric functions to solve questions 	 LA: Watch the related video at home. Math Lab Activity: To draw the graph of sin⁻¹ x , using the graph of sin x and demonstrating the concept of mirror reflection (about the line y = x) 	Quiz MCQ: https://diksha.gov.in/
 Linear Programming Problem(LPP) ◆ LPP as optimization problems 	 Each student will be able to identify objective function , non-negative restrictions and constraints of a LPP plot the feasible region on graph. describe a linear programming problem as a one that is concerned with finding the optimal value (maximum or minimum) of a objective function of several variables that are non – negative and satisfy a set of linear constraints solve graphically the linear programming problems by corner point method by identifying feasible region (bounded and unbounded), corner points and thus finding the optimal feasible solution 		play/content/do_313 09425016164352011 711
 Probability Conditional probability 	Each student will be able to		

	 Multiplication theorem Independent events 	 ★ define and find the conditional probability of an event E, given the occurrence of the event F * list the properties of conditional probability ★ apply multiplication theorem on probability ★ define independent events and check whether the given events are independent or not. 		
English	Prose- Journey to the end of the Earth	Each student will be able to • Develop proficiency for abstract thought and knowledge acquisition. • Demonstrate silent reading, oral feedback and detailed account of the lesson. • Infers meanings from contexts and describes them with clarity. • Participate constructively in Group Discussion.	Antarctica is a crucial element in the debate over climate change as there is fear of melting of glaciers in Antarctica because : A. Locate references of the above statement given in the text. B. Note down the sentences, expressions from the text. Flipped learning Read more to find more information on The Paris Agreement (pact within the United Nations Framework Convention on Climate Change (UNFCCC) between 197 countries). •Visit the official sites and read about the agreements and conventions on Climate change. •While reading, take down notes. Share and discuss with the teacher and peers. • Brainstorming and raising a debate on 'Discrimination against women' • What ordeals do you think Aunt Jennifer is surrounded by?	CBSE Q/Ans Class assignments Google forms Worksheets

Poetry- Aunt Jennifer's Tiger	Every student will be able to • Interpret theme of the poem • Critically analyze the poem • list out the figures of speech in the poem • Discern and describe various equalities they see in different forms around them • Discussion of the poem-male chauvinism and gender conflicts.	Warm up https://drive.google.com/file/d/10K6KIFF gW1u3fbrN6k4tJ0Fgb6EyWTdT/view?u sp=sharing Mind Map https://diksha.gov.in/play/content/do_31 306916470235136012 Figures of speech https://drive.google.com/file/d/11InSkvyd xErJErcwU26CtCf4FmSWxan0/view?us p=sharing	Quiz CBSE Q/Ans
Poem- A Roadside Stand	Every student will be able to i) understand the contrast between the lives of rich and poor ii) acquaint themselves with the world around them iii) learn not only from books but from the examples around them iv) comprehend the poem and enhance the vocabulary v) identify the figures of speech vi) understand that the economic well being of a country depends on a balanced development of the villages and cities	Introduction	

	Prose- Indigo Writing Skill: • Formal and Informal Invitations • Replies to Formal and Informal Invitations	Every student will be able to Relate thoughts, ideas, views and opinions fluently with proper pronunciation Explain the importance of the Champaran episode Provides correct answers to questions based on the lesson Every student will be able to: 1. explain the difference between formal and informal invitations 2. Learn the formats for both kinds of invitations and their replies 3. Draft their own invitations and replies to invitations as per situations provided to them.	https://www.youtube.com/watch?v=nX_z 1tWy180 https://www.youtube.com/watch?v=Kg8li doHADg Flipped Learning Choose an issue that has provoked a controversy like certain projects in Goa, where the lives of the people have been affected. 2. Find out the facts of the case. 3.Present your arguments. 4. Suggest a possible settlement. https://drive.google.com/file/d/1xb78usal 0s NB587gA6DXs8niyiL3Cxy/view?usp=sh aring	
Physics	E.M WAVES (3) · Displacement current · Electromagnetic waves · Electromagnetic	 Understand light is an emw Concept of displacement current Modified ampere's circuital 	Practical : To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.	CBSE question answersClass Class test MCQ in google forms

