



**Annual Curriculum (2023-24)**

**GRADE - X**

**SUBJECT- ENGLISH**

Book prescribed :

Month	Topic	Objectives	Art Integration/ Experiential learning	Methodology of teaching /Art of teaching	Learning Outcome
April	<p><b>FIRST FLIGHT</b></p> <p><b>Chapter-1 A LETTER TO GOD</b></p> <p><b>DUST OF SNOW</b></p> <p>-</p> <p><b>FIRE AND ICE</b></p>	<p><b>To enable the students:</b></p> <ul style="list-style-type: none"> <li>-To develop their Basic skills of language - listening, speaking, reading and writing.</li> <li>-To understand the plot and character of the story.</li> <li>-To enjoy and appreciate the story and the use of language.</li> <li>-To puzzle out the meaning of some unfamiliar words in the story.</li> <li>-To become aware of the theme and emotions.</li> <li>-To understand the importance of faith</li> <li>-To lend a helping hand to the needy.</li> <li>-To engage them in learning and recognizing the multilingualism of everyday</li> </ul>	<p><b>Activity (To introduce the lesson):</b></p> <ul style="list-style-type: none"> <li>- Story prediction based on the title of the story (Guess the theme given in the story based on the title).</li> <li>-We communicate with our friends, teachers, relatives, and superiors verbally or through letters, emails, etc. We can't communicate with any mortal using our mind. On the contrary, we convey our thoughts with God mentally, not through letters or mails. Share your views regarding the same.</li> <li>- Class Discussion: Have there been times when you felt depressed or hopeless? Have you experienced any moment that helped you to get out of that mood of sadness?</li> </ul>	<p>Brainstorming, Collaborative, critical thinking Smart board illustration and discussion method</p>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>- To understand the plot and character of the story.</li> <li>-To enjoy and appreciate the story and the use of language.</li> <li>-To puzzle out the meaning of some unfamiliar words in the story.</li> <li>-To become aware of the theme and emotions.</li> <li>-To understand the importance of faith</li> <li>-To believe that faith can move mountains</li> <li>-To develop such a faith in them that boosts their confidence in them.</li> <li>-To encourage them to develop faith in themselves.</li> <li>know about symbolism</li> <li>- identify the poetic</li> </ul>

	<p><b>A Triumph of Surgery Writing Skill</b></p> <p><b>Formal Letter (Letter to Editor)</b></p>	<p>experience. -To make students understand the thought and imagination contained in the poem. -To make students think about different human emotions and their effects. -To inspire them write their feelings in the form of short poems. -To develop their imagination skills</p>	<p>What is the rhyme scheme of the poem? How does it help in bringing out the contrasting ideas in the poem?</p> <p>Do you think there are parents like Mr. Pumphrey? -This episode describes the silly behaviour of a rich woman who is foolishly indulgent, perhaps because she is lonely. Do you think such people are merely silly, or can their actions cause harm to others?</p>	<p>to familiarise the students with format,</p> <p>samples and practice worksheet</p>	<p>devices used in the poem -admire and observe nature's small incidents -understand the thought and imagination contained in the poem. -understand that dog is the most faithful pet. -understand that declined health was the outcome of Mrs Pumphrey's over-caring nature. -understand the pompous nature of the rich.</p>
<p><b>May</b></p>	<p><b>Flight Two Stories about Flying</b></p> <p><b>(His First Flight, The Black Aeroplane)</b></p> <p><b>Poetry</b></p>	<p><b>To enable the students-</b> -To Express effectively -To share ideas</p> <div style="border: 1px solid black; padding: 5px;"> <p>- To develop appropriate style of writing. - To write effectively - To Differentiate the style of expressing different writing skills -To know the purpose and importance of writing short and long Compositions -To enable the students to understand the importance of freedom. -To enable the students to</p> </div>	<p>Are zoos necessary for the protection or conservation of some species of</p>	<p>Familiarize the students with different formats of the writing skills</p> <p>Model exercise of each writing skill will be given</p>	<p>-To share ideas - To develop appropriate style of writing. - To write effectively - To Differentiate the style of expressing different writing skills -To know the purpose and importance of writing short and long compositions - to practically make use of writing skills -To understand that all animals will be happy only in their natural habitat. -To understand the</p>

