JAYPEE PUBLIC SCHOOL
WEEK WISE SYLLABUS
SESSION-(2021-22)
CLASS X

विषय: हिंदी

माह : मार्च

विषय	प्रथम सप्ताह	द्वितीय सप्ताह	तृतीय सप्ताह	चतुर्थ सप्ताह	पंचम सप्ताह
गद्य (क्षितिज) पाठ-नेताजी का चश्मा -स्वयं प्रकाश काव्य खंड (क्षितिज) पाठ-सूरदास के पद -कवि सूरदास सहायक पुस्तिका (कृतिका) पाठ-माता का आंचल - लेखक - श्री शिवपूजन सहाय व्याकरण- रचना के आधार पर वाक्य भेद रचनात्मक लेखन- अनुच्छेद लेखन अपठित गद्यांश		गद्य - पाठ-नेताजी का चश्मा अनुच्छेद लेखन	व्याकरण- रचना के आधार पर वाक्य भेद	काव्य खंड - पाठ- सूरदास के पद	सहायक पुस्तिका (कृतिका)- पाठ- माता का आंचल अपठित गद्यांश
शिक्षण उद्देश्य	राष्ट्रीय चेतना विकसित करना, नैतिक मूल्यों का विकास करना कहानी के भाव को दैनिक जीवन व्यवहार के संदर्भ से जोड़कर देखना व्याकरणिक ज्ञान बढ़ाना, वाक्य के अंग एवं संरचना को स्पष्ट करना विभिन्न मौसम से संबंधित दिनचर्या का ज्ञान। स्वार्थरहित प्रेम का ज्ञान।. सगुण भक्ति धारा के कृष्ण उपासक कवि सूरदास द्वारा ब्रजभाषा में रचित गोपियों और उद्धव के संवाद का ज्ञान। भाषा के प्रति रुचि और आत्मविश्वास में वृद्धि। काव्यात्मक सौंदर्य का ज्ञान। माता पिता दोनों का बच्चे के व्यक्तित्व के विकास के लिए योगदान आवश्यक । ग्रामीण संस्कृति की संस्था तथा सरलता का ज्ञान।				

	भाषा कौशल में वृद्धि। अभिव्यक्ति क्षमता तथा लेखन कौशल का विकास करना
अपेक्षित अधिगम	विद्यार्थी के रूप में देशभक्ति की भावना का अधिगम तथा उत्तरदायित्व की भावना का अधिगम। कैप्टन के चरित्र से प्रेरणा लेते हुए नैतिक मूल्यों को व्यवहारिक जीवन में पुनर्स्थापित कर पाएंगे व्याकरणिक ज्ञान बढ़ेगा वाक्य के भेदों का अंतर बताकर उन्हें निर्देशानुसार परिवर्तित कर सकेंगे अपने विचारों को सही तरीके से अभिव्यक्त कर सकेंगे सृजनात्मक लेखन का कौशल का विकास होगा हिंदी के मौसम संबंधित तथ्यों का अधिगम। जीवन दर्शन का अधिगम कृष्ण के अनन्य भक्ति का अधिगम। ब्रजभाषा की सहजता और सरलता के प्रति रुचि का विकास। पौराणिक तथ्यों का अधिगम। बाल मनोवैज्ञानिक चेष्टाओं पर आधारित बाल व्यवहार का अधिगम। पिता का अनुशासनात्मक प्यार तथा माता का वात्सल्य से युक्त प्यार का अधिगम। पठान ,श्रवण, वाचन व लेखन कला में वृद्धि।
शिक्षण सामग्री	पाठ्य पुस्तक पीपीटी दीक्षा पोर्टल अभ्यास पत्र