Spectrum	law · Hertz experiment · EM waves include radio waves, x- rays Gamma rays, IR rays, UV rays · Propagation of EMWaves in	To find the focal length of a convex mirror, using a convex lens. ART INTEGRATION: Write a poem on dispersion of light	Worksheet and assignments
UNIT 6 RAY OPTICS(10) · Reflection · Refraction · Dispersion · Optical Instruments <u>UNIT-6</u> WAVE OPTICS (5)	• Understand the fundamental difference between reflection and refraction and the laws governing the two phenomenon	Diksha Learning module(DKS) Learning Module 1: <u>https://diksha.gov.in/play/collection/do_3</u> <u>1310347540115456011088?contentId=d</u> <u>o_31310650532035788813681</u> Learning Module 2:	
 Huygens Principle Coherent and incoherent sources Diffraction Polarization 	Relate the refractive index to the amount of refraction that a ray undergoes while traversing the medium and the fact that refractive index is wavelength related	https://diksha.gov.in/play/collection/do_3 1310347540115456011088?contentId=d o_31310701995300454413359 Learning Module 3: https://diksha.gov.in/play/collection/do_3	
	 Reason out that why light with bigger wave length bends less and travels with higher velocity than light with lower wavelength Define dispersion and scattering of light Understand dispersive powers different glass prisms of different materials and distinguish between 	1310347540115456011088?contentId=d 0 31310702409814835212823 Learning Module 4: https://diksha.gov.in/play/collection/do 3 1310347540115456011088?contentId=d 0 31310702673545625612937 Learning Module 5:	

	 deviation and dispersion. Define wave front and Huygens principles Show reflection and refraction of a plane wave surface using wave fronts Define interference of light, state the conditions required for it Explain Young's double slit experiment and obtain expressions for fringe width, conditions for maximum and minimum amplitudes. Relate diffraction and wave nature and hence increase the resolving poser of optical instruments using electron beams Explain Diffraction due to a single slit, Differentiate between interference and diffraction Understand polarization phenomenon Define Brewster's law and Brewster's angle Give use of plane polarized light and polaroids. 	https://diksha.gov.in/play/collection/do_3 1310347540115456011088?contentId=d o_31310772499240550413207 Review: Mind Map: https://diksha.gov.in/play/collection/do_3 1310347540115456011088?contentId=d o_31308587273293004812379	
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ChemistryAldehydes, Ketones, Carboxylic acids(12)IUPAC naming Methods of preparation Physical and chemical properties Nucleophilic addition rea Condensation reactions Reduction reaction Carboxylic acids Naming ,Acidic nature And effect of EwgOrganic compounds containing Nitrogen (4) Amines as derivatives of ammonia having a pyram structure; • classification of amines primary, secondary and tertiary;	 Each student will be able to Follow IUPAC rules and name compounds. Correlate physical and chemical properties of these classes of compounds. Describe methods of preparation of these compounds (at least two) Explain ring substitution . Distinguish between 1.aldehyde and ketones 2. two aldehydes 3.two ketones by chemical method. Outline mechanism for aldol and cross aldol reaction Predict the acidic strength when EWG is present Each student will be able to Write some trivial and IUPAC names of compounds containing nitrogen 	Flipped learning based on videos and NCERT book https://www.youtube.com/watch?v=Umb mTSj73K4 https://www.youtube.com/watch?v=Umb mTSj73K4&list=RDCMUCe5YkOlh2sy JdRUDfge-IQ&index=1 https://diksha.gov.in/play/content/do_31 30029893318164481140 Experiential activity- identification of food items in which an aldehyde group is present.	
Computer Stacks/ queues - 10 days Science	 Each student will be able to- Distinguish between stacks and queues, LIFO and FIFO implement stacks and queues using linked lists 	Flipped learning Activity - study and compare LIFO / FIFO data structure designs. List down some live examples from our surroundings which follow LIFO and FIFO	Worksheets & Lab Assignments Test on stacks

