

Class XI PARENT SYLLABUS 2024 -2025 SCIENCE

<mark>Month</mark>	English	Math	Physics	Chemistry	Biology	<mark>Computer</mark> science	Economics	Psychology	Ped.
April & May	Hornbill: The Portrait of a Lady Poem: A Photograph Writing skills: 1.Poster Making 2.Speech Writing Art Integrated Activity: Designing a poster promoting superfoods for elderly Learning Outcomes: Each student will be able to- -compare and contrast city life and rural life -identify the exposition, climax and	Topic: Sets (5) Subtopics: *Set *represent a set in roaster and set-builder form. * various types of sets. * equal sets. * subset. * universal set. * operations on sets i.e. Union, intersection, complement, difference *Venn diagrams. Learning Outcomes:	Units And Measure- ments Need for measurement- Units of measurement Systems of units; SI units Fundamental and derived units Dimensions of physical quantities, dimensional analysis and its applications Lab Activity: Expt 1: To measure diameter of a small	Topic: Some Basic Concepts of Chemistry Sub Topics: -Importance of chemistry -Nature, Properties and classification of matter - Precision, accuracy, significant figures -Atomic and molecular masses -Laws of Chemical Combination and numerical -Mole concept Lab Activity: (Volumetric	Topic: The Living World Subtopics: *Diversity in the living world and taxonomic categories Topic: Biological Classification Subtopics: *Kingdom Monera *Kingdom Protista *Kingdom Fungi *Kingdom Plantae, Animalia, *Viruses, Viroids, Prions and lichens Topic: Plant Kingdom Subtopics: *Algae *Bryophytes	Unit 1: Computer Systems and Organisation • Basic computer organisation: Introduction to Computer System, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (bit, byte, KB, MB, GB, TB, PB)	Microeconomi <u>cs</u> <u>Demand and</u> <u>Elasticity of</u> <u>Demand</u> ; [*] Demand; Market Demand; Determinants of Demand; Demand Schedule; Demand Curve- its slope *Movement along the demand curve and shift in the demand curve *Law of Demand & its exceptions *Price elasticity	Chapter 1: What is Psychology? •Psychology as a Discipline •Psychology as a Natural Science •Psychology as a Social Science •Understanding Mind and Behaviour •Popular Notions about the Discipline of Psychology •Evolution of Psychology •Development of Psychology in India •Branches of	Unit I Changing Trends & Career in Physical EducationConcept, Aims & Objectives of Physical EducationDevelopment of Physical Education in India – Post IndependenceChanging Trends in Sports- playing surface, wearable gears

resolution points in the plot of the stories under discussion -suggest ways to connect with elderly and bring harmony in the family -describe a photograph and experience/s related to it -design relevant and attractive posters -use catchy phrases to make their speech sound polished -deliver a formal speech in the class	Each student will be able to: *define the term set orally . *represent a set in roaster and set-builder form. *list the various types of sets. *define equal sets. *define a universal set. *define a universal set. *explain the various operations on sets i.e. Union, intersection, complement, difference Topic: Complex Numbers and Quadratic Equations (6) Subtopics: define a complex	spherical/cylind rical body using Vernier Calipers. Hands On: Make a paper scale of 0.2 cm/0.5 cm least count and use the same to measure dimensions of study table etc. Life Skill: Team Work and Collaboration Value: Appreciation for differences Gender Sensitivity: Gender Equality Health and Wellness: Importance of healthy diet May Kinematics	Analysis) - Instructions and demonstration for Volumetric analysis -Determine the strength of the given NaOH solution by titrating it against M/10 HCI solution. Life Skill: Problem solving, Critical Thinking Value: Fostering respect for differences, Team. work, Discipline Gender sensitivity: Gender and education Health and wellness: Time management <u>May</u> Topic: Some Basic Concepts of Chemistry contd Subtopics: -Mole	*Pteridophytes *Gymnosperms Art integration- Video Presentation/ Power Point Presentation Students in groups will make a video presentation or a power point presentation on different kingdoms/groups and present the same in the class. Experiential Learning- Experiments *Parts of a compound microscope *Specimens/slides/ models and identification with reasons - Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one	 Types of software: System System Software (Operating systems, systems, system utilities, device drivers), programming tools and language translators (assembler, compiler, and interpreter), application software Operating System(OS): functions of the operating system, OS user interface Boolean logic: NOT, AND, OR, NAND, NOR, XOR, NOT, truth tables and De Morgan's laws, Logic 	of demand- factors affecting Ed *Measurement of Ed- percentage and total expenditure method Consumer's <u>equilibrium</u> *Utility approach- meaning of Utility, Marginal Utility, *Law of Diminishing Marginal Utility, *Conditions of consumer's equilibrium using cardinal approach- sequilibrium using cardinal approach- % Utiliference Curve approach- Budget Set, Budget Line, Monotonic preferences, Indifference	Psychology •Themes of Research and Applications •Psychology and Other Disciplines •Psychology in Everyday Life Learning outcomes: Explain Psychology as a discipline State the relationship of mind with behaviour Explain the evolution of Psychology Differentiate between different branches of Psychology Chapter 2:	and sports equipment, technological advancements Career Options in Physical Education Khelo-India and Fit-India Program Learning Outcomes: Each student will be able to: Explain the concept of physical education, its aims & objectives Identify the Postindepend ence development in Physical Education Know the changing trends & career
	*define a complex number * The sum, difference,	May Kinematics Motion along A Straight Line	contd Subtopics: -Mole Concept- numerical -Empirical and	monocotyledonous plant, one dicotyledonous plant and one lichen.	Morgan's laws, Logic circuits • Number System:	preferences, Indifference Curve, Indifference Map and	Chapter 2: Methods of Enquiry in Psychology	trends & career options in physical education

quotient and product of two complex numbers. *conjugate and modulus of z. *properties of modulus and conjugate of z.	Rest and Motion Average and Instantaneous Speed and Velocity Graphical Representation Numerical	molecular formula and masses, related numerical -Reactions in solutions (mass %age, molarity, molality, mole fraction) and related numerical -Limiting reagent.	Life Skill: Healthy relationships Value: Responsibility Gender sensitivity: Awareness	Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems • Encoding	*Conditions of consumer's equilibrium Learning Outcomes: The students would be able to: 1. Understand	•Goals of Psychological Enquiry •Steps in Conducting Scientific Research •Alternative Paradigms of Research	Understand Khelo India & Fit India program <u>Unit II</u> <u>Olympism</u> <u>Value</u> Education
Learning Outcomes: Each Student will be able to: *recognize the need of a system of numbers beyond Real Numbers. *define iota. *define iota. *define a complex number * find the sum, difference, quotient and product of two complex numbers. *define complex numbers. *define acomplex number * find the sum, difference, quotient and product of two complex numbers. *define	Lab Activity: Expt 2: To measure the internal diameter and depth of a given beaker/ calorimeter using Vernier Calipers and find its volume. Expt 3: To measure diameter of a given wire and thickness of a given sheet using screw gauge. Hands On: Draw the various velocity time and position time graphs and	Stoichiometric calculations, related numerical Topic: C lassification of Elements and Periodicity in Properties Subtopics: - Need of classification- History of classification- History of classification- Modern periodic law and the present long form of periodic table Lab Activity: Determine the strength of the given NaOH solution by titrating it against M/20 oxalic acid solution. Life Skill: Application	Health and Wellness: Social wellness Learning Outcomes: Each student will be able to: *give reason as to why it is important to classify organisms. *explain binomial nomenclature with an example. *state four universal rules of nomenclature. *arrange taxonomic categories in ascending order of hierarchical arrangement. *compare any two characteristics of the five kingdoms.	Schemes: ASCII, ISCII, and Unicode (UTF8, UTF32) Learning Outcomes: Each Child will be able to– =>Develop a basic understandin g of computer systems - architecture, operating systems. =>Develop basic understandin g of new technologies	the conditions of consumer's equilibrium in case of single and two commodities. 2. State and explain the law of Diminishing Marginal Utility 3. Comprehend the significance of indifference curves 4. State the reason behind downward demand curve 5. Apply the role of budget line and apply in everyday life 6. Analyse and apply the concept of Elasticity of Domend in	 Nature of Psychological Data Some Important Methods in Psychology Observational Method Experimental Method Some Important Methods in Psychology Correlational Research Survey Research Psychological Testing Case Study Learning Outcomes: State the goals 	Olympism – Concept and Olympics Values (Excellence, Friendship & Respect) Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind Ancient and Modern Olympics Olympics - Symbols,