	<p><b>A Tiger in the zoo</b></p> <p><b>How to tell wild animals.</b></p> <p><b>Footprints without Feet</b></p> <p><b>The Thief's story</b></p> <p><b>Writing Skill</b></p>	<p>understand the dangers of deforestation and blessings of forestation.</p> <p>-To enable the students to understand that all animals will be happy only in their natural habitat.</p> <p>-To enable the students to</p>	<p>animals? Are they useful for educating the public? Are there alternatives to zoo?</p> <p>Do you think people like Anil and Hari Singh are found only in fiction, or are there such people in real life? Share your views.</p>		<p>responsibility of present generation in preserving the environment and earth.</p> <p>-To enable the students to learn to recite poem with proper intonation and rhythm.</p> <p>-To stir their thinking.</p>
	<p><b>Formal Letter (Complaint)</b></p> <p><b>Grammar</b></p> <p><b>Modals</b></p>	<p>To understand the two different characters i.e. Anil &amp; Hari Singh</p> <p>-To get enjoyment through reading the lesson.</p> <p>To appreciate/comprehend the text</p>	<p>Do you think a human baby also finds it a challenge to take its first steps?</p>	<p>Practice exercise of each writing skill will be given</p>	<p>To help them arrive at a conclusion if an aeroplane can fly and land safely even in an odd condition as mentioned in the lesson.</p> <p>-To enable the students share their personal experiences.</p> <p>-To enable them express themselves</p>
July	<p><b>Flight From the Diary of Anne Frank</b></p> <p><b>Glimpses of India</b></p> <p><b>(A Baker from Goa, Coorg, Tea from Assam)</b></p>	<p>get to know about the nostalgic childhood memories</p> <p>-understand the record of monthly accounts by the bakers of Goa.</p> <p>- make them aware of the people of Coorg.</p> <p>- tell them about its location, historical background, climate etc.</p> <p>- know about its famous tourist spot and destinations.</p> <p>To enable the students to share their personal experiences</p> <p>-To enable the learners to</p>	<p>Do you read novels? Specify the genre-mystery, horror, fiction, romance, adventure etc.</p> <p>Who is your favourite author and why?</p> <p>A Video will be shown on</p>	<p>Discussion</p> <p>explanation</p> <p>Power Point Presentation,</p> <p>RTC</p>	<p>To critically think about identity</p> <p>-To empathize and relate to Anne Frank</p> <p>-To understand the importance of teacher</p> <p>-To understand child psychology</p> <p>-To understand student-teacher relationship</p> <p>appreciate the old methods of baking</p>

	<p><b>Footprints without Feet      The Midnight Visitors</b></p> <p><b>A Question of Trust,</b></p> <p><b>Writing Skill Formal Letter (inquiry)</b></p> <p><b>Grammar Subject-verb agreement, Determiners</b></p>	<p>extrapolate from the given text.</p> <p>-To sensitise the students to the feeling on an individual To make them realise that we should not harm anyone for our own benefit.</p> <p>-To enable the students to use new words and phrases of English. To Express effectively</p> <p>-To share ideas</p> <p>-To develop appropriate style of writing.</p> <p>-To write effectively</p> <p>- To differentiate the style of expressing different writing skills</p>	<p><u>‘Bakers of Goa’</u></p> <p>A Video on Coorg will be shown to the students</p> <p>Rajvir was so excited to visit sam that he studied many things out the place before visiting.</p> <p>Do you try to gather knowledge before going anywhere?</p> <p>Thief is not the one who steals, but the one that is caught. What do you understand by this proverb?</p> <p>Model exercise of each writing skill will be given</p> <p>Practice exercise of each writing skill will be given</p>	<p>Smart board lecture and discussion method</p> <p>Brainstorming ,</p> <p>Collaborative,</p> <p>critical thinking</p>	<p>breadin Goa.</p> <p>-respect traditions.</p> <p>-respect values, beliefs and customs of others</p> <p>-develop their imaginative and analytical skills.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>-gain knowledge of the attractions of Coorg.</p> </div> <p>understand that the tea pluckers are different from other farm labourers.</p> <p>-gain information of the various stages of growing tea.</p>
<b>August</b>	<p><b>Flight Mijbil the Otter</b></p> <p><b>Madam Rides the Bus</b></p>	<p>- learn about phrases that indicate a particular quantity of something that is not usually countable</p> <p>- read and identify the main points of the text.</p> <p>-use new words and their meanings-</p> <p>To enable the learners to extrapolate from the given</p>	<p>Discussion about Bruno in their previous class IX lesson</p> <p><u>‘The Bond of Love’</u> relating to this lesson.</p> <p>discussion about a journey that was unforgettable in some way?</p>	<p>Discussion explanation</p>	<p>learn about phrases that indicate a particular quantity of something that is not usually countable.</p> <p>- read and identify the main points of the text.</p> <p>- use new words and their meanings.</p> <p>- comprehend the chapter</p> <p>-Empathize with animals</p>