माह : अप्रैल

विषय	प्रथम सप्ताह	द्वितीय सप्ताह	तृतीय सप्ताह	चतुर्थ सप्ताह	पंचम सप्ताह
<u>गद्य (क्षितिज)</u> पाठ - बालगोबिन भगत - रामवृक्ष बेनीपुरी <u>काव्य खंड (क्षितिज)</u> पाठ - राम लक्ष्मण	गद्य पाठ - बालगोबिन भगत	काव्य खंड - पाठ - राम लक्ष्मण परशुराम संवाद - कवि गोस्वामी तुलसीदास	काव्य खंड - पाठ -राम लक्ष्मण परशुराम संवाद - कवि गोस्वामी तुलसीदास	व्याकरण- पद परिचय	व्याकरण- पद परिचय रचनात्मक लेखन- पत्र लेखन (औपचारिक पत्र)

परशुराम संवाद - कवि गोस्वामी तुलसीदास व्याकरण पद परिचय रचनात्मक लेखन पत्र लेखन (औपचारिक पत्र)					
शिक्षण उद्देश्य	भगत के आत्म स्वाभिमानी व्यक्तित्व का ज्ञान। तुलसीदास कृत श्रीरामचरितमानस में राम लक्ष्मण परशुराम संवाद का ज्ञान। पौराणिक तथ्यों का ज्ञान। भाषा के प्रति रुचि और आत्मविश्वास में वृद्धि। अवधी भाषा की सरलता तथा सहजता का ज्ञान। काव्यात्मक सौंदर्य का ज्ञान। रस का ज्ञान होगा व्याकरणिक ज्ञान बढ़ाना शब्द व पद का अंतर समझाना व व्याकरणिक परिचय के नियम बताना संचार माध्यमों में प्रयुक्त (प्रिंट तथा इलेक्ट्रॉनिक)हिंदी की प्रकृति से अवगत कराना तथा उन्हें नए-नए तरीके से प्रयोग करने की क्षमता का विकास कराना। पत्र के प्रारूप का ज्ञान होगा रचनात्मक लेखन का विकास				
अपेक्षित अधिगम	जीवन दर्शन का अधिगम पौराणिक तथ्यों का अधिगम। तुलसीदास कृत श्रीरामचरितमानस में राम लक्ष्मण परशुराम संवाद का ज्ञान। भाषा के प्रति रुचि व आत्मविश्वास में वृद्धि। आधुनिक युग में सामाजिक मुद्दों पर ध्यान देते हुए पत्र लेखन आदि कर पाते हैं। पठन ,श्रवण, वाचन व लेखन कला में वृद्धि।				

	औपचारिक पत्र के प्रारूप का अधिगम शब्द का पद का अंतर समझ कर व्याकरणिक परिचय दे सकेंगे।
शिक्षण सामग्री	पाठ्य पुस्तक यूट्यूब वीडियोज़ अभ्यास पत्र

माह : मई

विषय	प्रथम सप्ताह	द्वितीय सप्ताह	तृतीय सप्ताह	चतुर्थ सप्ताह	पंचम सप्ताह
गद्य (क्षितिज) पाठ -लखनवीं अंदाज़ लेखक - यशपाल सहायक पुस्तिका (कृतिका) पाठ - साना-साना हाथ जोडि लेखिका: मधु कांकरिया व्याकरण पद परिचय रचनात्मक लेखन पत्र लेखन -अनौपचारिक पत्र अपठित पद्यांश	गद्य (क्षितिज) पाठ -लखनवीं अंदाज़ अपठित पद्यांश	सहायक पुस्तिका (कृतिका) पाठ - साना-साना हाथ जोडि	सहायक पुस्तिका (कृतिका) पाठ - साना-साना हाथ जोडि	व्याकरण पद परिचय रचनात्मक लेखन पत्र लेखन -अनौपचारिक पत्र	
शिक्षण उद्देश्य	पठन ,श्रवण ,वाचन व लेखन कला में वृद्धि। व्यंग्यात्मक तथ्यों का ज्ञान होना। नवाबी परंपरा, सामंती वर्ग व उसकी बनावटी जीवन शैली के स्वरूप का ज्ञान कराना भाषा कौशल में वृद्धि।				