	Linear Inequalities(5) S ubtopics: *define an Inequation *find an algebraic solution of linear inequalities in one variable and represent it on the number line. *find graphical solutions of linear inequalities in two variables and represent it graphically. Learning Outcomes: Each Student will be able to: *define an Inequation *find algebraic solution of linear inequalities in one variable and represent it graphically. Learning Outcomes: Each Student will be able to: *define an Inequation *find algebraic solution of linear inequalities in one variable and represent it on number line. *find graphical solutions of	at least one real life situation. Life Skill: Team Work and Collaboration Value: Appreciation for differences Gender Sensitivity: Gender Equality Health and Wellness: Importance of healthy diet Learning Outcomes:	Thinking and Problem solving Value: Fostering Respect For Differences Gender sensitivity: Gender Equality Health and wellness: Seasonal Diet Learning Outcomes: Each student will be able to: *Explain the characteristics of three states of matter. *Classify different substances into elements, compound and mixtures. *Define & explain various laws of chemical combination and solve related numerical. *Discuss the significance of atomic mass, average atomic mass, molecular mass and formula	categories of bacteria based on their shape. *distinguish between Archaebacteria and Eubacteria.(2 points) *name the five groups of Kingdom Protista and state two characteristics of each. *state two main features of Kingdom Fungi. *compare any two features of the four classes of Fungi *mention one feature each of viruses, viroids, prions and lichens. *describe the basis of classification of algae *explain two main characteristics each of algae and bryophytes and give two examples of each *compare Chlorophyceae and Rhodophyceae on the basis of their	Information technology and how are they affecting the modern lifestyle =>Develop a basic understandin g of computer systems - architecture, operating systems. =>Explain the concept of data Categorize a data as Structured, Unstructured, Unstructured, Unstructured, Semi- structured Explain data capturing, processing, storage, retrieval, storage	Business. Introduction *Meaning of Microeconomic s and Macroeconomic s; *Positive and Normative Economics *What is an economy? *Central problems of an economy- what, how and for whom to produce *Concepts of PPC and Opportunity Cost, MOC and MRT Learning Outcomes: 1. Understan d the concept of scarcity 2. State the reasons behind emergence of Problem of choice 3. Analyse	State the different types of data used by psychologists describe some important methods of psychological enquiry explain the methods of analysing data, state the limitations of psychological enquiry and ethical considerations	Oath, and Anthem Olympic Movement Structure - IOC, NOC, IFS, Other members Learning outcomes: Each student will be able to: Differentiate between Ancient Olympic & Modern Olympic & Modern Olympic games Understand Olympism (concept & values) Know the Symbols, Motto, Flag, Oath, and Anthem of Olympics Unit III Yoga Meaning & Importance of Yoga
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	linear inequalities in two variable and represent it graphically. Topic: Sequence and Series(13) Subtopics: *Definition of sequence & series * A.M between two numbers a & b * G.P *General term of a G.P. *Sum of n terms of a G.P. *Sum of n terms of a G.P. *Inth term of a G.P *Geometric mean of two positive numbers *Relationship b/w A.M. and G.M. * sum to infinity of a G.P Learning Outcomes: Learning Outcomes:	mass. *Explain the term mole and write formulae related to mole concept. *Solve numerical on mole concept. *Define the term empirical formula and molecular formula and relate the two. *Calculate the empirical & molecular formula for a compound from the given data. *Define the terms- molarity, molality and mole fraction. *Solve numerical based on molarity, molality and mole fraction. *Define the terms- limiting reagent and stoichiometry. *Solve numerical based on limiting reagent and stoichiometric calculations. *Discuss the need of classification of elements.	pigments, stored food and cell wall *differentiate between liverworts and mosses (2 points) *explain the importance of algae and bryophytes. *explain two main characteristics each of pteridophytes and gymnosperms and give two examples of each *compare any two features of pteridophytes and gymnosperms *differentiate between homosporous and heterosporous pteridophyte (one point) *explain the importance of pteridophytes and gymnosperms	will be able to design circuits using Gates =>Each Child will be able to Describe encoding and the need for it. Represent character data in its internal binary form, depending on the character set used. =>Demonstra te of the basis of different number systems =>Convert a value from one number base / representatio n to another Describe the need of using different	 the Central Problems Apply the concept of PPC understand ing its characteris tics and shifts Solve for MOC and MRT numerically Distinguish between positive and normative economics Theory of statistics *What is economics? *meaning, Scope, functions and importance of statistics in economics *Collection of data- Sources of data, concepts of 	DOL	Introduction to Ashtanga Yoga Yogic Kriyas (Shat Karma) Pranayama and its types Active Lifestyle and stress management through Yoga Learning Outcomes: Each student will be able to: Know the meaning & importance of yoga Understand Ashtanga Yoga Describe Yogic Kriyas (Shat Karma) Learn and practice types of Pranayama Know about relaxation techniques for improving
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	Each child will be able to: *recall the definition of sequence & series *define A.M between two numbers a & b *define a G.P *find the nth term of a G.P *state the formula for sum of n terms of G.P *find the sum to infinity of a G.P *define G.M between two numbers a & b *recognize the relationship between A.M and G.M	*Discuss the basis and features, law, merits and demerits of Mendeleev's and Modern Periodic Table. *Explain the significance of electronic configuration as the basis of classification. RE INTER DF KAIL AS	RNATE RNATE RECOULT AND ADDRESS RECOULT ADDRESS RECOULT ADDRESS 	sampling, methods of collecting data, Census of India and NSSO Learning Outcomes: The learners will be able to: 1. State the functions and application of statistical tools 2. Understan d the importance of statistics for various sections of the economy 3. Analyse the limitations of statistics and cases of mistrust 4. Highlight the nature and methods of collection of data and its	OL	concentration
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							 Highlight the characteris tics of various types of series Solve and convert series into a different form. 		
JULY	<u>1. Prose:</u> <u>The Summer of the Beautiful</u> <u>White Horse-</u> <u>Learning</u> <u>Outcomes</u> Each student will be able to -paraphrase the text and explain the ideas -justify the title -write character sketches analysing the actions of the characters -filter value points from the text to answer the questions asked	Topic: Relations and Functions Subtopics: *Ordered pair *Cartesian Products of Sets *Relation and its Domain and Range. *Functions and its its Domain and Range. * Some functions and their graph Learning Outcomes: Each child will be able to:	Topic: Kinematics - Motion in a plane (10 classes) Projectile motion. Uniform circular motion. Conceptual questions and Numerical. Learning Outcomes: Each student will be able to: *represent horizontal projectile and angular projectile	Topic: Classification Of Elements and Periodicity in Properties (Contd) Sub Topics: -Position of the elements in the periodic table - Trends in the periodic Properties: - Atomic radii-ionic radii & inert gas radii, -ionization enthalpy, electron gain enthalpy - electronegativity, valency and chemical	Topic: Animal Kingdom Subtopics: *Arthropoda and Mollusca *Echinodermata and Hemichordata *Chordata Topic: Morphology of Flowering Plants Subtopics: *The Root and the Stem *The Leaf *The Inflorescence and *The Flower *The Fruit and The Seed *Description of Solanaceae Topic: Anatomy of	Familiarizatio n with the basics of Python programming: a simple "hello world" program, the process of writing a program (Interactive & Script mode), running it and print statements; simple data- types: integer, float and string. • Features of Python,	TABULAR PRESENTATIO N. DIAGRAMMATI C PRESENTATIO N Geometric forms (bar diagram and pie diagram); Frequency diagram (histograms, polygons and ogive); Time series graphs Learning Outcomes • Learners will be able to:	Unit 2: Methods of Enquiry Psychological Testing Case Study Limitations of enquiry Ethical issues Learning Outcomes Each student will be able to: Explain case study method	Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang) Concept of Disability and Disorder Types of Disability, its causes & nature (Intellectual disability, Physical disability) Aim & Objective of Adaptive

