

SWARAJ PUBLIC SCHOOL, DAMLA
ANNUAL CURRICULUM PEDAGOGICAL PLAN
SESSION 2023-24

CLASS 10
ENGLISH

S.NO.	NAME OF CHAPTER	NO. OF PERIODS	LEARNING OBJECTIVES	METHODOLOGY/SUGGESTED ACTIVITIES/TOY PEDAGOGY
1.	(FIRST FLIGHT) CHAPTER 1- LETTER TO GOD	3	-TO MAKE THE STUDENTS EXPRESS THEIR OBSERVATIONS, SPECULATE, INTERPRET, AND RAISE QUESTIONS IN RESPONSE TO THE TEXT -TO ENHANCE THEIR VOCABULAY - TO IMPROVE THEIR WRITING SKILLS	*GROUP DISCUSSION, *CHARACTER ANALYSIS *A SHORT QUIZ (USE YOUR CREATIVITY)LETTER TO GOD
2.	(FIRST FLIGHT) POEM- DUST OF SNOW & FIRE AND ICE	3	TO ENABLE THE LEARNERS TO COMPREHEND ABOUT THE DESTRUCTIVE AND CONSTRUCTIVE SIDE OF THE NATURE. -TO ENABLE THE STUDENTS APPRECIATE THE BEAUTY, RHYME AND STYLE OF THE POEM. -THE LEARNERS WOULD BE INSPIRED TO WRITE THEIR FEELINGS IN THE FORM OF SHORT POEMS AND WOULD BE ABLE TO LINK NATURE WITH THE HUMAN LIFE	* GROUP DISCUSSION, *PREPARE FLASH CARDS ON POETIC DEVICES
3.	CHAPTER 2- NELSON MANDELA	3	-THE LEARNERS WILL BE ABLE TO KNOW ABOUT GREAT FREEDOM FIGHTERS ALL OVER THE WORLD. -TO KNOW HOW THE MENTAL GRIT AND DETERMINATION CAN CHANGE THE COURSE OF LIFE OF A DETERMINED YOUTH. - THE INTERPRETING AND EVALUATIVE SKILLS WOULD BE STRENGTHENED. -TO UNDERSTAND THE FACT THAT IF THERE IS WILL , THERE IS A WAY	PROJECT BASED LEARNING(COLLECT DATA ON NELSON MANDELA) GROUP DISCUSSION METHOD

4.	POEM- THE TIGER IN THE ZOO	2	<p>- TO DEVELOP THE QUALITY OF COMPASSION AND PITY</p> <p>-TO ENJOY THE AESTHETIC SENSE OF THE POEM</p> <p>-THE LEARNERS WOULD BE ABLE TO ENHANCE THEIR VOCABULARY,</p> <p>-THEIR THINKING SKILLS WOULD BE ENHANCED</p>	<p>*USE OF CREATIVITY(ENACT LIKE PRINCE OR PRINCESS, BUT WITH LIMITED RESOURCES)</p> <p>*CRITICAL ANALYSIS</p>
5.	LETTER WRITING	6	<p>- ABLE TO COMPOSE A WRITTEN TEXT BASED ON A FAMILIAR TOPIC</p> <p>- ABLE TO ASK INFORMATION – FORMALLY OR INFORMALLY</p> <p>- EXCHANGE IDEAS AND OPINIONS</p> <p>- ABLE TO KNOW THE RIGHT FORMAT OF WRITING LETTERS</p> <p>- ABLE TO IMPROVE SOCIAL SKILLS</p> <p>- KNOW DIFFERNT TYPES OF LETTERS</p> <p>- WILL LEARN NEW VOCABULARY WORDS .</p>	<ul style="list-style-type: none"> • JUMBLED FORMAT ACTIVITY • SENTENCE COMPLETION ACTIVITIES • TO DRAFT VARIOUS LETTERS
6.	DIRECT AND INDIRECT SPEECH	5	<p>STUDENTS WILL BE ABLE TO</p> <ul style="list-style-type: none"> • TO DEFINE 'INDIRECT SPEECH' • TO EXPLAIN WHEN INDIRECT SPEECH WOULD BE USED • TO CONVERT DIRECT SPEECH TO INDIRECT SPEECH IN DIFFERENT TENSES • TO USE REPORTED SPEECH CORRECTLY IN ORAL DISCUSSIONS 	<p>*ROLL PLAY</p> <p>* STORY TIME</p> <p>* LEARNING BY DOING METHOD</p>
7.	TENSES	5	<p>-STUDENTS WILL BE ABLE TO TO KNOW ABOUT THE DIFFERENT FORMS OF TENSES.</p> <p>-TO KNOW ABOUT THE GRAMMATICAL FORM OF DIFFERENT TENSES.</p> <p>-TO KNOW ABOUT THE USE OF DIFFERENT KIND OF SENTENCES.</p> <p>-ABLE TO EXPRESS THEMSELVES IN GRAMMATICALLY CORRECT LANGUAGE,</p> <p>-ABLE TO RECALL AND REVISE THE CONCEPTS ALREADY LEARNT.</p> <p>-LEARN TO FORM MEANINGFUL SENTENCES.</p> <p>- ABLE TO REFLECT ON WHATEVER THEY HAVE LEARNT IN THE CLASS.</p>	<p>* EDITING OF THE WRONG SENTENCES</p> <p>* PROJECT BASED LEARNING (INTRODUCE THEMSELVES, SHARE THEIR EXPERIENCE OF PREVIOUS CLASS AND TELL THE FUTURE EXPECTATIONS</p>

8.	FOOTPRINTS WITHOUT FEET CH-1 TRIUMPH OF SURGERY & CH 2 THE THIEF'S STORY	6	<p>-TO LEARN READING CRITICALLY & DEVELOP THE CONFIDENCE TO ASK & ANSWER QUESTIONS.</p> <p>-TO ENCOURAGE THE LEARNERS EXPRESS THEIR OWN IDEAS IN A CREATIVE AND COHERENT WAY.</p> <p>-TO PROMOTE THE HABIT OF SELF-LEARNING</p> <p>TO ENABLE THE LEARNERS UNDERSTAND THE BEHAVIOUR OF UNKNOWN PEOPLE.</p> <p>-TO ENABLE THEM TO UNDERSTAND THAT HOW A PERSON CAN MOTIVATE OTHERS TO CHANGE HIS NATURE.</p> <p>- TO ENABLE THEM TO UNDERSTAND IMPORTANCE OF EDUCATION</p>	GROUP DISCUSSION METHOD
9.	CH 3- TWO STORIES ABOUT FLYING	4	<p>-TO EXPRESS THEIR IDEAS ABOUT THE SUPERNATURAL ELEMENTS, AND TO LEARN A LESSON OF ' KEEP TRYING'</p> <p>- TO INCULCATE MORAL VALUES.</p> <p>- THE LEARNERS WOULD BE ABLE TO RELATE THEIR LIFE WITH THAT OF THE CHARACTERS IN THE CHAPTER. THEIR VOCABULARY WOULD ALSO BE ENHANCED.</p>	<p>* MAKING OF PAPER AEROPLANE CONSIDERING THE TECHNICAL AND INTELLECTUAL POINTS)</p> <p>*USE OF CREATIVE AND ORATORY SKILL</p>
10.	(FIRST FLIGHT) POEM 3 – THE BALL	2	<p>THE LEARNERS WILL BE ABLE TO EXPLORE THE WORLD OF WISDOM(NOT TO FEEL DEPRESSED AT A LOSS)</p> <p>-THEY WILL BE ABLE TO DEVELOP THEIR AESTHETIC SENSE</p> <p>-TO ENHANCE THEIR CREATIVITY OF IDEAS.</p> <p>-TO IMPROVE THEIR CRITICAL LITERACY</p> <p>-STUDENTS WILL BE ABLE TO VISUALISE THEIR OWN SITUATION WITH THAT OF THE BOY IN THE POEM.</p> <p>-THEY WILL LEARN TO ENJOY THE RHYME OF THE POETRY</p>	<p>ANALYTICAL APPROACH (DISCUSSION ON THE COLLECTION OF TOYS IN THEIR CHILDHOOD TIME.)</p> <ul style="list-style-type: none"> • TOYS COLLECTION • WORKSHEET- IMAGINE -----