	 Unit II: Computer Networks (9 days) Evolution of Networking: ARPANET, Internet, Interspace Different ways of sending data across the network with reference to switching techniques (Circuit and Packet switching). Data Communication terminologies: Concept of Channel, Bandwidth (Hz, KHz, MHz) and Data transfer rate (bps, Kbps, Mbps, Gbps, Tbps). Transmission media: Twisted pair cable, coaxial cable, optical fiber, infrared, radio link, microwave link and satellite link. 	 design linked list based programs for stacks Each student - will come to know about various types of networks/ topologies prevalent in today's world. will be able to distinguish among different communications media. will be able to state advantages and disadvantages of various data switching techniques used in networks. will be able to state steps of setting up a communication network for a company. Will be able to choose best network layout plan amongst the various types of networks/topologies prevalent in today's world 	 Learning Activity Write algorithms for linked list based programs for stacks Experiential Learning Activity Make stack based programs on computer using Python IDLE software Test programs with dummy data and Compile the outputs Resources: demonstration of programming codes using Python on idle / colab Computer & projector PPT Youtube videos Google Classroom Art Integration Brochure Designing-Networking Devices Collage of Database connectivity codes 	MCQs/Quiz Online Quiz using Google form -Networking
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	 Network devices: Modem, RJ45 connector, Ethernet Card, Router, Switch, Gateway, WiFi card. Network Topologies and types: Bus, Star, Tree, PAN, LAN, WAN, MAN. 			
Economics	Determination of Income and employmentDetermination of Income and employment.Component of Aggregate Demand ConsumptionSavings Functions Determination of Equilibrium. MultiplierExcess Demand Deficient demandMonetary PolicyRural Development Identify the need for rural development and the major issues associated with it appreciate how crucial the	Each student will be able to: Identify the concept of Aggregate demand and state its components. Derive the consumption and savings from Income Y=C+S Determine the short run fixed price in product market equilibrium, output, Multiplier and its working Deficient demand and Excess demand Measures to combat the changes in equilibrium and output To analyze the current economic scenario in India. To make students understand the initiatives of government in addressing it's Challenge To familiarize student concepts of current Challenges facing	Discussion on how The sub-prime crisis in the United States of America led to Economic repercussions in the everyday lives of not only Americans but also in India.	Class tests Worksheets Google Forms Jam boards Quiz Alize ROLE PLAY

	 development of rural areas is for India's overall development understand the critical role of credit and marketing systems in rural development learn about the importance of diversification of productive activities to sustain livelihoods 	the Indian economy, especially rural development. To assess the students understanding of the Farm laws	ACTIVITY BASED LEARNING Hands-on experiments and activities Some activities related to current Challenges facing the Indian economy like picture graph, table, diagram, comprehension, different case studies related to primitive and modern given to the students for lesson understanding.	
Psychology	 Chapter - 5 Therapeutic Approaches (17 classes) Nature and Process of psychotherapy Therapeutic relationship Types of Therapies Behaviour Therapy Cognitive Therapy Humanistic-Existential - Therapy 	 Each student will be able to: Mention the key factors of a therapeutic relationship Name the methods used in Psychodynamic therapy for healing 	 Imagine yourself to be a Psychoanalyst and write the dialogues exchanged between you and your client for one session which turned out to be quite useful Experiential learning of the behavioral techniques used in therapy Drill of keywords 	 Quiz - Kahoot / Google form Group Discussions Progressive worksheet after completion of each topic

 Alternative Therapies - Factors contributing to healing in psychotherapy Ethics in psychotherapy Rehabilitation of the Mentally III Practicals (8 classes) Self-Concept Questionnaire (SCQ) Sinha's Comprehensive Anxiety Test (SCAT) 	 Diff. btw antecedent factors and maintaining factors State any three behavioral techniques Define the ABC component Explain the term cognitive distortions Define the term existential anxiety State any four ethics of Psychotherapy 	 Book reading – 'Dibs in search of self' Art Integration Discussing Mental Health is a taboo in India. Most of the disorders are either denied or considered to be a result of magical powers. Interview people around you from different socioeconomic backgrounds. Ask them about their viewpoint on mental disorders, about the importance of temples like mehandipur balaji where exorcism is performed. Integrate all the video interviews and prepare a film. 	 Assignment 5 mins oral questions to test previous knowledge
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Biology	1.Human Health -7 classes Common human diseases, Immunity, AIDS, Cancer, Drugs & alcohol abuse	Explains the nature of the immune systems. Classify the types of immune systems. Correlates symptoms with the type of the disease. List the causes of cancer & its symptoms& treatment. Draw the life cycle of HIV as it infects humans. Explains the functioning of immune system. Enlist the type of drugs their sources & their effect on humans	Flipped learning of the concepts assigned will be followed by- https://www.ted.com/talks/emma_bryce_ how_does_the_immune_system_work?l anguage=en on how immune system works. Concept map_on immunity & Fill the empty out lines based on handout out given on common human diseases https://www.youtube.com/watch?v=bfQV/ bfX0y3l PLASMODIUM https://www.youtube.com/watch?v=PISv ywlLuNw_HIV Cooperative learning on drugs - stdents will preapre question answers on Drugs Experiential activity- Identifythe symptoms & the disease caused by the pathogens–Ascaris, Entamoeba histolytica, Ringworm and Plasmodium Transdisciplinary activity-What strategies should government adapt to improve the organ donation in the country?	Worksheets, Google docs Class based assessment.
	 Microbes in Human welfare- 5 classes Microbes in household products, 	generation. List the name of various organisms involved in the process &	nttps://www.youtube.com/watch?v=tpZM gSXgrtc- for household	Worksheets, Google docs Class based

