

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
JULY	Ch.1 The living world	Biodiversity; Needs for classification; taxonomy and systematic; binomial nomenclature	Constructivist approach Reflective approach	Classroom discussions , Question answer session Portfolio	Content, neatness, completeness	Herbarium file	
	Ch.2 Biological classification	Five kingdom classification, salient features and classification of Monera, Protista and Fungi, Lichens, viruses and viroids	Constructivist approach Reflective approach	Classroom discussions , Question answer session Portfolio	Content, neatness, completeness		
	Ch.3 Plant kingdom	Features and classification of plants into major groups (Algae, Bryophyta, Pteridophyta, Gymnosperm)	Constructivist approach Reflective approach	Classroom discussions explanation through living specimens of plant , Question answer session Portfolio Lab activity-	Concept, Procedure, Presentation		Modules on plant kingdom
	Ch.4 Animal kingdom	Features and classification of animals (non-chordates upto phyla level and chordates upto class level)	Constructivist approach Reflective approach	Classroom discussions , Question answer session Portfolio Lab activity	Concept, Procedure, Presentation, performance, analysis		

AUGUST	PREMID TERM EXAMINATION						
	Ch.5 Morphology of Flowering Plants	Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed, Description of family Solanaceae	Constructivist approach Reflective approach , Inquiry based	Classroom discussion, explanation rough living specimens of plant (nature walk), project Lab activity	Content, Research, data collection Presentation performance, analysis		
	Ch.6 Anatomy of flowering plants	Anatomy and functions of tissue system of dicots and monocots.	Reflective approach , Inquiry based	Classroom discussion, Question answer session Portfolio Lab activity	Concept, Procedure, Presentation, performance, analysis	Floral diagrams and formulae of different families	
	Ch.7 Structural organization in animals	Morphology, anatomy and functions of different systems of Frog	Constructivist approach Reflective approach	Classroom discussion, Question answer session Portfolio	Concept, Procedure, Presentation		
SEPTEMBER	Ch.8 Cell-The unit of life	Cell theory, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall cell organelles-structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles, nucleus.	Constructivist approach Reflective approach	Classroom discussions , Question answer session Portfolio Lab Activity	Content, neatness , completeness performance, data collection, analysis		Modules on structure and functioning of cell organelles

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	Ch.9 Biomolecules	Biomolecules,structureand function of proteins carbohydrates, lipids, nucleic acids; Enzymes- types,properties,enzyme action.	Constructivist approachReflective approach	Classroom discussions ,Questionanswer session PortfolioLab Activity	Concept, Procedure, Presentation, performance, analysis		
	Ch.10CellCycle andCell Division	Cellcycle,mitosis,meiosis and their significance	Constructivist approachReflective approach	Classroom discussions ,Questionanswer session	Concept, Procedure, Presentation	Stages of cell cycles	
	MIDTERM EXAMINATION						
OCTOBER	Ch.11 Photosynthesisin higher plants	Site of photosynthesis, pigments involved in photosynthesis, cyclic and non-cyclic photo- phosphorylation, chemiosmotic hypothesis; photorespiration;C3 andC4 path ways; factors affecting Photosynthesis.	Constructivist approachReflective approach	Classroom discussions, Questionanswer sessionPortfolio	Content, neatness ,completeness		Modules on photo phosphor elation
	Ch.12 Respirationin plants	Cellular respiration- glycol sis, fermentation, TCA cycle and electron transport system, Amphibolic, pathways, respiratory quotient.	Constructivist approachReflective approach	Classroom discussions, Questionanswer sessionPortfolio	Content, neatness ,completeness		
NOVEMBER	Ch.13Plant- Growth and development	Phages of plant growth, conditions of growth, differentiation, dedifferentiation and redifferentiation, sequence of developmental processes in a plant cell; growthregulators.	Constructivist approachReflective approach	Classroom discussions, Questionanswer sessionPortfolio	Content, neatness ,completeness		

Ch.14 Breathing and Exchange of gases	Respiratory system, mechanism of breathing, exchange of gases, transport of gases & regulation of respiration, respiratory disorders	Constructivist approach, Reflective approach	Classroom discussions, Question-answer session, Portfolio	Content, neatness, completeness		
Ch.15 Body fluid and circulation	Composition of blood, blood group, human circulatory system, regulation of cardiac activity, cardiac disorders.	Constructivist approach, Reflective approach	Classroom discussion, Question – Answer session, portfolio	Content, neatness, completeness		Module on functioning of blood circulation