11.	(FIRST FLIGHT) POEM 3- HOW TO TELL WILD ANIMALS	2	TO ENJOY READING THE POEM FOR ENJOYMENT -TO ENRICH THEIR VOCABULARY -TO KNOW THEM THE FEATURES OF WILD ANIMAL - TO CREATE SYMPATHY AND UNDERSTANDING FOR THE ANIMALS	- VISUAL INPUT - GROUP DISCUSSION ON PETS
12.	(FIRST FLIGHT) CH 4- FROM THE DIARY OF ANNE FRANK	3	-STUDENTS WILL BE INSPIRED TO MAINTAIN A DIARY RECORD. -THEY WILL BE ABLE TO UNDERSTAND HOW THE DIFFICULT SITUATIONS CHANGE ONE'S LIFE. -TO ENHANCE THEIR VOCABULARY -TO IMPROVE THEIR WRITING AND CREATIVE SKILLS.	*USE OF CREATIVITY (BRING DIARY IF THEY WRITE AT HOME/ MAKE A RECORD OF ONE WEEK'S EXPERIENCE IN A DIARY)
13.	(FIRST FLIGHT) POEM- AMANDA	2	-TO ENABLE THE STUDENTS BE SPECIFIC IN REFLECTION, EXPRESSION AND INDIVIDUAL OPINION AND DEEPER UNDERSTANDING OF A TEENAGER. -TO APPRECIATE THE RHYME AND KNOW THE TECHNICAL WORDS USED TO MAKE IT BEAUTIFUL -TO ENABLE STUDENTS TO CAPTURE THE CENTRAL IDEA OF THE POEM	GROUP DISCUSSION - ANALYTICAL APPROACH
14.	(FOOTPRINTS WITHOUT FEET) CH 3 & CH 4	6	THE LEARNERS WILL BE ABLE TO - THINK QUICKLY AND ACT WISELY AND CALMLY IN THE SITUATION OF DANGER AND SURPRISE - TO FORM A CHARACTER - TO LEARN NEW WORDS AND USE THEM N SENTENCES - TO ANALYSE AND INTERPRET THE VALUES TO LIVE A GOOD LIFE	MAKE A ROAD MAP FOR A SAFARI TO KALESAR
15	CHAPTER 5 FOOTPRINTS WITHOUT FEET	3	-TO DEVELOP THE FOUR SKILLS OF THE LANGUAGE. - TO DEVELOP POSITIVE ATTITUDE TOWARDS THE LANGUAGE. -TO ENABLE THEM TO DISCRIMINATE THE GOOD FROM THE EVIL. - TO DEVELOP MORAL VALUES IN THE STUDENTS.	*TOY TEDDY/PUPPY (THINK ALL THE POSSIBLE DISCOVERIES/INVENTIONS TO MAKE THE TOY TEDDY/PUPPY WORKING)

16.	CHAPTER 6 – THE MAKING OF SCIENTIST CHAPTER 7- THE NECKLACE	6	<ul style="list-style-type: none"> - TO MAKE THE STUDENTS REALIZE THE VALUES OF LIFE WHICH MAKE ONE UNIQUE. -TO MAKE THEM UNDERSTAND THE FOLLIES OF HUMAN LIFE. - - STUDENTS WILL BE ABLE TO KNOW DIFFERENT VALUES REQUIRED LIVING A BALANCED LIFE. - THEY WILL COME TO KNOW MORE ABOUT CHRACTERIZATION. - WILL BE ABLE TO UNDERSTAND THE THEME OF THE CHAPTER 	<ul style="list-style-type: none"> • BRING ANY TOY/ THING WHICH INSPIRES THEM TO WORK IN FUTURE • MAKE A THEME COLLAGE OF SIMILAR QUALITIES FROM DIFFERENT CHAPTERS. • BRAINSTORMING ACTIVITY- A SMALL THING CAN RUIN OR SAVE ONE’S LIFE. DO YOU AGREE?
17.	CH 8- BHOLI	3	<p>TO EXPLAIN THE IMPORTANCE OF EMOTIONAL SECURITY AND FAMILY SUPPORT FOR CHILDREN</p> <ul style="list-style-type: none"> -TO ENHANCE THE NEED OF LOVE ENCOURAGEMENT AND EDUCATION FOR THE DISABLED TO FIGHT AGAINST THEIR ODDS. -TO KNOW THE VALUE OF EDUCATION -TO JUDGE PEOPLE THROUGH THEIR INTERNAL QUALITIES. - TO DEMONSTRATE THE USE OF TENSES - TO IMPROVE THEIR READING, LISTENING, WRITING AND SPEAKING SKILLS. 	<ul style="list-style-type: none"> • A SURVEY THE LIFE OF THE VILLAGERS AND CITY DWELLERS AND WRITE AN ARTICLE • DESCRIPTIVE WRITING ON – THE PERSON WHO INSPIRES THEM MOST
18.	ANALYTICAL PARAGRAPH	5	<ul style="list-style-type: none"> -TO ENABLE THE STUDENTS WRITE ANALYTICAL PARAGRAPH -TO ANALYZE AND EXPLAIN A TEXT OR DATA AND THEN DESCRIBE IT IN SIMPLE AND CLEAR LANGUAGE -TO HELP THEM USE COMPARATIVE WORDS WHILE EXPLAINING -ABLE TO KNOW THE VOCABULARY TO BE USED FOR AN ANALYTICAL PARAGRAPH - ABLE TO INTERPRET THE GIVEN DATA IN THEIR OWN WORDS. -WILL BE ABLE TO KNOW THE RIGHT FORMAT OF WRITING IT 	<ul style="list-style-type: none"> -FACTUAL BASED STUDY (DATA COLLECTION OF FAMILY ABOUT THEIR EATING HABITS) -CRITICAL ANALYSIS

19.	DETERMINERS	3	<p>-STUDENTS WILL BE ABLE TO IDENTIFY VARIOUS DETERMINERS AND WILL BE ABLE TO USE THEM IN THEIR WRITINGS</p> <p>-THEY WILL BE ABLE TO UNDERSTAND THEIR USAGE THROUGH DIFFERENT CLUES</p> <p>-WILL BE ABLE TO SOLVE THE EXERCISES</p>	<p>-REAL LIFE EXAMPLES (SOME CHALKS, A FEW PENS, GLASS OF WATER, A BOOK ETC)</p> <p>-VISUAL METHOD</p>
20.	MODALS	3	<p>-STUDENTS WILL BE ABLE TO GIVE AND RECEIVE INSTRUCTIONS</p> <p>-THEY WILL BE ABLE TO IDENTIFY MODAL VERBS</p> <p>-THEY WILL BE ABLE TO DIFFERENTIATE BETWEEN THE MODALS USED FOR POSSIBILITY OBLIGATION,AND NECESSITY</p> <p>- WILL BE ABLE TO USE IT PROPERLY IN THEIR WRITINGS</p>	PRACTICE BY DOING (FRAME CLASS RULES)
21.	(SUBJECT- VERB AGREEMENT)	3	<p>-STUDENTS WILL BE ABLE TO FORM SENTENCES CORRECTLY AFTER STUDYING THE TOPIC</p> <p>-THEY WILL BE ABLE TO UNDERSTAND VARIOUS RULES RELATED TO THE TOPIC</p> <p>-THEY WILL BE ABLE TO CORRECT THE WRONG SENTENCES.</p>	<p>LEARNING BY DOING</p> <p>-WRITTEN PRACTICE</p>
22.	CHAPTER 7- GLIMPSES OF INDIA	5	<ul style="list-style-type: none"> - TO ENABLE THE STUDENTS TO UNDERSTAND THE BRITISH REIGN IN INDIA. - TO MAKE THE LEARNERS FEEL THE LOVE AND RESPECT FOR THE COUNTRY AND PATRIOTS - ABLE TO IMPROVE WRITING SKILLS - TO LEARN DIFFERENT INDIAN MYTHS AND TRADITIONS 	<ul style="list-style-type: none"> - BRING PHOTOGRAPHS OF THE TOURISTS PLACES THEY VISITED AND WRITE THEIR EXPERIENCE OF THE SAME
23.	MIZBIL THE OTTER	3	<p>-TO FAMILIARIZE THE STUDENTS WITH THE THEME OF THE LESSON.</p> <p>-TO DEVELOP THE STUDENTS' SPEAKING SKILLS.</p> <p>--TO DEVELOP THE STUDENTS' SKILL OF SUMMING UP.</p>	SHARE THE EXPERIENCE OF THEIR PETS

24.	CHAPTER 9- MADAM RIDES THE BUS	3	<ul style="list-style-type: none"> - TO ENABLE THE STUDENTS TO SPEAK GRAMMATICALLY CORRECT LANGUAGE AND WITH PROPER EXPRESSIONS. - TO SENSITISE THE STUDENTS TO THE FEELINGS OF AN INDIVIDUAL. - TO FEEL BLESSED FOR THE THINGS PROVIDED BY THE PARENTS. - TO ENABLE THE STUDENTS TO THINK OF ALTERNATIVE ENDING TO THE STORY. - TO ADD NEW VOCABULARY WORDS. - TO IMPROVE THEIR IMAGINARY SKILLS. 	<ul style="list-style-type: none"> - TO WRITE A TRAVELOGUE OF THEIR EXPERIENCE - CHARACTER SILHOUETTE
25.	THE TALE OF CUSTARD THE DRAGON	2	<ul style="list-style-type: none"> - TO MAKE THE STUDENTS FEEL THAT EVERY HUMAN ON EARTH HAS HIS OWN CAPABILITIES, WE SHOULD NEVER JUDGE AND DISCRIMINATE AGAINST ANYONE FOR THE WAY THEY LOOK OR THINK. - STUDENTS WILL BE ABLE TO KNOW DIFFERENT POETIC DEVICES. - THEY WILL COME TO KNOW MORE ABOUT HUMOUR AND SARCASM - WILL BE ABLE TO UNDERSTAND WHO THE STRONGEST PEOPLE ARE. 	<ul style="list-style-type: none"> - TO WRITE COMIC SCRIPT ON CONVERSATION BETWEEN ANIMALS - PREPARE FLASHCARDS ON POETIC DEVICES
26.	THE SERMAN AT BENARAS	3	<ul style="list-style-type: none"> - TO ENABLE THEM EXPRESS THEMSELVES IN GRAMMATICALLY CORRECT LANGUAGE. - TO ENABLE THE LEARNERS EXTRAPOLATE FROM THE GIVEN TEXT. - TO SENSITISE THE STUDENTS TO THE FACT THAT DEATH IS THE ULTIMATE TRUTH IN THE WORLD. - TO ENABLE THEM USE NEW WORDS AND PHRASES IN THEIR OWN LANGUAGE. 	<ul style="list-style-type: none"> - A DOCUMENTARY ON LORD BUDDHA