	microbes in industrial products, microbes in sewage treatment, microbes as biopesticides& biofertilizers	Classify organisms into various types	https://www.youtube.com/watch?v=n1H6iQH26no-industrial applicationThe sewage treatment process-watertreatment planthttps://www.youtube.com/watch?v=PmBx5Zo8KZobiogas plant animationhttps://www.dailymotion.com/video/x6p5a9c-microbesa9c-microbesa s biofertilizersFlipped learning based on the linksshared & the concepts from NCERT willbe followed byFilling th empty lines in the activity sheetBrain storming using quizzes.AIL - Create humours cartoon strip on the microbes involved in human welfare.Experiential learning- Identify any five food items that you consume involved the microbes in their processing.	assessment.
SEPTEMBER				
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	 Probability Partition of a sample space Theorem of total probability 	Each student will be able to ★ describe partition of a sample space	LA: Read solved examples Math Lab Activity: To explain the computation of	Class work Home work Google Forms

English	 Baye's Theorem Random Variables and Probability distribution Revision for Term-1 Exam 	 ★ state theorem of total probability and apply to questions. ★ make sense out of the concept of reverse probability ★ apply the Bayes' theorem ★ define a random variable ★ apply the concept of random variable 	 conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice. Experiential Activity: Take 2 bags, bag 1 containing 4 one rupee coins and 2 two rupee coins and the other containing 2 one rupee coins and 4 two rupee coins The probabilities of selecting either bag is equally likely. Select any bag and draw a coin from it. Try to answer the following question a) Given that the coin selected is one rupee coin, what is the probability it was selected from the first bag? b) Given that the coin selected is one rupee coin, what is the probability it was selected from the second bag? 	Oral questioning Quiz
English	Revision of topics for Term 1 Examination	Practice of Reading Comprehension Writing Skills Literature		
Physics	UNIT 7 Dual nature of mater and radiation(5) · Photoelectric effect	 Explain work function and photo electric effect. Show the variation of photocurrent with the intensity 	Practical : To determine angle of minimum deviation for a given prism by plotting a graph	CBSE question answersClass Class test MCQ in google forms

	 Dual nature De Broglie relation Atomic nucleus (5) Atomic Spectra De-Broglie hypothesis Radioactivity Nuclear Energy 	 of light. Graphically show the variation of photocurrent with the frequency. Explain thermionic, field and photoelectric emission. Explain retarding potential. Plot the graph showing the variation of the retarding potential with the increase in frequency. Solve numerical based on photoelectric effect. Explain the characteristic features of Davisson and Germer Experiment 	between angle of incidence and angle of deviation. To find refractive index of a liquid by using convex lens and plane mirror. ART INTEGRATION: Create a Miniature Painting on atomic spectra	Worksheet and assignments
Chemistry	Organic compounds containing Nitrogen (5) IUPAC system methods of preparation of amines; properties of amines; distinguish between primary,secondary and tertiary amines method of preparation of diazonium salts and their importance in the synthesis of azo compounds Revision for Mid term examination	Each student will be able to •Write some trivial and IUPAC names of compounds containing nitrogen •Correlate physical and chemical properties of amines •Describe methods of preparation of these compounds (at least two) •Explain ring substitution of aniline •Appreciate use of diazonium salts in organic synthesis)	Flipped learning based on Concept from NCERT and video links https://www.youtube.com/watch?v=ztnP nackibs Short test https://diksha.gov.in/play/content/do_31 30908574428282881282 Concept map - properties of amines Transdisciplinary activity - research on azo dyes used to colour the cloth	MCQ test https://docs.google.c om/forms/d/1atpnBH OCKBCpcAGGn-CB LJ0I-ZR5C1Cx9vmLi XVHE3Y/edit Assignment Worksheet

Computer Science	Network Protocol: TCP/IP, File Transfer Protocol (FTP), PPP, HTTP, SMTP, POP3, Remote Login (Telnet) and Internet, Wireless / Mobile Communication protocol such as GSM, GPRS and WLL 3 days Revision for Mid term examination	 Students will come to know about- various security measures used on computer network. will come to know about different Network Models will be able to differentiate among different Network Models. 	Resources:Online demonstration on Computer & projectorGoogle SlidesVideosTechnologyOnline: JamboardYoutube videosGoogle Form/Quiz/KahootGoogle ClassroomGoogle Meet	Worksheets Question Bank Online Quiz using Google form -Networking Test-Networking case study
Economics	Employment How growth gets affected because of high levels of unemployment. Different kinds of unemployment. Rural and Urban Causes	Know a few basic concepts relating to employment such as economic activity, worker, workforce and unemployment. Appreciate the nature of participation of men and women in various economic activities.	Hands on activity to teach different kinds of unemployment. Crossword on unemployment Classroom activity (game) to unemployment rate and other labor force metrics	Class Test MCQs Worksheet Assignment Quiz

