

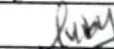






YEAR PLAN FOR THE ACADEMIC YEAR 2023 - 2024				
STD IX - ENGLISH				
MONTH	TOPIC	SUB-TOPICS	GRAMMAR	WRITING
JUNE (23 DAYS)	BEEHIVE Unit 1	The Fun They Had The Road Not Taken(Poem)	Determiners	Descriptive Paragraph Writing (Person)
	MOMENTS Unit 1	The Lost Child		
JULY (22 DAYS)	BEEHIVE Unit 2 & Unit 3	The Sound Of Music Evelyn Glennie Bismillah Khan (Reading only) Wind (Poem) The Little Girl Rain on The Roof (Poem)	Tenses	Descriptive Paragraph Writing (Event)
	MOMENTS Unit 2	The Adventures of Toto		
PERIODIC TEST 1 (AUG 7 - AUG 14)				
AUGUST (19 DAYS)	BEEHIVE Unit 4	A Truly Beautiful Mind The Lake Isle of Innisfree (Poem)	Modals	Descriptive Paragraph Writing (Situation)
	MOMENTS Unit 3	Iswaran The Story Teller		
SEPTEMBER (19 DAYS)	BEEHIVE Unit 5	The Snake And The Mirror A Legend Of The Northland (Poem)	Subject- Verb Concord	Story Writing
	MOMENTS Unit 4	In The Kingdom Of Fools		
OCTOBER (21 DAYS)	BEEHIVE Unit 6	My Childhood No Men Are Foreign (Poem)	Subject- Verb Concord	Diary Entry
	MOMENTS Unit 5	The Happy Prince		
PERIODIC 2 (5 OCTOBER - 16 OCTOBER)				
NOVEMBER (24 DAYS)	BEEHIVE Unit 7	Reach For The Top Santosh Yadav Maria Sharapova On Killing A Tree(Poem)	Reported Speech (Statements)	Paragraph Writing (Person, Event, Situation)
	MOMENTS Unit 7	The Last Leaf		
DECEMBER (18 DAYS)	BEEHIVE Unit 9	If I Were You	Reported Speech (Questions,Commands, Requests)	Diary Entry
	MOMENTS Unit 8	A House Is Not A Home		
PERIODIC 3 (8 JANUARY - 15 JANUARY)				
JANUARY (22 DAYS)	BEEHIVE Unit 8	Kathmandu (Art Integrated ASL Project) A Slumber Did My Spirit Seal (Internal Assessment)	Revision	Revision
	MOMENTS Unit 9	The Beggar		
FINAL EXAMINATION (19 FEBRUARY - 28 FEBRUARY)				
FEBRUARY (23 DAYS)		REVISION		
MARCH (16 DAYS)		REVISION		

BHARATIYA VIDYA BHAVAN, KOCHI KENDRA
YEAR PLAN FOR THE ACADEMIC YEAR 2023-24
MALAYALAM
CLASS - IX

MONTH	TOPIC	SUB-TOPICS	CONCEPTS	EVALUATION
ജൂൺ	തുടിച്ചാളം തേടി	അമ്പാടിയിലേയ്ക്ക്	മലയാള സാഹിത്യത്തിന്റെ മഹനീയ പാരമ്പര്യം * മലയാളത്തിലെ പ്രധാന കാവ്യ പ്രസ്ഥാനങ്ങൾ * പ്രാചീന കവിത്രയം * ഭഗവാനും ഭക്തനും തമ്മിലുള്ള ആത്മബന്ധം . * രചനാ കാലത്തെ സാമൂഹികാവസ്ഥ * ഭാഷാപ്രയോഗ രീതി.* ദുർജ്ജന സംസർഗ്ഗം സജ്ജനങ്ങളെ സ്വാധീനിക്കില്ല.	
	വ്യാകരണം	പ്രയോഗം മാറ്റുക,	വാക്യപരിവർത്തനം ഭാഷാഗ്രഹണശേഷി	
	രചന	അവധാരണം(പദ്യം) കത്ത്	സാമൂഹികാവബോധം ഭാഷാസിദ്ധി രൂപഘടന	
ജൂലൈ	പാരിന്റെ നന്ദമയ്ക്കേത്ര	രണ്ടു ടാക്ലിക്കാർ	പരോപകാര പ്രദമായ ജീവിതമാണ് അഭികാമ്യം.* മറ്റുള്ളവരെ നിസ്വാർത്ഥമായി സഹായിക്കുന്ന വ്യക്തികൾ പ്രധാന കഥാപാത്രങ്ങളായി വരുന്ന സാഹിത്യ കൃതികൾ.* മഹത് വ്യക്തികളുടെ ജീവിത വീക്ഷണം, അനുഭവകഥകൾ എന്നിവയ്ക്ക് സമൂഹത്തിലുള്ള സ്വാധീനം.*	
	ഉപപാഠം	തേജസ്വിയായ വാഗ്മി (പാഠങ്ങൾ 1-3)	ജീവചരിത്രകൃതികളുടെ പ്രാധാന്യം . സ്വാമി വിവേകാനന്ദന്റെ ജനനവും ബാല്യകാലവും	
ആഗസ്റ്റ്	കുതുകമോടാലപിച്ചാ ലും	വിശ്വം ദീപമയം	സുഖ ദുഃഖ സമ്മിശ്രമായ ലോകത്ത് സമാധാനത്തോടെയും ശുഭാപ്തിവിശ്വാസത്തോടെയും ജീവിക്കേണ്ടതിന്റെ ആവശ്യകത. * മലയാള സാഹിത്യത്തിലെ പ്രബോധനപരമായ കവിതകൾ * പ്രത്യാശാനിർഭരമായ ജീവിതം മഹത്തരമാണ്.*	P 1 1.അമ്പാടിയിലേക്ക് 2.രണ്ടു ടാക്ലിക്കാർ പ്രയോഗം മാറ്റുക, അവധാരണം(പദ്യം)

സെപ്റ്റംബർ	പുക്കളൊക്കെയും വാക്കുകളാകുമ്പോൾ	വെള്ളച്ചാട്ടത്തിന്റെ ഇടിമുഴക്കം	യാത്രാവിവരങ്ങളിലൂടെ പ്രകടമാകുന്ന സംസ്കാരവും, പ്രകൃതിയും. * മലയാള സഞ്ചാര സാഹിത്യ ചരിത്രം. * യാത്രാവിവരണത്തെ കൂടുതൽ അനുഭവവേദ്യമാക്കുന്ന വാങ്മയ ചിത്രങ്ങൾ. * വിസ്മയകരമായ പ്രകൃതി പ്രതിഭാസം. * കാവ്യാത്മകമായ ഭാഷ. * സഞ്ചാരി കണ്ട നാടിന്റെ പ്രകൃതി ഭംഗി, ചരിത്രം, പാരമ്പര്യം	
	ഉപപാഠം	തേജസ്വിയായ വാഗ്മി (പാഠങ്ങൾ 4-6)	* സ്വാമി വിവേകാനന്ദന്റെ വിദ്യാഭ്യാസം, ആദ്ധ്യാത്മിക ജീവിതത്തിലേക്കുള്ള പരിണാമഘട്ടം.	
	വ്യാകരണം	വിധി - നിഷേധം, അംഗ-അംഗി വാക്യങ്ങൾ,	ഭാഷാപ്രയോഗശേഷി	
	രചന	അവധാരണം(പദ്യം) ഉപന്യാസം	ഭാഷാഗ്രഹണശേഷി സാമൂഹികാവബോധം ഭാഷാസിദ്ധി രൂപഘടന	
ഒക്ടോബർ	പാഠിന്റെ നന്മയ്ക്കത്രേ	കാളകൾ	*തൊഴിലിനോടുള്ള ആത്മ സമർപ്പണത്തിന്റെ പ്രാധാന്യം* ഏതൊഴിലും ശ്രേഷ്ഠമാണ്. * അധ്വാനത്തിന്റെ മഹത്വം പ്രഘോഷിക്കുന്ന സാഹിത്യകൃതികൾ. * കവിതയിലൂടെ വ്യക്തമാകുന്ന സാമൂഹിക പശ്ചാത്തലം. * ജീവിതമാകുന്ന നാടകം.	P 2 1.വിശ്വം ദീപമയം 2.വെള്ളച്ചാട്ടത്തിന്റെ ഇടിമുഴക്കം *തേജസ്വിയായ വാഗ്മി(1-3)
	രചന	പത്രവാർത്ത ഉപന്യാസം	സാമൂഹികാവബോധം ഭാഷാസിദ്ധി രൂപഘടന	വാക്യപ്രയോഗം, വിധി - നിഷേധം, അംഗംഗി വാക്യങ്ങൾ, അവധാരണം(പദ്യം), കത്ത് (ഔദ്യോഗികം)
നവംബർ	കുതുകമോടാലപിച്ചാലും	ആർഭാടത്തിൽ നിന്ന് ലാളിത്യത്തിലേക്ക്	ആധുനിക സമൂഹത്തിന്റെ ആർഭാടഭ്രമം. * ഇല്ലാത്തവർ ചെലവാക്കി മുടിയുന്നതിനെതിരെയും ആർഭാടത്തിനെതിരായും ആദ്യം ഉയർന്ന ശബ്ദം. * ആർഭാടവും ഉന്മാദം തന്നെ.* പരസ്യങ്ങളുടെ സ്വാധീനം. *സമകാലിക പ്രശ്നങ്ങൾ പരാമർശിക്കുന്ന ലേഖനങ്ങൾ.	
ഡിസംബർ	തേജസ്വിയായ വാഗ്മി	തേജസ്വിയായ വാഗ്മി (പാഠങ്ങൾ 7 - 9)	മഹത് വ്യക്തികളുടെ ജീവചരിത്രവും ആദർശവും.* തത്ത്വചിന്താധിഷ്ഠിതമായ പ്രവർത്തന മേഖലകൾ*	

ജനുവരി	പുക്കളൊക്കെയും വാക്കുകളാകുമ്പോൾ	അതേ പ്രാർത്ഥന	പാരിസ്ഥിതികദർശനവും പരോപകാരത്തിലധിഷ്ഠിതമായ ജീവിതവും പ്രമേയമാകുന്ന കഥകൾ, കവിതകൾ * കവിയുടെ കാവ്യജീവിത സൂചനകൾ. * സവിശേഷ പ്രയോഗങ്ങൾ. * ചമതകാരഭംഗി. * പരിസ്ഥിതിയും സാഹിത്യവും തമ്മിലുള്ള ബന്ധം .	P 3 1.ആർഭാടത്തിൽനിന്ന് ലാളിത്യത്തിലേക്ക് 2.കാളകൾ തേജസ്വിയായ വാഗ്മി (4-6) അംഗാംഗി വാക്യങ്ങൾ, വിധി-നിഷേധം,വാക്യശൃദ്ധി,വാക്യ പ്രയോഗം, പത്രവാർത്ത,ഉപന്യാസം
	വ്യാകരണം	വാക്യശൃദ്ധി,വാക്യപ്രയോഗം	ഭാഷാപ്രയോഗശേഷി	
ഫെബ്രുവരി	ആവർത്തന പാഠങ്ങൾ			ANNUAL EXAM PORTIONS Topics - 1.കാളകൾ 2.അതേ പ്രാർത്ഥന 3.രണ്ടു ടാക്സിക്കാർ 4.ആർഭാടത്തിൽനിന്ന് ലാളിത്യത്തിലേക്ക് *തേജസ്വിയായ വാഗ്മി (5-9) അംഗാംഗിവാക്യങ്ങൾ, വാക്യശൃദ്ധി,വാക്യപ്രയോഗം, പ്രയോഗം മാറ്റുക, വിധി- നിഷേധ വാക്യങ്ങൾ പത്രവാർത്ത, കത്ത്, ഉപന്യാസം ,അവധാരണം പദ്യം
	<u>SL.NO</u>	<u>NAME OF THE TEACHERS-</u>	<u>SCHOOL</u>	<u>SIGNATURE</u>
	1	BINDU S	BVM,GIRINAGAR	
	2	SANDHYA T P	BVV,THRIKKAKARA	
	3	EUBY JOSEPH	BVM,EROOR	
	4	SABITHA O S	BNV,VELLOOR	
	5	DHANYA GOPAL	BMV,THIRUVANKULAM	
	6	RAKHI L	BVM,ELAMAKKARA	
	7	MANJU ARAVIND	BAV,KAKKANAD	