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	POSTMIDTERM EXAMINATION						
	Ch.16 Excretory products and their Elimination	Modes of excretion human excretory system—structure and functioning, role of other organs in excretion, disorders, Dialysis, Artificial kidney, kidney transplant	Constructivist approach Reflective approach	Classroom discussion, Question – Answer session, Sketch, Lab activity	Content, neatness completeness performance, analysis	Chart of disorders of different organ systems	
DECEMBER	Ch.17 Locomotion and movement	Types of movement's skeletal muscle- its functioning, skeleton system –structure and function, Disorders of muscular and skeletal System.	Constructivist approach Reflective approach	Classroom discussion, Question – Answer session, Sketch	Concept, Procedure, Presentation,		
	Ch.18 Neural Control and Coordination	Nervous system in humans, generation and conduction of nerve impulse.	Constructivist approach Reflective approach	Classroom discussion, Question – Answer session, Sketch	Concept, Procedure, Presentation,		Module on generation and conduction of a nerve impulse
JANUARY 26	Ch.19 Chemical coordination and integration	Endocrine glands and hormones, mechanism of hormone action, role of hormones as messengers and regulators, hypo- and hyperactivity and related disorders.	Constructivist approach Reflective approach, Inquiry based	Classroom discussion, Question – Answer session, Sketch, assignment	Content, neatness completeness	chart on mechanism, role and regulation of hormones (endocrine glands)	
FEB. & MAR CH 26	REVISION & FINAL EXAMINATION						

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(NEELAM BHARDWAJ)

SIGNATURE OF PRINCIPAL

(ANJU SHARMA)

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	1. Sexual reproduction in flowering plants	Structure of flower, development of male and female gametophytes, pollination-types ,agencies, pollen-pistil, interaction; double fertilization, post fertilization events, special modes-apomixes, parthenocarpy, polyembryony.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, assignment, Lab activities,	Content, neatness, performance , completion		Modules on pre and post fertilization events in plant
	2. Human reproduction	Male and female reproductive system, anatomy of testes and ovary, gametogenesis, menstrual cycle, fertilization, embryogenesis, implantation; pregnancy and placenta formation, parturition.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, Lab activities, assignment	Content, presentation, performance completion	Flow charts on hormonal control in human beings	
	3. Reproductive health	reproductive health and prevention from STDs, birth control; need and methods, contraception and MTP amniocentesis and assisted reproductive technologies.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, Curriculum activities, assignment	Content, neatness completion		

JULY	4.Hereditand variation	Mendelian inheritance, deviation from Mendelism, pleiotropy, chromosome theory of inheritance, sex determination-in human, bird sand honey bee, linkage and crossing over, sex linked inheritance, mendelian disorders.	Constructivist,Inquiry based, Integrative	Classroom discussion, Question answersession, ,Labactivities, assignment	Content, neatness, , data collection, analysis	Pedigreecharts	Modules on Mendalian disorders
	5.Molecularbasis of inheritance	Structure of DNA and RNA, DNA packaging, replication Lac Operon, genom project, DNA fingerprinting	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answersession, Curriculum activities, assignment Lab activity	Content, neatness, completion performance , data collection, analysis		Modules on chromosomal disorders in humanbeings
AUGUST	PREMIDTERM EXAMINATION						
	6. Evolution	Origin of life, biological evolution and evidences, Darwin's contribution , modern theory of evolution, mechanism of evolution,types of natural selection,geneflow and gene tic drift, Hardy-Weinberg's principle, adaptiveradiation,human evolution	Constructivist,Inquiry based, Integrative	Classroom discussion, Question answersession, Curriculum activities, assignment	Content, neatness, completion		Module on historyofHuman Evolution

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	7.Humanhealth and diseases	Pathogens; parasites causing human diseases, and their control, basicconceptsof immunology-vaccines-cancer HIV and AIDS, adolescence-drug and alcohol abuse.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answersession, Curriculum activities, assignment	Content, neatness, completion	Chart on parasites causing human diseases and their control	
SEPTEMBER	8. Microbesin humanwelfare	Microbes In household food processing, industrial production, sewage treatment, energy generation and microbesasbio-controlagents andbio-fertilizers, antibiotics-production and judicious use.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, Lab activities, assignment	Content, neatness, completion		
	9. Biotechnology— Principles and Processes	Genetic engineering(Recombinant DNA technology)	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, Curriculum activities, assignment	Content, neatness, completion		
	10.Biotechnology anditsapplication	Application of biotechnology inhealthandagriculture,gene therapy, genetically modified organisms-Btcottontrangenic animals bio safety issues, biopiracy and patents.	Constructivist, Inquiry based, Integrative	Classroom discussion, Question answer session, Curriculum activities, assignment	Content, neatness, completion		Modules on Application of biotechnology

JAN.26	2NDPREBOARD EXAMINATION
FEB.26	PRACTICAL EXAMINATION ANNUAL EXAMINATION

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SIGNATURE OF PRINCIPAL



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