	<p><b>Poetry</b> <b>The Ball Poem,</b> <b>Amanda</b></p> <p><b>Footprints without Feet</b></p> <p><b>The Making of a Scientist</b></p> <p><b>Grammar</b> <b>Reported speech</b></p> <p><b>Writing Skill</b> <b>Analytical Paragraph</b></p> <p><b>Formal Letter</b> <b>(Placing Order)</b></p>	<p>text. -To enable the students to think of an alternative ending to the story.</p> <p>-understand that learners can get knowledge of various stage, species and growth of butterflies. -analyse that the learners can get ample knowledge about the theory of cell. -analyse that Richrad Ebright was multi talented and used to put extra effort in his work -evaluate that Ebrights' works were directly related to Biology and discovery of cell's structure helped the scientific community to understand how the organisms function and grow.</p> <p>application of knowledge -Express effectively -develop appropriate style of writing. -write grammatically correct sentences. -will be able to apply the rules of grammar</p>	<p>What made it memorable?</p> <p>: How can one become a scientist, an economist, a historian .....? Does it simply involve reading many books on the subject? Does it involve observing, thinking and doing experiments?</p> <p>Students Involvement in explanation of the certain concepts by asking them to frame questions and giving answers</p> <p>-Model exercise of each topic will be given</p> <p>-Practice exercise of each topic will be given</p>	<p>Power Point Presentation,</p> <p>RTC</p>	<p>- Learn to take care about animals</p> <p>feel sensitive towards the feelings of an individual. -enjoy a light-hearted literature. -realise the lessons and experiences that travelling gives us</p> <p>know the importance of gathering information. -analyse that the brain processes the information that affects the degree of learning. -understand that the first and foremost criteria to become a genius in one's chosen</p> <p>use of important rules -application of knowledge -Express effectively -develop appropriate style of writing. -write grammatically correct sentences. -will be able to apply the rules of grammar -write effectively with appropriate expressions, vocabulary and content</p>
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<p><b>September</b></p>	<p><b>TERM 1</b></p> <p><b>Flight The Sermon at Banaras,</b></p> <p><b>Poetry The Trees, Fog</b></p> <p><b>Footprints without Feet</b></p> <p><b>The Necklace, Bholi</b></p>	<p>-To enable the students have spiritual outlook.</p> <p>-To enable them express themselves in grammatically correct language.</p> <p>- To enable the learners extrapolate from the given text.</p> <p>-To sensitise the students to the fact that death is the ultimate truth in the world.</p> <p>-To enable them use new words and phrases in their own language.</p> <p>-To help them know that nothing is permanent. To explain the importance of emotional security and family support for children.</p> <p>-To indicate the need of love, encouragement and education for the disabled to fight against their odds.</p> <p>-To demonstrate the use of simple past and past perfect tense in speech and writing.</p> <p>- -To stuff moral values in the students such as dowry is a social abuse, any disabled should not be made fun of etc. To enjoy and appreciate the stories giving lessons of life</p>	<p>Do you think Buddha's ideas and way of teaching continue to hold meaning for us? Or have we found better ways to deal with grief? Discuss this in groups or in class.</p> <p>Discussion- Do you think girl children are not treated at par with boys?</p> <p>You noticed your younger brother mimicking his friend (who limps) and making fun of him. Is it justifiable on his part to do</p> <p>What would you look for when you are invited for a party by a high class society?</p> <p>-Are dresses and accessories the priority of such parties?</p>	<p>Smart board lecture and</p> <p>discussion method</p> <p>Brainstorming ,</p> <p>Collaborative,</p> <p>critical thinking</p>	<p>- To enable the learners extrapolate from the given text.</p> <p>-To sensitise the students to the fact that death is the ultimate truth in the world.</p> <p>-To enable them use new words and phrases in their own language.</p> <p>-To help them know that nothing is permanent. Everything is subject to decay. All human beings are mortals. And mortals are bound to die.</p> <p>know that satisfaction leads to contentment which is a key to happiness.</p> <p>- understand that acceptance of mistake will make the life easier in contrast to hiding the truth and paying for it later/or ruining your inner peace</p>
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		<p>-To understand ‘Honesty is the best policy’</p> <p>-To understand that You may pay a terrible price for greed and desire</p>			<p>- enjoy and appreciate the stories giving lessons of life</p>
<p><b>October</b></p>	<p><b>The Proposal,</b></p> <p><b>Poetry</b></p> <p><b>The Tale of Custard the Dragon</b></p> <p><b>For Anne Gregory</b></p> <p><b>Footprints without Feet</b></p>	<p>To help them differentiate between internal and external conflict.</p> <p>-To help them identify the different types of conflict within the story.</p> <p>-To help them articulate the necessity of conflict within the text.</p> <p>To make them aware of the Russian Wedding custom and culture</p> <p>-To explain the importance of emotional security and family support for children.</p> <p>-To indicate the need of love, encouragement and education for the disabled to fight against their odds.</p> <p>-To demonstrate the use of simple past and past perfect tense in speech and writing.</p> <p>To introduce the concept of Aliens, Martians.</p> <p>-To help the students think</p>	<p>Anger Management: As adults, one important thing to learn is how to manage our temper. Some of us tend to get angry quickly, while others remain calm. Can you think of three ill effects that result from anger? Suggest ways to avoid losing your temper in such situations. Are there any benefits from anger?</p> <p>You noticed your younger brother mimicking his friend (who limps) and making fun of him. Is it justifiable on his part to do</p> <p>Do you think books are being replaced by the electronic media?</p>	<p>Role play</p> <p>Smart board lecture and discussion method</p> <p>Brainstorming ,</p> <p>Collaborative,</p> <p>critical thinkin</p>	<p>To help them differentiate between internal and external conflict.</p> <p>-To help them identify the different types of conflict within the story.</p> <p>-To help them articulate the necessity of conflict within the text.</p> <p>-To appreciate/ comprehend the text.</p> <p>-To express themselves in grammatically correct language.</p> <p>To make them aware of the Russian Wedding custom and culture</p> <p>To identify the poetic devices like metaphor, alliteration etc.,</p> <p>-To know about the rhyme scheme used in the poem</p>