27.	THE PROPOSAL	5	<p>-TO ENABLE THE STUDENTS UNDERSTAND THE THEME OF A PLAY.</p> <p>- TO ENJOY THE HUMOUR</p> <p>- TO DEVLOP INTEREST IN LITERATURE.</p> <p>- TO BE A CONFIDENT SPEAKER</p> <p>- - STUDENTS WILL BE ABLE TO LEARN NEW WORDS.</p> <p>- THEY WILL COME TO KNOW MORE ABOUT HUMOUR AND SARCASM</p> <p>- WILL BE ABLE TO UNDERSTAND THE FOLLIES OF THE HUMAN LIFE.</p>	<ul style="list-style-type: none"> • ROLE PLAY • QUIZ CARDS
28	CH- 10 THE BOOK THAT SAVED THE EARTH	4	<ul style="list-style-type: none"> • To introduce the concept of aliens, martians. • To help the students think 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. • To appreciate the humour in the play. 	THE BOOK THAT CHANGED MY LIFE (BRING THEIR FAVOURITE BOOKS AND A TALK ABOUT IT)

CURRICULUM
CLASS: X
Session: 2023-2024

Sr. No.	Name of chapter	No. of Days/ Periods	Learning Outcomes	Methodology
1	Real Numbers	15	The learner generalises properties of numbers and relations among them studied earlier to evolve results, such as, Euclid's division algorithm, Fundamental Theorem of Arithmetic and applies them to solve problems related to real life contexts.	The learners may be provided with opportunities individually or in groups and encouraged to extend the methods of finding LCM and HCF of large numbers learnt earlier to general form.

2	Polynomials	8	<p>The learner develops a relationship between algebraic and graphical methods of finding the zeroes of a polynomial.</p>	<p>The learners may be provided with opportunities individually or in groups and encouraged to discuss different aspects of polynomials, such as their degree, type (linear, quadratic, cubic), zeroes, etc., relationship between their visual representation and their zeroes. play a game which may involve a series of acts of factorising a polynomial and using one of its factors to form a new one. For example, one group</p>
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3	Linear Equations in Two Variables	15	<p>The learner finds solutions of pairs of linear equations in two variables using graphical and different algebraic methods.</p>	<p>The learners may be provided with opportunities individually or in groups and encouraged to discuss different aspects of linear equations by engaging students in the activities of the following nature:</p> <ul style="list-style-type: none"> • one group may ask another to form linear equation in two variables with coefficients from a particular number system, i.e., natural numbers or numbers that are not integers, etc. • encouraging students to observe identities and equations and
4	Quadratic Equations	15	<p>The learner demonstrates strategies of finding roots and determining the nature of roots of a quadratic equation.</p>	<p>The learners may be provided with opportunities individually or in groups and encouraged to use quadratic equations to solve real life problems through different strategies, such as, making a perfect square, quadratic formula, etc.</p>

5	Arithmetic Progression	10	The learner develops strategies to apply the concept of A.P. to daily life situations.	The learners may be provided with opportunities individually or in groups and encouraged to observe and analyse patterns in their daily life situations to check if they form an Arithmetic Progression and, if so, find rule for getting their n th term and sum of n terms. The situations could be — our savings or pocket money, games such as, playing cards and snakes and ladders, etc.
6	Triangles	15	The learner works out ways to differentiate between congruent and similar figures. The learner works out ways to differentiate between congruent and similar figures.	The learners may be provided with opportunities individually or in groups and encouraged to analyse and compare different geometrical shapes, charts, and models made using paper folding and tell about their similarity and congruence.

7	Coordinate Geometry	15	<p>The learner derives formulae to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points, to find the area of a triangle, etc.</p>	<p>The learners may be provided with opportunities individually or in groups and encouraged to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points, to find the area of a triangle, etc.</p>
8	Introduction to Trigonometry	25	<p>The learner determines all trigonometric ratios with respect to a given acute angle of a right triangle.</p>	<p>The learners may be provided with opportunities individually or in groups and encouraged to devise ways to find the values of different trigonometric ratios for a given value of a trigonometric ratio.</p>

9	Some Applications of Trigonometry	10	The learner uses trigonometric ratios in solving problems in daily life contexts like finding heights of different structures or distance from them.	The learners may be provided with opportunities individually or in groups and encouraged to <ul style="list-style-type: none"> • work in projects related to heights and distances, that may include situations in which methods have to be devised for measuring the angle of inclination of the top of a building and their own distance from the building.
10	Circles	10	The learner derives proofs of theorems related to the tangents of circles	The learners may be provided with opportunities individually or in groups and encouraged to draw tangents to a circle from a point which lies outside and a point which lies inside the circle. They may be motivated to evolve different ways to verify the properties of such tangents.

11	Areas related to Circles	12	The learner determines the determine areas of various materials, objects, and designs around them for example design on a handkerchief, design of tiles on the floor, geometry box, etc.	The learners may be provided with opportunities individually or in groups and encouraged to determine areas of various materials, objects, and designs around them for example design on a handkerchief, design of tiles on the floor, geometry box, etc.
12	Surface Area and Volumes	12	The learner finds surface areas and volumes of objects in the surroundings by visualising them as a combination of different solids like cylinder and a cone, cylinder and a hemisphere, combination of different cubes, etc.	The learners may be provided with opportunities individually or in groups and encouraged to observe shapes in the surroundings that are a combination of shapes studied so far, such as, cone, cylinder, cube, cuboid, sphere, hemisphere, etc. They may work in groups and may provide formulas for different aspects of these combined shapes. <ul style="list-style-type: none"> • determine areas of various materials, objects, and designs around them for example design on a

13	Statistics	18	The learner calculates mean, median and mode for different sets of data related with real life contexts.	The learners may be provided with opportunities individually or in groups and encouraged to generalise the formulas of mean, median and mode read in the earlier classes by providing situations for these central tendencies. <ul style="list-style-type: none"> • collect data from their surroundings and calculate the central tendencies.
14	Probability	10	The learner determines the probability of an event and applies the concept in solving daily life problems.	The learners may be provided with opportunities individually or in groups and encouraged to discuss and analyse the chance of happening of different events through simple activities like tossing a coin, throwing two dices simultaneously, picking up a card from a deck of 52 playing cards, etc.

CLASS X-SCIENCE CURRICULUM

S.NO.	Chapter's Name	Number Of Periods	Learning Outcomes	Methodology/ Suggestive Activities
1.	CHEMICAL REACTION & EQUATIONS	16	<p>Learners will be able to</p> <p>*Calculate using the data given such as number of atoms in reactants and products to balance a chemical equation.</p> <p>*Uses scientific conventions to represent units of various quantities, symbols, formulae and equations such as balanced chemical equations by using symbols and physical states of substances.</p> <p>*Differentiates materials , objects , phenomena and processes based on properties and characteristics such as various types of reactions such as combination, decomposition, displacement and double displacement reaction.</p> <p>*Draws labelled diagrams , flow</p>	<p>Teaching methodology / pedagogy: -</p> <ul style="list-style-type: none"> • chapter will be introduced by showing a video of burning magnesium ribbon. • Previous knowledge testing will be done by asking questions / examples from daily life chemical reactions. • Developing hypothesis by:(a) brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible. <p>ACTIVITIES</p> <p>i) To study combination reaction / Action of water on quick lime, decomposition reaction. By action of heat on lead nitrate and ferrous sulphate crystals.</p> <p>ii) To study displacement reaction / zinc metal kept in copper sulphate solution.</p> <p>iii) To make collage of preventing measures to be taken for rancidity and corrosion (toy pedagogy)</p>