	भाषा के प्रति रुचि और आत्मविश्वास में वृद्धि। व्याकरण का ज्ञान व्याकरणिक परिचय के नियम बताना प्रकृति तथा पर्यावरण के तथ्यों का ज्ञान। पहाड़ी जीवन के कठिनाइयों का ज्ञान।
अपेक्षित अधिगम	जीवन दर्शन का अधिगम। विद्यार्थी बनावटी जीवन शैली अपनाने वाले सामान्ती वर्ग का आंकलन कर अपने विचार व्यवस्थित रूप से व्यक्त कर सकेंगे। मैदानी व पहाड़ी जीवन का तुलनात्मक अध्ययन कर पर्वतीय प्रदेशों के मेहनतकश लोगों से प्रेरित होंगे भाषा के प्रति रुचि व आत्मविश्वास में वृद्धि। भारतीय नागरिक के उत्तरदायित्व की भावना का अधिगम। भाषा कौशल का विकास। व्याकरणिक परिचय दे सकेंगे।
शिक्षण सामग्री	पाठ्य पुस्तक ई कंटेंट,

ENGLISH

MONTH: March

Content / Topic	1stweek	2ndweek	3rd week	4th week
CHAPTERS **Introduction of English, Grammar,** **First Flight,** **Footprints Without Feet** **Writing Skills**		• Interaction with the students, Introduction to the syllabus. • A letter to the Editor • Grammar Integrated Exercises	• A letter to God (FF) • A Triumph of surgery (FWF) • Back exercises given for practice.	• Poem: Dust of Snow (FF) • Poem: Fire and Ice (FF) • Grammar integrated Exercises
Learning Objectives	• To enable the learners to communicate effectively. • To analyze, interpret and infer the poem. • To prepare the students for poetic forms and adept them with the figures of speech, rhyme, and rhythm • To develop interest in and appreciation of poetic devices. • To develop such a faith and confidence in them. • To inspire them write their feelings in the form of short poems.			
Expected Learning Outcomes	• Appropriate use of Grammar. • Appreciation of Poetry and prose • Learners will be able to realize that faith can move mountains. • To enable them to understand the thought and imagination contained in the poem. Will be able to frame their thoughts into words while writing formal letters.			
Teaching Aid/Resource	Textbook, Chalk, Green Board			

MONTH: April

Content / Topic	1stweek	2ndweek	3rd week	4th week	5thweek
CHAPTERS **English,** **Grammar,** **First Flight,** **Footprints Without Feet** **Writing Skills**	• Nelson Mandela (FF FF)	• The Thief's Story (FWF) • Integrated Grammar	• Two stories about flying (FF)	• Poem: A Tiger in the zoo (FF) • Integrated grammar	• Letter of enquiry
Learning Objectives	• To enable the students to share their personal experiences related to discrimination. • To appreciate the literary text • To write in a style appropriate for communicative purposes • To identify the main points of a text • To inculcate values of honesty • To enable the students to think quickly and act wisely, calmly in the situation of danger and surprise. •				
Expected Learning Outcomes	• Understanding of human behavior in different situations • Enhancing written expression • Make them understand how a person can motivate other to change his nature. • The learners would be able to enhance their critical skills. • To enable them to understand the thought and imagination contained in the poem. • Be able to explore issues of social justice. (racism/ discrimination •				
Teaching Aid/Resource	online resources, e-content, green board				

MONTH: May

Content / Topic	1st week	2ndweek	3rd week	4th week	5th week
CHAPTERS **English,** **Grammar,** **First Flight,** **Footprints Without Feet** **Writing Skills**	• From the Diary of Anne Frank Integrated Grammar (back exercises to be included given after every chapter)	• The Ball (poem) (FF) • Grammar exercises	• Footprints without feet (FWF) Integrated Grammar Exercise	• Practice of unseen passage and MCQ questions from the prose section	• Practice of letter writing skills and integrated grammar topics
Learning Objectives	It will enable the students to • Synthesize previous knowledge on morality issues. • Appreciate poetry. • Comprehend the lesson and answer questions based on the same. • Sensitize the students to the feelings of an individual. To give an insight to their imaginative powers and ideas.				•
Expected Learning Outcomes	The learners will • Ask and answer questions logically and effectively. • Use correct expression in their written and spoken English. • Become more sensitive towards our surroundings. • Appropriate use of Grammar • Learners will learn not to be prejudge mental about things.				•
Teaching Aid/Resource	Textbook, Green board, you tube video links				