	<p><b>The Book that saved the Earth</b></p>	<p>futuristically.          -To introduce the main ideas of a play.          -To enable the students to understand the plot and characters and sequence of incidents in the play.</p> <p>To make study of their own personality.          -To infer the meaning of unfamiliar words and phrases.          -To identify the poetic devices like metaphor, alliteration etc.,          -To know about the rhyme scheme used in the poem</p>	<p>Can we do away with books altogether?</p> <p>Never judge a book by its cover.          What do you understand by this?</p>		<p>To sensitize the students to the importance of education.          -To explain the importance of emotional security and family support for children.          -To indicate the need of love, encouragement and education for the disabled to fight against their odds</p> <p>To introduce the main ideas of a play.          -To enable the students to understand the plot and characters and sequence of incidents in the play.</p>
November	PRE-BOARD 2				
December	PRE-BOARD 3				
January	PRE-BOARD 4				
February	PRE-BOARD 5				



<p><b><u>WeeklyTest 1</u></b>  <b>Reading passage</b>(unseen passages)  <b>Literature</b>  Ch 1 Letter to God  <b>Grammar</b>  Tenses  <b>Writing skills</b>  Formal Letter to Editor</p>	<p><b><u>Weekly Test 2</u></b>  <b>Reading passage</b>(unseen passages)  <b>Literature</b>  Ch-2,3  Poem – 1,2,3  <b>Grammar</b>  Modals  <b>Writing skills</b>  Complaint Letter</p>
<p><b><u>WeeklyTest 3</u></b>  <b>Reading passage</b>(unseen passages)  <b>Literature</b>  FF <b>Glimpses of India</b>  <b>(A Baker from Goa, Coorg, Tea from Assam)</b>  <b>Poetry</b> A Tiger in the zoo  How to tell wild animals.  FWF <b>The Sermon at Banaras</b>  <b>Grammar</b>  Integrated Grammar  <b>Writing skills</b>  Formal Letter to Editor  Analytical Paragraph</p>	<p><b><u>Weekly Test 4</u></b>  <b>Reading passage</b>(unseen passages)  <b>Literature</b>  FF <b>The Sermon at Banaras,</b>  <b>Poetry</b> The Trees, Fog  FW F <b>The Necklace, Bholi</b>  <b>Grammar</b>  Integrated Grammar  <b>Writing skills</b>  Complaint Letter  Placing Order</p>

**Term 1**

**Reading passage**(unseen passages)

**Literature**

FWF – Midnight Visitor, A Question of Trust,

Footprints without feet

The Making of a Scientist

FF –From the diary of Anne Frank

Glimpses of India, Mijbil the Otter

Madam rides the Bus

Poem – 4,5,6

**Grammar**

Integrated Grammar

**Writing skills**

Inquiry Letter, Placing Order

Analytical Paragraph

**PRE BOARD 1-5**

**Reading passage**(unseen passages)

**Literature**

**FF - all chapters**

**FWF- all Chapters**

**Grammar**

Integrated Grammar

**Writing skills**

Formal Letter, Analytical Paragrah



**Annual Curriculum (2023-24)**

**GRADE - X**

**SUBJECT- MATHS**

**Book prescribe**

<b>Month</b>			<b>Art Intergrational / Experiential Learning</b>	<b>Methodology of teaching /Art of teaching</b>	<b>Learning Outcome</b>
March	Ch - 1 Real Numbers	Students will be able	Art integrated activity using daily life examples .	YouTube link will be shared	Students will be able
		1.To recall numbers system.			To understand about real number and method to find HCF and LCM of given numbers.
		2. To find the HCF and LCM of given numbers			
		3. To prove a given number is rational or irrational .			
April	Ch - 2 Polynomials	Students will be able	Art integrated activity using daily life examples .	YouTube link will be shared	Student will be able
		1. To know about zeroes of quadratic polynomial and it relationships with coefficients			To understand the zeroes of quadratic polynomial and it relationships with coefficients
	Ch -3 Linear equations in two variables	Students will be able	Art integrated activity using graph paper .	YouTube link will be shared	Students will be able

		To know the different method of solving linear equations in two variables graphically and algebraically			To solve linear equations in two variables graphically and algebraically
	<b>WEEKLY TEST - 1 SYLLABUS</b>				
	<b>CH - 1 AND 2</b>				
May		Student will be able	Art intergrated activity using daily life examples	YouTube link will be shared	Student will be able
	CH - 4 Quadratic Equations	1. To know about the zeroes of a quadratic polynomial			To find the zeroes of quadratic polynomial and also
		2. To know about the condition whether roots are real or not			will be able to know the condition that root will be real or not
	Ch - 6 Triangles	Student will be able	Art intergrated activity using graph paper and board	YouTube link will be shared	Student will be able
		1. To know about the criteria of simmilarity of Two Triangles			To solve the problems related to simmilarity of an triangle , BPT and Pythagoras Therom.
		2. To know about the basic proportionality therom and its applications,			
July	Ch - 5 Arithmetic progression	Student will be able	Art intergrated activity using daily life examples	YouTube link will be shared	Student will be able
		1.To know about the nth term of an AP and its Common Difference			To find the nth term of an AP and about the sum of n term of an AP