			<p>charts such as electrolysis of water , oxidation of copper and heating of lead nitrate.</p> <p>*Handles, tools and laboratory apparatus properly using instruments and devices such as heating of lead nitrate, heating of ferrous sulphate and oxidation of copper.</p>	
2.	ACIDS, BASES AND SALTS	20	<p>Learners will be able to:</p> <p>*Classifies materials, objects and processes based on properties and characteristics such as physical and chemical properties of acids and bases.</p> <p>* Differentiates materials, objects , phenomena and processes based on properties and characteristics such as strong and weak acids and bases , acidic, basic and neutral salts using different indicators.</p> <p>*relates processes and phenomena with causes and effects such as tooth decay with pH of saliva , growth of plants</p>	<p>Teaching methodology / pedagogy: -</p> <ul style="list-style-type: none"> • Activating prior knowledge by random questioning. • Introducing the topic to be taught after getting the expected response from the students. • Developing hypothesis by :(a) brainstorming. (b) lecture method (c) discussion followed by performing activity in which active participation of students will be made possible. <p>ACTIVITIES By lecture and demonstration method A.I.L activities - i) To collect samples of substances which act as natural indicators and study their effect on acids and bases (toy pedagogy) ii) to study different types of olfactory indicators and how they smell in different acids</p>

			<p>with pH of soil , survival of aquatic life with pH of water.</p> <p>*analyses and interprets data , graphs and figures such as pH of solutions to predict the nature of substances.</p> <p>*applies scientific concepts in daily life and solving problems such as applies concept of decomposition reaction of baking soda to make spongy cakes.</p>	<p>and bases.</p> <p>iii) to study pH of various substances like tea , coffee, milk , lemon juice , soap solution, cold drink etc and record your observation.</p> <p>iv) to study properties of HCL and NaOH with respect to litmus solutions zinc , metal , and other indicators.</p>
3.	METALS AND NON-METALS	20	<p>Learners will be able to -:</p> <p>*Classifies materials , objects , phenomena and processes based on properties and characteristics such as metals and non metals on the basis of their physical and chemical properties.</p> <p>*Plan and conducts investigations and experiments to arrive at and verify the facts such as investigates conditions necessary for rusting and test the conductivity of various metals and</p>	<p>Teaching methodology / pedagogy: -</p> <ul style="list-style-type: none"> • Activating prior knowledge by random questioning. • Introducing the topic to be taught after getting the expected response from the students. • Developing hypothesis by :(a) brainstorming. (b) lecture method (c) discussion followed by performing activity in which active participation of students will be made possible. <p>ACTIVITIES</p> <p>A.I.L activities - i) To collect different samples of metals like copper , iron, magnesium, lead , silver ,</p>

			<p>non metals.</p> <p>* explain processes and phenomena such as extraction of metals from their ores , reactivity series of metals , displacement of metals from their salts.</p> <p>*draw labelled diagrams, flow charts, maps and graphs such as flow chart of extraction of metals from their ores.</p> <p>• applies learning to hypothetical situations such as what will happen if natural ores disappear from the earth.</p> <p>*communicates the findings and conclusions effectively, such as those derived from experiments , activities, and projects orally and in written form using appropriate figures , tables , graphs, and digital forms etc.</p>	<p>aluminium and paste them on a chart paper (toy pedagogy)</p> <p>ii) To study reaction of common metals in different salt solutions.</p> <p>iii) To draw working model of froth floatation process and magnetic separation of the ore.</p> <p>iv) Group activity will be conducted to explain extraction of metals of high reactivity, middle reactivity and low reactivity from their ores.</p> <p>v) draw a flow chart of extraction of metals from their ores on A4 size sheet.</p>
4.	CARBON AND ITS COMPOUND	20	<p>LEARNING OUTCOMES</p> <p>Learners will be able to -:</p>	<p>Teaching methodology / pedagogy: -</p> <ul style="list-style-type: none"> • Activating prior

S			<ul style="list-style-type: none"> • Draws labelled diagrams , flow charts such as electron dot structure of covalent compounds and structure of diamond and graphite. • uses , scientific conventions to represent units of various quantities, symbols , formulae such as IUPAC naming of hydrocarbons. • exhibits creativity in designing models using eco- friendly resources such as soda acid fire extinguisher, formation of diamond, graphite , and Buck minster fullerene and organic compounds. • exhibits values of honesty, objectivity, rational thinking and freedom from myth and superstitious beliefs while taking decisions , respect for life , etc such as say no to consumption of alcohol and drugs. • communicates the findings and conclusions effectively, such as those derived from experiments, activities, and projects orally and 	<p>knowledge by random questioning.</p> <ul style="list-style-type: none"> • Introducing the topic to be taught after getting the expected response from the students. • Developing hypothesis by :(a) brainstorming. (b) lecture method (c) discussion followed by performing activity in which active participation of students will be made possible. <p>ACTIVITIES By lecture and demonstration method</p> <p>A.I.L activities - i) Make a project report of different saturated and unsaturated carbon compounds and study their properties. ii) To study chemical properties of acetic acid by reacting it with litmus solution , sodium carbonate and zinc metal. iii) To prepare 3d models of different organic compounds / hydrocarbons using eco friendly materials (toy pedagogy) iv) Draw electron dot structure of covalent compounds on A4 size sheet. v) collect print and non print materials by exploring the library and the internet about scientists and their findings to appreciate how concepts evolved with time. They maybe motivated to share their findings by preparing posters and performing role</p>
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			in written form using appropriate figures, tablets, graphs and digital forms etc.	plays or skits.
5.	LIFE PROCESSES	15	<p>Learners will be able to</p> <p>Differentiate organisms on characteristics such as autotrophic and heterotrophic nutrition etc</p> <p>* plan and conduct experiments to arrive at and verify the facts /phenomena or to seek answers to queries on their own such as ,do variegated leaves perform photosynthesis ?</p> <p>* explain processes such as nutrition in human beings and plants, transportation in plants and animals , excretion in plants and animals circulation in plants and animals</p> <p>* exhibit creativity in designing models using eco friendly resources</p> <p>* draws labelled</p>	<p>Teaching Methodology/Pedagogy:Activating Prior Knowledge by Random Questioning</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p> <p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.</p> <p>ACTIVITIES</p> <p>*To prepare the temporary mount of a leaf peel to show stomata(SUBJECT ENRICHMENT ACTIVITY)</p> <p><u>*KidneyFilteringActivity</u>(Source:https://www.teachengineering.org/activities/view/cub_human_lesson08_activity1#objectives)</p> <p>*The class will be divided into group of 4 students each and they will be given one organ each present in respiratory system and discuss about it in their respective group</p>

			<p>diagrams /flowcharts /concept map , such as digestive respiratory circulatory & excretory system.</p> <p>* exhibits values of honesty, objectivity and rational thinking while taking decisions and respect for life etc such as reports and records experimental data accurately, sensitize others for organ donation.</p> <p>* communicate the findings and conclusions effectively such as those of experimental activity, project orally and in written form using appropriate figures/tables.</p>	<p>(collaboration and communicate to each other on the basis of their structure, location and function)</p> <p>* experimentally show that carbon dioxide is given out during respiration</p>
6.	Control and coordination	15	<p>Learners will be able to</p> <p>* draw the structure and explain the functioning of a neuron in order to explain how electrical signals travel in human beings</p> <p>* illustrate the location and</p>	<p>Teaching Methodology/Pedagogy: Activating Prior Knowledge by Random Questioning</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p> <p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion</p>

			<p>functions of different parts of human brain, in order to understand the working of human brain</p> <ul style="list-style-type: none"> * outline the working of a reflex arc in order to explain how reflex actions take place in human beings * examine tropic movements in plants in order to understand how plants found environmental triggers like light ,gravity ,water. * draw labelled diagrams/ flowcharts /concept maps related to tropic movements , reflex arc, endocrine glands and their functions. 	<p>followed by performing activity in which active participation of students will be made possible.</p> <p><u>Activities</u></p> <ul style="list-style-type: none"> *Watch the video from the given link below to study the response of plant parts to light. https://youtu.be/HmHvWDeTt7Y * To show human endocrine glands with the help of fluorescent sheets/ crayons/ colours/clay on a chart.(toy pedagog) * Investigatory project- To prepare a list of various plant hormones and show their uses in modern agricultural and horticultural practices. * Group discussion on occurrence of diseases due to hormonal imbalance. *To make concept map of Control and coordination *Make a list of foods that are a part of your regular diet . See if any of these foods are particularly unhealthy for your brain. Explore if certain foods could promote the development of Alzheimer's disease, search for food that promote a strong memory and help in improving
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				concentration and staying alert.
7.	How do organisms reproduce	12	<p>Learners will be able to</p> <ul style="list-style-type: none"> * illustrate the process of Fission in Amoeba, leishmania and plasmodium in order to understand how unicellular organisms divide * illustrate the process of fragmentation in Spirogyra and Spore formation in Rhizopus, in order to understand how multicellular organisms with simple body design divide * illustrate the process of regeneration in Planaria in order to understand how fully differentiated multicellular organisms divide * illustrate the process of budding in Hydra in order to understand how fully differentiated multicellular organism used regenerative cells to divide * explain the process of vegetative propagation in 	<p>Teaching Methodology/Pedagogy: Activating Prior Knowledge by Random Questioning</p> <ul style="list-style-type: none"> *Introducing the topic to be taught after getting the expected response from the students. *Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible. <p><u>ACTIVITIES</u></p> <ul style="list-style-type: none"> * To study binary fission in Amoeba and budding in yeast with the help of permanent slides and make diagrams. * To examine the growth of Rhizopus on the moist slice of bread. * To examine Spirogyra filaments under a microscope. * To study vegetative propagation in potato, Bryophyllum and money plant. (Role play-toy Pedagogy) * To observe different parts of a dicot seed and paste the parts on a drawing sheet. (toy