BHARATIYA VIDYA BHAVAN, KOCHI KENDRA
YEAR PLAN FOR THE ACADEMIC YEAR 2023-'24
STD IX - ARTIFICIAL INTELLIGENCE

MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	PART B Unit 1- Introduction to Artificial Intelligence (AI) PART B Unit 4- Introduction to Python	AI Readiness Basics of Python	AI Preparedness AI Relate Purpose of AI <ul style="list-style-type: none"> • Data Types - integer, float, strings • Variables • Assignment operator • Type conversion • Arithmetic operators • Using print() and input() functions
JULY	PART B Unit 1- Introduction to Artificial Intelligence (AI) PART B Unit 4- Introduction to Python	Possibilities and Ethical Concerns of AI Operators & Flow of Control	Possibilities AI Ethics <ul style="list-style-type: none"> • Comparison Operators • Logical operators • Condition statements simple if if...else

AUGUST	PART A Unit 1- Communication Skills 1	Communication Skills	Verbal & Non-verbal Communication Writing skills Pronunciation Basics Greetings & Introduction Talking about Self Asking Questions
	PART A Unit 2-Self Management Skills-1	Self Management Skills	Knowing Yourself Self Confidence Positive thinking Personal Hygiene Grooming
	PART B Unit 4 - Flow of Control in Python	condition statements	if...elif..else
AUGUST 7 TO AUGUST 14 -PERIODIC TEST 1			
SEPTEMBER	PART B Unit 2 - AI Project Cycle	Problem Scoping	4Ws Canvas & Problem Statement Template
	PART A Unit 3- ICT Skills - 1	ICT tools	ICT at workplace and home ICT applications •Parts of a computer and peripherals •Basic computer operations •Performing basic file operations Communication and networking — basics of Internet — Internet browsing Communication and networking — Introduction to e-mail, creating an e-mail account, writing an e-mail, receiving and replying to e-mails

	PART B Unit 4 - Flow of Control in Python	Iteration using FOR statement	for statement range()
OCTOBER	PART B Unit 2 - AI Project Cycle	Data Acquisition Data Exploration	Definition Data Features Acquiring data from reliable sources System Maps Data Visualization Sketchy Graphs
	PART A UNIT 4-Entrepreneurial skills	Entrepreneurial skills - I	What is entrepreneurship? Role of entrepreneurship Qualities of a successful entrepreneur Distinguishing characteristics of entrepreneurship and wage employment
	PART B Unit 4 - Flow of Control in Python	Iteration statement	While Statement
OCTOBER 5 TO OCTOBER 16 PERIODIC TEST 2			
NOVEMBER	PART B Unit 2 - AI Project Cycle	Modelling	AI, ML & DL Rule based approach Decision Tree
	PART B Unit 4 - Python Lists	Creating,Updating,& Slicing a list	Simple operations using Lists- Indexing,Adding,Removing,Slicing a list
DECEMBER	PART B Unit 3 - Neural Network	Neural Network	Definition Features of Neural Network Neural Networks Vs Human Nervous System

	PART B Unit 4 - Python Lists	Operations using list methods	List Methods- append,extend,insert,remove,pop, clear, index,count,sort,reverse,copy
JANUARY 8 TO JANUARY 15 PERIODIC TEST 3			
JANUARY	PART A Unit 5 - Green Skills 1	Green Skills - I	Society and Environment
FEBRUARY	REVISION & PRACTICAL ASSESSMENT		
FEBRUARY 19 TO FEBRUARY 28 FINAL EXAM			

BHARATIYA VIDYA BHAVAN, KOCHI KENDRA

YEAR PLAN -2023-2024

SUBJECT: Computer Applications

STD: IX

MONTH	TOPIC	SUB TOPICS	CONCEPTS
JUNE	Basics of Information Technology	Computer Systems: Hardware :CPU, memory, storage devices and I/O devices Software : Types of software	Computer Systems: Characteristics of a computer, components of a computer system-CPU (CU, ALU), Memory, storage devices and I/O devices . Memory: Primary (RAM & ROM) and Secondary Memory Storage Devices: Hard disk CD ROM DVD PEN/FLASH DRIVE ,Memory Stick I/O Devices: Keyboard, Mouse, Monitor, Printer, Scanner, Web Camera Types of Software: System Software(Operating System), Application Software, Mobile Application Operating system: device drivers
JULY	Office Tools(Word Processor)	Basics of Information Technology (cont.) Introduction to a word processor, creating and saving a document, editing and formatting a document	Word processor - text style (B, I, U) font type, size, changing colour, alignment of text. Formatting paragraphs with line and /or paragraph spacing, adding headers and footers, numbering pages using grammar and spell-check utilities, using subscript and superscript, insert symbols, use print preview and print a document
AUGUST	Office Tools(Word Processor - 2)	(P1 - August 7 to August 14) 80 mins Inserting images and tables Lists, Bulleted & Numbered list Inserting graphics Find & Replace	Periodic Test 1 Insert Pictures: Change the page setting ,add bullets and numbering, borders and shading Inserting tables-inserting , deleting rows and columns, merging and splitting cells Use autofomat, Track changes ,Review comments, Use of drawing tools, Shapes and Mathematical symbols Find & Replace
SEPTEMBER	Computer networking Multimedia Office Tools(Spreadsheet-1)	Types of networks, Types of communication, Cloud computing, Multimedia, Social Networking Spreadsheet basics, Editing cell contents Commands for worksheets	Computer Networking: Types of Networks : PAN, LAN, MAN, WAN, Wired/Wireless Communication, Wi-Fi, Bluetooth, cloud computers(private/public) Multimedia: images , audio, video, animation Introduction to spread sheet –concept of worksheet and work book ,creating and saving a worksheet working with a spread sheet-entering numbers, text ,date/time , series using auto fill, editing and formatting a worksheet including changing colours, size, font, alignment of text, inserting/deleting cells, rows/columns,

OCTOBER	Office Tools(Spreadsheet-2)	(P2 - October 5 to October 16) Office Tools(Spreadsheet-1) cont... Office Tools(Spreadsheet-2)	Periodic Test 2 formula -entering a formula in a cell, using operators(+,-,*,/)in a formulae, refer to cell and printing a worksheet. Embedding charts of various types: line, pie, scatter, bar and area in a worksheet
NOVEMBER	Cyber-safety	Cyber safety, Identity protection using Internet Proper usage of passwords Confidentiality of information Online safety Cyber crimes	Safely browsing the web and using social networks :identity protection , proper usage of password, privacy, Confidentiality of information, cyber stalking, reporting cyber crimes Safely accessing Websites: Viruses and Malware, Adware
DECEMBER	Office Tools(Spreadsheet-2)	Office Tools(Spreadsheet-2) cont....	Use simple statistical functions ,Sum(),Average(),Max(),Min(), If() (without compound statements).
JANUARY	Office Tools(Presentation)	(P3 - January 8 to January 15) Office Tools(Presentation)	Understanding the concept of slide shows, basic elements of a slide, different types of slide layouts, creating and saving a presentation, different views of a slide, Normal view, slide sorter view, slide show view, editing and formatting a slide: adding titles, sub titles, text, background, watermark, Headers and footers, numbering slides, inserting pictures from files animating pictures and text with sound effect, Rehearse timings.
FEBRUARY		Revision (Practical Examination- February 8 Final Examination -February 19 to February 28)	

BHARATIYA VIDYA BHAVAN, KOCHI KENDRA**YEAR PLAN (2023-2024)****STANDARD IX****PHYSICS**

MONTH	UNIT	TOPIC
June	7	Motion.
July	7 8	Motion (Contd...), Force and laws of motion
August	8	PERIODIC TEST –I (Aug 7 to 14) -CHAPTER 7(upto 7.6 uniform circular motion) Force and laws of motion (contd...)
September	8 9	Force and laws of motion (Contd..) Gravitation.
October	9	PERIODIC TEST –II Oct 5 to 16 -CHAPTER 7 and 8 Gravitation (Contd...)
November	9 10	Gravitation (contd..) Work & Energy
December	10	Work & Energy (Contd..)
January	11	Sound PERIODIC TEST –III Jan 8 to 15 -CHAPTER 7 (only 7.5- Eqns of motion and numericals), 8 (8.2 and 8.3) and 9
February		FINAL EXAMINATION (Chap 7, 8, 9, 10 and 11) (Feb 19 - Feb 28)

LIST OF EXPERIMENTS

1	Verification of the laws of reflection of sound.
2	Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
3	Establishing the relation between the loss in weight of a solid when fully immersed in a) Tap water b) Strong salty water with the weight of water displaced by it by taking at least two different solids.
4	Determination of a pulse propagated through a stretched string/ slinky.

NAME OF THE SCHOOL	NAME OF THE TEACHER	SIGNATURE
BVM, ELAMAKKARA	CISMI POULOSE	
BVM, EROOR	KALA S PILLAI	
BMV, THIRUVAMKULAM	INDIRA DEVI K K	
BNV, VELLOOR	PREETHA G	

**BHARATIYA VIDYA BHAVAN ,KOCHI KENDRA
YEAR PLAN 2023-2024**

STD:IX			SUBJECT:SOCIAL SCIENCE
MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	1.INDIA -SIZE AND LOCATION(G)	<ul style="list-style-type: none"> * Location *Size * India and the World *India's Neighbours 	<ul style="list-style-type: none"> *Physical extent of India *Adaption of standard time for India *India's position in the world
	1.FRENCH REVOLUTION(H)	<ul style="list-style-type: none"> *French Society During the Late Eighteenth Century * The Outbreak of the Revolution *France Abolishes Monarchy and Becomes a Republic *Conclusion (Did women have a revolution ?(debate) ,The Abolition of Slavery , The Revolution and Everyday Life , all boxes page no.12 and 13 – Only for discussion) 	<ul style="list-style-type: none"> *Condition of French society in 18 th century, *France abolished monarchy and established democracy through revolution. *Reforms introduced by Napoleon Bonaparte.