Strategies economic activities.	Acknowledge the nature and extent of unemployment. Students will understand the various types of unemployment: frictional, structural, and cyclical. Assess the initiatives taken by the government.	Have students work in small groups or partnerships for this activity. Give each group a copy of a chart or table showing unemployment statistics from the region or time period you are studying most closely. Students can also look at contemporary statistics. Group Discussion to follow.	
	They will apply labour force concepts to calculate the civilian labour force, the labour force participation rate, the official unemployment rate, and an alternate unemployment rate.		
	They will learn about the effects of discouraged workers, the incarcerated, and the underemployed on the unemployment rate.		
Sustainable development	Figure out comparative trends in various economic and human development indicators of India and its neighbours, China and Pakistan.	Jigsaw Puzzle	
Effects of Economic Development on Resources and Environment,	Assess the strategies that these countries have adopted to reach their present state of development.	Video to elicit response from students. Classroom discussions	Class Test MCQs Worksheet

	Global warming REVISION FOR MID _TERM		Go Goals digital game. Quiz ART INTEGRATION	Assignment Quiz
Psychology	Chapter 6 – Attitude and Social Cognition (16 classes) Explaining Social Behaviour Nature and Components of Attitudes Attitude Formation and Change Attitude Formation Attitude Change Attitude Change Attitude-Behaviour Relationship Prejudice and Discrimination Strategies for Handling Prejudice	 Each student will be able to: understand what are attitudes, how they are formed and changed, analyse how people interpret and explain the behaviour of others, comprehend how the presence of others influences our behaviour, explain why people help or do not help others in distress, and Analyse how people interpret the behavior of others Give any two factors that affects attitude change State examples of prejudices from our society 	 Activity: Carvings in Khajuraho represent breaking stereotypes in indian society. Look for other areas where stereotypes are broken. It may be through a folk tale, novel, art work, theatre etc. Represent these changes in attitudes through an Indian art form. Some of them are listed below: Indian dance form Indian Music Puppet show etc Group discussion on how stereotypes, may lead to prejudice. 	 Class Tests Worksheets Quiz Group Discussions

	Revision for the term-1 examination	 Differentiate between prejudice, stereotype and discrimination CBSE Sample Paper practice Doubts classes Discussion of important topics 	 Practice tests Short discussions Key points Concept mapping 	 Worksheets Sample Q/As
Biology	1.Biotechnology - Principles & Tools -8 classes Principles of Biotechnology Tools of recombinant DNA Processes of Recombinant DNA Technology	Each student will be able to List the basic principle and role of various tools of the technology.Differentiate between; a) DNA and Recombinant DNA b) between sparged and stirred tank bioreactor c) exonucleases and endonucleases Explain the use of selectable marker for selection of recombinant cells. Explain the significance of PCR in recombinant genetic engineering.	Flipped learning will be based on the subtopics assigned from the NCERT & the links shared. <u>http://youtube.com/watch?v=TQRL9JnY</u> <u>kA4</u> Biotechnology Principles <u>https://www.youtube.com/watch?v=xF7F</u> <u>3kAJmuQ&t=636s</u> application in the field of medicine <u>https://www.youtube.com/watch?v=6-YI</u> <u>7nG0CVc</u> bioethics After follow up activities students will answer the following questions; Write difference between; a.traditional and modern biotechnology gene cloning and origin of replication List the, tools of recombinant DNA technology Explain the role of enzymes, vectors and selection methods in recombinant	Worksheet, Google forms & google docs as assessment tools.