			<p>plants like sugarcane, roses, grapes in order to understand how plants reproduce without seeds</p> <ul style="list-style-type: none"> * label the different parts of a flower and explain their functions in order to understand how flowers reproduce to form fruits. * list down the changes occur in male and female body in teenage years, in order to understand effects of puberty * list down the ways to avoid fertilization order to avoid pregnancy and maintain the reproductive health. 	<p>pedagogy)</p> <ul style="list-style-type: none"> * Investigatory project - Make a list of various tissue culture techniques for development of new varieties of plants. * Group Discussion - Advantages and limitations of vegetative propagation in plants. * Research on the Chemicals that cause the saffron stands to impart a yellow hue when added to various dishes.
8.	Heredity and variation	8	<p>Learners will be able to</p> <ul style="list-style-type: none"> * state and explain mendel's trait of inheritance in order to understand how traits are inherited from one generation to the next * explain the combination of sex chromosomes, in order to understand how sex of a child is determined in human beings 	<p>Teaching Methodology/Pedagogy: Activating Prior Knowledge by Random Questioning</p> <ul style="list-style-type: none"> * Introducing the topic to be taught after getting the expected response from the students. * Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.

			<ul style="list-style-type: none"> * classify the given traits as inherited or acquired in order to understand which traits cause a change in genes. * draw flow charts related to monohybrid and dihybrid crosses. 	<p><u>Activities</u></p> <ul style="list-style-type: none"> *To find out the inheritance of earlobes and rolling of tongue in humans. (toy pedagogy) * Prepare a project report on some of the Fossil plants and animals found in India. * Find out the blood groups in members of at least 10 families in your Colony. Work out the inheritance of blood groups in them. * Collect information on any two diseases which are sex-linked. *Make a concept map of heredity and evolution on a chart. *Write up on misuse of genetic engineering. *Explore whether watermelon evolved naturally or mankind played a role in modifying the fruit artificially .list the nutritional benefits of watermelon also.
9.	Light: Reflection and Refraction	15	<p>Learners will be able to:</p> <ul style="list-style-type: none"> *identify surfaces that cause regular reflection *describe the link 	<p>Teaching Methodology/Pedagogy: Topic will be introduced with the help of students participation in making ray diagram for image formation</p>

			<p>between the angle of an incoming light ray and the angle of the reflected light ray during regular reflection from smooth surfaces</p> <p>*explain how we see objects that give out and reflect light, *describe how our eyes respond to variations in the amount of light</p> <p>*describe ways in which we use mirrors, including in periscopes. *recall and use the terms used in refraction, including normal, angle of incidence and angle of refraction. *recall and apply the relationship $\sin i/\sin r = \text{constant}$ to new situations or to solve related problems. *understand relative refractive index and absolute refractive index. *explain refraction by means of a change in speed of light in different optical media. explain the terms critical angle and</p>	<p>in plane mirror and its characteristics relating it to other types of mirrors. Previous knowledge testing will be done by showing them different types of spherical mirrors and lenses.</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p> <p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.</p> <p><u>ACTIVITIES:</u></p> <ul style="list-style-type: none"> ● Create your own distorting mirror or fun mirrors to showcase type of images. ● List the daily life instruments which use either a spherical mirror or a spherical lens and also paste their pictures. ● To observe the image of a distant object (a distant tree) in (i) plane mirror of different size (ii) concave mirror and (iii) convex mirror. ● Prepare a visible light spectrum indicating types of rays and their wavelength. ● Trace the path of light
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			<p>total internal reflection.</p> <p>*identify the main ideas in total internal reflection and apply them to the use of optical fibres in telecommunication and state the advantages of their use.</p> <p>*To construct ray diagram showing the formation of the real image of an object when it is placed in front of a concave mirror.</p> <p>*To interpret the characteristics of the image formed by a concave mirror.</p> <p>*To apply in the real life situation.</p>	<p>through glass slab and glass prism.</p> <ul style="list-style-type: none"> • Write VIBGYOR with respective colours and observe the depth of violet and red with the help of glass slab. • To find the focal length of concave mirror and convex lens using optical bench.
10.	Human eye and the colourful world	12	<p>Learners will be able to:</p> <p>*Describe the structure and functioning of the human eye with a diagram.</p> <p>*Create optical illusion using the persistence of vision.</p> <p>*Explain the reason for changing the shape of the eye lens due to the position of</p>	<p>Teaching Methodology/Pedagogy:</p> <p>Topic will be introduced with the help of an animation showing the importance of eyes and their care.</p> <p>Previous knowledge testing will be done by making a memory chart which creates interest to know more.</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p>

11.	Electricity	12	<p>the object.</p> <p>*Make toys like Cartoon filming.</p> <p>*Analyze different defects and their causes.</p> <p>*Represent defects Diagrammatically.</p> <p>*Calculate focal length and power of the defected eye.</p> <p>*Differentiate between Refraction of glass slab and glass prism.</p> <p>*Discuss the real life application of scattering of light.</p> <p>Learners will be able to :</p> <p>*Understanding the molecular structure of atoms</p> <p>* identify the properties of conductors and insulating materials</p>	<p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.</p> <p><u>ACTIVITIES:</u></p> <ol style="list-style-type: none"> 1. Discuss the working of a human eye with the help of a bubble(or block) diagram. 2. Create a cartoon filming to explain persistence of vision. 3. Write amusing facts regarding eyes of different animals example eagle, tiger, owl, cat, dog etc. 4. Write about the duties of optometrist, optician and ophthalmologist. 5. Prepare a colour recognition chart for a color blind person. <p>Teaching Methodology/Pedagogy:</p> <p>Topic will be introduced with the help of a video showing different electrical instruments with their symbols used in making electrical circuits.</p> <p>Previous knowledge testing will be done by asking</p>
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			<p>* Understand how the basic components of a circuit interact, the representative symbols and how to connect them</p> <p>*Prepare diagrams of simple circuits • Introduction to the concepts of volts, current and resistance and units of measurement</p> <p>*Factors affecting the resistivity of a resistor/insulator</p> <p>Ability to plot data on graph paper, including line of best fit and correct Formatting.</p>	<p>different effects generated by current which they had studied earlier, which helps in developing their interest.</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p> <p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.</p> <p>ACTIVITIES:</p> <p>*Draw Caution and danger boards on A4 size, sheets, and Differentiate between them.</p> <p>*Verification of ohms law</p> <p>*Calculate equivalent resistance of series combination</p> <p>*Calculate equivalent resistance in parallel combination.</p> <p>*Data collection survey: collect the electricity bills in vicinity and compare the consumption of electrical energy. Also make them aware of saving energy.</p>
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12.	Magnetic effect of current	12	<p>Learners will be able to :</p> <ul style="list-style-type: none"> *Describe magnetic field and field lines. *. Explain magnetic field due to a straight current carrying conductor. Summarise the factors on which strength and direction of magnetic field around a straight conductor. *Apply the right hand thumb rule. *Demonstrate magnetic field due to a current through a circular loop Analyse the magnetic field pattern around a solenoid carrying current *Express force on a current carrying conductor in a magnetic field. *Realize that when any two of the three (mutually perpendicular) directions are given we can use this rule for finding the third unknown 	<p>Teaching Methodology/Pedagogy:</p> <p>Topic will be introduced with the help of a activity of plotting magnetic field lines due to a bar magnet and iron fillings.</p> <ul style="list-style-type: none"> *Showcasing different magnetic compass to find direction of magnetic field. *Previous knowledge testing will be done by asking different types of magnets students had seen earlier, which helps in developing their interest. *Introducing the topic to be taught after getting the expected response from the students. *Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible. <p>ACTIVITIES:</p> <ol style="list-style-type: none"> 1. Trace the magnetic field pattern of a bar magnet using a magnetic compass. 2. Observation table containing specification about different types of
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			<p>direction.</p> <p>* Make an electromagnet and explain its use in daily life •</p> <p>Understand the working of an domestic electric circuits.</p> <p>*Discuss the importance of fuse and earthing in domestic circuit.</p> <p>Explain how does the electric fuse and earthing protect the domestic circuit</p> <p>*. Demonstrate the understanding of terms (a) overloading (b) short circuit</p>	<p>Fuses and MCBs.</p> <p>3. Trace the magnetic field pattern of a bar magnet using a magnetic compass. (Toy pedagogy)</p> <p>4. Prepare a fuse using waste material. (Toy pedagogy)</p> <p>5. Prepare your personal magnetic pen stand. (Toy pedagogy)</p>
13.	Our environment	10	<p>Learners will be able to</p> <p>* classify different waste products as biodegradable or non biodegradable , in order to assess their effect on environment</p> <p>* tabulate organisms feeding on one another (producers ,consumers ,decomposers) and energy transfer between them, in</p>	<p>Teaching Methodology/Pedagogy: Activating Prior Knowledge by Random Questioning</p> <p>*Introducing the topic to be taught after getting the expected response from the students.</p> <p>*Developing hypothesis by: (a) Brainstorming. (b) lecture method (c) Discussion followed by performing activity in which active participation of students will be made possible.</p>