		2. To know about the sum of n term of an AP			
	Ch - 7 Coordinate Geometry	Student will be able	Art intergrated activity using graph and daily life examples.	YouTube link will be shared	Student will be able
		To know about the distance formula and the section formula.			To slove the problem related to distance formula and section formula.
	Ch-8 Introduction to Trignometry	Student will be able	Art intergrated activity using daily life examples.	YouTube link will be shared	Student will be able
		To know about trigonometric funtions and its identities			To solve the problem related to trigonometric funtions and its identities
August	Ch - 9 Some applications of Trignometry	Students will be able	Art intergrated activity using daily life examples.	YouTube link will be shared	Students will be able
		To know about the application of trignometry , angle of elevation and angle of depression			To solve the problem related to application of trignometry , angle of elevation and angle of depression
	Ch - 10 Circle	Students will be able	Art intergrated activity using daily life examples.	YouTube link will be shared	Students will be able
		To know about the Tangent and Secants of a Circle			To find the length of tangent drawn from an external point.
September	Ch - 15 Probability	Student will be able	Art intergrated activity using daily life examples	YouTube link will be shared	Student will be able
		To know about the concept of probability , tossing of coin , throwing of dice			To find the probability of getting head or tail on an coin and

					getting different number on dice
	<b>Revision + First Term Exam</b>				
October	Ch - 12 Area related to Circle	Student will be able	Art intergrated activity using daily life examples	YouTube link will be shared	Student will be able
		To know about the area of secotr and area of segment			To find the area of sector and area of segment
	Ch - 13 Surface Area and Volume	Student will be able	Art intergrated activity using 3-D figures.	YouTube link will be shared	Student will be able
		To know about Total Surface Area , Curved Surface Area and Volumes of Combination of 3-D figures			To find the TSA , CSA and Volumes of combinaion of figures.
November	Ch - 14 Statistics	Student will be able	Art intergrated activity using daily life examples	YouTube link will be shared	Student will be able
		To know about the mean , median and mode of a given Data.			To find mean , median and mode of the given data
<b>Revision + First Pre – Board</b>					
December	<b>Revision + Second Pre – Board</b>				
January	<b>Revision + Third Pre – Board</b>				
February	<b>Revision + Fourth Pre – Board</b>				
March	<b>Revision + Fifth Pre – Board</b>				
Weekly Test	<b>Chapter 1 and 2</b>				
Term - 1 , Exam	<b>Syllabus</b>				
	<b>Ch - 1,2,3,4,5,6,7,8,9,10</b>				
<b>First Pre - Board</b>	<b>1,2,3,4,5,6,7,8,9,10,12 and 13</b>				
<b>Second Pre - Board</b>	<b>Complete Syllabus</b>				
<b>Third Pre - Board</b>	<b>Complete Syllabus</b>				
<b>Fourth Pre - Board</b>	<b>Complete Syllabus</b>				
<b>Fifth Pre - Board</b>	<b>Complete Syllabus</b>				



## Annual Curriculum (2023-24)

### GRADE - X

### SUBJECT- ARTIFICIAL INTELLIGENCE

Book prescribed: Artificial Intelligence (Kips Publication)

Month	Topic	Objectives	Art Integration/ Experiential learning	Methodology of teaching /Art of Teaching	Learning Outcome
<b>April</b>	Part A Unit I Communication Skills Ch 1 Methods of Communication Ch 2 Communication Cycle Ch 3 Communication Barriers Ch 4 Effective Communication Ch 5 Basic Writing Skills Unit II Self Management Skills Ch 6 Stress Management and its Techniques Ch 7 Ability to Work Independently	To know and discuss about Communication Skills, Self-Management Skills	Make a poster on 7Cs of Effective Communication OR Make a PPT on Basic Writing Skills OR Stress Management Techniques	Interactive, demonstrative and Practical Method	Students will be able to know and discuss about Communication Skills and Self-management Skills
<b>May</b>	Unit III Information and Communication Technology Skills Ch 8 Operating Systems Ch 9 Managing Files and Folders Ch 10 Care and Maintenance of Computer Unit IV Entrepreneurial Skills Ch 11 Entrepreneur and Entrepreneurship	To know and understand about Information and Communication Technology Skills, Entrepreneurial Skills and SDGs	<b>Make a Poster or Video Presentation On OS/ Care of Computer/ Entrepreneur Skills</b>  <b>Make a Poster on any of</b>	Interactive, demonstrative and Practical Method	Students will be able to know and understand about Information and Communication Technology Skills, Entrepreneurial Skills and SDGs