MATHEMATICS

MONTH: March

Content / Topic	1st week	2nd week	3rd week	4th week
Chapter 1 : Real Numbers **Chapter 2: Polynomials**		**Chapter 1 :** • Introduction of real numbers • Euclid's algorithm & its application. • Fundamental theorem of Arithmetic	**Chapter 1 :** • H.C.F and L.C.M of two or more numbers. Revisiting Irrational numbers.& their decimal expansions	**Chapter 2 :** • Introduction to polynomials • Relationship between zeroes & coefficients of a polynomial Division algorithm for polynomials
Learning Objectives	• To understand and apply the H.C.F. & L.C.M. Algorithm/lemma in real life situation. • To find the zeroes of a given polynomial graphically and algebraically • To understand the relationship between zeroes and coefficients of a polynomial.			
Expected Learning Outcomes	The students will be able to • Establish the relationship between the zeros of a polynomial and its co-efficient. • Calculate HCF. & LCM. Using Euclid algorithm/lemma and prime factorization. • Find decimal representation of rational and irrational numbers. • Use contradiction method for proving a statement. to be able to solve problems on division algorithm.			
Teaching Aid/Resource	Smart class module, e-content, Diksha, NCERT maths book, R.D. Sharma reference book, NCERT Exemplar			
Lab Activity	Maths activity on Euclids Arithmetic geometry			

MONTH: APRIL

TOPIC	WEEK-1	WEEK-2	WEEK-3	WWEK-4	WEEK-5
CHAPTERS **Chapter 3 :**Pair of Linear Equations In Two Variables **Chapter 14 :** Statistics **Chapter 15 :** Probability	**Chapter 3 :** • Graphical method of solution of a pair of linear equations. • Algebraic method of solution of a pair of linear equations • Substitution method and word problems Elimination Method and word problems	**Chapter 3:** • Cross Multiplication Method and word problems Equations reducible to a pair of linear equations in two variables & word problems	**Chapter 3 :** • Equations in two variables & word problems (Contd...)	**Chapter 14 :** Statistics **Chapter 14 :** Statistics – Mean and Mode	**Chapter 15 :** Probability **Chapter 15 (contd):** Problems based on probability
LEARNING OBJECTIVES	• To represent linear equations in two variables graphically and algebraically.		• To apply the knowledge of linear equations in problem solving in real life problems	• Interpretation and analysis of given data by using Mean and Mode.	• To enable the students to understand the concept of theoretical probability of different events
LEARNING OUTCOMES	The student will be able to • solve the pair of linear equations by different methods.	The student will be able to. • apply the concept of solving linear equations to solve word problems.	The student will be able to • apply the concept of solving linear equations to solve word problems. .	The student will be able to • to organize, represent & interpret the data by using mean and mode.	The student will be able to • Understand the concept of theoretical probability of different events. to organize, represent & interpret the data by using mean and mode.

MONTH: MAY

TOPIC	WEEK-1	WEEK-2	WEEK-3	WWEK-4	WEEK-5
CHAPTERS **Chapter 14 :** Statistics **Chapter 8 :** Introduction To Trigonometry **Chapter 6 :** Triangles	**Chapter 14 :** • Median • Graphical representation of Cumulative frequency distribution	**Chapter 8 :** • Trigonometric ratios. • Trigonometric ratios of specific angles. • Trigonometric ratios of complementary angles.	**Chapter 8** Trigonometry identities.	**Chapter 6 :** • Thales Theorem. Similarity of plane figures Criteria of similarity of triangles. Areas of similar triangles	
LEARNING OBJECTIVES	• Interpretation, representation and analysis of given data, through different types of graphs	• To acquaint the students with the concept of Trigonometric ratios & its Identities.	• Use the concept of trigonometric ratios & its identities to solve given problems	To develop the ability of comparison of similar, congruent triangles & its area	
LEARNING OUTCOMES	The student will be able to: • Make graphical representation of data such as Ogive and to interpret median from it. • .	• Apply the concept of Trigonometric ratios and its identities	Recall similar figures and identify them	recognize various rules to show two triangles similar	