			<p>order to form a food chain or a food web</p> <ul style="list-style-type: none"> * describe the formation and properties of ozone in order to identify ways to protect it from depletion * classify biotic and abiotic components and their interaction with each other in order to describe an ecosystem * make efforts to conserve the environment after realising the interdependency and interrelationship among the biotic and abiotic factors of the environment such that the segregation of biodegradable and non biodegradable waste is appreciated and promoted. 	<p><u>ACTIVITIES</u></p> <ul style="list-style-type: none"> *Group discussion on how to reduce carbon dioxide emission that helps in reducing Global warming. * Prepare a project report on increasing use of electronic garbage in the present time. * Group discussion on pesticides and their impact on the components of the ecosystem. * food chains and food webs in the garden.(Role play-toy pedagogy) *Make a Mind Map of the ecosystem on a chart with the help of crayons /watercolour/ fluorescent sheets. *Investigatory project- DDT is known as insect bomb. *Explore the role of seafood in causing Mercury poisoning in human beings.(write up)

Curriculum of Social Science (Class X)
Session 2023-24

Sno	Chapter name	No. of periods	Learning outcome	Activities
	HISTORY	70		
1	The rise of nationalism in Europe	17	<ul style="list-style-type: none"> •Infer how the French Revolution had an impact on the European countries in the making of nation state. •Enumerate and evaluate the validity of the nature of the diverse social movements of the time • Analyse and infer how the idea of nationalism emerged and led to the formation of nation states in Europe and elsewhere. •Illustrate that ,the quest for imperialism triggered the 	<ul style="list-style-type: none"> •Use of graphic organizers to explain the idea of unification of states to form one nation. (Italy/Germany/Greece) •Map of Pre-First World War Europe followed by the map of Post First World War Europe
2	Nationalism in India	17	<ul style="list-style-type: none"> •Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging •Summarize the aspects of the First World War that triggered two defining movements (Khilafat & Non-cooperation Movement) in India •Evaluate the effectiveness of the strategies applied by Gandhiji and other leaders in the Two movements. 	<ul style="list-style-type: none"> •Report writing on how you would solve your everyday problem through non-violent ways. •INTERNATIONAL RELATIONS: Resolving differences and conflicts through Gandhian principles of non-violence.
3	The making of a global world	10	<ul style="list-style-type: none"> •Summarize the changes that transformed the world in terms of economy, political, cultural and technological areas. •Depict the global interconnectedness from the Pre modern to the present day. •Enumerate the destructive impact of colonialism on the livelihoods of colonised people 	<ul style="list-style-type: none"> •Students make collage by using photographic display/ new paper cutting that depict the destructive impact of colonialism on the livelihoods of colonised people
4	The age of industrialisation	10	<ul style="list-style-type: none"> •Enumerate the features of Pre & Post economic, political, social features of Pre and Post Industrialization. •Analyse and infer how the industrialization impacted colonies with specific 	<ul style="list-style-type: none"> •Debate on the impact of Industrialisation in the colonies with specific focus on India.

5	Print culture and modern world	16	<ul style="list-style-type: none"> •Enumerate the development of Print from its beginnings in East Asia to its expansion in Europe and India. •Comment on the statement that the print revolution was not just a way of producing books but a profound transformation of people. •Compare and contrast the old tradition of hand written manuscripts versus the print technology. •Summarise the role of the Print revolution and its impact on World & India 's political, social and economic conditions. 	<ul style="list-style-type: none"> •Flow chart to depict the development of Print Declamation on the profound transformation of people due to the print revolution.
GEOGRAPHY		70		
1	Resources and development	10	<ul style="list-style-type: none"> •Enumerates how the resources are interdependent, justify how planning is essential judicious utilization of resources and the need to develop them in India •Infers the rationale for development of resources •Analyse and evaluate data and information related to non-optimal land utilization in India. •Appraise and infer the need to conserve all resources available in India suggest remedial measures for optimal util 	<ul style="list-style-type: none"> •Case study and debate on the topic "Is the development acting as an adversary for conservation".
2	Forest and wildlife	10	<ul style="list-style-type: none"> •Enumerate how conservation of forests and wildlife are interdependent in nature and in maintaining the ecology of India. •Analyse and infer how some of the developmental works, grazing wood cutting have impacted on the survival or otherwise of the forests. •Summarizes the reasons for conservation of biodiversity in India under sustainable development. 	<ul style="list-style-type: none"> •Debate how developmental works, grazing wood cutting have impacted on the survival or otherwise of the forests.

3	Water resources	10	<ul style="list-style-type: none"> •Enumerate why the water resource of India to be conserved. •Summarize the roles of Multipurpose projects in supporting the water requirement of India. 	<ul style="list-style-type: none"> •Prepare a PPT to Summarize the roles of Multipurpose projects in supporting the water requirement of India.
4	Agriculture	13	<ul style="list-style-type: none"> •Enumerate how agriculture plays a contributory role in Indian economy •Analyses and infers the challenges faced by the farming community in India •Identifies and summarizes various aspects of agriculture, including crop production, types of farming, modern agricultural practices, and the impact of agriculture on the environment. 	<ul style="list-style-type: none"> •Presentation the challenges faced by farmers, such as low productivity, lack of modern technology, inadequate irrigation facilities, and post-harvest losses and presents the findings through PPT
5	Minerals and energy resources	10	<ul style="list-style-type: none"> •Analyses and infers how different types of minerals are formed, where they are found, their uses, importance for human life and the economy •Infers the resource distribution to real-world situations and proposes strategies for sustainable use of natural resources •Differentiates between the conventional and nonconventional sources of energy 	<ul style="list-style-type: none"> •Through the pie charts to analyse and infer how different types of minerals are formed, where they are found, their uses, importance for human life and the economy •Prepare of flow chart to Differentiate between the conventional and non-conventional sources of energy
6	Manufacturing industries	9	<ul style="list-style-type: none"> •Differentiates between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy. •Enumerates the impact of manufacturing industries on the environment, and develops strategies for sustainable development of the manufacturing sector. •Infers the relation between availability of raw material and location of the Industry 	<ul style="list-style-type: none"> •Prepare a flow chart to Differentiate between various types of manufacturing industries based on their input materials, processes, and end products.

7	Lifelines of national economy	8	<ul style="list-style-type: none"> •Enumerates how transportation works as a life line of the economy. •Analyse and infer the impact of roadways and railways on the national economy •Analyses and infers the challenges faced by the roadways and railway sector in India. 	<ul style="list-style-type: none"> •Collect the Data on the contribution of Roadways and railways in the economy in a year. •Debate and discuss the advantages and limitations on roadways and railways.
	POLITICAL SCIENCE	20		
1	Power sharing	5	<ul style="list-style-type: none"> •Enumerates the need for power sharing in democracy. •Analyse and infer the challenges faced by Belgium and Sri Lanka in ensuring Power sharing. •Compares and contrast the power sharing of India with Sri Lanka and Belgium •Summarize the purpose of power sharing in preserving the unity and stability of a country. 	<ul style="list-style-type: none"> •Group discussion on challenges faced by Belgium & Sri Lanka in ensuring effective power sharing •Writes on Power Sharing Techniques used by India, Sri Lanka and Belgium
2	Federalism	5	<ul style="list-style-type: none"> •Analyse and infer how federalism is being practised in India. •Analyse and infer how the policies and politics that has strengthened federalism in practices. 	<ul style="list-style-type: none"> •Debate on policies and politics that strengthens Federalism in practice and present through mind map
3	Gender religion and caste	3	<ul style="list-style-type: none"> •Enumerates how the differences in gender, religion and caste impact the practicing healthy or otherwise in a Democracy •Analyses and infers how different expressions based on differences in Gender, Religion and Caste are healthy or unhealthy in a democracy 	<ul style="list-style-type: none"> •Skit /street play to enumerate how the differences in gender, religion and caste impact the practicing healthy or otherwise in a Democracy.
4	Political parties	4	<ul style="list-style-type: none"> •Enumerates the role, purpose, and no. of Political Parties in •Democracy Justifies the contributions /non contributions made by national and regional political parties in successful functioning of Indian democracy. 	<ul style="list-style-type: none"> •Flash cards for PARTIES Symbols to be shown •Skit/ street play -- "political leader -- a necessary evil for democracy".

5	Outcomes of democracy	3	<ul style="list-style-type: none"> •Enumerates how the success of democracy depends on the quality of government, economic well being, equality, social differences, conflict, freedom and dignity. •Analyses and infers why sometimes the gap occurs between expected outcome and the actual outcome affects the Success of Democracy. 	<ul style="list-style-type: none"> •Read newspapers, watch video clippings to make a project on the contributions /non contributions made by national and regional political parties in successful functioning of Indian democracy.
	ECONOMICS	20		
1	Development	5	<ul style="list-style-type: none"> •Enumerate different and examine the different processes involved in setting developmental Goals that helps in nation building •Analyse and infer how the per capita income depicts the economic condition of the nation. •Evaluate the development goals that have been set for the nation by the Planning commission of India -with specific reference to their efficacy, implemental strategies, relevance to current requirements of the nation •Compare and contrast how the per capita income of some countries and infer reasons for the variance •Analyses the multiple perspectives on the need for development. 	<ul style="list-style-type: none"> •Project work-Prepare a questionnaire and visit a nearby slum area to analyse & draw a conclusion over their developmental needs.