	Unit V Green Skills Ch 12 Sustainable Development Part B Unit I Introduction To AI		<b>the SDGs</b>		
<b>July</b>	Unit II AI Project Cycle Unit III Advance Python	To know and understand about AI Project Cycle And Python	Python Programming	Interactive, demonstrative and Practical Method	Students will be able to know and understand about AI Project Cycle And Python
<b>August</b>	Unit III Advance Python Unit IV Data Science Unit V Computer Vision	To know and understand about Python, Data Science and Computer Vision	AI Project	Interactive, demonstrative and Practical Method	Students will be able to know and understand about Python, Data Science and Computer Vision
<b>September</b>	Revision				
<b>October</b>	Unit VI Natural Language Processing Unit VII Evaluation	To know and understand about AI Project Cycle	AI Project	Interactive, demonstrative and Practical Method	Students will be able to know and understand about AI Project Cycle
<b>November</b>	Revision				
<b>December</b>	Revision				
<b>January</b>	Revision				
<b>February</b>	Revision				

Weekly Test 1: Part A Unit 1, 2

Weekly Test 2: Part A Unit 3,4,5

Half Yearly : Part A-Unit 1,2,3,4,5 and Part B Unit 1,2,3,4

Pre Board 1: Part A Unit 1,2,3,4,5 Part B 1,2,3,4,5,6,7

Pre Board 2 Part A Unit 1,2,3,4,5 Part B 1,2,3,4,5,6,7

Pre Board 3 Part A Unit 1,2,3,4,5 Part B 1,2,3,4,5,6,7

Pre Board 4 Part A Unit 1,2,3,4,5 Part B 1,2,3,4,5,6,7

Pre Board 5 Part A Unit 1,2,3,4,5 Part B 1,2,3,4,5,6,7



**Annual Curriculum (2023-24)**

**GRADE - X**

**SUBJECT- SCIENCE**

**Book prescribed** :NCERT-SCIENCE.  
:NCERT EXEMPLER  
:LAB MANUAL- COMPREHENSIVE

Month	Topic	Objectives	Art Integration/ Experiential learning	Methodology of teaching /Art of teaching	Learning Outcome
March	Ch-1 Chemical Reactions and Equations	<p><b>Students will be able to :</b> Define a chemical reaction; identify the different types of chemical reaction; explain each types of chemical reactions; and give examples of chemical reaction they encounter everyday.</p>	<p><b>Science Lab Activities –</b> To perform and observe the following reactions and classify them into: (i) Combination reaction (ii) Decomposition reaction (iii) Displacement reaction (iv) (iv) Double displacement reaction 1) Action of water on quick lime 2) Action of heat on ferrous sulphate crystals 3) Iron nails kept in copper sulphate solution. 4) Reaction between sodium sulphate and barium chloride solutions</p>	<p>Lecture method , Inquiry based learning, Animated images, Ray diagram .</p>	<p><b>Most of the Students were able to:</b> Define a chemical reaction; identify the different types of chemical reaction; explain each types of chemical reactions; and give examples of chemical reaction they encounter everyday.</p>

			<p>i) To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions:  <math>ZnSO_4(aq)</math>  <math>FeSO_4(aq)</math>  <math>CuSO_4(aq)</math>  <math>Al_2(SO_4)_3(aq)</math> ii) Arrange Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.</p>		
	<b>Ch-10 Electricity (Continued)</b>	<b>Students will be able to :</b> make concept of Electric field, Electric potential, Electric Potential Difference and OHM's Law	To study the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plot a graph between V and I.	Lecture method , Inquiry based learning, Animated images, Ray diagram .	<b>Most of the Students were able to:</b> make concept of Electric field, Electric potential, Electric Potential Difference and OHM's Law
<b>April</b>	<b>Ch-10 Electricity</b>	<b>Students will be able to :</b> Recall S I unit of physical quantities used. learn formula used. draw different electric symbols and electric circuits. solve numerical problem given in the text book and assignments	To determine the equivalent resistance of two resistors when connected in series and parallels	Lecture method , Inquiry based learning, Animated images, Ray diagram .	<b>Most of the Students were able to</b>
	<b>Ch-6 Life Processes (Continued)</b>	<b>Students will be able to :</b> describe the various life processes present in plants and animals and can explain the various steps	To prepare a temporary mount of a leaf peel to show stomata. To show experimentally that carbon dioxide is given out during respiration.	Lecture method , Inquiry based learning, Animated images, Ray diagram ,Labeled diagram will be shown.	<b>Most of the Students were able to:</b> describe the various life processes present in plants and animals and can explain the