SUBJECT-PHYSICS

MONTH: MARCH

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 10 **Light – Reflection And Refraction**	**Chapter-10** • Reflection of L:ight • Laws of Reflection of Light Image formation by plane mirrors	**Chapter-10** • Spherical Mirrors • Image Formation by Spherical Mirrors	**Chapter-10** Representation of Images Formed by Spherical Mirrors Using Ray Diagrams	**Chapter-10** • Uses of concave and Convex mirrors • Sign Convention for Reflection by Spherical Mirrors
Practical	• Tracing 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. https://youtu.be/C2epMhgCCrQ https://youtu.be/xY6AYgkX2RI			
Learning Objectives	The students will be able to learn • Image formation by Concave and Convex Mirror • Uses of concave and convex mirrors • Ratio of Size of Image to the Size of Object			
Expected Learning Outcome	The students would be able to- • Learn How to draw ray diagram of formation the Images for different positions of objects • Understand Different uses of convex and concave mirror in daily life • Understand About the types of Images			
Teaching Aid	• White Board ,E-Notes, Online Class, You Tube • https://youtu.be/bqVwAvl1ZDs • https://youtu.be/Hp0PsU6mUGs • https://youtu.be/TpN6xuYxwms • https://youtu.be/QMElx44Ikss • https://youtu.be/cQhO88edWxU			
Assessment	• Class test - • Revision -Work sheet			

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 10 **Light – Reflection And Refraction**	**Chapter 10** • Refraction of Light • Refractive Index Speed and Wave length of light in different Medium	**Chapter 10** • Laws of Refraction of Light • Refraction Through Glass slab	**Chapter 10** • Refraction by Spherical Lenses • Image Formation by Lenses Image Formation in Lenses Using Ray Diagrams	**Chapter 10** • Magnification • Lens Formula • Power of a Lens Discussion of NCERT exercise
Practical	• Tracing the path of the rays of light through a glass prism. • https://youtu.be/cQhO88edWxU • https://youtu.be/gxBxofEIZyI			
Learning Objective	The students will be able to • Reflection of Light • Calculation of Focal length of lenses • Sign Convention for Refraction of light by lenses • Understand the terminology of spherical mirrors			
Expected Learning Outcome	The students would be able to • Understand Phenomenon based on Refraction Of Light in Daily Life • Understand Uses of Different type of Lenses In Basic needs • Learn How to draw ray diagram of formation the Images for different positions of objects • Understand Relation between the Power and Focal length of lenses			
Teaching Aids	• White Board, E- Notes , You Tube • https://youtu.be/4l2thi5_84o • https://youtu.be/4l2thi5_84o • https://youtu.be/CJ6aB5ULqa0			
Assessment	• Revision worksheet, Class Tests			

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -11 The Human Eye And The Colourful World	**Chapter -11** • The Various Parts of Eye and their Functions • Power of Accommodation	**Chapter -11** • Defects of Vision and their Correction Myopia : (Near Sightedness) Hypermetropia (Far -Sightedness) • Refraction through glass Prism	**Chapter 11** • Dispersion of Light • Angle of Deviation Formation Of Rainbow	**Chapter 11** • Atmospheric Refraction • Apparent Star Position • Twinkling of Star	Revisio n
Practical	• Finding the image distance for varying object distance in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed. • https://youtu.be/1W38cSKb3tw				
Learning Objective	The students will be able to • Understand the structure of human eye understand the various defects of vision • Appreciate the corrections required for various defects. • Understand dispersion and its cause • Understand the formation of rainbow phenomena				
Expected Learning Outcome	• Identify human eye as a natural optical device which works as a camera • Sketch various part of the eye and understand • Their function and correlate its to every day situations • Justify how stars appear to twinkle but planet do not • Develop concept of scattering of light and Tyndall effect • Infer that the colour of light depends on the size of particles • Reason out the blue colour of the sky and red colour of sun at sunrise				
Teaching Aids	• White Board, E-Notes , You Tube • https://youtu.be/KvGGGpBGFmA • https://youtu.be/Av1ZiN9P01s • https://youtu.be/KCfR_iNsW6k • https://youtu.be/K5HblLkLj84 • https://youtu.be/ssEfeAhwjcM				
Assessment	• Class +Homework Assignments • Class Tests				