2	Sectors of Indian economy	6	<ul style="list-style-type: none"> •Analyses and infer how the economic activities in different sectors contribute to the overall growth and development of the Indian economy. •Propose solutions to identified problems in different sectors based on their understanding •Summarize how the organised and unorganised sectors are providing employment and the challenges faced by them •Enumerates the role of unorganised sector in impacting PCI currently and proposes suggestive steps to reduce the unorganised sector for more productive contributions to GDP •Enumerates and infer the essential role of the Public and Private sectors the present trends of PPP and efficacy of the initiative 	<ul style="list-style-type: none"> •Research about the labour movement in the world. Further enact a role play in groups depicting the life of workers in Organized and unorganized sectors.
3	Money and credit	6	<ul style="list-style-type: none"> •Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times •Analyse and infer various sources of Credit •Summarizes the significance and role of self-help groups in the betterment of the economic condition of rural people/women. 	<ul style="list-style-type: none"> •Group discussion to Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times.
4	Globalisation and the Indian economy	3	<ul style="list-style-type: none"> •Enumerate the concept of globalization and its definition, evolution, and impact on the global economy. •Evaluate the key role of the key major drivers of globalization and their role in shaping the global economic landscape in various countries •Enumerates the significance of role of G20 and its significance in the light of India's present role 	<ul style="list-style-type: none"> •Project work the significance of the role of G20 and its significance in the light of India's present role.

History

Nationalism in India I. Congress sessions:

1920 Calcutta

1920 Nagpur.

1927 Madras session,

II. 3 Satyagraha movements:

Kheda

Champanan.

Ahmedabad mill workers

III. Jallianwala Bagh

IV. Dandi march

Geography

Resources and Development Identify: Major soil Types

Water Resources Locating and Labelling:

Salal

Bhakra Nangal

Tehri

Rana Pratap Sagar

Sardar Sarovar

Hirakud

Nagarjuna Sagar

Tungabhadra

Agriculture Identify:

Major areas of Rice and Wheat

Largest/ Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute

Minerals and Energy

Resources

Identify:

a. Iron Ore mines

Mayurbhanj

Durg

Bailadila

Bellary

Kudremukh

b. Coal Mines

Raniganj

Bokaro

Talcher

Neyveli

c. Oil Fields

Digboi

Naharkatia

CURRICULUM PLANNER FOR 2023-24
CLASS X
SUBJECT (AI-Artificial Intelligence)

S.No	Name of Chapter	No of Days/ Periods	Learning Outcomes	Methodology
1.	<p style="text-align: center;">Self- Management Skills-II</p> <ul style="list-style-type: none"> ➤ Importance of Self Management ➤ Building self Confidence 	6Days/6 Periods	<ul style="list-style-type: none"> ➤ Understand and learn about Self management skills ➤ Self Mgt keys ➤ Initiative ➤ Organization ➤ Accountability ➤ Time Management ➤ Adopting problem solving attitude ➤ Positive result of self management ➤ SWOT Analysis ➤ Building Self confidence 	<ul style="list-style-type: none"> ➤ Quiz: Related to the topic ➤ Exercises on stress management techniques – yoga, meditation, physical exercises ➤ Preparing a write-up on an essay on experiences during a holiday trip ➤ Demonstration on working independently goals ➤ Planning of an activity 3. Executing tasks in a specific period, with no help or directives ➤ Demonstration on the qualities required for Working independently
2.	<p style="text-align: center;">ICT Skills-II</p> <ul style="list-style-type: none"> ➤ Operating System ➤ Managing files and folders ➤ Care and maintenance of a computer 	12Days/ 12Periods	<ul style="list-style-type: none"> ➤ Role and Importance of ICT ➤ Operating System ➤ Define and differentiate between file ,folder and sub folder ➤ Identify the various types of files ➤ List the role of File Explorer in managing files and folders ➤ Change the view of files and folders ➤ Learn about Selecting Files and Folders ➤ Creating, Renaming, Copying, Moving and Deleting Files/Folders ➤ Importance and need of care and maintenance of computer ➤ Cleaning computer components ➤ Preparing maintenance schedule ➤ Protecting computer against viruses Scanning and cleaning viruses and removing SPAM files 	<ul style="list-style-type: none"> ➤ Quiz: Related to Topic ➤ Lab Activity- ➤ Identification of task bar, icons, menu, etc. ➤ Demonstration and practicing of creating, renaming and deleting files and folders, saving files in folders and sub- folders, restoring files and folders from recycle bin ➤ Demonstration of the procedures to be followed for cleaning, care and maintenance of hardware and software

CURRICULUM PLANNER FOR 2023-24
CLASS X
SUBJECT (AI-Artificial Intelligence)

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3.	Entrepreneurial Skills-II ➤ Entrepreneur and Entrepreneurship	10Days/ 10Periods	➤ Entrepreneurship and skills ➤ Role and Importance of Entrepreneurship ➤ Qualities of a Successful Entrepreneur ➤ Main function of an Entrepreneur ➤ /myths about Entrepreneurship ➤ Entrepreneurship as a Career option	➤ Writing a note on entrepreneurship as career option ➤ . Collecting success stories of first generation and local entrepreneurs ➤ Listing the entrepreneurial qualities analysis of strength and weaknesses ➤ Group discussion of self-qualities that students feel are needed to become successful entrepreneur ➤ Make a plan in team for setting up a business
4.	Introduction to Artificial Intelligence (AI) ➤ Foundational concepts of AI ➤ Basics of AI	20Days/ 20 Periods	➤ What is Intelligence? Decision Making. ➤ How do you make decisions? ➤ Make your choices ➤ Introduction to AI and related terminologies. ➤ Introducing AI, ML & DL. ➤ Introduction to AI Domains (Data, CV & NLP) ➤ Applications of AI – A look at Real-life AI implementations ➤ AI Ethics	➤ Make one Model of any one AI Application around us . ➤ Decision Choice Question ➤ Imagine your friend wants to go to a football game but does not have enough money to pay for the entry fee. He decides to sneak into the ballgame without paying .
5.	AI Project Cycle	20Days/ 20 Periods	➤ Introduction to AI Project Cycle ➤ Understanding Problem Scoping & Sustainable Development Goals ➤ Simplifying Data Acquisition ➤ Visualising Data Introduction to modelling ➤ Introduction to Rule Based & Learning Based AI Approaches ➤ Introduction to Supervised Unsupervised & Reinforcement Learning Models ➤ Evaluating the idea!	➤ Design an AI based smart security system for your school .Identify the stakeholders for the projects. ➤ Project writing ➤ You have been asked to develop a Smart Student grading System for your school .

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6.	NATURAL LANGUAGE PROCESSING	20 Days/20 Periods	<ul style="list-style-type: none"> ➤ Introduction to Natural Language Processing ➤ NLP Applications ➤ Revisiting AI Project Cycle ➤ Introduction to Chatbots ➤ Human Language VS Computer Language <p>Text processing</p> <ul style="list-style-type: none"> ➤ Data Processing ➤ Bag of Words ➤ NLTK 	<ul style="list-style-type: none"> ➤ Lab Activity ➤ PPT on different chat bots for online shopping and their usage ➤ Make list of chat bots applications with their respective creators ➤
7	EVALUATION	20 Days/20 Periods	<ul style="list-style-type: none"> ➤ Introduction to Model Evaluation ➤ Confusion Matrix ➤ Understanding Accuracy, Precision, Recall & F1 Score ➤ Practice Evaluation 	<ul style="list-style-type: none"> ➤ Practicing of Confusing Matrix by having different scenarios ➤ Frequent earthquakes area rising across the world .Earthquakes cause severe damage to the economy and livelihood .An AI model has been created ,which can predict there is a chance of earthquake or not .