	<p>1.STORY OF VILLAGE PALAMPUR(E) (To be assessed as part of Periodic Assessment only)</p>	<p>*Introduction *Organization of Production *Land is fixed * Is there a way one can grow more from the same land? *Will the land sustain (How is land distributed between the farmers of Palampur? Who will provide the labour? The capital needed in farming Sale of Surplus Farm Products Non-Farm Activities in Palampur - Only for discussion)</p>	<p>*Importance of agriculture. *Production activities need various types of resources. * Organisation of production.</p>
	<p>1.WHAT IS DEMOCRACY? WHY DEMOCRACY(D)</p>	<p>*1.1What is Democracy? *1.2 Features of Democracy * 1.3 Why Democracy? (Broader Meanings of Democracy – Only for discussion)</p>	<p>*Definition of democracy *Features of democracy * Merits and demerits of democracy</p>
<p>JUNE /JULY</p>	<p>2. PHYSICAL FEATURES OF INDIA(G)</p>	<p>*Physical Features of India * Major Physiographic Divisions * Himalayan Mountains, *Northern Plains, * Peninsular Plateau, * Indian Desert, * Coastal Plains, *Islands</p>	<p>*Various physical features of India. *The geological process in the formation of diverse physical features in India</p>

<p>JULY</p>	<p>3. DRAINAGE(G)</p>	<ul style="list-style-type: none"> * Drainage Systems in India *The Himalayan Rivers - Ganga and Brahmaputra River System * The Peninsular Rivers - Narmada Basin, Tapti Basin, Godavari Basin, Mahanadi Basin, Krishna Basin, Kaveri Basin (Lakes , Role of Rivers in the Economy, River Pollution - Activity only.) 	<ul style="list-style-type: none"> *Himalayan rivers and peninsular rivers , *Areas where it drains.
	<p>2. PEOPLE AS RESOURCE(E)</p>	<ul style="list-style-type: none"> *Overview * Economic Activities by Men and Women *Quality of Population * Unemployment 	<ul style="list-style-type: none"> *People as resource - Population as an asset for the economy rather than a liability. *Inputs like education and health helped in making people an asset for the economy. *Economic activities undertaken in the three sectors of the economy. *Problem associated with unemployment.

	2.CONSTITUTIONAL DESIGN.(D)	<p>*Why do we need a Constitution? (2.2)</p> <p>* Making of the Indian Constitution (2.3)</p> <p>* Philosophy of the constitution. * Institutional design</p> <p>(Democratic constitution in South Africa (2.1) , Guiding Values of the Indian Constitution (2.4) – Group discussion)</p>	<p>*Constitution - Certain basic rules that the citizen and the government have to follow. *Making of Indian constitution and its foundational values.</p>
	P1 AUGUST 7 -14		
AUGUST	2.SOCIALISM IN EUROPE AND THE RUSSIAN REVOLUTION(H)	<p>*A Turbulent Time: The 1905 Revolution (2.4)</p> <p>*The first world war and the Russian Empire (2.5)</p> <p>* The February Revolution in Petrograd (3)</p> <p>*The Revolution of October 1917(3.2)</p> <p>*Stalinism and Collectivization.(4.3)</p> <p>(The Age of Social Change , 1.1 , 1.2 , 1.3,& 1.4,The Russian Revolution 1914 (2.1) ,Economy and society (2.2),</p>	<p>*Russian revolution - Revolution of workers and peasants. *Abdication of monarch. *Establishment of socialism. *Formation of communist party.</p>

<p>SEPTEMBER</p>	<p>4.CLIMATE(G)</p>	<p>*Climate:Introduction * Climatic Controls * Factors affecting India’s climate – Latitude, Altitude, Pressure and Winds - *Distribution of Rainfall *Monsoon as a Unifying Bond (The Seasons- Cold Weather Season, Hot Weather Season, Advancing Monsoon,Retreating /Post Monsoons –Only for discussion – Portfolio activity can be assigned from this topic)</p>	<p>*The atmospheric conditions that prevail over our country. *Monsoon * Climate and weather. *Major climatic controls of any place. *Factors affecting India's climate. *Monsoon winds bind the country by providing water.</p>
	<p>3.ELECTORAL POLITICS(D)</p>	<p>*(By-election, Electoral constituencies, Reserved Constituencies, voters list,Party ticket, EVM, EPIC, Election Manifesto,Ballet box only terms to be taught) * 3.3 What makes elections in India democratic? *Independent election commission *Challenges to free and fair elections. (Why Elections? – Assembly election in Haryana, Why do we need elections? , Is it good to have political competition? Popular Participation Acceptance of election outcome</p>	<p>*Importance of elections in a democracy. *Stages of election from fixing different constituencies till the declaration of results. *Role of the election commission</p>

	6.POPULATION(G)	<p>*Population</p> <p>*Population size and distribution -</p> <p>India's Population Size and Distribution by Numbers</p> <p>India's Population Distribution by Density</p> <p>*Population growth and processes of population change.-</p> <p>Population Growth Processes of Population Change/Growth</p> <p>Adolescent Population</p> <p>National Population Policy.</p>	<p>*Population is the pivotal element in Social Studies.</p> <p>*People are important to develop the economy and society.</p> <p>*People are the nations most valuable resource.</p>
	<p>4.FOREST SOCIETY AND COLONIALISM (H)</p> <p>&</p> <p>5.NATURAL VEGETATION AND WILD LIFE (G)</p>	INTERDISCIPLINARY PROJECT	
	P2 OCTOBER 5 -16		

<p>OCTOBER</p>	<p>3.NAZISM AND THE RISE OF HITLER (H)</p>	<p>*Birth of the Weimar Republic - Introduction ,</p> <p>* 1.3 The years of depression</p> <p>* Hitler's Rise to Power</p> <p>2.1 The destruction of democracy</p> <p>2.2 Reconstruction</p> <p>* The Nazi Worldview</p> <p>3.1 Establishment of Racial State</p> <p>3.2 The Racial Utopia</p> <p>* Youth in Nazi Germany</p> <p>4.1 The Nazi cult of Motherhood</p> <p>4.2 The Art of Propaganda</p> <p>5.1 Knowledge about</p>	<p>*Treaty of Versailles and its impact on germany.</p> <p>*Reasons led to the rise and fall of Hitler.</p> <p>*Hitler and the Second World War Nazism in shaping the politics of modern world.</p>
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<p>NOVEMBER</p>	<p>4.WORKING OF INSTITUTIONS (D)</p>	<p>*Working of Institutions: * Parliament - Why do we need a Parliament?, Two Houses of Parliament * Political Executive ,Political and Permanent Executive, Prime Minister and Council of Ministers, Powers of the Prime Minister, The President, The Judiciary (Glossary to be taught)</p> <p>(How is major policy decision taken? – A Government order, The decision makers, Need for political institutions and all boxes</p>	<p>*Role played by legislature, executive and judiciary in taking major decisions. *Legislature, executive and judiciary together carry on the work of government.</p>
	<p>3.POVERTY AS A CHALLENGE (E)</p>	<p>* Overview * Two typical cases of Poverty *Poverty as seen by Social Scientists * Poverty Line * Poverty Estimates * Vulnerable Groups *Interstate Disparities *Global Poverty Scenario- * Causes of Poverty * Anti-Poverty measures * The Challenges Ahead</p>	<p>*Poverty - Multi dimensional problem. *Poverty scenario in India and the world. *Causes of poverty as well as the anti poverty measures taken by the government.</p>

NOV/ DEC	5.PASTORALISM AND THE MODERN WORLD(H) (To be assessed as part of Periodic Assessment only)	pg .no. 98 &99(To be assessed as part of Periodic Assessment only)	
DECEMBER	5.DEMOCRATIC RIGHTS (D)	definition to be taught) * Rights in the Indian constitution- Right to equality, Right to freedom, Right against exploitation, Right to freedom of religion, Cultural and Educational rights * How can we secure these rights? * NHRC(box) (Life without rights, Prison in Guantanamo Bay, Citizen’s rights in Saudi Arabia, Ethnic Massacre in Kosovo,Rights in democracy,Why do we need rights in a democracy, Expanding scope	*Meaning of rights and its need. *Fundamental rights in the Indian constitution. *Fundamental rights in the constitution are important because they are enforceable.
P3 JANUARY 8-15			

<p>DEC/JAN</p>	<p>4.FOOD SECURITY (E)</p>	<p>*Food Security in India: * Overview * What is Food Security? * Why Food Security? * Food Security in India * What is Buffer Stock? * What is the Public Distribution System? * Current Status of Public Distribution System * Role of Cooperatives in food security (Who are food insecure? - Discussion)</p>	<p>*Food security of a nation is ensured if all of its citizens have enough nutritious food available. *All persons have the capacity to buy food of acceptable quality. *There is no barrier on access to food. *Carefully designed food security system by the Indian government. *Role of cooperative in food security.</p>
<p>FINAL EXAMINATION</p>			

BHARATIYA VIDYA BHAVAN ,KOCHI KENDRA

YEAR PLAN FOR THE ACADEMIC YEAR 2023-24

STD IX

HINDI

MONTH	TOPIC	SUB-TOPICS	CONCEPTS
जून	गद्य	दुःख का अधिकार	मनुष्य के जीवन में पोशाक का महत्त्व । समाज में फैले गरीब लोगों की मानसिक और आर्थिक स्थिति को उजागर करना ।
	पद्य	रैदास	पहला पद :- इसमें दास्य भाव की भक्ति का वर्णन है । कवि अपने को स्वामी के चरणों का दास मानता है । दूसरा पद :- ईश्वर समदर्शी है। 'छुआछूत एक भयानक समस्या है' ।
	उपपाठ	गिल्हू	
	व्याकरण	अनुस्वार ,अनुनासिक	
	पत्र	अनौपचारिक पत्र - बधाई पत्र,निमंत्रण पत्र	
जुलाई	गद्य	एवरेस्ट:मेरी शिखर यात्रा	जिंदगी में कुछ पाने के लिए संघर्ष करना है । 'मन के हारे हार है,मन के जीते जीत' ।
	पद्य	अग्नि पथ	जिंदगी का दूसरा नाम संघर्ष है । संघर्षों को मुस्कान के साथ सामना करना है ।
	व्याकरण	उपसर्ग और प्रत्यय ,अपठित गद्यांश	
	रचना	अनुच्छेद लेखन	
अगस्त	PERIODIC TEST -I		
	गद्य	तुम कब जाओगे, अतिथि	अतिथि देवों भवः। सामलोचानात्मक दृष्टिकोण का विकास ।
	पद्य	रहीम - दोहे	आत्मिक गुणों का विकास । विचार-विश्लेषण की क्षमता का विकास ।
	व्याकरण	चित्र वर्णन	
	व्याकरण	विराम -चिह्न	