		involved in these processes and can draw the diagrams of various systems.			various steps involved in these processes and can draw the diagrams of various systems.
May	Ch-6 Life Processes	<p><b>Students will be able to</b> Develop citizenship by visualizing and observing the given scenario( High B.P, Heart Failure, Kidney failure) in day to day lives and present it in form of a skit to sensitize others</p>	<p><b>ART INTEGRATED PROJECT</b> <b>Students will be asked to prepare project of different system by using clay, straw .wool etc</b></p>	Lecture method , Inquiry based learning, Animated images, Ray diagram ,Labeled diagram will be shown.	<p><b>KNOWLEDGE- Students will know and understand</b></p> <ul style="list-style-type: none"> <li>• Appreciate the importance of different organs present in various systems and how effectively they collaborate with each other so that different systems can work effectively.</li> </ul> <p>Use analytical skills to visualize the given scenario and use the concepts learnt in everyday problems like what is the relationship between life style and blood pressure etc</p> <p><b>SKILLS-</b> <b>Students would be able to</b></p> <ul style="list-style-type: none"> <li>• Design Creative methods/techniques to bring a positive change in the life styles in themselves and others as to prevent the various diseases related to various system.</li> </ul> <p>Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.</p>
	Ch-2 Acids, Bases and Salts	<p><b>Students will be able to:</b> Understand the pH scale. Differentiate between acids and bases. Identify properties of acids and bases. Identify</p>	<p>To find the pH of the following samples by using pH paper/universal indicator:</p> <ol style="list-style-type: none"> <li>Dilute Hydrochloric Acid</li> <li>Dilute NaOH solution</li> <li>Dilute Ethanoic Acid</li> </ol>		<p><b>Most of the Students were able to:</b></p> <p>Understand the pH scale. Differentiate between</p>

		household as acidic or basic based on their properties.	<p>solution</p> <p>d) Lemon juice</p> <p>e) Water</p> <p>Dilute Sodium Bicarbonate solution.</p> <p>To study the properties of acids and bases (HCl&amp;NaOH) by their reaction with:</p> <p>a) Litmus solution (Blue/Red)</p> <p>b) Zinc metal</p> <p>Solid sodium carbonate.</p>		acids and bases. Identify properties of acids and bases. Identify household as acidic or basic based on their properties.
	<b>Ch-8 Reflection of light</b>	<p><b>the learners will be able to</b></p> <p>Basic concept of light and its properties Concept of concept of reflection of light and laws of reflection of light. Concept of mirrors-plane mirror, concave mirror and convex mirror and related terms</p> <p>Textbook Numerical problems related to the topic</p>			<p><b>Students would be able to:</b></p> <p>Basic concept of light and its properties Concept of concept of reflection of light and laws of reflection of light. Concept of mirrors-plane mirror, concave mirror and convex mirror and related terms Textbook Numerical problems related to the topic</p>
July	<b>Ch-8 Refraction of light</b>	<p><b>the learners will be able to:</b></p> <p>the law of reflection, Snell's law verify for refraction and to experimentally determine the index of refraction for glass and water.</p>	<p>To determine the focal length of:i) Concave mirror ii) Convex lens by obtaining the image of a distant object.</p> <p>To trace the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result To find the image distance for varying object distances in</p>	<p>Daily Practice Problem</p> <p>MCQ</p> <p>Assignment (Worksheet)</p> <p>Student -teacher interaction, web chart, flow chart and differentiation table,</p>	<p><b>Students would be able to:</b></p> <p>the law of reflection, Snell's law verify for refraction and to experimentally determine the index of refraction for glass and water.</p>

			<p>case of a convex lens and draw corresponding ray diagrams to show the nature of image formed.</p> <p><b>ART INTEGRATED PROJECT</b></p> <p>Students will be asked to draw ray diagram of images of objects kept in different location of mirror and lens</p>		
<b>Ch- Metals And Non-Metals</b>	<p><b>the learners will be able to</b> compare the physical properties of metals and nonmetals using a compare – contrast matrix with 100 % accuracy.</p> <p>☑ Answer questions based on the chemical properties of metals with 90% accuracy.</p> <p>☑ Describe the steps involved in metallurgy of metals based on their reactivity and answer the questions on the same with 95%accuracy.</p>	<p>Students will be asked to draw colourful molecular structure of reaction of metals and nonmetals.</p> <p>They will be asked to draw the colourful Periodic time-table.</p> <p>They will be asked to draw atom and ions to show electronic configuration.</p> <p>They will be asked to draw flow diagram of metullergy process, contrasting table of Physical and Chemical Properties of Metals and Non Metlals</p>	<p>Lecture method , Inquiry based learning, Animated images, Ray diagram ,Labeled diagram will be shown.</p>	<p><b>Most of the Students were able to:</b></p> <p>. Critically analyse and Compare the physical properties of metals and nonmetals using compare - contrast matrix.</p> <p>2. Interact with peers and compare chemical properties metals and non metals and write equations for chemical reactions</p>	

<p><b>August</b></p>	<p><b>Ch- Control and Co-ordination</b></p>	<p><b>the learners will be able to</b>  Recall the term and understand the importance of Control Co-ordination .  Analyse between the nervous co-ordination and chemical co-ordination in animals.  Analyse the different parts of human Brain and their functions  Understand and analyse the mechanism of chemical co-ordination in plants.</p>		<p>Lecture method ,  Inquiry based learning,  Model of brain will be shown to show the different parts of it.  Animated images, Ray diagram ,Labeled diagram will be shown</p>	<p><b>Most of the Students were able to</b>    Recall the term and understand the importance of Control Co-ordination .  Analyse between the nervous co-ordination and chemical co-ordination in animals.  Analyse the different parts of human Brain and their functions  Understand and analyse the mechanism of chemical co-ordination in plants.</p>
	<p><b>Ch-13-Magnetic effects of electric current(Continued)</b></p>	<p><b>the learners will be able to:</b>  recognize that an electric current in a wire will produce a magnetic field around the wire,  recognize that the larger the electric current in the wire, the stronger the magnetic field produced,  recognize and draw the shape of the magnetic field lines of the magnetic field produced by a current-carrying wire,</p>	<p>Activity is conducted to show magnetic field lines by using  i) Iron sprinkler  ii) Magnetic Compass</p>	<p>Lecture method ,  Inquiry based learning,  Animated images</p>	<p><b>Most of the Students were able to:</b>    recognize that an electric current in a wire will produce a magnetic field around the wire,  recognize that the larger the electric current in the wire, the stronger the magnetic field produced,  recognize and draw the shape of the magnetic field lines of the magnetic field produced by a current-carrying wire.</p>
<p><b>September</b></p>	<p><b>Ch-13Magnetic effects of electric current</b></p>	<p><b>the learners will be able to</b>  identify the direction of the magnetic field near to a current-carrying wire,</p>			<p><b>Most of the Students were able to:</b>  identify the direction of the magnetic field near to a</p>