-write a speech in about 150 words, following a proper format -add at least 3-4 new words to his/her vocabulary 2. Writing Skill: Debate Writing Coutcome Each student will be able to: -differentiate between the writing skills- Speech and Debate -comment on the style and diction that should be adopted while writing a debate -frame at least 2- 3 phrases to be used in a debate 3. Poem: The Laburnum Top	*define the Cartesian product of sets. *find the number of elements in a Cartesian product. *define a relation. *describe a relation in roaster, set- builder, arrow diagram form *find the domain and range of a relation. *define a function *find the domain and range of a function. *find the domain and range of a function. *fist the various types of function. *draw the graphs of various functions. Topic:	diagrammatical ly. *list examples (at least two each) for horizontal and angular projectile. *derive mathematical equations for trajectory, time of flight, height and range for horizontal as well as angular projectile. *mention the terms related to rotational motion and relate these with linear motion. *apply the formulae logically and solve conceptual question, numerical. Art Integration (Director's	reactivity Topic: Redox Reactions Sub Topics: - Classical and Electronic concept of redox reactions – Oxidation and Reduction reactions. -Redox reactions in terms of Oxidation number and calculation of oxidation number and calculation of oxidation number -Types of redox reactions- -Disproportionation reaction etc -Balancing of redox reactions- -Half reaction method and -Oxidation number method Lab Activity (Volumetric Analysis) - Determine the strength of the given Na ₂ CO ₃ solution by	Flowering Plants Subtopics: *The Tissue System *Anatomy of Dicotyledonous and Monocotyledonous Plants Topic: Structural organization in animals Subtopics: *Morphology of Frog *Anatomy of Frog Topic Cell: The Unit of Life Subtopics: *Cell and Cell Theory *An Overview of Cells *Prokaryotic Cells *Eukaryotic Cells *Eukaryotic Cells Art Integration 'Edible Cell' Students will build an edible plant or an animal cell (cake/pizza/ cookie) using various food items to represent	Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, Operators. • Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression • Introduce the notion of a variable and methods to manipulate it (concept of L-value and R-value even if not taught explicitly). • Knowledge of data types and operators: accepting input from the console, assignment	 To present data using tables To represent data using appropriate diagrams SCH(HI) 	Describe the limitations of psychological enquiry Explain ethical considerations of research UNIT 9 Motivation and Emotion Nature of motivation Types of motives Theories of emotion. Managing negative emotions Enhancing positive emotions Enhancing positive emotions Enhancing positive emotions	Physical Education Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist , Physical Education Teacher, Speech Therapist & Special Educator) Learning Outcomes: Each student will be able to: Explain the concept of disability & disorder Know the types, causes & nature of disability Describe the aim & objectives of Adaptive
<u>Top</u> Learning Outcome	functions. Topic: Trigonometric	Art Integration (Director's	strength of the given Na ₂ CO ₃ solution by titrating it against	(cake/pizza/ cookie) using various food items to represent	input from the console, assignment		of motivation Describe types of motives	aim & objectives of Adaptive Physical
Each student will	Functions Subtopics:	short movie/video on	M/10 HCl solution.	Experiential Learning-	expressions, operators and			Education Understand the

	be able to -comment on the theme and meaning of the poem -recite the poem with proper tone and rhyme and -identify at least 3 poetic devices incorporated in the poem -draw a comparative study between human life and nature. -comment on the importance of interdependence and living in harmony -express themselves through writing tasks -filter value points from the text to answer the questions asked <u>4. Prose:</u> We're Not Afraid to Dieif We Can All Be Together	*Angles *Degree measure *Radian measure *relation between degree and radian *Trigonometric functions *Signs of trigonometric functions *Trigonometric Functions of sum and difference Learning Outcomes: Each child will be able to: *Identify positive and negative angles. *Measure angles in radian and in degree and conversion from one measure to another. *define trigonometric	projectile motion to show the factors on which the horizontal range of the projectile depends. Detailed instructions to be shared in the Google Classroom. Topic: LAWS OF MOTION(11 classes) Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservati on of linear momentu m and its application	Qualitative analysis - Instructions for the classification and the chemical tests of acidic radicals (anions) and basic radicals (cations)To determine an anion and a cation present in the given salt samples. (Group 1 – Pb salts) Life Skills: Problem solving and Critical thinking Value: Fostering Respect For Differences Gender sensitivity: 'Gender Equality' Health and wellness Stress management Learning Outcomes: - Predict the position of the elements (period and group no) in the periodic table using	Experiments *Study and describe locally available common flowering plants, from family Solanaceae including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement shape, venation, simple and compound) *Different types of inflorescences (cymose and racemose) *Preparation and study of T.S. of dicot and monocot roots and stems (primary). *Study of distribution of stomata on the upper and lower	their precedence. • Operators & types: Binary operators- Arithmetic, Relational Operators, Logical Operators, Augmented Assignment Operators. Learning Outcomes Each child will be able to- state the purpose behind algorithms and flowcharts. Identify different shapes of flowchart use each shape in a flowchart. Define data and identify different data types. Und	SCH0	Explain theories of emotion Explain ways of managing negative emotions Explain ways to enhance positive emotions UNIT 4 Human Development Meaning of development Life-span perspective on development Bronfenbrenner' s contextual view of development. Prenatal development Childhood developmental stages Development during adolescence	role of various professionals for children with special needs Unit V Physical Fitness, Health and Wellness Meaning and Importance of Wellness, Health and Physical Fitness Components/Di mensions of Wellness, Health and Physical Fitness Components/Di mensions of Wellness, Health and Physical Fitness Traditional Sports & Regional Games for promoting wellness Leadership through Physical Activity and Sports Introduction to First Aid – PRICE
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	Outcome Each student will be able to -justify the title of the story -identify the personal traits of the characters -summarise the plot in their own style -comment on the values highlighted in the story -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary	functions with the help of unit circle. *Signs of trigonometric functions. *find the trigonometric ratio over the domain R *find the trigonometric ratio over the domain R *list the various formulas: $Cos(A \pm B)$ $Sin(A \pm B)$ $Tan(A \pm B)$ *State the S/D and product formulas *State the half angle formulas *recall the graphs of various trigonometric functions *recall the graphs of various trigonometric functions *apply all formulas and identities in	s. Friction and its causes, Static and kinetic friction, laws of friction. Level curved road and banked curved road. Numerical. Learning Outcomes: Each student will be able to: *explain the effect of force in terms of the different changes that it may cause on an object. *explain the relation between force and inertia (relate to real life example) *interpret the relation between inertia and mass. *state the laws of motion. *state the applications of	configuration Define periodic properties- atomic and ionic radii, ionization enthalpy, electron affinity, electronegativity, valency and chemical reactivity. -Explain the trends and exceptions related to the above periodic properties. -Compare the relationship between ionization enthalpy and metallic character. -Explain diagonal relationship shown by Li and Mg, Be and Al -Define the terms oxidation, reduction, oxidizing & reducing agent in terms of classical concept and electronic concept. -Cite examples for	surfaces of leaves. *Study of osmosis by potato osmometer Life Skill: Team work Value: Responsibility Gender Sensitivity: Gender equality Health and wellness: Cell death Learning Outcomes Each student will be able to: *state two characteristic features of different phyla *give one example each of Arthropoda, Mollusca and Echinodermata *mention two characteristic features each of Amphibia, Reptilia, Aves and Mammalia *give one example each of Amphibia, Reptilia, Aves and Mammalia name	erstand rules of naming variables and identifying datatypes Be able to assign proper variable names. Use the statements according to syntax and in proper sequence. Identify the different types of operators used in PYTHON. Use the operator according to requirement in the program use the statements according to the syntax form proper condition checking statements adifferents according to	SCH0	Each student will be able to: Describe the meaning and process of development Explain the influence of heredity and environment on human development Identify the stages of development Describe the major characteristics of infancy, childhood and adolescence	Learning Outcomes: Each student will be able to: Know the meaning and importance of Physical Fitness, Wellness & health Understand the components of physical fitness, wellness and health Explain traditional sports & regional games for promoting wellness Relate leadership through physical activity and sports Differentiate steps used in first aid - PRICE
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solving questions.	conservation of linear momentum *list the causes of friction *list the three different types of friction and differentiate between them. *state the laws of friction. *derive the equations for the dynamics of motion on level curved road and banked curved road. *apply concepts and formulae to solve related questions. Art Integration (Framing Questions) "Design A Caricature Quiz" on "Laws of Motion". A quiz (at least five questions) that covers the basics of	redox reactions in terms of classical, electronic & Oxidation number concept. -Apply rules to calculate oxidation number of an atom in different species. -Define the term disproportionation reaction. -Apply the rules to calculate oxidation number for an element in different species. -Balance redox reactions using half reaction & oxidation number method	two types of root systems and give an example of each. *draw a diagram to show regions of root tip. *differentiate between racemose and cymose inflorescence *compare hypogynous, perigynous and epigynous flowers *explain the four main types of aestivations. *describe the types of placentation *distinguish between dicot and monocot seed *draw the floral diagram of Solanaceae and mention its floral formula *distinguish between simple tissues and complex tissues' *mention three types of tissue systems *differentiate between open and	among looping statements di use these statements in programs Use ifelse statements in a program Use loops to create applications use the nested loops statements according to the syntax form proper condition checking statements use the statements in programs	SCH0	DOL	
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	Newton's laws of motion. This is to determine your knowledge and retention.	closed vascular bundles *compare the anatomy of dicot and monocot plants. *compare the features of a male frog and a female frog and a female frog. *explain digestive, circulatory, respiratory, nervous and reproductive system of frog *explain the discovery of a cell. *mention the cell theory *compare plant cell and animal cell as well as prokaryotic cell and eukaryotic cell and eukaryotic cell *state the role of mesosome in prokaryotic cell *mention the structure and function of cell membrane, cell wall, Golgi apparatus, vacuoles, endoplasmic reticulum and lysosomes *differentiate between smooth	SCH0	DOL	
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			FAGO	RE INT	endoplasmic reticulum and rough endoplasmic reticulum *explain the structure and function of a mitochondrion and draw its diagram *name the three types of plastids and state their functions *describe the structure of chloroplast and draw its diagram *compare the electron microscopic structure of cilia/flagella and centriole *draw four types of chromosomes based on the position of centromere *draw labeled diagram of plant and animal cell	onal W Del	SCH0	DOL	
AUG	<u>1. Prose:</u> Discovering Tut: the Saga Continues Learning Outcome	Topic: Straight Lines Sub-Topics *Introduction *Slope of a line *Slope of line when	Topic:Work, Energy Power(13 classes) Subtopics: Work done by a constant	Topic: Redox Reactions (contd) Sub Topics: Redox reactions an electrode processes Galvanic cell,	Topic: Cell Cycle and Cell Division Subtopics: *Cell Cycle *M Phase *Significance of mitosis	Strings: introduction, indexing, string operations (concatenatio n, repetition,	MEASURES OF CENTRAL TENDENCY Arithmetic mean, median and mode Learning	UNIT-5 Sensory, Attentional and Perceptual Processes Knowing the	Unit VI Test, Measurement & Evaluation Concept of Test, Measurement & Evaluation in