	पत्र	अनौपचारिक पत्र (धन्यवाद पत्र)	
सितंबर	गद्य	कीचड़ का काव्य	मिट्टी के प्रति श्रद्धा और सौन्दर्य बोध जगाना । प्रकृति से जुड़ाव व संवेदना जगाना ।
	उपपाठ	स्मृति	बाल-सुलभ शरारतों का वर्णन ।
	व्याकरण	स्वर संधि	
अक्तबर	PERIODIC TEST-2		
	पद्य	गीत -अगीत	प्रकृति की सुंदरता के साथ-साथ जीव-जंतुओं के प्रति प्रेम । मानवीय राग और प्रेम भाव का सजीव चित्रण ।
	व्याकरण	अपठित गद्यांश	
नवंबर	गद्य	वैज्ञानिक चेतना के वाहक चंद्रशेखर वेंकट रामन	तार्किक व आलोचनात्मक दृष्टि का विकास ,प्राकृतिक संसाधनों के सदुपयोग हेतु प्रेरित करना ।
	उपपाठ	कल्लू कुम्हार की उनाकोटी	त्रिपुरा के भौगोलिक स्थिति , संस्कृति ,संगीत ,घरेलू उद्योग -धंधे ,आधुनिक कृषि परंपरा ,धार्मिक रीति-रिवाज़ और मान्यताओं का वर्णन ।
दिसंबर	गद्य	शुक्रतारे के समान	ईमानदारी ,लगन,सत्यनिष्ठा आदि शाश्वत गुणों का विकास ।
	उपपाठ	मेरा छोटा -सा निजी पुस्तकालय	पुस्तकालय से लाभ । पुस्तक -सच्चे मित्र है । बचपन से ही पुस्तक पढ़ने की शौक तथा लाइब्रेरी बनाने की प्रेरणा ।
जनवरी	PERIODIC TEST-3		
	पद्य	नए इलाके में खुशबू रचते हैं हाथ	समय के साथ चले ,जीवन में कुछ भी स्थाई नहीं है। गरीब मजदूरों की दयनीय दशा की ओर ध्यान आकर्षित करना और उनके उद्धार के प्रति चेतना जागृत कराना ।

फरवरी	पुनरावृत्ति	विराम -चिह्न	
	व्याकरण		
	FINAL EXAMINATION		

TEACHER-IN CHARGE	NAME OF THE SCHOOL	SIGNATURE
RAMYA.S	BHAVAN'S VIDYA MANDIR, ELAMAKKARA	
SUJA SUDHAKARAN	BHAVAN'S VIDYA MANDIR, GIRINAGAR	
MAYAMOL R	BHAVAN'S VIDYA MANDIR,EROOR	
MAHESHKUMAR K	BHAVAN'S ADARSHA VIDYALAYA,KAKKANAD	
SMITHA JAYARAJ	BHAVAN'S VARUNA VIDYALAYA ,THRIKKAKARA	
MINI N	BHAVAN'S MUNSHI VIDYASHRAM, THIRUVAMKULAM	
JAYASREE KR	BHAVAN'S NEWSPRINT VIDYALAYA, VELLOOR	

BHARATIYA VIDYA BHAVAN, KOCHI

YEAR PLAN FOR THE ACADEMIC YEAR 2023-24

SANSKRIT CLASS IX

MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	पद्यम्, कथा	1.भारतीवसन्तिगीतिः . 2.स्वर्णकाकः स्वरसन्धिः- दीर्घः, गुणः,वृद्धि,यण, अयादि	आधुनिक-संस्कृतकाव्यान् अधिकृत्य ज्ञानसंपादनम् । स्वजीवने क्षमा, मित्रता, स्नेहम् इत्यादि मूल्यानाम् धारणम्।
JULY	नाट्यांशः	3.गोदोहनम् अकारान्तः- बालकवत्, इकारान्तः-कविवत्, उकारान्त-साधुवत्, ऋकारान्तः -पितृवत् आकारान्त- लतावत्,ईकारान्त- नदीवत् , ऋकारान्तः-मातृवत् शब्दाः धातुरूपाणि पठ् गम्, वद्,भू ,क्रीड्,नी, दृश्,शक्,ज्ञा अस्,कृ,दा,क्री,श्रु,पा(पिब्),(पञ्चलकारेषु)।	पाठभागस्य पठनानन्तरं तस्य स्वाधीनतया स्वकर्मणि यथाकाले करणीयानि इत्यवबोधः। व्याकरणज्ञानम्। धातुरूपपरिचयः।
AUGUST	पद्यम्	5.सूक्तिमौक्तिकम् द्वाविंशति उपसर्गाः प्रत्ययाः- क्त, क्त्वा, तुमुन्, ल्यप्, क्तवत्, शत शान्च	सूक्तीनां ज्ञानम् । सुस्वरगायनम् । उपसर्गचयनम् । प्रत्ययानां प्रयोगज्ञानम्।
PERIODIC TEST 1 - AUGUST 7th-14th- LESSONS-1,2,3, AND GRAMMAR (अपठित-अवबोधनं, रचानात्मकं कार्यं,अनुप्रयुक्त- व्याकरणम्,पठितावबोधनं)			

SEPTEMBER	कथा	6.आन्तो बालः (उपपदविभक्तिः) द्वितीया- उभयतः, धिक्, परितः, समया, निकषा, प्रति, विना तृतीया-सह, साकं, समं, सार्धं, विना, अलं, सदृश, हीन चतुर्थी- रुच, दा (यच्छ), नमः, कुप्, स्वस्ति "संख्या -1- 100 1-4 त्रिषु लिङ्गेषु केवलं प्रथमा विभक्तौ	कथास्वादनम् गुणपाठावबोधः
OCTOBER	व्याकरणम्	व्यञ्जनसन्धिः-जश्त्वसन्धिः 'म्' स्थाने अनुस्वारः विसर्गसन्धिः उत्त्वम्, रत्वम् सर्वनामशब्दाः- अस्मद्, युष्मद्, तत् , इदम्, किम् शब्दाः(त्रिषु लिङ्गेषु)	सर्वनामशब्दानां प्रयोगज्ञानम्। व्याकरणकार्याणां वाक्ये प्रयोगकौशलम्।
PERIODIC TEST 2 - OCTOBER 5TH- 16TH - LESSONS-3,5,6 AND GRAMMAR (अपठित-अवबोधनम्, रचानात्मकं कार्यम्, अनुप्रयुक्त- व्याकरणम्, पठितावबोधनम्)			
NOVEMBER	नाट्यांशः, पद्यम्	9.सिकतासेतुः, 10.जटायोः शौर्यम् पञ्चमी -विना, बहिः, भी, र क	उद्यमेन सिद्ध्यन्ति कार्याणि वीरता अवसरोचित प्रवर्तनम्
DECEMBER	गद्यम्	11. पर्यावरणम् हलन्ताः -राजन्, भवत्, विद्वस्, गुणिन्	प्रकृतिरक्षा पर्यावरणसंरक्षणम् शब्दज्ञानम्

JANUARY	नाट्यांशः	12.वाङ्मनः प्राणस्वरूपम् अव्ययानि - स्थानबोधकानि अत्र,तत्र, अन्यत्र,सर्वत्र,यत्र, एकत्र, उभयत्र कालबोधकानि- यदा, तदा,सर्वदा, एकदा, पुरा, अधुना, अद्य,श्वः,ह्यः प्रश्नबोधकानि -किं, कुत्र, कति,कदा,कुतः, कथम्,किमर्थं अन्यानि- च, अपि,यदि-	वचसः मनसः प्राणस्य च सूक्ष्मज्ञानम् वाक्यरचनायां अव्ययानां प्रयोगः।
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PERIODIC TEST 3 - JANUARY 8th- 15th - LESSONS- 9,10,11- GRAMMAR (अपठित-अवबोधनम्, रचानात्मकं कार्यम्,अनुप्रयुक्त-
व्याकरणम्,पठितावबोधनम्)

FEBRUARY	FINAL EXAMINATION -FEBRUARY 19th -28th,सर्वे पाठाः, सर्वाणि व्याकरणकार्याणि , CBSE परीक्षा अनुसारं पाठभागाः
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Note: Question pattern for each examination should be according to CBSE.

	BVM ELAMAKKARA		
	BVM GIRINAGAR		
	BVM EROOR		
	BAV KAKKANAD		
	BVV THRIKKAKARA		
	BMV TRIPUNITHURA		
	BNV VELLOOR		

BHARATIYA VIDYA BHAVAN ,KOCHI

YEAR PLAN FOR THE ACADEMIC YEAR 2023-24

CLASS	IX		
SUBJECT	BIOLOGY		
MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	5 -THE FUNDAMENTAL UNIT OF LIFE	5.1 What are living organisms made up of?	All living organisms are made up of one or more cells, which are considered the fundamental units of life.
		5.2 What is a cell made up of? What is the structural organisation of a cell?	Even unicellular organisms are complex! Inside each cell, atoms make up molecules, which make up cell organelles and structures. In multicellular organisms, similar cells form tissues.
		5.2.1 Plasma membrane or cell membrane	The membrane found in all cells that separates the interior of the cell from the outside environment.
		5.2.2 Cell wall	Cell wall is the outermost covering of a plant cell. It is a tough and flexible (sometimes rigid) layer that provides structural support and protection to the cell.
		5.2.3 Nucleus	The nucleus is a small, round and membrane-bound structure found in cells. And the fluid inside the nucleus surrounded by the nuclear membrane is called nucleoplasm. It controls cell's growth and reproduction as it contains cell's hereditary information. It's covered by dual layer called a nuclear membrane.

JULY	THE FUNDAMENTAL UNIT OF LIFE (contd..)	5.2.4 Cytoplasm	Cytoplasm is the gelatinous liquid that fills the inside of a cell embedded with cell organelles.
		5.2.5 Cell organelles	An organelle is a specialised part of the cell that serves a specific purpose within the cell. There are many organelles present within a cell and they also vary depending on what kind of cell, whether it be a plant or animal. An organelle is a specialised part of the cell.
		5.2.5 (i) Endoplasmic reticulum	Endoplasmic Reticulum is a complex network of tubular membranes exclusively present in the cytoplasm of the eukaryotic cell.
		5.2.5 (ii) Golgi apparatus	A stack of small flat sacs formed by membranes inside the cell's cytoplasm is called Golgi apparatus.
		5.2.5 (iii) Lysosomes	Lysosome is a membrane-bound cell organelle that contains digestive enzymes.
		5.2.5 (iv) Mitochondria	Mitochondria are membrane-bound cell organelles (mitochondrion, singular) that generate most of the chemical energy needed to power the cell's biochemical reactions.
		5.2.5 (v) Plastids	Plastids are double-membrane organelles which are found in the cells of plants and algae that are responsible for manufacturing and storing of food.
		5.2.5 (vi) Vacuoles	A vacuole is a membrane-bound cell organelle generally small and help sequester waste products in animals, and large in size with maintenance of water balance in plants.

REVISION
PERIODIC TEST 1 - (7-14 AUGUST)

CHAPTER 5 - THE FUNDAMENTAL UNIT OF LIFE

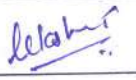


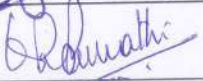



SEPTEMBER	TISSUES (Contd..)	6.3 Animal tissues	Animal tissues are tissues which are animal body is made of. there are four types of tissues found in animals: epithelial tissue, connective tissue, muscular tissue, and nervous tissue.
		6.3.1 Epithelial tissue	Epithelial tissues are tissues that serves as a covering or lining for a body part which has a free surface that is exposed to either a body fluid or the outside environment.
		6.3.2 Connective tissue	Tissue that supports, protects, and gives structure to other tissues and organs in the body are called connective tissues.
		6.3.3 Muscular tissue	Muscular tissue is a specialized tissue in animals which applies forces to different parts of the body by contraction which is made up of thin and elongated cells called muscle fibers that controls the movement of an organism.
		6.3.4 Nervous tissue	Cells specialized to receive and transmit electrical impulses from specific areas of the body and to send them to specific locations in the body organized into structures called nerves.