Subject	Topics Covered / No. of Periods	OCTOBER Learning outcomes	DNA Technology. Explain down streaming process and its significance Activities	Assessments
Mathematics	 Vectors Position Vector Types of vectors Direction cosines Algebra of vectors Scalar and vector product 	 Each student will be able to ★ differentiate scalars and vectors by giving examples ★ describe a vector with initial and terminal points with a direction and magnitude as the distance between the endpoints ★ describe a vector in space in terms of its direction cosines ★ establish a relationship among the direction cosines ★ recognise that direction ratios are proportional to direction cosines ★ list the types of vectors and define them like zero vector, unit vector , coinitial vectors, collinear vectors, equal vectors, negative of a vector ★ add two vectors using triangle law of vector addition ★ multiply a vector by a scalar ★ represent a vector as in its component form 	LA: • To watch related video at home. • To read solved examples from book. Math Lab Activity: • To verify geometrically that $\overline{c} \times (\overline{a} + \overline{b}) = (\overline{c} \times \overline{a}) + (\overline{c})$ • To verify that angle in a semi-circle is a right angle, using vector method.	Through small tests in fundamentals Class work Home work Google Forms Oral questioning Quiz MCQ(Vectors) https://diksha.gov.in/ play/content/do_313 09369950181785611 602

	 ★ state the relation between the scalar components of collinear vectors ★ apply the section formula to questions ★ define scalar product of two vectors ★ list the properties of scalar product ★ describe the projection of vector on a line ★ define vector or cross product of two vectors ★ list the properties of cross product ★ find the area of a parallelogram using cross product 	
 Three dimensional geometry Direction ratio and cosines of a line Equation of line in space Angle between two lines Shortest distance between two lines 	 Each student will be able to ★ define the direction cosines of a line ★ find the direction cosines of a line joining two points. ★ state the relation between direction cosines and numbers ★ define skew lines. ★ find the angle between skew lines. ★ state the relation between the direction cosines(ratios) of two lines and the angle between them. ★ find the equation of a line that passes through a given point and parallel to a given vector in vector and cartesian form 	MCQ(3-D geometry) https://in.ixl.com/mat h/class-xii/find-the-co mponent-form-of-a-th ree-dimensional-vect or

		 ★ find the equation of a line passing through two given points ★ find the shortest distance two lines ★ state the formula for finding distance between skew lines and parallel lines. 		
	 Relations and Functions Types of relation Types of functions 	 Each student will be able to ★ state the types of relations ; reflexive, symmetry, transitive and equivalence and define them ★ solve questions based on the types of relations ★ state the types of functions : one-one(injective), onto(surjective) ★ solve questions based on the types of functions. 		
English	Prose- On the face of it	Students will be able to correctly answer the question of being optimistic even in the face of adverse circumstances in life. Each student will be able to Enrich their vocabulary Narrate the gist of the story Inculcate values of positivity and compassion	Collaborative learning/Role Play: Two students will pair up and each will take up the role of Jerry or Mr Lamb Analyse. Why do the two characters in lesson face humiliation? Why human beings cannot live by the motto 'live and let live'	Worksheets Oral Quizzes Comprehension Check CBSE Q/Ans

Prose- Poets and Pancakes	Every student will be able to analyze the working conditions and people involved in the studios. understand that there was a great deal of national integration. Interpret the use of talent and creativity at its best. Comment on good poetry and music being the deciding factor in the popularity of the film	https://diksha.gov.in/play/collection/do 3 1310347537468620811440?contentId=d o_313001757442973696138 Flipped learning The students will be shown pictures of Gemini Studio and video clippings. https://web.archive.org/web/201308101 70333/http:/geminiindia.in/history 'Humour creates interest and attraction brings out the hidden talent of the character through the writer's creation'–Discuss	Assignments
Prose-Memories of Childhood	Each student will be able to Provides correct answers to questions based on the lesson Identifies the complexity of ideas in the text Expresses the problems related to caste and racial discrimination Understand and appreciate autobiography as a genre of literature	https://docs.google.com/document/d/1c mMHI92DZ7UhrWJG48c9uIVIgw4yDWt D/edit Flipped learning https://drive.google.com/file/d/1KFOvg_ Am8YercpNy0zdhJUWsVHZKuTBo/view ?usp=sharing	
Writing Skill- Job Application	Familiarize students with the universal concept of discrimination on the basis of caste/nationality/religion/gender Understand the biographical accounts of women from the marginalized societies	Group Discussion/Role play History abounds with examples of people who were discriminated on the basis of their nationalities/ religion/ethnicity/ colour of the skin/ and gender	