Each student will	opordinates of	force and a	alaatraahamiaal	*Mojosis and	momborship	Outcompar	world:	Physical
be able to	coordinates or			*Significance of		Outcomes. Each	World, Naturo of	Education 8
	on the line are	Kinotic	applications	Mojosis	traversing a	child	stimuli:	enorte
to why King Tut's	divon	oporav Work	applications	Tonio:	string using	will bo	Naturo and	sports
body bas boon	* Condition of	Energy, WOR	Structure (Piomologulos	loope built in		functioning of	Toot
bouy has been		Theorem	Atom	Subtonicou	functions:	able	conce modelities	TESI, Magguramanta
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explain why	y of lines in	Notion and	Developments	Secondary Matabalitas and	capitalize(),	unders	Adaptation	In Sports
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investigation was	siopes	Notion of	model of atom-	Biomacromolecules	upper(),	tne	Attention :	Bivii, vvaist –
resented	^Angle between	potential	dual character of	[^] Proteins and	count(),	need	Nature and	Hip Ratio, Skin
justify the title	two lines	energy,	electromagnetic	Structure of	find(), index(),	for	determinants;	fold
enumerate the	*Various forms	potential	radiation	Proteins	endswith(),	summ	Selective and	measurement
examples of	of equations of	energy of a	-Wave nature of	*Polysaccharides	startswith(),	arising	sustained	(3-site)
scientific	lines	spring.	electromagnetic	and Nucleic Acids	isalnum(),	a set	attention;	Somato Types
advancements	*Distance of a	Conservation	radiation-	*Enzymes	isalpha(),	of data		(Endomorphy,
that have	point from a	of mechanical	Electromagnetic	Topic:Photosynthe	isdigit(),	by one	Perceptual	Mesomorphy &
revolutionised	line	energy.	spectrum	sis in Higher	islower(),	single	Processes,	Ectomorphy)
the field of	Learning	Elastic and	-Dual behaviour	Plants	isupper(),	numbe	The Perceiver,	Measurements
archaeology	Outcomes:	Inelastic	of	Subtopics:	isspace(),	r	Principles of	of health-
	Each child will	collisions in	electromagnetic	*Early experiments	lstrip(),	● To	Perceptual	related fitness
2. Reading:	be able to:	one and two	radiation, Atomic	*Site of	rstrip(),	recogn	Organisation.	
Note Making and	*find the slope	dimensions.	spectra- Emission	photosynthesis and	strip(),	ise		Learning
Summarisation	of a line	Numerical.	& absorption	types of pigments	replace(),	and		Outcomes:
	*Various forms	Learning	spectra, Line	involved in	join(),	disting	Perception	Each student
Learning	of a line	Outcomes:	spectrum of	photosynthesis	partition(),	uish	space, depth	will be able to:
Outcome	1. one-point	Each student	Hydrogen	*Light reaction	split()	betwe	and distance.	Define Test,
Each student will	form,	will be able	-Bohr's model-	*The electron	Lists:	en	Perceptual	Measurement
be able to	2. two-point	to-	Postulates &	transport	introduction,	differe	constancies,	& Evaluation in
-read the	form,	*derive relation	Limitations -	Experiential	indexing, list	nt	Illusions,	sports
passage with	3. slope-	for work done	Developments	Learning-	operations	types	Socio-cultural	Understand
understanding	intercept form.	by constant	leading to -	Experiments	(concatenatio	of	influences on	BMI: A popular
-define note	4. intercept	and variable	Quantum	*Mitosis in onion	n, repetition,	averag	perception.	clinical
making	form,	force.	Mechanical Model	root tip cells and	membership	es	Learning	standard and
-summarise the	*find the	*interpret the	of atom	animal cells	& slicina).	● To	Outcomes:	its computation
passage for note	equation of a	conditions for	-Dual behaviour	(grasshopper) from	traversing a	compu	Each student	Differentiate
making	line using the	positive	of matter (de-	permanent slides	list usina	te	will be able to:	between
		r ,		F				

-filter value points from the text to prepare notes <u>3. Prose:</u> <u>The Address</u> <u>Learning</u> <u>Outcome</u> Each student will be able to -interpret the title -comment on the outcome of wars and the hardships that follows it -bring out the optimism in the story -identify three- four character traits of the narrator and Mrs. Dorling -filter value points from the text to answer	various forms of Line. *Calculate the distance of a point from a line Topic: Conic Sections Subtopics: *Sections of a cone * Circle, ellipse, parabola * Degenerated conic sections Learning Outcomes: Each child will be able to: *define a parabola and recognize/find the standard equation of parabola *define/find the coordinates of	negative and zero work done. *state and prove mathematically work energy theorem. *correlate between the two types of potential energy with real life examples. *derive expressions for potential energy of mass spring system. *state the principle of conservation of energy. *differentiate between elastic collision and inelastic collision.	Broglie equation) and -Heisenberg uncertainty principle- Significance and Limitations -Numerical related to wave characteristics, de-Broglie equation and Heisenberg uncertainty principle. -Quantum Mechanical Model of atom- Schrodinger wave equation and Postulates Quantum number Concept of orbitals -Shapes & energy of atomic orbitals- s, p and d, nodes.	*Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials *Separation of plant pigments through paper chromatography Life Skill: Problem solving Value: Teamwork Gender Sensitivity: Gender bias Health and Wellness: Uncontrolled cell division Learning Outcome Each student will be able to: *explain cell cycle *state three processes which take place in interphase *mention the	loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency	differe nt types of averag es Draw meani ngful conclu sions from a set of data Develo p an unders tandin g of which type of averag e would be the most useful in a particu	Describe that the nature of stimuli is based on our seven sense organs. Describe the functioning of sense modalities (visual sensation and the ear) and the concept of Adaptation Understand the concept of attention and various factors and a brief about ADHD. List down the principles of Perceptual organization. Describe perceptual	Endomorphy, Mesomorphy & Ectomorphy Describe the procedure of Anthropometric Measurement <u>Unit VII</u> <u>Fundamentals</u> <u>of Anatomy,</u> <u>Physiology in</u> <u>Sports</u> Definition and Importance of Anatomy and Physiology in exercise and sports Functions of Skeletal system, classification of bone and types of joints Properties and Functions of Muscles Function and
points from the text to answer	*define/find the coordinates of	elastic collision and inelastic collision.	s, p and d, nodes. -Electronic	take place in interphase *mention the significance of	and counting the frequency	in a particu	organization. Describe perceptual constancies	Functions of Muscles Function and Structure of
asked -add at least 3-4 new words in his/her vocabulary	equation of directrix and length of latus rectum of a parabola	y derive equations related to collisions. *relate the	Rules for filling of atomic orbitals- Aufbau principle, n+l Rule, Pauli's exclusion	*describe the different stages of mitosis with the help of labeled	in a list Learning Outcomes: Each child will be able	SUPPLY Market supply,	and the concept of illusions.	Circulatory system and heart Function and Structure of
<u>4. Poem: The</u> Voice of the Rain	rdefine an ellipse and	conclusions for various cases	rule of maximum	diagrams *compare	to–. Declare	determinants of supply, supply	between monocular and	Respiratory system