		Cell division	The process by which a single parent cell splits to form new cells that are categorised into mitosis and meiosis.
AUGUST	6 - TISSUES	6.1 Are plants and animals made of same types of tissues?	A group of cells that are similar in structure and work together to do a peculiar function is called tissue.
		6.2 Plant tissues	Plant tissue systems fall into one of two general types: meristematic tissue, and permanent (or non-meristematic) tissue, which are further divided into simple and complex permanent tissue.
		6.2.1 Meristematic tissues	Meristematic tissues are the tissues in which the cells divide continuously and help in increasing the length and girth of the plant.
		6.2.2 Permanent tissue	The tissues that are completely grown and have lost the ability of division are known as permanent tissues.
		6.2.2 (i) Simple permanent tissue	Simple permanent tissue is a tissue that is made up of similar permanent cells that carry out the same function or a similar set of functions.
		Epidermis	Epidermis, outermost, protoderm-derived layer of cells covering the stem, root, leaf, flower, fruit, and seed parts of a plants.
		6.2.2 (ii) Complex permanent tissue	Permanent tissues are a collection of different types of cells working together as a unit and performing a certain function.

OCTOBER	REVISION PERIODIC TEST - 2 (OCTOBER 5- 16) CHAPTER 5 - THE FUNDAMENTAL UNIT OF LIFE (20%) & CHAPTER 6 -TISSUES (80%)		
OCTOBER	12 - IMPROVEMENT IN FOOD RESOURCES	12.1 Improvement in crop yields	Food supplies proteins, carbohydrates, fats, vitamins and minerals, all of which we require for body development, growth and health. different crops require different climatic conditions, temperature and photoperiods for their growth and completion of their life cycle..
NOVEMBER	IMPROVEMENT IN FOOD RESOURCES (Contd..)	12.1.1 Crop variety improvement	Crop variety improvement is the primary step to improve food crop production.
		12.1.2 Crop production management	It helps in the development of crops with desired traits such as high yields,disease resistance, quality product, and response to fertilizers.
		12.1.2 (i) Nutrient management	To increase the yield, the soil can be enriched by supplying these nutrients in the form of manure and fertilizers.
		12.1.2 (ii) Irrigation	Several different kinds of irrigation systems are adopted to supply water to agricultural lands depending on the kinds of water resources available. These include wells, canals, rivers and tanks.

DECEMBER	IMPROVEMENT IN FOOD RESOURCES (Contd..)	12.1.2 (iii) Cropping patterns	Different ways of growing crops can be used to give maximum benefit they are Mixed farming , Mixed cropping , intercropping, crop rotation etc
		12.1.3 Crop protection management	Crop Protection is a general practice of managing, improving and protecting crops from pests and weeds .
		Storage of grains	Preventive and control measures are used before grains are stored for future use.
JANUARY	IMPROVEMENT IN FOOD RESOURCES (Contd..)	12.2 Animal husbandry	Animal husbandry is the branch of agriculture where animals are reared, bred and raised for meat, fiber, eggs, milk, honey and other food products.
		12.2.1 Cattle farming	Cattle farming is the process of raising cattle from birth until the point at which they provide food or milk for consumption.
		12.2.2 Poultry farming	Poultry farming is the form of animal husbandry which raises domesticated birds such as chickens, ducks, turkeys and geese to produce meat or eggs for food.
		12.2.3 Fish production	“Fish production or fish farming is a form of aquaculture in which fish are raised in enclosures to be sold as food.”
		12.2.3 (i) Marine fisheries	The practice of growing fish in seawater or saltwater is known as a marine fishery.
		12.2.3 (ii) Inland fisheries	Inland fisheries are commercial fishing operations taking place in freshwater.

	PERIODIC TEST - 3 (JANUARY 8- 15)	
	CHAPTER 5 THE FUNDAMENTAL UNIT OF LIFE(20%) , CHAPTER 6 TISSUES (20%) & CHAPTER 12 IMPROVEMENT IN FOOD RESOURCES (60%)	
FEBRUARY	12.2.4 Bee-keeping	Apiculture or beekeeping is the care and management of honey bees for the production of honey and wax.
FEBRUARY	REVISION	FINAL EXAMINATION (FEBRUARY 19 - 28) FULL PORTION

NAME OF THE SCHOOL	NAME OF THE TEACHER	SIGNATURE
Bhavan's Vidya Mandir , Elamakkara	Lekshmi Sankar K S	
Bhavan's Vidya Mandir , Girinagar	Deepa H Das	
Bhavan's Vidya Mandir , Eroor	Dr. E Rajesh Menon	
Bhavan's Adarsha Vidyalaya, Kakkanad	Parvathy Ammal K R	
Bhavan's Varuna Vidyalaya , Thrikkakara	Anjali A G	
Bhavan's Munshi Vidyashram , Thiruvamkulam	Meera Venugopal	
Bhavan's Newsprint Vidyalaya , Vellore	Soniamol T C	

BHARATIYA VIDYA BHAVAN ,KOCHI

SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	BIOLOGY				
MONTH	JUNE				
TOPIC	FUNDAMENTAL UNIT OF LIFE				
COMPETENCIES	Explains the role of cellular components (nucleus, mitochondria, endoplasmic reticulum, vacuoles, chloroplast, cell wall), including the semipermeability of cell membrane in making cell the structural basis of living organisms and functional basis of life processes				
SUB-TOPIC	CONCEPTS	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
5.1 WHAT ARE LIVING ORGANISMS MADE UP OF?	All living organisms are made up of one or more cells, which are considered the fundamental units of life.	C-3.1	*Describes how and why organisms are classified according to shared characteristics and place them in groups based on similarities. *Recalls the different features of living organisms.	Understand - Recall & Reproduce Knowledge - Recall & Reproduce	Oral / Quiz
5.2 WHAT IS A CELL MADE UP OF? WHAT IS THE STRUCTURAL ORGANISATION OF A CELL?	A cell consists of three parts: the cell membrane, the nucleus, and, between the two, the cytoplasm. Within the cytoplasm lie intricate arrangements of fine fibers and hundreds or even thousands of miniscule but distinct structures called organelles.		*Identifies the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles.	Understand - Recall & Reproduce	Pop Quiz (unannounced quiz)

5.2.1 PLASMA MEMBRANE OR CELL MEMBRANE	Plasma/Cell membrane: This is the outermost covering of the cell that separates the contents of the cell from its external environment. The plasma membrane allows or permits the entry and exit of some materials in and out of the cell so the cell membrane is called a selectively permeable membrane.		<p>*Reframe plasma membrane functions as a physical barrier between the external environment and the inner cell organelles.</p> <p>*Infer plasma membrane as a selectively permeable membrane, which permits the movement of only certain molecules both in and out of the cell.</p>	<p>Evaluate - Extended learning</p> <p>Analyze - Strategic thinking</p>	Individual Worksheet (Demonstration based)
5.2.2 Cell wall	Cell wall is the outermost covering of a plant cell. It is a tough and flexible (sometimes rigid) layer that provides structural support and protection to the cell.		<p>*Relate the structure and function of cell wall with real life examples.</p> <p>*Appraise the role of cell wall that permit the cells of plants, fungi and bacteria to withstand very dilute (hypotonic) external media without bursting.</p>	<p>Understand - Recall & Reproduce</p> <p>Evaluate - Extended learning</p>	<p>Case based questions</p> <p>Individual Worksheet (Demonstration based)</p>

BHARATIYA VIDYA BHAVAN ,KOCHI

SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	BIOLOGY				
MONTH	JULY				
TOPIC	THE FUNDAMENTAL UNIT OF LIFE				
COMPETENCIES	Explains the role of cellular components (nucleus,mitochondria, endoplasmic reticulum, vacuoles,chloroplast, cell wall), including the semipermeability of cell membrane in making cell the structural basis of living organisms and functional basis of life processes.				
SUB-TOPIC	CONCEPTS	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
5.2.3Nucleus	The nucleus is a small, round and membrane-bound structure found in cells. And the fluid inside the nucleus surrounded by the nuclear membrane is called nucleoplasm. It controls cell's growth and reproduction as it contains cell's hereditary information. It's covered by dual layer called a nuclear membrane.	C-3.1	<ul style="list-style-type: none"> *Locates and recalls the position of nucleus in the cell . *Explains the detailed structure of nucleus. *Sketch the structure of nucleus. *Identifies the function of nucleus. *Differentiate between Prokaryotes and Eukaryotes. *Organise the structural components of nucleus. 	<ul style="list-style-type: none"> Knowledge - Recall & Reproduce Understand - Recall & Reproduce Apply - Skills and concepts Understand - Recall & Reproduce Analyze - Strategic thinking Create - Extended learning Knowledge - Recall & Reproduce 	<ul style="list-style-type: none"> Diagram Test Case Study Questions MCQ
5.2.4Cytoplasm	Cytoplasm is the gelatinous liquid that fills the inside of a cell embedded with cell organelles.		<ul style="list-style-type: none"> *Plan an experiment to view cytoplasm through the microscope *Assess the structural component of cytoplasm 	<ul style="list-style-type: none"> Create - Extended learning Evaluate - Extended learning 	<ul style="list-style-type: none"> Pop Quiz
5.2.5 Cell organelles	An organelle is a specialised part of the cell that serves a specific purpose within the cell. there are many organelles present within a cell and they also vary depending on what kind of cell, whether it be a plant or animal . an organelle is a specialised part of the cell		<ul style="list-style-type: none"> *Name the membrane bound little structures suspended in the cytoplasm. *Relates the function of cell organelles in identifying prokaryotes and eukaryotes. *Identify and tells the different cell organelles. *Interprets the need of separating the cell organelles with membranes 	<ul style="list-style-type: none"> Knowledge - Recall & Reproduce Apply - Skills and concepts Knowledge - Recall & Reproduce 	<ul style="list-style-type: none"> Diagram Test Think Pair Share Label any five organelles common in plant cell and animal cell in the diagram.