		.Each student will be taught the correct format and purpose of drafting job applications	Samples <u>https://diksha.gov.in/play/collection/do_3</u> <u>1318424317821747212516?contentId=</u> <u>do_313285449188188160111983</u>	
Physics	UNIT 9 SEMI-CONDUCTOR DEVICES(6) · P-n junction · Semiconductor diode	 Explain the band theory concept to differentiate between metals, insulators and semiconductors Relate atomic level bonding and intrinsic and extrinsic semi conductors Comprehend the functioning of p-n junction, depletion layer. Correlate semi conductor diodes in forward bias and reverse bias Understand and reproduce working of diode as rectifier, 	Practical : To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias. To draw the characteristic curve of a zener diode and to determine its reverse breaks down voltage. ART INTEGRATION: Create a Miniature Painting on energy band diagram of p and n type semiconductors	CBSE question answersClass Class test MCQ in google forms Worksheet and assignments
Chemistry	d-f block elements(6) general characteristic of transition elements general trends in properties Colour and magnetic character of ions	Each student will be able to: •Recall electronic configuration of transition elements and justify their position in periodic table •Characterise and explain general trends in properties •Predict stability of oxidation states on transition elements. •Define lanthanoid and actinoid	Flipped learning- based on shared links and concepts from NCERT <u>https://www.youtube.com/watch?v=LzZ</u> <u>WHSdYaxw</u> <u>https://diksha.gov.in/play/content/do_31</u> <u>328076765145497615483</u> https://diksha.gov.in/play/content/do_31	Quick memory test https://diksha.gov.in/ play/content/do_313 11423562403840012 73 Open book test MCQ Google form

	lanthanoid and actinoid contraction reduction potentials and oxidation states Co -ordination Chemistry (7) Werner theory Nomenclature rules Isomerism Magnetic property Hybridization Geometrical shapes Crystal field theory Drawing and Interpretation of octahedral and tetrahedral complexes and their applications	 contraction and Mention at least two consequences /applications of this contraction. Compare the gen.config. and oxidation states of lanthanoids and actinoids Each student will be able to: Define the terms involved in coordination comp. Follow the rules of IUPAC nomenclature. Predict the type of isomerism in coordinate compounds. Draw the possible isomers of a compound given. Outline the postulates of VBT and CFT. Understand the nature and geometrical shapes of complexes by VBT,CFT. List important coordination compounds and their applications in various fields 	328076780698828815486 Flipped learning- based on shared links and concepts from NCERT https://www.youtube.com/watch?v=s0dJ HwBVFcI https://www.youtube.com/watch?v=9oha QGIzOJQ Art integration- Colour wheel showing change in colour with ligand concentration Experiential activity- preparation of coordination compound of Co3+ and ammonia Transdisciplinary activity- coordination compounds and daily life activities	
Computer Science	 Unit II: Computer Networks (15) Mobile Telecommunication Technologies: Electronic mail protocols such as SMTP, POP3, Protocols for Chat and Video Conferencing: VoIP, 	 Each student will be able to - differentiate among different telecom technologies differentiate among different generations of mobile telecom define various terms related to Web services 	Resources: Online demonstration on Computer & projector Google Slides Videos Technology online: • Jamboard • Youtube videos • Google Form/Quiz/Kahoot	Worksheet, Question bank, revision test

	 Wireless technologies such as Wi-Fi and WiMax Introduction To Web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML); Hyper Text Transfer Protocol (HTTP); Domain Names; URL; Website, Web browser, Web Servers; Web Hosting 	 differentiate between XML and HTML 	Google Classroom	
Economics	Employment How growth gets affected because of high levels of unemployment. Different kinds of unemployment. Rural and Urban Causes Strategies economic activities.	Know a few basic concepts relating to employment such as economic activity, worker, workforce and unemployment. Appreciate the nature of participation of men and women in various economic activities. Acknowledge the nature and extent of unemployment. Students will understand the various types of unemployment: frictional, structural, and cyclical. Assess the initiatives taken by the government.	Hands on activity to teach different kinds of unemployment. Crossword on unemployment Classroom activity (game) to unemployment rate and other labor force metrics Have students work in small groups or partnerships for this activity. Give each group a copy of a chart or table showing unemployment statistics from the region or time period you are studying most closely. Students can also look at contemporary statistics. Group Discussion to follow.	Class Test MCQs Worksheet Assignment Quiz