	Learning Outcome Each student will be able to -identify poetic devices -comment on the theme and autobiographical features of the poem - read the poem with proper tone and rhythm -explain the meaning of the poem	recognize /find the standard equations of an ellipse *state the relationship between semi- major axis, semi-minor axis and the distance of focus from the centre of the ellipse *define eccentricity *define/find the coordinates of foci, vertices, lengths of major axis, and minor axis, eccentricity and length of latus rectum of the given ellipse	of elastic collision to real life situations like in nuclear power plant use of moderators. Art Integration (Creative Corner) Make a power point presentation on the topic Work done by a constant and a variable force. Further details will be shared in Google Classroom. Topic: System of Particles and Rotational Motion (7 classes) Subtopics: Motion of System of Particles and Rigid body: center of mass of a two-	multiplicity. -Electronic configurations & their stability of reasons Lab Activity (Qualitative analysis 1)To determine an anion and a cation present in the given salt samples. (Zero Group – NH₄+ salts) To determine an anion and a cation present in the given salt samples (Group 3 – Al salts) (Group 5 –Ba, Sr, Ca salts) 2)To determine an anion and a cation present in the given salt samples. (Group 3 – Al salts) (Group 5 –Ba, Sr, Ca salts) 2)To determine an anion and a cation present in the given salt samples. (Group 4 –Zn salts) Art Integration Activity: Model Making on the shapes of orbitals Life Skill: Critical Thinking	cytokinesis in plant cell and animal cell *differentiate between mitosis and meiosis *explain the significance of meiosis *describe the different stages of meiosis I and II with the help of labeled diagrams *give two examples of biomacromolecules *give reason as to why lipids are not biomacromolecules *list the functions of proteins, carbohydrates and nucleic acids *explain four levels of protein structure *describe the structure of DNA *mention three properties of enzymes and explain activation energy of enzymes *list three factors affecting the functions of	strings and use strings in programming Apply string functions in programming use functions for different operations- character math , string etc. create user defined functions apply concepts of string slicing in programming use different inbuilt functions in string programming Define lists Declare lists and nested lists Apply lists based functions in programs	schedule, supply curve and its slope, movement along and shifts in supply curve, price elasticity of supply, measurement of price elasticity of supply, percentage change method Learning Outcomes: Each child will be able to: • Define supply, market supply, market supply • Draw supply curve to explain the effect of various factors • Illustrate expansion/ contraction ; increase / decrease in supply.	binocular cues to depth perception. Understand the socio-cultural influences on perception.	Learning Outcomes: Each student will be able to: Know the definition and importance of Anatomy and Physiology Understand the function of Skeletal System, Classification of Bones & Types of Joints Know the properties and functions of muscles and understand how they work Explain the Function & Structure of Respiratory System and Circulatory System (heart)
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			particle system, center of mass of a n particle system (2) Velocity and acceleration of centre of mass locations of rigid body and momentum conservation (2) Numerical (2) Learning Outcomes: Each student will be able to: *differentiate between center of mass and center of gravity. *draw diagrams and calculate the position of center of mass of given system of particle. *define the term rigid body and tabulate	Value: Integrity Gender Sensitivity: Awareness Health and Wellness: Energy promotes health and wellbeing Learning Outcomes: Learn the concept of redox reactions in terms of electrode process (Galvanic cell) and electrochemical series -Apply electrochemical series -Apply electrochemical series to determine the relative strength of oxidants and reductants and feasibility of reactions. -Discuss the postulates and limitations of Bohr atomic model. -Derive de Broglie equation and formula for Heisenberg's	enzymes *state three kinds of cofactors and mention their application. *state the importance of photosynthesis *mention the site of photosynthesis *name four pigments involved in photosynthesis *explain the structure of chloroplast and its role in photosynthesis *compare cyclic and non-cyclic photophosphorylati on.	onal W Del	elasticity of supply	DOL	
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			the position of centre of mass for some common rigid bodies. *state the principle of conservation of angular momentum and interpret its applications in the field of sports. Experiential Activity To find the centre of mass of regular/irregula r lamina, concept of moment of inertia through activity of different shaped objects rolling down a plane.	Uncertainty Principle -Solve numerical on de Broglie equation and Heisenberg's Uncertainty Principle. -Discuss the basis and postulates of Quantum mechanical model. -Discuss the properties of different types of orbitals (s, p, d, f). -Draw orbital picture diagrams for s, p and d orbitals. -Interpret the quantum numbers for a given notation. -State and explain the rules involved in the filling of orbitals-Aufbau rule, n+rule, Pauli's Principle and Hund's rule. -Predict and write the electronic configuration of the different species (atoms/	ERNATI ASH, NE	onal W Del	SCH0	DOL	
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				ions). -Discuss reason for the exceptional configurations. -Predict the magnetic behaviour of different species from their electronic configuration. -Identify the iso- electronic species.					
SEPT	1. Writing Skill Advertisement Learning Outcome Each student will be able to - identify the requisites of the advertisement -frame short but meaningful phrases for the Ads. -draft classified Ads. as per the format 2. Reading <u>Comprehen- sion: Unseen</u> Passage	Topic: Conic Sections Subtopics: Hyperbola Learning Outcomes: Each child will be able to: *define a hyperbola and recognize/find the standard equations of a hyperbola *define/find the coordinates of foci, vertices, eccentricity and length of latus rectum of the given hyperbola.	Topic: System of Particles and Rotational Motion Subtopics: Torque, angular momentum and its conservation, its application. Rigid body rotation, equation of rotational motion. Moment of inertia and value of moments of inertia of	Topic: Chemical Bonding and Molecular Structure Sub Topics: Kossel- Lewis approach to chemical bonding, octet rule, Modes of chemical combination-Ionic bond, Covalent bond, Covalent bond, Coordinate bond. Lewis dot structure & formal charge calculation Valence bond theory of covalent bond-Energy concept	Topic: Photosynthesis in Higher Plants (contd.) Subtopics: *The Calvin cycle *The C4 Pathway *Photorespiration *Factors affecting photosynthesis Life Skill: Building healthy relationships Value: Sensitivity to environment Gender Sensitivity: Gender stereotype Health and wellness: Coping with stress	REVISION Learning Outcomes: Each child will be able to clarify doubts in Python and fundamentals : =>recapitulat e the important concepts, laws and rules. =>apply the same to answer related questions.	MEASURES OF CENTRAL TENDENCY Arithmetic mean, median and mode Learning Outcomes: Each child will be able to: To understand the need for summarisin g a set of data by one single number To recognise	UNIT-6 Learning Nature of learning and learning curve: Paradigms of learning : Classical conditioning REVISION Learning Outcomes Each student will be able to: Describe the nature of learning and features of learning.	Revision

	Learning Outcome Each student will be able to -paraphrase the passage -explain the questions -filter value points from the text to answer the questions asked 3. Revision of all the Short and Long Writing skills and Literature section Learning Outcome Each student will be able to -recapitulate the themes of the lessons -recall the format and rules related to the writing skills and grammatical concepts -draft ads and posters -draft sample		simple geometrical objects. Learning Outcomes: Each student will be able to: *conclude torque, angular momentum, moment of inertia as the rotational analogue of force, momentum and mass and derive relation between them. *apply formulae logically and solve numerical.	Lab Activity (Qualitative analysis) -To determine an anion and a cation present in the given salt samples. (Group 6 –Mg salts) Life Skill: Adaptability Value: Fostering Respect for Differences Gender Sensitivity: Consent and Healthy Relationships Health and Wellness: Healthy Aging Learning Outcomes: Healthy Aging Learning Outcomes: Explain Kossel- Lewis approach to chemical bonding. -State and explain octet rule and its limitations. -Draw Lewis dot structure and hence calculate formal charge on each atom of the molecule. -Explain the	Learning Outcome Each student will be able to: *illustrate Calvin cycle and Hatch and Slack pathway *differentiate between the anatomy of leaf in C ₃ and C ₄ plants *explain the process of photorespiration *list the various factors affecting the process of photosynthesis ERNATI ASH, NE	onal W Del	and distinguish between different types of averages • To compute different types of averages • Draw meaningful conclusion s from a set of data • Develop an understand ing of which type of average would be the most useful in a particular situation <u>SUPPLY</u> Market supply, determinants of supply, supply schedule, supply curve and its slope, movement along and shifts	List down the paradigms of learning Explain classical conditioning	
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	speech and debate -answer the HOTS questions from the prescribed lessons <u>4. Assessment</u> of Listening and <u>Speaking Skills</u> Learning Outcome Each student will be able to - listen carefully to the podcast -speak up confidently - use the language and vocabulary appropriately		TAGOI EAST (valence bond approach to covalent bond. -Differentiate between σ and π bonds. RE INT DF KAIL	ERNATI ASH, NE	ONAL W DEL	in supply curve, price elasticity of supply, measurement of price elasticity of supply, percentage change method Learning Outcomes: Each child will be able to: • Define supply, market supply, market supply • Draw supply • Draw supply • Draw supply • Curve to explain the effect of various factors • Illustrate expansion/ contraction ; increase / decrease in supply. • Compute elasticity of supply		
OCT	Prose: Mother's Day Learning	and Derivatives Subtopics:		Bonding and Molecular Structur	in Plants Subtopics:	I uples: introduction, indexing,	<u>COST-</u> Short run costs- Total Cost, Total	UNIT-6 Learning Nature of	Unit VIII Fundamentals of Kinesiology