5.2.5 (i) Endoplasmic reticulum	Endoplasmic Reticulum is a complex network of tubular membranes exclusively present in the cytoplasm of the eukaryotic cell.	<ul style="list-style-type: none"> *Describes the structure of endoplasmic reticulum *Distinguish between SER and RER *Reframes the functions of SER and RER *List the functions of ER 	Knowledge - Recall & Reproduce Analyze- Strategic thinking Evaluate Knowledge - Recall & Reproduce Analyze - Strategic thinking	Individual Worksheet (MCQ based)
5.2.5 (ii) Golgi apparatus	A stack of small flat sacs formed by membranes inside the cell's cytoplasm is called golgi apparatus.	<ul style="list-style-type: none"> *Enumerate the story of Camillo Golgi *Survey the duties of Golgi bodies *Connect the functions like storage and synthesis of Golgi bodies. 	Knowledge - Recall & Reproduce Analyze - Strategic thinking Analyze - Strategic thinking	One minute paper
5.2.5 (iii) Lysosomes	Lysosome is a membrane-bound cell organelle that contains digestive enzymes.	<ul style="list-style-type: none"> *Interprets the structure of Lysosome *Integrates the different functions of lysosomes. *Name the lysosomes as SUICIDAL BAGS as they burst and the enzymes in them digest their own cell. *List the function of lysosomes 	Understand - Recall & Reproduce Create - Extended learning Knowledge - Recall & Reproduce Knowledge - Recall & Reproduce	Muddiest point Activity
5.2.5 (iv) Mitochondria	Mitochondria are membrane-bound cell organelles (mitochondrion, singular) that generate most of the chemical energy needed to power the cell's biochemical reactions.	<ul style="list-style-type: none"> *Names mitochondria as POWER HOUSE of the cell. *Identify and Explain the structure *Infer mitochondria as strange organelles *Explain the structure of mitochondria *Compare mitochondria and plastids 	Knowledge - Recall & Reproduce Knowledge and analyse Analyze - Strategic thinking Understand - Recall & Reproduce Evaluate - Extended learning	Puzzle Drag and drop

5.2.5 (v) Plastids	Plastids are double-membrane organelles which are found in the cells of plants and algae that are responsible for manufacturing and storing of food.		<ul style="list-style-type: none"> *Identify and Explain the structure of plastids. *Infer mitochondria as strange organelles *Compare mitochondria and plastids as strange organelles *Classify the plastids on the basis of colour. *Distinguish between leucoplast and chromoplast. 	<p>Knowledge - Recall & Reproduce and Analyze - Strategic thinking</p> <p>Analyze - Strategic thinking</p> <p>Understand - Recall & Reproduce</p> <p>Evaluate - Extended learning</p> <p>Understand - Recall & Reproduce Analyze - Strategic thinking</p>	Exit splits
5.2.5 (vi) Vacuoles	A vacuole is a membrane-bound cell organelle generally small and help sequester waste products in animals, and large in size with maintenance of water balance in plants.		<ul style="list-style-type: none"> *Explains the structure and function of vacuole. *Compare the size of vacuoles in plant & animal cell *Generalise the functions of vacuoles in different organisms *List out the components of vacuolar sap. 	<p>Understand - Recall & Reproduce</p> <p>Analyse - Strategic thinking</p> <p>Create - Extended learning</p> <p>Knowledge</p>	<p>Complete the flow-chart on cell organelles</p> <p>Diagram based worksheet</p>
Cell division	The process by which a single parent cell splits to form new cells that are categorised into mitosis and meiosis.		<ul style="list-style-type: none"> *Define cell division. *Distinguish between SER and RER *Reframes the functions of SER and RER *List out the functions of ER 	<p>Knowledge - Recall & Reproduce</p> <p>Understand - Recall & Reproduce</p> <p>Evaluate - Extended learning</p> <p>Knowledge - Recall & Reproduce</p>	<p>Diagram Test</p> <p>KWL Chart ("Know," "Want to Know," and "Learned.")</p>

BHARATIYA VIDYA BHAVAN ,KOCHI

SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	BIOLOGY				
MONTH	AUGUST				
TOPIC	TISSUES				
COMPETENCIES	Illustrates different levels of organisations of living Organisms (from molecules to organisms)				
SUB-TOPIC	CONCEPTS	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
6.1 Are plants and animals made of same types of tissues?	A group of cells that are similar in structure and work together to do a peculiar function	C-4.2	*Define tissues as a cluster of cells at a definite place in the body. *Infer whether plants and animals are made of same type of tissues.	Knowledge - Recall & Reproduce Understand - Recall &	Exit cards
6.2 Plant tissues	Plant tissue systems fall into one of two general types: meristematic tissue, and permanent (or non-meristematic) tissue, which are further divided into simple and complex permanent tissue.		*Design an experiment to demonstrate growth of roots in onion bulbs	Create - Extended learning	One minute paper
6.2.1 Meristematic tissues	Meristematic tissues are the tissues in which the cells divide continuously and help in increasing the length and girth of the plant.		*Explain the structure of Meristematic tissue. *Classify Meristematic tissues depending on the region where they are present. *Point out the location of meristematic tissues on the plant body and name them.	Understand - Recall & Reproduce Understand - Recall & Reproduce Analyse and Knowledge - Recall & Reproduce Evaluate - Extended learning	Diagram Test MCQs

6.2.2 Permanent tissue	The tissues that are completely grown and have lost the ability of division are known as permanent tissues.		<p>*Recognise what happens to the cells formed by meristematic tissue?</p> <p>*Explain the word differentiation in plants.</p> <p>*Identifies that differentiation leads to different types of tissues</p>	<p>Knowledge - Recall & Reproduce</p> <p>Understand - Recall & Reproduce</p> <p>Knowledge - Recall & Reproduce</p>	Concept map
6.2.2 (i) Simple permanent tissue	Simple permanent tissue is a tissue that is made up of similar permanent cells that carry out the same function or a similar set of functions.		<p>*Locate the position of simple permanent tissue in plant body.</p> <p>*Explains the structure of permanent tissues.</p> <p>*Name the permanent tissue according to the contents in them.</p>	<p>Knowledge - Recall & Reproduce</p> <p>Understand - Recall & Reproduce</p> <p>Knowledge - Recall & Reproduce</p>	Think Pair Share
Epidermis	Epidermis, outermost, protoderm-derived layer of cells covering the stem, root, leaf, flower, fruit, and seed parts of a plant.		<p>*Locates the epidermis in plant body.</p> <p>*Explains the structure and function of epidermis.</p> <p>*Point out the stomata in the leaves of plants</p> <p>*Compares the epidermal layer in roots and leaves.</p> <p>*Distinguish outer layer of a branch of a tree different from the outer layer of a young stem.</p>	<p>Knowledge - Recall & Reproduce</p> <p>Understand - Recall & Reproduce</p> <p>Analyze - Strategic thinking</p> <p>Analyze - Strategic thinking</p> <p>Understand - Recall & Reproduce</p>	Case study questions

6.2.2 (ii) Complex permanent tissue	Permanent tissues are a collection of different types of cells working together as a unit and performing a certain function.		<p>*Differentiates the types of permanent tissue.</p> <p>*Compile the different cells of xylem and phloem.</p> <p>*Sketch the figures of xylem and phloem..</p>	<p>Understand - Recall & Reproduce and Analyze - Strategic thinking</p> <p>Create Create - Extended learning</p> <p>Apply - Skills and concepts</p>	<p>MCQs</p> <p>Quiz</p> <p>Diagram worksheet</p>

REVISION
PERIODIC TEST 1 - (7-14 AUGUST)
THE FUNDAMENTAL UNIT OF LIFE
NATURAL RESOURCES (PORTFOLIO)

BHARATIYA VIDYA BHAVAN ,KOCHI

SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX
SUBJECT	BIOLOGY
MONTH	SEPTEMBER
TOPIC	TISSUES

COMPETENCIES	Illustrates different levels of organisations of living organisms (from molecules to organisms)
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SUB-TOPIC	CONCEPTS	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
6.3 Animal tissues	Animal tissues are tissues which are animal body is made of. there are four types of tissues found in animals: epithelial tissue, connective tissue, muscle tissue, and nervous tissue.	C-4.2	Name the different tissues in animal body. Classifies the different animal tissues based on location & functions.	Knowledge - Recall & Reproduce Understand - Recall & Reproduce	Case based study Quiz
6.3.1 Epithelial tissue	Epithelial tissues are tissues that serves as a covering or lining for a body part which has a free surface that is exposed to either a body fluid or the outside environment.		Define epithelial tissues as the covering or protective tissues in the animal body . Categorize epithelial tissue showing differing structures that correlate with their unique functions.	Knowledge - Recall & Reproduce Analyze - Strategic thinking	Diagram Test Quiz
6.3.2 Connective tissue	Tissue that supports, protects, and gives structure to other tissues and organs in the body are called connective tissues.		Compares the structural composition of bone and cartilage. Appraise the role of areolar connective tissue in supporting internal organs and helping in repair of tissues.	Understand - Recall & Reproduce Evaluate - Extended learning	Diagram Test Quiz Concept map

6.3.3 Muscular tissue	Muscular tissue is a specialized tissue in animals which applies forces to different parts of the body by contraction which is made up of thin and elongated cells called muscle fibers that controls the movement of an organism.		<p>Identifies the different types of muscular tissue.</p> <p>Compares the structures of different types of muscular tissues with respect to their shape, number of nuclei and position of nuclei within the cell .</p>	<p>Knowledge - Recall & Reproduce</p> <p>Analyze - Strategic thinking</p>	<p>Diagram Test</p> <p>Quiz</p>
6.3.4 Nervous tissue	Cells specialized to receive and transmit electrical impulses from specific areas of the body and to send them to specific locations in the body organized into structures called nerves.		<p>List out the parts of neuron.</p> <p>Sketch the diagram of Neuron-unit of nervous tissue .</p>	<p>Knowledge - Recall & Reproduce</p> <p>Apply -Skills & Concepts</p>	<p>Diagram Test</p> <p>Quiz</p>

BHARATIYA VIDYA BHAVAN ,KOCHI

SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX
SUBJECT	BIOLOGY
MONTH	OCTOBER
TOPIC	IMPROVEMENT IN FOOD RESOURCES

COMPETENCIES Analyses different levels of biological organisation from organisms to ecosystems and biomes, and interactions that take place at each level, how natural resources can be shared and maintained (growing vegetables in flowerpots/kitchen gardens, use of rainwater)

SUB-TOPIC	CONCEPTS	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
12.1 Improvement in crop yields (Till Crop variety improvement)	Food supplies proteins, carbohydrates, fats, vitamins and minerals, all of which we require for body development, growth and health. different crops require different climatic conditions, temperature and	C-4.3	<p>*Differentiates crop into kharif and rabi with respect to the season in which they are grown.</p> <p>*Appraises the major groups of activities for improving crop yields</p>	<p>Understand - Recall & Reproduce</p> <p>Evaluate - Extended learning</p>	<p>Case based questions</p> <p>Quiz</p>
			<p>REVISION PERIODIC TEST - 2 (OCTOBER 5- 16)</p> <p>THE FUNDAMENTAL UNIT OF LIFE & TISSUES</p>		

BHARATIYA VIDYA BHAVAN ,KOCHI
CLASS IX LIST OF ACTIVITIES FOR THE ACADEMIC YEAR 2023-24

MONTH	NO	PRACTICALS (LIST OF EXPERIMENTS)
JUNE / JULY	1	Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
AUGUST / SEPTEMBER	2	Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.
TOPIC	NO	LIST OF ACTIVITIES
THE FUNDAMENTAL UNIT OF LIFE	1	Parts of a compound microscope.
	2	Osmosis with an egg , dried raisins or apricots.
	3	Model making -Cell
	4	Making a Potato Osmometer and observing endosmosis and exosmosis.
Tissues	5	Growth of roots with & without root tips in onion bulbs to show the importance of meristematic tissue.
	6	Demonstration of temporary / permanent slide preparation to show the arrangement of plant tissues
	7	Rhoeo leaf activity to identify guard cells and epidermal cells
	8	Rhoeo leaf activity to show open and closed of stomata
	9	Activity to show transpiration in plants
	10	Observation of permanent slides of blood cells
	11	Compare the structures of different types of muscular tissues. Note down their shape, number of nuclei and position of nuclei within the cell .
Portfolio		
The chapter Natural Resources (NCERT Chapter 14) will not be assessed in the year-end examination. However, learners may be assigned to read this chapter and encouraged to prepare a brief write up on any concept of this chapter in their Portfolio. This may be for Internal Assessment and credit may be given for Periodic Assessment/Portfolio.		