		state what a solenoid is, recognize that the magnetic field produced by a solenoid can be increased in strength by adding a core of a magnetic material.			current-carrying wire, state what a solenoid is, recognize that the magnetic field produced by a solenoid can be increased in strength by adding a core of a magnetic material.
<b>Ch- 8 How do organisms Reproduce</b>	<b>the learners will be able to:</b> aware the different parts of organisms related to reproduction.Types of reproduction.To develop the inter disciplinary approach for study in different subjects.To enable the students to know about asexual reproduction in organismTo know different modes of asexual reproductionTo get the students aware about different parts of a plant which take part in asexual reproduction.	To study (a) binary fission in Amoeba, and (b) budding in yeast with the help of prepared slides. To identify the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).	Lecture method Inquiry based learning, Permanent Slides of amoeba and Hydra will be shown. Animated images, Ray diagram ,Labeled diagram will be shown.	<b>Most of the Students were able to:</b> aware the different parts of organisms related to reproduction.Types of reproduction.To develop the inter disciplinary approach for study in different subjects.To enable the students to know about asexual reproduction in organismTo know different modes of asexual reproductionTo get the students aware about different parts of a plant which take part in asexual reproduction.	
<b>Ch-15 Our Environment</b>	<b>the learners will be able to</b> Know the components of environment and the interactions among them. Adverse effect of human activities on Environment and minimising the problems by govt. Effort.	PPT -Presentation	Blended Learning	<b>Most of the Students were able to:</b> Know the components of environment and the interactions among them.  Adverse effect of human activities on Environment	

					and minimizing the problems by govt. Effort
October	<b>Ch-Carbon and its Compounds</b>	<b>the learners will be able to</b> Basic concept of Carbon and its compounds. Concept of existence of carbon, its allotropes and hydrocarbons. Concept of physical and chemical properties of compounds. Structure and nomenclature of organic compounds.	litmus iv) reaction with sodium To study the following properties of acetic acid (ethanoic acid): i) odour ii) solubility in water. iii) effect on bicarbonate  To study the comparative cleaning capacity of a sample of soap in soft and hard water.	Lecture method , Inquiry based learning, Animated images, Ray diagram .  <b>Creative Learning</b> They will be asked to make the model with thormocol balls and straw / stick.	<b>Most of the Students were able to</b>  Basic concept of Carbon and its compounds. Concept of existence of carbon, its allotropes and hydrocarbons. Concept of physical and chemical Structure and nomenclature properties of compounds. of organic compounds
	<b>Ch-The human eye and the colourful world.</b>	<b>Students will be able to:</b> <b>identify and define parts of the human eye; discuss how parts of the eye work</b> , able to distinguish among the defects of eye and their correction method.	Conduct the activity to show the Angle of Incidence, Angle of Reflection , Angle of Deviation and Angle of Emergent when light pass through the Prism.	Lecture method , Inquiry based learning, . Animated images, Ray diagram ,Labeled diagram of the eye will be shown.	<b>Most of the Students were able to:</b> <b>identify and define parts of the human eye; discuss how parts of the eye work</b> , able to distinguish among the defects of eye and their correction method.
November	<b>Ch-Heredity Revision for Pre-Board</b>	<b>Students will be able to:</b> <b>To impart the knowledge about heredity Knowledge about variations in offsprings</b> To impart the knowledge about	To study homology and analogy with the help of models/chart of animals and plants models/chart/specimens of plant.	Lecture method , Inquiry based learning, Animated images, Ray diagram .	<b>Most of the Students were able to</b>



		expressions of inherited ..			
<b>December</b>	<b>Revision for Pre-Board</b>				
<b>January</b>	<b>Revision for Pre-Board</b>				
<b>February</b>	<b>Revision for Pre-Board</b>				

Weekly Test1 11/04/23- 11/07/23

Weekly Test2 18/07/23-29/07/23

Half Yearly

Pre Board 1 25/10/23-10/11/23

Pre Board 2 20/11/23-6/12/23

Pre Board 3 15/12/23-29/12/23

Pre Board 4 8/01/24-22/01/24

Pre Board 5 02/02/24-16/02/24