Outcome Each student will be able to -highlight the role and status of a mother in a household (after watching the Ted talk shared with them) -identify at least 4-5 characteristics that mothers possess -analyse the theme and write their interpretation of the title -filter value points from the text to answer the questions asked -compose a song dedicated to mothers	*Introduction *Intuitive idea of Derivatives *Limits *Limits of trigonometric / Exponential / algebraic functions *Derivatives Learning Outcomes: Each child will be able to: *define limit of a function *perceive the geometrical interpretation of limits *evaluate the limit of various functions *define derivative of a function at a point *perceive the geometrical interpretation of derivatives *evaluate derivatives	TAGOI EAST (Sub Topics: - Valence bond theory of covalent bond- Orbital overlap concept-σ and π bond -Bond characteristics, Resonance - Concept of Hybridisation (concept, types- sp ³ , sp ² , sp, sp ³ d, sp ³ d ² , sp ³ d ³) -Concept of Hybridisation (types- sp ³ , sp ² , sp, sp ³ d, sp ³ d ² , sp ³ d ³) VSEPR Theory and its limitations -Polar and nonpolar covalent bond-Dipole moment -Hydrogen bonding- concept, types and its effects on physical properties Molecular orbital theory, energy level diagrams	*Glycolysis *Fermentation *Aerobic respiration and Tricarboxylic Acid Cycle *Electron Transport System (ETS), *Oxidative Phosphorylation, *The respiratory balance sheet and amphibolic pathway Topic: Plant Growth and Development Subtopics: *Growth *Differentiation, Dedifferentiation, Redifferentiation, and Development *Plant Growth Regulators Experiential Learning- Experiments *Study of the rate of respiration in flower buds/leaf tissue and germinating seeds. *Comparative study of the rates of transpiration in the upper and lower	tuple operations (concatenatio n, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple Learning Outcomes:	Fixed Cost, Total Variable Cost, Average Cost, Average Fixed Cost, Average Variable Cost, Marginal Cost- meaning and their relationships <u>REVENUE</u> - Total Revenue, Average Revenue, Marginal Revenue- meaning and their relationship <u>PRODUCER'S</u> <u>EQUILIBRIUM-</u> Meaning and its conditions in terms of MR and MC. <u>Learning</u> Outcomes: Each student will	learning and learning curve: Paradigms of learning : Operant Conditioning Observational Learning, Cognitive learning Learning disabilities; Applications of learning principles Learning Outcomes Each student will be able to: Describe the nature of learning and features of learning. List down the paradigms of learning as two types of conditioning and other ways of learning including	and Biomechanics in Sports Definition and Importance of Kinesiology and Biomechanics in sports Principles of Biomechanics Kinetics and Kinematics in Sports Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation Axis and Planes – Concept and its application in body movements: Each student
	derivatives *evaluate derivatives using the method of first principle.		Molecular orbital theory, energy level diagrams (diatomic homoatomic molecules)	of the rates of transpiration in the upper and lower surfaces of leaves Life Skill: Building healthy	tuple Learning Outcomes: Each child will be able to:	Outcomes: Each student will be able to: Explain firm's cost	other ways of learning including Observational Learning,	Learning Outcomes: Each student will be able to: Know the definition and

	formulas of derivatives of some standard functions *perceive the concept of chain rule, quotient rule and product rule *apply the knowledge gained in differentiating functions.	TAGO	Lab Activity (Qualitative analysis) To determine an anion and a cation present in the given unknown salt sample/s. Art Integration Activity 3-D Ball and Stick models Design two (3-D) molecular models [for covalent compounds /isomers / diamond / graphite (allotropes of C] and explain the hybridisation involved in the structure of compound (using materials of your choice). Life Skill: Adaptability Value: Fostering Respect for Differences Gender Sensitivity: Consent and	relationships Value: Sensitivity to environment Gender Sensitivity: Gender stereotype Health and wellness: Coping with stress Learning Outcome Each student will be able to *name two types of respiration and compare them *explain glycolysis and fermentation *mention two steps of glycolysis in which ATP is utilized *illustrate the citric acid cycle *differentiate between glycolysis and citric acid cycle *describe electron transport system *justify that aerobic respiration is more efficient *give reason as to why respiratory pathway is called amphibolic pathway *state the	Define tuples Decl are tuples Apply tuple based functions in programs Diffe rentiate between tuples and lists Apply steps of using modules and import different modules	and revenue goals using TC, ATC,FC, AFC, AVC and MC • State the conditions of producer's equilibrium using MR- MC approach SCHC	Cognitive learning, Verbal learning, Concept learning, skill- learning, skill- learning. Analyze the factors influencing learning and various learning styles. Describe Learning Disabilities Explain the application of learning principles	Importance of Kinesiology and Biomechanics Define the principles of Biomechanics Understand the types of body movements Explain the concept & application of Axis and Planes in body movements
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				intramolecular hydrogen bondingExplain the postulates of Molecular Orbital Theory Differentiate between bonding and anti-bonding molecular orbitals. -Draw the energy level diagrams of homo diatomic molecules to predict their magnetic behavior	EDMATI	ONAL	0.014		
NOV	1. Poem: Childhood Learning Outcome Each student will be able to -identify poetic devices -comment on the theme and meaning of the poem -read the poem with proper tone and rhythm -enlist at least 3-4 characteristics that	Topic: Permutations and Combinations Subtopics: * Introduction *Fundamental Principle of counting *Permutations when all the objects are/are not distinct. *Combinations Learning Outcomes: Each child will be able to:	EAST	Topic: Organic Chemistry : Some Basic Principles And Techniques Sub-Topics: - Introduction to organic compounds, Nature of Carbon -Types of Structures and representations - Classification - Nomenclature - Isomerism- structural & stereoisomerism - Fundamental concepts in	Topic: Breathing and Exchange of gases Subtopics: *Respiratory organs and human respiratory system *Mechanism of breathing and respiratory volumes and capacities *Exchange of gases *Transport of gases *Regulation of respiratory system Topic: Body Fluids	• Dictionary: introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(),	CORRELATIO N-Meaning and its properties, scattered diagram, measures of correlation-Karl Pearson's Method and Spearman's Rank Correlation method (Non repeated and repeated ranks)	UNIT-7 Human Memory Nature of memory; Information Processing Approach: The Stage Model, Memory Systems: Sensory, Short- term and Long- term memories. Levels of processing;	Unit IX Psychology & Sports Definition & Importance of Psychology in Physical Education & Sports Developmental Characteristics at Different Stages of Development Adolescent Problems & Their Management Team

establish the difference between children and adults -filter value points from the text to answer the questions asked 2. Prose: The Adventure Learning Outcome Each student will be able to -analyse the theme and write their interpretation of the title. -talk about the catastrophe theory and quantum physics -highlight at least 2-3 qualities of the central character -filter value	*state the fundamental principle of Addition / Multiplication * factorial notation *define permutation. *find the number of permutations of n different objects with or without repetition. *define combination. *differentiate btw Permutation and Combination Topic: Probability Sub Topics	TAGOI EAST (organic reaction mechanism (homolytic & heterolytic fission, intermediate formation - Inductive effect & Electromeric effect - Class test Lab Activity (Qualitative analysis) To determine an anion and a cation present in the given unknown salt sample/s. Life Skills: Problem solving and Critical thinking Value: Fostering Respect For Differences Gender sensitivity: 'Gender Equality') Health and wellness: Stress	and Circulation Subtopics: *Blood and Blood groups *Coagulation of blood, *Lymph and *Circulatory pathways *Human circulatory system *Cardiac cycle *Electrocardiograph *Double circulation *Regulation of cardiac activity and disorders of circulatory system Topic: Excretory Products and their elimination Subtopics: *Modes of excretion and Human excretory system *Urine formation *Function of tubules *Mechanism of concentration of filtrate *Regulation of kidney function and	items(), get(), update(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them Unit III: Society, Law and Ethics	Each student will be able to: Define Correlation Understan d the nature of relationship between two variables Calculate the different measures of correlation Analyse the degree and direction of the relationship s. <u>INDEX</u> <u>NUMBERS-</u> Meaning, types, WPI, CPI, IIP, uses of index numbers, Inflation and	Types of Long- term memory, representation and organization in memory; Memory as a constructive process; Nature and causes of forgetting; Enhancing memory Learning Outcome Each Student will be able to: Describe the concept of Memory. Understand the Information Processing Approach List down the memory systems.	Cohesion and Sports Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness Learning Outcomes: Each student will be able to: Explain the definition and importance of Psychology in Physical Education & Sports Differentiate characteristic s of growth and development at different stages. Understand
-highlight at least	Combination		sensitivity:	*Mechanism of	and access	Meaning, types,	Approach	and
2-3 qualities of the central	Topic:		Gender Equality	filtrate	tnem Unit III:	uses of index	List down the	development at different
character	Probability		wellness:	*Regulation of	Society, Law	numbers,	memory	stages.
-filter value	Sub Topics:		Stress	kidney function and	and Ethics	Inflation and	systems.	Understand
points from the	1. Introduction		management	micturition	 Digital 	index numbers,	Decerite the	the problems
the questions	Z. Random Experimente		Learning Outcomool	Role of other	- Digital	Simple	Describe the	and
ine questions	Experiments		Each student will	organs or excretion	 Digital society and 	Ayyreyalive	nevels of	rolated to
add at loast 3 1	simple and		be able to:	anu uisuruers ul	Notizon: not	methou	model of	adolosconte
-auu al least 3-4	simple and		Evolain tha	Art Integration	otiquettee		Momony	Know about
new words in	compound		-Explain the	An integration-	euqueues,		wemory.	KIIOW ADOUL