NAME OF THE SCHOOL	NAME OF THE TEACHER	SIGNATURE
Bhavan's Vidya Mandir , Elamakkara	Lekshmi Sankar K S	<i>Lekshmi</i>
Bhavan's Vidya Mandir , Girinagar	Deepa H Das	<i>Deepa H Das</i>
Bhavan's Vidya Mandir , Eroor	Dr. E Rajesh Menon	<i>Dr. E Rajesh Menon</i>
Bhavan's Adarsha Vidyalaya, Kakkanad	Parvathy Ammal K R	<i>Parvathy Ammal K R</i>
Bhavan's Varuna Vidyalaya , Thrikkakara	Anjali A G	<i>Anjali</i>
Bhavan's Munshi Vidyashram , Thiruvamkulam	Meera Venugopal	<i>Meera Venugopal</i>
Bhavan's Newsprint Vidyalaya , Vellore	Soniamol T C	<i>Soniamol</i>

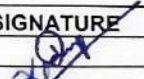

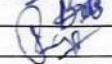
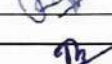
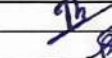
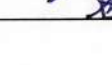

BHARATIYA VIDYA BHAVAN, KOCHI

**YEAR PLAN FOR THE ACADEMIC YEAR 2023-24
STD IX CHEMISTRY**

MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	Chapter 1 Matter in our surroundings	Physical nature of matter Characteristics of particles of matter States of matter	Definition of matter Physical nature of matter Characteristics of particles of matter States of matter
JULY	Chapter 1 Matter in our surroundings	Can matter change its state? Evaporation	Effect of change of temperature Effect of change of pressure Definition of evaporation Factors affecting evaporation
AUGUST	Chapter 2 Is matter around us pure	Physical and chemical changes What are the types of pure substances?	Differences between physical and chemical changes Definition of elements and compounds Differences between mixtures and compounds
PERIODIC TEST 1 07/08/2023 - 14/08/2023 CHAPTER 1-MATTER IN OUR SURROUNDINGS			
SEPTEMBER	Chapter 2 Is matter around us pure?	What is a mixture? Solution, suspension, colloids	Definition of mixtures Types of mixtures Differences between homogeneous and heterogeneous mixtures
OCTOBER	Chapter 3 Atoms and molecules	Laws of chemical combination What is an atom?	Law of conservation of matter Law of constant proportion Dalton's Atomic Theory Definition of atom and size of atom Symbols of atoms of elements Atomic mass
PERIODIC TEST 2 05/10/2023-16/10/2023 CHAPTER 1-MATTER IN OUR SURROUNDINGS(40% WEIGHTAGE) CHAPTER 2- IS MATTER AROUND US PURE?(60% WEIGHTAGE)			
NOVEMBER	Chapter 3 Atoms and molecules	What is a molecule? Writing chemical formula Molecular mass	Molecules of elements and compounds Ions Names and symbols of ions Formulae of simple compounds Molecular mass and formula unit mass
DECEMBER	Chapter 4 Structure of atom	Charged particles in matter The structure of atom How are electrons distributed in shells? Valency	Subatomic particles Thomson's model of atom Rutherford's model Bohr's model Valency and electronic distribution
JANUARY	Chapter 4 Structure of atom	Atomic number and mass number Isotopes and isobars	Definition of Atomic number and mass number Isotopes and uses Isobars
PERIODIC TEST 3 08/01/2024-15/01/2024 CHAPTER 1-MATTER IN OUR SURROUNDINGS(20% WEIGHTAGE) CHAPTER 2- IS MATTER AROUND US PURE?(20% WEIGHTAGE) CHAPTER 3- ATOMS AND MOLECULES(60% WEIGHTAGE)			
FEBRUARY	Chapter 14 Natural resources	Portfolio activity REVISION	

FINAL EXAMINATION
QUESTION PAPER PATTERN AS PER CBSE SAMPLE PAPER
19/02/2024-28/02/2024

CHAPTER 1-MATTER IN OUR SURROUNDINGS(10% WEIGHTAGE -TOPIC- EVAPORATION; 1.5)
CHAPTER 2- IS MATTER AROUND US PURE?(10% WEIGHTAGE-TOPIC-WHAT ARE THE TYPES OF PURE SUBSTANCES?; 2.5)
CHAPTER 3- ATOMS AND MOLECULES(30% WEIGHTAGE-FULL CHAPTER)
CHAPTER 4- STRUCTURE OF ATOM(50% WEIGHTAGE-FULL CHAPTER)

NAME OF THE TEACHER	SIGNATURE	NAME OF THE SCHOOL
ROJO THOMAS		BHAVAN'S VIDYA MANDIR, EROOR
ANU RAMAN		BHAVAN'S VIDYA MANDIR, GIRINAGAR
BEENA GEORGE		BHAVAN'S VIDYA MANDIR, ELAMAKKARA
PRIYA K NAIR		BHAVAN'S ADARSHA VIDYALAYA, KAKKANAD
MEENA NAIR		BHAVAN'S VARUNA VIDYALAYA THRIKKAKARA
REMYA S NAIR		BHAVAN'S NEWSPRINT VIDYALAYA, VELLOOR
SREEJA SREEDHAR		BHAVAN'S MUNSHI VIDYASHRAM, TRIPUNITHURA

BHARATIYA VIDYA BHAVAN, KOCHI KENDRA

YEAR PLAN FOR THE ACADEMIC YEAR 2023-24

STD IX		MATHEMATICS	
MONTH	TOPIC	SUB-TOPICS	CONCEPTS
JUNE	1.NUMBER SYSTEMS	Introduction,Irrational numbers, Real numbers and their decimal expansion,operation on real numbers, Laws of exponents for real numbers	Review of representation of natural numbers, integers and rational numbers on the number line, Rational numbers as recurring/terminating decimals,Operations on Real numbers, Representing irrational numbers on a number line,definition of nth root of a real number, Rationalization (with precise meaning) of real numbers of the type $\frac{1}{a + b\sqrt{x}}$ and $\frac{1}{\sqrt{x} + \sqrt{y}}$ (and their combinations) where x and y are natural number and a and b are integers, Recall of laws of exponents with integral powers.
	2. POLYNOMIALS	Introduction,Polynomials in one variable,zeroes of a polynomial, factorisation of polynomials, algebraic identities.	Definition of a polynomial in one variable, with examples and counterexamples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials. Zeros of a polynomial,Remainder theorem, Statement and proof of the Factor Theorem. Factorization of $ax^2 + bx + c$, $a \neq 0$ where a, b and c are real numbers, and of cubic polynomials using the Factor Theorem. Recall of algebraic expressions and identities. Verification of identities: $(x+y+z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$, $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$, $x^3 \pm y^3 = (x \pm y)(x^2 \pm xy + y^2)$, $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$ and their use in factorization of polynomials.
JULY	POLYNOMIALS (CONTD....)		
	3. COORDINATE GEOMETRY	Introduction, Cartesian system	The Cartesian plane, coordinates of a point, names and terms associated with the coordinate
	4. LINEAR EQUATIONS IN TWO VARIABLES	Introduction, Linear equations, solution of a linear equation	Recall of linear equations in one variable. Introduction to the equation in two variables. Focus on linear equations of the type $ax+by+c=0$. Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs of real numbers ,plotting them and showing that they lie on a line.
PERIODIC TEST 1 AUG 7th TO AUG 14th CHAPTERS 1,2,3			
AUGUST	LINEAR EQUATIONS CONTD....		
	6. LINES AND ANGLES	Introduction, basic terms and definitions, intersecting lines and non intersecting lines, pairs of angles, lines parallel to the same line	1.(Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse. 2. (Prove) If two lines intersect, vertically opposite angles are equal. 3. (Motivate) Lines which are parallel to a given line are parallel.

	10. HERON'S FORMULA	Area of a triangle- by Heron's formula	Area of a triangle using Heron's formula (without proof)
SEPTEMBER	7. TRIANGLES	Introduction, congruence of triangles , criteria for congruence of triangles, SAS congruence rule, ASA congruence rule, AAS congruence rule, SSS congruence rule ,RHS congruence rule , sum properties of a triangle	<p>1.(Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence).</p> <p>2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).</p> <p>3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence).</p> <p>4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence)</p> <p>5. (Prove) The angles opposite to equal sides of a triangle are equal.</p> <p>6. (Motivate) The sides opposite to equal angles of a triangle are equal.</p>
PERIODIC TEST 2 - OCT 5th to OCT 16th Chapters 2,4,6,10			
OCTOBER	TRIANGLES		
NOVEMBER	12. STATISTICS	Graphical representation of data - bar graph ,histogram, frequency polygon	Bar graphs, histograms (with varying base lengths), frequency polygons.
	8. QUADRILATERALS	Properties of a parallelogram,The Mid- point theorem	<p>1.(Prove)The diagonal divides a parallelogram into two congruent triangles.</p> <p>2. (Motivate) In a parallelogram opposite sides are equal, and conversely.</p> <p>3. (Motivate) In a parallelogram opposite angles are equal, and conversely.</p> <p>4. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal.</p> <p>5. (Motivate) In a parallelogram, the diagonals bisect each other and conversely.</p> <p>6. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and is half of it and (motivate) its converse</p>
DECEMBER	QUADRILATERALS CONTD....		