CHEMISTRY

MONTH: MARCH

Content / Topic	2nd Week	3rd Week	4thWeek	5th week
Chapter 1: Chemical Reactions and Equations	**Chapter-1** • Writing equations • Balancing chemical equations • Making equations more Informative	**Chapter-1** • Types of chemical reactions- Combination, Decomposition- Types of Decomposition reaction • Displacement reaction, Double displacement reaction, precipitation reaction	• Exothermic and • endothermic reactions • Redox reaction Oxidation, Reduction, Oxidising agent,Reducing agent.	• Corrosion and Rancidity • Discussion of NCERT exercise
Practical	• Apparatus will be shown to the students. https://www.youtube.com/watch?v=3Fo09_v0Zz8 • Types of recation https://www.youtube.com/watch?v=62-LJYKKOWs&t=12s amrita o lab			
Learning Objectives	The students will be able to • write balanced chemical equations • define the various kinds of reactions • explain oxidation and reduction, corrosion and rancidity			
Expected Learning Outcome	The students would be able to • learn how to write correct formulae and balance chemical equations • classify the common reactions into different kinds of reactions • understand redox reactions taking place in our daily life • understand corrosion of certain metals • understand rancidity of oils and fats			
Teaching Aid	• You tube module • https://www.youtube.com/watch?v=RPYYmmwH9dc balancing of chemical equation • https://www.youtube.com/watch?v=Hnpk7FmNOpk chemical equation balancing • https://www.youtube.com/watch?v=qd2B9yCKzc0&t=101s rusting of iron • https://www.youtube.com/watch?v=epP-CP1fKu0 rancidity • https://www.youtube.com/watch?v=KwQZOARVJRw&t=171s redox reaction • https://www.youtube.com/watch?v=HmNsQKLRgh8 types of reaction • E notes • Diksha link			
Assessment	• Class test -different kinds of chemical reactions • Revision -Work sheet			

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th

				Week
Chapter 2: **Acids, Bases, and Salts**	**Chapter 2** Indicators (Acid-base and Olfactory) Chemical nature of acids and bases Characteristic properties of acids Strong/weak acids	**Chapter 2** Characteristic Properties of bases. • Strong/weak bases	**Chapter 2** • pH concept • Importance of pH in daily life • pH of salts • Chemicals from NaOH • Bleaching powder Baking soda Washing soda Plaster of Paris	**Chapter 2** **Chapter 2** • Discussion of NCERT exercise
Practical	•Different type of chemical reactions •To study the properties of dilute HCl and dilute NaOH https://www.youtube.com/watch?v=2dwQu32Pq3Q amrita o lab • To find the pH of unknown samples using pH papers https://www.youtube.com/watch?v=-lbh5_1xxtI amrita o lab			
Learning Objective	The students will be able to • name acid-base and olfactory indicators • tell the colour changes of indicators in acidic and basic solutions • explain the general properties of acids • explain the general properties of bases			
	• differentiate between base and alkali • write the ionization of acids and bases •explain pH concept • understand pH of salt solutions • understand the properties of NaOH, baking soda, washing soda, bleaching powder • explain the preparation of NaOH, baking soda, washing soda, plaster of paris			
Expected Learning Outcome	The students would be able to • identify various natural and synthetic indicators • explain the nature of unknown samples using different indicators • identify whether the given substances are acidic or basic in nature • distinguish between strong and weak acids and bases • relate pH to everyday life • distinguish between baking soda and washing soda • understand the application of Plaster of Paris and Bleaching powder in daily life			
Teaching Aids	• Smart class modules, • Tests of indicators with acidic and basic substances, pH papers to test the nature of Solutions https://www.youtube.com/watch?v=r3hirzlWILM ph in every day life https://www.youtube.com/watch?v=1uKtNlPLPZw ph calculations https://www.youtube.com/watch?v=4Zq13W-0lU4 natural indicators https://www.youtube.com/watch?v=V6-mlh9xRjg diute and concentrated acid			

	https://www.youtube.com/watch?v=hEnqBPoL_4E ph or universal indicators e notes Pdf
Assessment	• Revision worksheet, Class Tests