	his/her vocabulary 3. Prose: Birth Learning Outcome Each student will be able to -reflect on the title and theme -enlist the characteristics of the protagonist -comment on the topics: - maintaining balance between personal and professional life -role and position of doctors in the society -critically appreciate the diction and style of the writer	events 4. Algebra of events 5. Mutually exclusive, exhaustive events Learning Outcomes: Each child will be able to: *recall the concept of probability *recall the definition of random experiment, sample space of a Random experiment *list the various kinds of events : mutually exclusive, exhaustive events *prove events to be mutually Exclusive or exhaustive *state and apply the formulae for	FAGOI EAST (nature of carbon and formation of organic compounds Give reasons for the tetravalency of carbon - Differentiate between organic and inorganic compounds Interpret the types of bonds in a molecule based on hybridization. -Draw the structures of organic molecules in various ways (complete, condensed) Classify the organic compounds using flow diagramList some characteristic features of pi bonds Explain how bond length and bond strength depends on the size of the hybrid orbitals Draw condensed structures and bond line	Model making Students will create an amusement park based on the various systems and organs within the human body and present the same in the class Experiential Learning- Experiments *Study of plasmolysis in epidermal peels (e.g. Rhoeo /lily leaves or fleshy scale leaves of onion bulb) *Test for presence of urea in urine. *Test for presence of sugar in urine. *Test for presence of albumin in urine. *Test for presence of albumin in urine. *Test for presence of albumin in urine. *Test for presence of bile salts in urine.	communicatio n etiquettes, social media etiquettes • Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache) • Cyber- crime: definition, hacking, eavesdroppin g, phishing and fraud emails, ransomware, preventing	Learning Outcomes: Each student will be able to: • Understan d the meaning of the term index numbers • Familiarise with the use of widely used index numbers • Calculate an index numbers • Appreciate its limitations	List down types of Long term memory State the organizational structure of the contents of long term memory. Discuss the concept of reproduction of stored material and causes of forgetting. Explain the application of the concepts learned in enhancing memory.	team cohesion in sports Correlate the psychological concepts with the sports and athlete specific situations Unit X Training and Doping in Sports Concept and Principles of Sports Training Training Load: Over Load, Adaptation, and Recovery Warming-up & Limbering Down – Types, Method & Importance Concept of Skill, Technique, Tactics & Strategies Concept of Doping and its disadvantaes
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	probability of an event *state the Addition formulae of probability	AGOI	structures of organic moleculesName aliphatic, aromatic and polyfunctional compounds as per IUPAC nomenclature Explain the types of structural and stereoisomerism and draw the structures of the isomers for a given molecular formula Differentiate between homolytic and heterolytic fission. -Draw and explain the structure of reaction intermediates & explain their stability orders Define and differentiate between Inductive effect and Electromeric effect.	Health and Wellness: Knowing your body Learning Outcome Each student will be able to: *name the respiratory organs of fish, earthworm, insects and mammals *explain human respiratory system *draw respiratory system of human beings *list the steps involved in respiration *describe exchange and transport of gases *draw oxygen dissociation curve *name any two disorders of respiratory system *differentiate between inspiration and expiration *mention the different components of human blood and state their functions *list the four types of blood groups and their donor compatibility *give	cyber crime • Cyber safety: safely browsing the web, identity protection, confidentiality, , cyber trolls and bullying. • Safely accessing web sites: malware, viruses, trojans, adware • E-waste management: proper disposal of used electronic gadgets • Indian Information Technology Act (IT Act) • Technology Act (IT Act) • Technology & Society: Gender and disability issues while teaching and using computers	SCH(DOL	Learning Outcomes: Each student will be able to: Understand the meaning and concept of Training & Doping Know the principles of sports training load Understand the concept of warming up & limbering down in sports training and their types, method & importance Acquire the ability to differentiate between the skill, technique, tactics & strategies in sports training Know the disadvantages of Doping
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			FAGO EAST (re int of kail	reason as to why the wound does not continue to bleed for a long time *state the function of the lymphatic system. *differentiate between open and closed circulatory systems. *draw and explain the structure and function of human heart *state the significance of double circulation *give reason as to why terrestrial animals are generally either ureotelic or uricotelic but not ammonotelic. *name the parts of human excretory system *draw labeled diagram of human excretory system *explain the structure of kidney and nephron with the help of diagrams *describe the process of urine formation *state the function of proximal convoluted	Learning Outcome Each child will be able to: =>declare and make programs on- -Dictionary -Dictionary search - append -delete -Traversal -copy => define terms related to Cyber safety: safely browsing the web, identity protection, confidentiality , social networks, cyber trolls and bullying =>Appreciate Use social networks: spread of rumors, and common social networking sites (Twitter,	SCH0	OL	
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DEC	<u>1. Prose: Silk</u> <u>Road</u>	Topic: Binomial		Topic: Organic Chemistry : Some	Topic: Locomotion and Movement	CLASS XII Unit III:	<u>FORMS OF</u> MARKET AND	UNIT-8 Thinking	
		Theorem		Basic Principles	Subtopics:	Database	PRICE		
	Learning	Sub Topics		And Techniques	*Types of	Management	<u>DETERMINATI</u>	Nature of	
	Outcome	*expansion of		Sub-	movement and	Database	<u>ON</u>	thinking;	
	Each student will	the binomial		Topics:	Muscle	concepts:	Perfect	The processes	
	be able to	expression		Resonance effect	*Structure of	introduction	Competition-	of	
		(a+b) ⁿ using		and	contractile proteins	to database	Features,	Thinking	
	-enumerate the	binomial		hyperconjugation	*Mechanism of	concepts and	determination	Problem	
	benefits of writing	theorem for			muscle contraction	its need	of market	Solving,	
	a travelogue	positive integral		Topic:	*Skeletal system	Relational	equilibrium and	Reasoning	
	-comment on the	indices.		Hydrocarbons	*Joints and	data model:	effects of shifts	Decision making	
	importance of the	* pascal's		Sub-Topics: -	disorders of	relation,	in demand and	Nature and	
	silk road/ route	triangle		Classification of	muscular and	attribute,	supply (Short	Process of	
	and its history	Learning		hydrocarbons-	skeletal system	tuple,	run only)	creative thinking	
	-compare and	Outcomes:		Saturated and	Topic: Neural	domain,		Developing	
	contrast the	Each child will		unsaturated.	Control and	degree,	Simple	creative	
	weather	be able to:	TAOOI	Isomerism -	Coordination	cardinality,	Applications of	thinking;	
	conditions and	*expand the	LAGO	Alkanes, Alkenes	Subtopics:	keys	demand and	Thought and	
	topographical	binomial		and Alkynes	*Human neural	(candidate	supply, Price	Language	
	features of	expression	EACT /	(preparation,	system *Neuron	key,	ceiling and floor	Development of	
	northern India	(a+b) ⁿ using	EADI	physical &	*Generation and	primary key,	price.	language and	
	with the other	binomial		chemical	conduction of nerve	alternate key,		language use	
	parts of the	theorem for		properties) Name	impulse	foreign key)		Learning	
	country in the	positive integral		reactions – Wurtz	*Transmission of	Structured	Learning	Outcomes:	
	form of a report	indices.		reaction,	impulse	Query	Outcomes:	 describethe 	
	2. Poem: Father	*use pascal's		Decarboxylation,	*Central neural	Language:	Each student	nature of	
	<u>to Son</u>	triangle in		Kolbe reaction	system	introduction,	will be able to:	thinking and	
	Learning	writing the		Conformations-	Topic:	Data	 Understan 	reasoning,	
	Outcome	coefficients in		Sawhorse and	Coordination and	Definition	d the		
	Each student will	the expansion.		Newmann	Integration	Language	concept of	 explain 	
	be able to			projection formula	Subtopics:	and Data	different	cognitive	
	-identify the	Topic:		of Ethane -	*Hypothalamus	Manipulation	types of	processes	
	theme of the	Matrices		Aromatic	*The Pituitary	Language,	market	involved in	
	poem and			hydrocarbons	Gland *The Pineal	data type	structure	problem solving	
	comment on the	Sub Topics:		(preparation,	and Thyroid gland	(char(n),	 Illustrate 	and decision-	
	same	1. Matrix-		physical &	Experiential	varchar(n),	the	making,	