	9. CIRCLES	Angles subtended by a chord at a point, perpendicular from the centre to a chord, Equal chords and their distances from the centre, Angle subtended by an arc of a circle, Cyclic quadrilaterals.	Through examples, arrive at the definition of circle and related concepts-radius, circumference, diameter, chord, arc, secant, sector, segment, subtended angle. 1. (Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse. 2. (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord. 3. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely. 4. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle. 5. (Motivate) Angles in the same segment of a
PERIODIC TEST 3 - JAN 8th to JAN 15th- CHAPTERS 3,7,8,10,12 -			
	9. CIRCLES		
JANUARY	INTRODUCTION TO EUCLID'S GEOMETRY	Introduction to Euclid's Geometry (SEMINAR BY STUDENTS)	Periods History - Geometry in India and Euclid's geometry. Euclid's method of formalizing observed phenomena into rigorous Mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. . Showing the relationship between axiom and theorem, for example: (Axiom) 1. Given two distinct points, there exists one and only one line through them. 118 (Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.
	11. SURFACE AREAS AND VOLUMES	Surface area of a right circular cone, Surface area of a sphere, hemi sphere, Volume of a right circular cone, Volume of a sphere, hemi sphere	Surface areas and volumes of spheres (including hemispheres) and right circular cones.
FEBRUARY	SURFACE AREAS AND VOLUMES CONTD....		
		FINAL EXAMINATION- 19th February -28th February(Chapters- 1,2,3,4,5,6,7,8,9,10,11,12)	

BHAVAN'S VIDYA MANDIR, ELAMAKKARA- SARITHA .K
 BHAVAN'S VIDYA MANDIR, GIRINAGAR-INDU .S.N
 BHAVAN'S VIDYA MANDIR ,EROOR -INDU P.N
 BHAVAN'S ADARSHA VIDYALAYA, KAKKANAD-JITHA.C
 BHAVAN'S VARUNA VIDYALAYA-VYJI N.R
 BHAVAN'S NEWSPRINT VIDYALAYA,VELLOOR-RAJESH.M.N
 BHAVAN'S MUNSHI VIDYASHRAM,THIRUVAMKULAM-SREEREKHA.U

BHARATIYA VIDYA BHAVAN ,KOCHI					
SCHEME OF WORK FOR THE YEAR 2023-24					
CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	JUNE				
TOPIC	NUMBER SYSTEMS				
COMPETENCIES	C-1.1 Develops a deeper understanding of numbers, including the set of real numbers and its properties C-1.5 Recognises and appropriately uses powers and exponents				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE LEVELS (as per Blooms Taxonomy)	ASSESSMENT FOR LEARNING
Introduction,Irrational numbers, Real numbers and their decimal expansion	Define rational, Irrational numbers- Rational numbers as recurring/terminating decimals	C-1.1	Interpret the concept of Rational , Irrational numbers	Understand	Flash Cards
Operation on real numbers	Addition, subtraction, multiplication and division of Real Numbers	C-1.1	applies logical reasoning in classifying real numbers, proving their properties and using them in different situations.	Apply	Practice questions through group activity
Irrational numbers on a number line	Representing irrational numbers on a number line	C-1.1	Represents Irrational numbers on a number line	Apply	Art Integrated activity- Square root spiral
nth root of a real number	Define nth root of a real number,	C-1.1	Defines the concept of nth root of a Real Number	Understand	Quiz-Oral questions
Rationalisation of the denominator of Real numbers	Rationalizing the denominator of Real numbers	C-1.5	Solves the problems based on rationalising the denominator of Real Numbers	Apply	Assignment questions
Laws of exponents for real numbers	Recall of laws of exponents with integral powers & apply the laws for Real Numbers	C-1.5 C-1.6	Recalls the laws of exponents and applies the laws for Real Numbers	Remember Apply	MCQ

BHARATIYA VIDYA BHAVAN ,KOCHI
SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	JULY				
TOPIC	POLYNOMIALS				
COMPETENCIES	C-2.1 Learns the art of factorising polynomials C-2.2 Forms polynomials using variables ,coefficients and				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Introduction	Recall of algebraic identities: $(a+b)^2$, $(a-b)^2$ a^2-b^2	C-2.2	Recalls and applies algebraic identities	Remember	Practice questions
Polynomials in one variable	Definition of a polynomial in one variable with examples , Coefficients of a polynomial, terms of a polynomial and zero polynomial. monomial, binomial ,trinomial, degree of a polynomial,linear, quadratic and cubic polynomial, constant polynomial ,zero polynomial.	C-2.2	Identifies and classifies polynomials.	Understand Apply	Questionnaire,MCQ
zeroes of a polynomial	A real number ,'c' is a zero of a polynomial p (x) if $p(c)=0$.	C-2.2	Inteprets and identifies zeroes of a polynomial	Apply	Practice questions
Remainder theorem	If p(x) is a polynomial of degree greater than or equal to 1 and p(x) is divided by linear polynomial (x-a), then remainder is p(a).	C-2.2	Finding the remainder when polynomial p(x) is divided by (x-a) using remainder theorem	Understand Apply	Assignment questions
Factorisation of polynomials Factor theorem	Statement and application of factor thorem, Using factor thorem determine if linear polynomial (x-a) is a factor of p(x) Factorise a given polynomial using splitting the middle term method.	C- 2.1	Applies factor thorem and factorises a given polynomial	Apply	Assignment questions
Algebraic identities	Recall of algebraic expressions and identities. Verification of identities: $(x+y+z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$, $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$, $x^3 \pm y^3 = (x \pm y)(x^2 \pm xy + y^2)$, $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$ and their use in factorization of polynomials.	C-2.1	Applies appropriate algebraic identities to factorise polynomials	Remember Understand Apply	Oral questions, Assignment questions

BHARATIYA VIDYA BHAVAN ,KOCHI
SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	JULY				
TOPIC	COORDINATE GEOMETRY				
COMPETENCIES	C-3.3 Specifies locations and describes spatial relationships using coordinate geometry,				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Introduction	Coordinate Geometry, The Cartesian plane	C-3.3	Defines coordinate geometry Understands the concept of coordinate geometry.	Understand	https://youtu.be/K_fsXEBwRpg
Cartesian system	Coordinates of a point, names and terms associated with the coordinate plane, notations	C-3.3	*Interpret the concept of coordinates , names and terms associated with the coordinate plane. *develops strategies to locate points in a Cartesian plane.	Understand Apply	Case Study based questions

BHARATIYA VIDYA BHAVAN ,KOCHI
SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	JULY				
TOPIC	LINEAR EQUATIONS IN TWO VARIABLES				
COMPETENCIES	C-2.3 Poses and solves linear equations in two variables				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Introduction, Linear equations , solution of a linear equation	Recall of linear equation in one variable, Introduction to the equation in two variables	C-2.3	Understands and identifies linear equation in two variables.	Understand	MCQ. Questionaire
	Solution of a linear equation, solution as ordered pairs.A linear equation in two variables has infinitely many solutions	C-1.1	* Understands graphic , numeric ,algebraic and mental strategies to solve equations * Forms equations from real life situations.	Apply	Assignment questions
	Every point on the graph of the linear equation in two variables is a solution of the linear equation.Every solution of the linear equation is a point on the graph of the linear equation.	C-1.1	Understands and draws the graph of linear equation in two variables	Analyse Create	Group work(graph)
PERIODIC TEST 1 AUG 7th TO AUG 14th CHAPTERS 1,2,3					

BHARATIYA VIDYA BHAVAN ,KOCHI
SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	AUGUST				
TOPIC	LINES AND ANGLES				
COMPETENCIES	C-3.1 Describes relationships including congruence of two-dimensional geometric shapes (such as lines, angles, triangles) to make and test conjectures and solve problems				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Introduction, basic terms and definitions	Collinear and non collinear points, different types of angles, complementary & supplementary angles, linear pair, vertically opposite angles	C-3.1	Understands different types of angles, complementary & supplementary angles, linear pair, vertically opposite angles	Understand	Quiz-Peer assessment by oral questions
Intersecting lines and non intersecting lines	Different ways of drawing 2 lines	C-3.1	identifies similarities and differences among different pairs of lines	Remember	https://www.google.com/search?q=introduction+to+parallel+and+intersecting+lines&sxsrf=APwXEdegKvbq0ghekLn455b8B4eA1zI9NQ:1685335166337&source=lnms&tbn=vid&sa=X&ved=2ahUKEwiMhqrf2pn_AhX2Z2wGHehFC_h0Q_AUoAnoECAEQBA&biw=1366&bih=625&dpr=1.#fpstate=ive&vld=cid:d79b83c2_vid
Pairs of angles	If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse. If two lines intersect each other, then the vertically opposite angles are equal	C-3.1	derives proofs of mathematical statements particularly related to geometrical concepts like pair of lines by applying axiomatic approach and solves problems using them.	Understand Apply	Practice questions through group activity
Lines parallel to the same line	Results on corresponding angles, alternate angles, interior angles when a transversal intersects two parallel lines. Lines which are parallel to a given line are parallel.	C-3.1	derives proofs of mathematical statements particularly related to geometrical concepts like parallel lines by applying axiomatic approach and solves problems using them.	Understand Apply	Assignment questions

BHARATIYA VIDYA BHAVAN ,KOCHI					
SCHEME OF WORK FOR THE YEAR 2023-24					
CLASS	IX				
SUBJECT	MATHEMATICS				
MONTH	SEPTEMBER				
TOPIC	HERON'S FORMULA				
COMPETENCIES	C-4.1 Visualises, represents, and calculates the area of a triangle using Heron's formula.				
SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Area of a triangle- by Heron's formula	Area of a triangle using Heron's formula (without proof)	C-4.1	Apply Heron's formula and calculate the area of a triangle.	Understand Apply	Practice questions.

BHARATIYA VIDYA BHAVAN ,KOCHI
SCHEME OF WORK FOR THE YEAR 2023-24

CLASS	IX
SUBJECT	MATHEMATICS
MONTH	SEPTEMBER
TOPIC	TRIANGLES

COMPETENCIES C- 3.1 Describes relationships including congruence of two dimensional geometrical shapes(such as lines, angles, triangles) to make and test conjectures and solve problems.

SUB-TOPIC	CONCEPT	COMPETENCIES	LEARNING OUTCOMES	COGNITIVE	ASSESSMENT FOR LEARNING
Introduction Congruence of triangles	Basic properties of triangles, congruent figures , congruent triangles, correspondence, symbols of correspondence and congruence, CPCT	C- 3.1	Apply the concepts of congruency of triangles and prove congruence between two triangles in a given figure	Apply	Practice worksheets, Oral questions, MCQ
Criteria for congruence of triangles SAS	(Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence)	C- 3.1	Illustrate SAS criteria of congruence of triangles through diagrams and prove relationships between given angles,sides and triangles in a given figure	Understand Apply	Practice questions (group work)
ASA congruence rule	(Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence rule)	C- 3.1	Illustrate ASA criteria of congruence of triangles through diagrams and prove relationships between given angles,sides and triangles in a given figure	Understand Apply	Practice questions (group work)
AAS congruence rule	(Motivate) Two triangles are congruent if any two pairs of angles and one pair of corresponding sides are equal (AAS congruence rule)	C- 3.1	Illustrate AAS criteria of congruence of triangles through diagrams and prove relationships between given angles,sides and triangles in a given figure	Understand Apply	Practice questions (group work)
SSS congruence rule	(Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence rule)	C- 3.1	Illustrate SSS criteria of congruence of triangles through diagrams and prove relationships between given angles, sides and triangles in a given figure	Understand Apply	Practice questions (group work)
RHS congruence rule	(Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence rule).	C- 3.1	Illustrate RHS criteria of congruence of triangles through diagrams and prove relationships between given angles,sides and triangles in a given figure	Understand Apply	Practice questions (group work)
Some properties of a triangle	Prove:The angles opposite to equal sides of a triangle are equal. (Motivate) The sides opposite to equal angles of a triangle are equal.	C- 3.1	Using isosceles triangle property and its converse prove the relationship between any given sides or angles in a given figure.	Understand Apply	Practice questions (group work)

PERIODIC TEST 2 - OCT 5th to OCT 16th Chapters 2,4,6,10

BHAVAN'S VIDYA MANDIR, ELAMAKKARA- SARITHA .K
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 BHAVAN'S MUNSHI VIDYASHRAM,THIRUVAMKULAM-SREEREKHA.U