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -3 Metals and Non-metals	**Chapter -3** • Physical Properties of metals and non-metals	**Chapter -3** Chemical properties of metals Reactivity series Ionic bonding	**Chapter 3** Properties of Ionic compounds Minerals and Ores Metallurgy - Steps involved	**Chapter 3** Electrolytic reduction Roasting and Calcination Thermite reaction	**Chapter 3** • Extraction of less reactive metals □ Electrolytic refining of Cu □ Corrosion • Alloys
Practical	To study the action of certain metals on salt solutions and arrange them in the order of their reactivity https://www.youtube.com/watch?v=C3FldTkbqcA relatively reactivity of metals https://www.youtube.com/watch?v=IM8WcnkuOR0 reaction of metals with water				
Learning Objective	The students will be able to • understand the physical properties of metals and non-metals				
	• explain chemical properties of metals • understand the formation of ions •describe ionic bonding • differentiate between roasting and calcination •explain electrolytic reduction				
Expected Learning Outcome	• The students would be able to • describe the properties of metals and non-metals used in daily life • recall reactivity series of metals • distinguish between metals and non-metals • understand the various steps involved in metallurgy • identify ionic compounds on the basis of their properties • differentiate between minerals and ores • understand the application of thermite reaction in daily life				
Teaching Aids	• Smart / you tobe modules. • https://www.youtube.com/watch?v=d-iqaXSCKUg physical properties of water • https://www.youtube.com/watch?v=8YqBzwMQeZs Metallurgy • https://www.youtube.com/watch?v=itR3hrxR9P0 Thermite reaction • https://www.youtube.com/watch?v=rHKuqqJSU_w propertied of ionic compounds • https://www.youtube.com/watch?v=TxHi5FtMYKk properties of ionic compounds e notes Pdf				
Assessment	• Class +Homework Assignments • Class Tests				

BIOLOGY

MONTH: MARCH

Content / Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 6: Life processes		**Chapter 6** a) Introduction b) What are life processes? c) Nutrition- Autotrophic Nutrition	**Chapter 6** a) Heterotrophic Nutrition b) Modes of nutrition in other animals	**Chapter 6** a) Nutrition in humans b) How do organisms obtain their nutrition?	**Chapter 6** a) Introducing respiration and its types
Practical	To prepare a temporary mount of a leaf peel to show stomata.				
Learning Objectives	It will enable the students to: a) Understand the different life processes b) Understand the different modes of nutrition c) Differentiate between autotrophic and heterotrophic nutrition d) Know the various steps and enzymes associated with respect to nutrition in humans				
Expected Learning Outcome	The students would be able to: a) Identify the different life processes b) Describe the different modes of nutrition c) Differentiate between autotrophic and heterotrophic nutrition d) Know the function of different organs and enzymes associated with digestion				
Teaching Aid	a) Smart Class Module b) Ready Reckoner c) E - Resource 1 - https://www.youtube.com/watch?v=5_4Y0tTHqyk d) E – Resource 2 - https://www.youtube.com/watch?v=Jwag2Mwsils&t=19s e) E – Resource 3 - https://youtu.be/PlNEabFZ5Qk f) Laboratory Models				
Assessment	a) Ready Reckoner Question Bank b) Class Test c) CBSE Sample Papers				