	poetic lines -filter value points from the text to answer the questions asked -prepare a greeting card for his/her father expressing their feelings toward them	2. Types of matrices 3. Operations on matrices 4. Transpose of a matrix 5. Symmetric and Skew symmetric matrices. Learning Outcomes:Eac h child will be able to: *identify a ^{<i>ii</i>} element of a matrix *apply the basic operations of +, - *define various types of matrices *solve the problem of equality of matrices. *define transpose of a matrix *define transpose of a matrix *define symmetric and skew symmetric matrices.	TAGOI EAST (properties with mechanisms, structure and uses of benzene) Life Skill: Problem Solving Value: Compassion and empathy Gender Sensitivity: Gender Stereotypes Health and Wellness: Environmental Wellness: Environmental Wellness: Environmental Wellness: Each student will be able to: Organic Chemistry : Some Basic Principles And Techniques - Explain hyperconjugation and resonance effects and draw resonating structures of the given molecule - Solve reasoning questions on above effects.	Experiments Human skeleton and different types of joints with the help of virtual images/models only. Life Skill: Analytical thinking Value: Conflict resolution Gender Sensitivity: Gender discrimination Health and wellness: Neural Health Health Learning Outcome Each student will be able to: *mention the structure and function of skeletal muscle *explain the structure of contractile proteins *describe the sliding filament theory of muscle contraction. *explain the nervous system in humans. *describe the structure and types of neurons	date), constraints (not null, unique, primary key), create database, use database, show databases, drop databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematica I, relational and logical), aliasing, distinct clause, where clause, in, between, order by,	•	of revenue in perfect competition using schedule and diagrams Present the dynamics of changes in the equilibrium price and quantity, diagramma tically Apply the concept of MSP and rationing	 explain the nature and process of creative thinking and ways of enhancing it, explain the relationship between language and thought, describe the process of language development and its use 	
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	*find the transpose of a matrix *differentiate between symmetric. and skew symmetric matrices. *define inverse of a matrix.	 Hydrocarbons - Discuss classification and IUPAC nomenclature of hydrocarbons Draw structures isomers for a given molecular formula Explain the preparation methods, properties of ethane, ethene, ethyne and benzene and the respective reactionsDra the Sawhorse an Newmann projections for ethane and discuss their stabilities Comment on the name reactions (Wurtz, Kolbe an Decarboxylation, reaction) Explain the hybridization in the structure of benzene Explain the mechanism of electrophilic 	*explain the generation, conduction and transmission of nerve impulse *differentiate of between CNS and PNS *name the three major parts of brain and explain their functions *list the various endocrine glands. *describe the location and structure of any two r endocrine glands, the hormones secreted by them, d their functions in human body and various disorders related to them.	meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join Learning Outcomes: Each child will be able to- =>Define terms-primary key, candidate key, foreign key, alternate key DDL DML Joins Cardinality Arity	SCH0	DOL	
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	6	Ð	TAGOI EAST (substitution reactions of benzene RE INT DF KAIL	ERNATI ASH, NE	RDBMS domain Each child will be able to work with =>Create SQL databases and tables =>insert records, update/delete records =>Execute SQL commands: create, insert , select, project, and join;	SCH0	OOL	
JAN	1. Prose: The Tale of Melon City Learning Outcome Each student will be able to -identify the satirical features of the poem -identify poetic devices -comment on the theme -paraphrase the	Topic: Determinants Sub Topics: 1. Determinant- Introduction 2. Area of triangle 3. Adjoint and inverse of a matrix 4. Applications of Determinants and matrices		Topic: Hydrocarbons Sub-Topics: - Directive influence of substituents in mono substituted benzene compounds - Carcinogenicity and toxicity Interconversions Topic: Chemical Equilibrium Sub- Topics: -	Topic: Chemical Coordination and Integration Subtopics: *Thymus and adrenal gland *Pancreas *Testis and ovary *Hormones of heart, kidney and gastrointestinal tract *Mechanism of hormone action Topic: Sexual Reproduction in	PROJECT WORK REVISION Learning Outcomes: Each child will be able to clarify their doubts =>in Python and CSO =>recapitulat e the important	INDIA ON THE EVE OF INDEPENDEN CE A brief introduction of Indian economy on the eve of independence with respect to, agriculture, industries, foreign trade, occupational	UNIT 1(Class XII Syllabus) VARIATIONS IN PSYCHOLOGIC AL ATTRIBUTES Individual Differences in Human Functioning Assessment of Psychological Attributes Intelligence, Individual	

	Ines of the poem -read the poem with proper tone and rhythm -enlist at least 3- 4 characteristics of the king -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary	Learning Outcomes: Each child will be able to: *define inverse of a matrix. *Perceive the concept of Determinants, minors, cofactors, adjoint and inverse. * find the area of triangle * solve the system of equations using matrices	FAGO	Equilibrium in physical and chemical processes - nature and characteristics of equilibria Law of mass action & Law of chemical equilibrium -Relation between Kp and Kc) - K _c characteristics, expression, units, Related numerical -Types of equilibria- Homogeneous and heterogeneous equilibria -Factors affecting Kc (Le- Chatliers principle & its applications. -lonic equilibrium in solutions Strong & weak electrolytes, ionic equilibria, ionization of weak electrolytes (Ostwald's Dilution Law) -Acid	Flowering Plants Subtopics: *Flower-A fascinating organ of angiosperms *Pre-fertilization: structures and events *Double Fertilization *Post-fertilization: structures and events *Apomixis and Polyembryony Life Skill: Interpersonal Relationship Value: Dependability Gender Sensitivity: Gender Equality Health and wellness: Health problems caused due to pollen. Learning Outcome Each student will be able to: *describe the location and structure of any two endocrine glands,	concepts, laws and rules. =>apply the same to answer related questions. =>apply the same to make project =>solve practice papers	structure, demography. Learning Outcomes: Each student will be able to: • Explai n the feature s of Indian agricul ture on the eve of indepe ndenc e. Define 'syste matic de- industr ialisati on' • Explai n the feature s of Indian agricul ture on the eve of indepe ndenc e. Define 'syste matic de- industr ialisati on' • Explai n the feature s of Indian agricul ture on the eve of indepe ndenc e. Define 'syste matic de- industr ialisati of occup ational structu re, demog raphic profile,	Differences in Intelligence Culture & Intelligence Emotional Intelligence Special abilities Learning Outcome Explain psychological attributes on which people differ from each other State the different methods that are used to assess psychological attributes Different between the theories of intelligence proposed by various psychologists Discuss variations of intelligence, learn how	
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Spaining's source in describe the describe the reproductive parts of flower common ion effect - Applications of solubility product, Ksp and common ion effect. -Buffer solutions & buffer action. Life Skill: Problem Solving Value: Gender Sensitivity: Gender Stereotypes Health and 'Traw the diagrams				FAGO	base concepts. -Strength of acids & bases- ionization constants. -lonic product of water Kw. -pH and pOH- concept and numerical. - Solubility equilibria of sparingly soluble salts(Ksp) - Brief idea & common ion effect - Applications of solubility product, Ksp and common ion effect. -Buffer solutions & buffer action. Life Skill: Problem Solving Value: Compassion and empathy Gender Stereotypes Health and	the hormones secreted by them, their functions in the human body and various disorders related to them. *explain role of hormones of heart, kidney and gastrointestinal tract describe mechanism of hormone action *describe the reproductive parts of flower *explain development of male gametophyte and female gametophyte *compare microsporogenesis and megasporogenesis *mention the types of pollination, the agents needed and its significance *differentiate between autogamy and geitonogamy *describe double fertilization *draw the diagrams	onal W Del	foreign trade on the eve of indepe ndenc e.	psychologists assess intelligence to identify mentally challenged and gifted individuals Difference between intelligence and aptitude REVISION	
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				equilibria of sparingly soluble salts and calculate solubility product constant & its applications. -Explain common ion effect & buffers Apply common ion effect in qualitative analysis.					
FEB	1. Revision of all the Short and Long Writing skills and Literature section Learning Outcome Each student will be able to -recapitulate the themes of the lessons -recall the format and rules related to the writing skills and grammatical concepts -draft ads and posters -draft sample	Revision	Revision	Revision and End Term Examination REINT	Revision for End- Term Examination	Revision ONAL W DEL	Revision SCHC	Revision	Revision

debate -answer the HOTS questions from the prescribed lessons 2. Assessment of Listening and Speaking Skills Learning Outcome Each student will be able to - listen carefully to the podcast -speak up confidently - use the language and		TAGOI	RE INT	ERNATI	ONAL	SCHO	DOL	
language and	(ir)	IAGUI		EKNAH	UNAL	SULL	NOL .	
vocabulary		EAST (de kail	ASH. NE	W DEL			