S.No	Chapter/Poem	No. of Periods	Methodology	Learning Outcomes
1.	The Portrait of a Lady	8	<p>*Grandparents today are the first causality in the modern world's nuclear family system. Make a poster on the above statement.</p> <p>* Present a pen picture of your grandparents describing their qualities you admire and appreciate the most?</p>	<p>Students will be able</p> <p>i) to develop an independent attitude in thought and action</p> <p>ii) to improve working relations and respect for identities in relation to other people</p> <p>iii) to show care and concern for animals</p> <p>iv) to accept and manage the situations with patience and tolerance</p> <p>v) to respect the relations in the family</p> <p>vi) to know the expressions used in the lesson and their usage</p> <p>vii) to understand the use of past perfect tense</p> <p>viii) to develop responsibility and sensitivity towards the sufferings of others</p> <p>ix) to know the sacrifices and support given by the grandparents in the family</p>
2.	A Photograph	4	<p>*Quiz on Literary devices</p> <p>*Narrate a story based on an old photograph of your parents/ Grandparents.</p>	<p>2) A Photograph:</p> <p>The students will be able to-</p> <p>i) express effectively, sharing ideas and develop appropriate style of writing.</p> <p>ii) understand the importance of human relationship.</p> <p>iii) understand child psychology.</p> <p>iv) understand the attachment with family members.</p> <p>v) understand the nostalgic experiences of the past.</p> <p>vi) understand that both the moments of life have been permanently etched in the poet's mind with a feeling of eternal loss.</p> <p>vii) understand that death has overpowered the innocence of those moments and the pleasure they treasured.</p>
3.	We're not afraid to die	8	<p>*Guided Discussion on Optimism helps to endure the direst stress.</p>	<p>The students will be able to:</p> <p>i) learn the parts of ship and different terms/words related to voyage</p> <p>ii) understand the expressions and phrasal verbs used in the lesson and their usage</p> <p>iii) realise that hazardous experience teaches one to face the adverse circumstances with courage</p> <p>iv) understand that presence of mind along with the practical knowledge is important</p>

S.No	Chapter/Poem	No. of Periods	Methodology	Learning Outcomes
				to take instant decisions v) know that determination and self confidence can conquer adverse circumstances vi) inculcate values of sharing, caring and responsible attitude towards others vii) know homonyms for 'storm' and 'vessel' and about Captain Cook. viii) enhance their skills related to the lesson.
4.	Discovering Tut	8	*Video on the discovery of TUT (BBC on Youtube) *Draw a flow chart to draw King Tut's Family line and their description	The Students will be able to i)Think, analyse and observe ii)Know the meanings of new phrases iii)Satisfy their curiosity about King Tut's mummy iv)Know about the archaeology and advancement in technologies v)Understand the wastefulness of war
5.	The Laburnum Top	4	*Toy Pedagogy (Tree, Bird)	The Students will be able to: i) realize that life is full of hardships but all the obstacles can be overcome by determination ii)express effectively, sharing ideas and develop appropriate style of writing. iii) understand the importance of human and nature's relationship. iv) Identify the literary devices.
6.	Voice of the Rain	4	*Flipped Classroom (Explain water cycle)	The students will be able to i) inculcate values like care and concern to save environment ii) develop imaginative and analytical skills iii) realise the importance of saving natural resources iv) understand the critical appreciation of the poem based on rhyme, content and theme v) identify the figures of speech used in the poem vi) understand the process of sustainable development
7.	Childhood	4	JAM session on Is attainment of maturity a sign of loss of innocence?	The students will be able to i) Think, analyse and observe ii) Know how to identify rhyme scheme iii) Gain individuality

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			*Share one unforgettable childhood experience.	iv) Differentiate between innocence and maturity v) Respect different people vi) Appreciate poem vii) Learn where and when has his childhood gone
8.	Father to Son	4	*Debate on Generation Gap and its reasons.	The students will be able to i) Comprehend and appreciate poetry ii) Learn new words iii) Enhance understanding of literary devices iv) Read with proper intonation and stress v) Express effectively(both verbal and written form) vi) Value relationship vii) Confess and resolve conflicts viii) Learn social norms ix) Respect elders and their views
9.	Silk Road	8	*To show pictorial presentation of the KORA completed by the protagonist of the lesson	The Students will be able to: i)to identify and understand the central/main point and supporting details ii) Know the meanings of new phrases iii) understand the expressions and phrasal verbs used in the lesson and their usage
10.	Adventure	7	*Jigsaw method	The Students will be able to: i)to identify and understand the central/main point and supporting details along with the phrases used in the lesson (reality is what is directly experienced through the senses. The methods of inquiry of history ,science and the philosophy are similar) ii) unfold their logical thinking skills. iii)develop scientific perspective
11.	The Summer of Beautiful White Horse	8	*Toy Pedagogy(Puppets , Horse)	The students will be able to i) enhance vocabulary ii) enjoy humour iii) inculcate values like honesty, trust, responsibility etc iv) understand why it is important to restore cultural values v) make decisions vi) develop a family bond

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12.	The Address	7	*Survey/Research people who were uprooted due to various reasons(India's partition, problems in Kashmir, natural calamities etc..) and prepare a flow chart of their journey from their hometown to present home.	The students will be able to- i) learn values like courage, empathy, sensitivity, critical thinking and maintaining relations. ii) learn from past experiences. iii) understand to forget the past and move ahead in life. iv) appreciate family members and family bonding. v) value the with all that they are blessed with. vi) realize the value of time and not to be upset with old memories. vii) develop the comprehension skill, analytical skill, language skill and thinking skill.
13.	Mother's Day	10	*Role Play *Comic Strip	Students will be able i) to know that mothers have equal rights to enjoy their lives and deserve acknowledgement and appreciation ii) to strengthen the family bonding with sharing and solving problems iii) to develop analytical skills, thinking skills, decision making, management skills, logical skills iv) to identify and understand the central/main point and supporting details along with the phrases used in the lesson v) to imbibe values like care and concern, empathy, compassion, respect for elders, belongingness and tolerance
14	Birth	8	*Interview with a doctor to know his state of mind. * Read the chapter Enemy and compare between Dr. Sadao and Dr. Andrew	The students will be able to- i) understand the sense of duty. ii) appreciate and accept the selfless service to mankind. iii) realise and create a balance between the knowledge gained and practical approach. iv) interpret that the story hinges on the theme- never say die attitude and the precious gift of life which only God can grant and a doctor can retrieve and restore.
15.	Tale of Melon City	5	*Open House on "What If....?"	The students will be- i) aware of different situations and dealing them well. ii) realise that peace and

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				liberty are the two strong factors for a state to flourish. iii) able to understand that the rulers of the state should be judicious and sensitive to the needs of the people. iv) to understand that the ruler of the state must understand the problems and needs of the people. v) able to understand that the simplest way to maintain peace and liberty in a state is by following the principles of laissez-faire.
16.	Notice Writing	6	*Correct the given notice. (Find the errors) *Fill in the missing words *Identify different types of notices	Students will be able to i) analyze any notice shown to them on the basis of the knowledge imparted, ii)frame notice about any event, iii)identify important information in any given notice, iv) use appropriate style and format
17.	Letter to Editor	4	*Newspaper editorials to be read and discussed. *Best phrases/ points to be chalked out	Students will be able to : i)express opinions, facts, arguments on a wide ranging issues using a variety of accurate sentence structures, practice reading & listening skill
18.	Article Writing	4	*Chain reaction (A newspaper heading will be shown. Each student to tell one important point related to it in a way that the topic is introduced and concluded effectively)	Students will be able to : i)Write article in correct format ii)express opinions, facts, arguments on a wide ranging issues using a variety of accurate sentence structures, iii)practice reading & listening skills iv) Identify the difference between report writing and article writing
19.	Report Writing	6	*On an activity day: Take a round, observe what's happening and prepare a report.	Students will be able to : Organize thoughts and express freely, identify relevance of information & style. Develop an interest towards writing thus enhancing writing skills. Learn related vocabulary, appreciate the word economy, compare with real life observations,

20.	Speech Writing/Debate Writing	6	*Let's be controversial (In house debate)	Students will be able to : i)Organize thoughts and express freely, ii)identify relevance of information & style. iii) Develop an interest towards writing thus enhancing writing skills. iv) Learn related vocabulary, v) appreciate the word economy, compare with real life observations
21.	Reading Comprehension	6	*Quiz on a given extract	Students will be able to : Comprehend, skim for main ideas & scan for details, select & extract relevant information, understand the writer's purpose and tone
22.	Note Making	10	*Listening activity + PEER LEARNING (Listen to the cricket commentary and side by side make notes. Compare your notes with your partner to see what detail you have missed)	The students will be able to i)differentiate between annotation, outline notes, column notes, mind maps and summary notes from a text. ii) use the note taking suggestions to develop good notes based on classroom discussions iii) write in correct format
23.	Advertisements	15	*Toy Pedagogy *Role Play *Identify the "The Tag Line"	The Students will be able to: i) write effectively and correct format. ii) Develop and strengthen business relations iii) write in formal tone, be precise and to the point. iv) Focus on the qualifications and experiences. vi) write with appropriate vocabulary and expressions. vii) express their ideas by writing short writing skills.
24.	Posters	8	*Brainstorming *Identify the mistake in the poster and correct it"	The students will be able to: i)analyze any poster shown to them on the basis of the knowledge imparted, frame poster about any event, ii)identify important information on any given topic, iii)use appropriate style and format to write a poster effectively iv)Comprehend an effective Poster making

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				as a tool of Visual Communication. v)Focus on the message to be delivered. Keep the sequence well ordered.
25.	Integrated Grammar	30	*Inductive Method	The students will be able to i)recollect their knowledge clear doubts and complete the given worksheet. ii)Write correct sentences iii) use sentence and grammar structure in correct way iv) recognize and identify parts of speech, v) identify and apply rules correctly. vi) will improve their writing skills as well as communication skills.