	Sustainable development Meaning, Effects of Economic Development on Resources and Environment, Global warming	They will apply labor force concepts to calculate the civilian labor force, the labor force participation rate, the official unemployment rate, and an alternate unemployment rate. They will learn about the effects of discouraged workers, the incarcerated, and the underemployed on the unemployment rate. Figure out comparative trends in various economic and human development indicators of India and its neighbours, China and Pakistan. Assess the strategies that these countries have adopted to reach their present state of development.	Jigsaw Puzzle Video to elicit response from students. Classroom discussions Go Goals digital game. Quiz ART INTEGRATION	Class Test MCQs Worksheet Assignment Quiz
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PsychologyChapter 7 - Social Influence and Group Processes (14 classes)• Nature and Formation of Groups • Type of Groups • Influence of Group on Individual Behaviour • Social Loafing • Group PolarisationPracticals (8 classes)• Adjustment Inventory for School Students (AISS)) • Sodhi's Attitude Scale (SAS)	 Each student will be able to: understand the nature and types of groups and know how they are formed, examine the influence of group on individual behaviour Define social loafing and group polarisation 	 Activity: Tug of War Group Discussion: Extreme cohesiveness within a group becomes harmful for functioning. MUN is round the corner. Plan and explain Tuckman's stages to group formation. Once you join college it is likely that you will start following the group norms in the new environment , why does this happen? What are the factors that will determine this phenomenon? 	 Assignment Group Discussions Kahoot Quiz Class Test
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Biology	1. Biotechnology- Applications- 8 classes In agriculture, medicine, transgenic & ethical issues related to biotechnology	Describe the applications of biotechnology in the field of agriculture, animal husbandry & medicine. Enlist the benefits of technology to humans. Explain the ethical issues related to it	Rearrange the steps involved in application of biotechnology in different fields. RNA silencing is natural defense mechanism in some organism. Using different resources identify the organism & the process. Transdisciplinary - Biotechnolgy is a potenial tool for uplifting Indian economy.	Google forms, Google docs Quizzes Worksheet
	2.Organisms & populations- 4 Classes	Discuss the pattern of population growth Population interactions	https://www.youtube.com/watch?v=YyT- -fATbJUecological interactions Flipped class will be having follow up as- Brain storming on the subtopics Discussion on muddiest points on the sub topics. Picture prompt on the graphs displayed in the class on population growth curves. Completing the graphic organizers.on ecological interactions. Cross word on organisms & populations Experential learning- Observe symbiotic association of root nodules with legumenous plants, cuscuta with zizyphus,Lichens.	
		Explain the role of various	Picture prompt - Comment on the ecological pyramids	

	3. Ecosystem-4 classes Structure & function of ecosystem, Productivity, Decomposition, energy flow, ecological pyramids,	components of ecosystem. Interpret changes in the ecological pyramid on the basis on number of organism, energy levels.	given in the activity sheet. Word wall game on the vocabulary words on Ecosystem.	Worksheet , Quizes Google doc
		NOVEMBER	-	
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	Revision		Practice Papers	
English		CBSE Sample PaperAssignmentsPractice questions to be attempted		
Physics	Revision	Practice papers Assignments CBSE sample paper	Practice Papers	Practice Papers
Chemistry	Revision	Practice papers Assignments CBSE sample paper		
Computer Science	Revision	Practice papers Assignments CBSE sample paper		

Economics	Revision	Practice papers Assignments CBSE sample paper		
Psychology	Practical File CompletionRevision	 CBSE Sample Papers Practice Questions 	 Practice tests Discussion of important questions and concepts 	WorksheetsSample Q /A
Biology	1. Biodiversity-4 classes	Explain the word biodiversity & its levels Identify the importance of biodiversity. Specify the causes for loss of biodiversity. Discuss the strategies to protect it. Revision	Discusssion based on the Ted talk on climate change. <u>https://www.slideshare.net/nayak.tushar</u> <u>kanti5/ppt-of-biodiversity-</u> Complete the information on the given pie charts Make a flow chart on the strategies to conserve biodiversity.	Worksheet , Quizes Google docs
		DECEMBER		
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	Revision			
English	Revision of all topics			
Physics	Revision			
Chemistry	Revision	Practice papers Assignments CBSE sample paper		
Computer Science	Revision of all topics using Practice	e papers , Assignments and CBSE samp	ble paper	

Economics				
Psychology	 Revision of entire syllabus 	 CBSE Sample Papers Practice Questions 	 Practice tests Discussion of important questions and concepts 	WorksheetsSample Q /A
Biology		Revision CBSE sample papers		
		JANUARY and FEBRUA	RY	
Subject	Topics Covered / No. of Periods	Learning outcomes	Activities	Assessments
Mathematics	Revision		Preboard Exam	
English	CBSE Sample Paper , Assignments	s and Practice questions to be attempte	ed	
Physics	Revision			
Chemistry				
Computer Science	CBSE sample papers and previous	year board papers for the revision.		
Economics	Revision			
Psychology	 Revision 	CBSE Sample PapersPractice Questions	 Practice tests Discussion of important questions and concepts 	WorksheetsSample Q /A
Biology	CBSE sample papers for the revision	on.		