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 6: Life Processes	**Chapter 6** **a) Respiration in different organisms**	**Chapter 6** **a) Respiration- aerobic respiration and anaerobic respiration**	**Chapter 6** **a) Transportation in human being** **b) Heart, Blood, blood vessels**	**Chapter 6** a) Maintenance by platelets, Lymph b) Transportation in plants	**Chapter 6** a) Introducing 'Excretory system' b) Excretion in Humans (Structure of Nephron)
Practical	To show experimentally that carbon dioxide is given out during respiration				
Learning Objectives	It will enable the students to: a) Know about respiration and different types of respiration b) Know the reason for specific design of respiratory system in aquatic and terrestrial organisms c) Know the function of different organs for transportation in humans d) Understand the requirement of the pumping organ of our body that is structure of heart and its associated blood vessels e) Know significance of transportation in plant f) Know the process of excretion g) Know the function of organs of excretory system				
Expected Learning Outcome	The students would be able to: a) Explain respiratory organs, methods of respiration b) Understand the mechanism of breathing and respiration c) Realize the significance of respiratory system d) Understand the function of different organs in respiratory system and circulatory system e) Differentiate between the processes of transportation and excretion in plants and animals f) Understand the importance of transportation and excretion in plants and animals g) Understand the functioning of kidney and the process of dialysis				
Teaching Aids	a) Diagrams & Charts b) Ready Reckoner c) Smart Class Module d) Laboratory Models e) E – Resource 1 - https://www.youtube.com/watch?v=dkAe4DjHwMM&t=104s f) E – Resource 2 - https://www.youtube.com/watch?v=_qmNCJxpsr0&t=111s g) E – Resource 3 - https://www.youtube.com/watch?v=EhnRhfFLyOg&t=76s h) E – Resource 4 - https://youtu.be/EhnRhfFLyOg				
Assessment	a) Ready Reckoner question bank b) Class Tests c) CBSE Sample Papers				

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 6: Life Processes **Chapter 7: Control and Coordination**	**Chapter 6** a) Process of 'Dialysis' and Functioning of Kidney b) Excretion in Plants c) Discussion of NCERT exercise	**Chapter 7** a) Nervous System b) Reflex Action	**Chapter 7** a) Human brain and how is brain protected?	**Chapter 7** a) How does nervous tissue cause action? b) 'Blue Questions' NCERT	**Chapter 7** a) Coordination in
Practical	a) Experiments on Phototropism b) Study of Laboratory Model of Human Brain				
Learning Objective	It will enable the students to: a) Understand nervous system in human beings b) Understand the reflex actions and its importance c) Know the structure and function of the brain. d) Know the types of movements in plants. e) Know the role of hormones in plants and animals				
Expected Learning Outcome	The students would be able to: a) Explain nervous system in human beings b) Define reflex action c) Differentiate between reflex action and other actions d) Analyze the structure and function of the brain e) Recall coordination in plants f) Discuss various tropic movements in plants g) Understand the function of hormones in humans and plants Discuss action caused by the nervous system				
Teaching Aids	a) Smart module, Pictures/specimens of different types of plants and animals. b) Laboratory Models c) E – Resource 1 - https://www.youtube.com/watch?v=J0hjnC14uMM d) E – Resource 2 - https://www.youtube.com/watch?v=w7XMMgiavkk e) E – Resource 3 - https://www.youtube.com/watch?v=dV9QcGs58l0 f) E – Resource 4 - https://www.youtube.com/watch?v=uwtWXmhyLcw d) Ready Reckoner				
Assessment	a) Ready Reckoner question bank b) CBSE Sample papers , Class Tests and PT1				

SOCIAL STUDIES

MONTH: March

Content / Topic	1st week	2nd week	3rd week	4th week
(HISTORY) **1. The Rise of Nationalism in Europe** **(Political Science)** **1. Power Sharing**	**The Rise of Nationalism in Europe** • The French Revolution and the Idea of the Nation	**The Rise of Nationalism in Europe** • The Making of Nationalism in Europe	**The Rise of Nationalism in Europe** • The Age of Revolutions: 1830-1848	**Power Sharing** • Belgium & Sri Lanka – Case Studies • Why is Power Sharing desirable? • Prudential and moral Reasons • Forms of Power Sharing
Learning Objectives	**The Rise of Nationalism in Europe** ➢ Enable the learners to identify and comprehend the forms in which nationalism developed along with the formation of nation states in Europe in the post-1830 period. ➢ Establish the relationship and bring out the difference between European nationalism and anti-colonial nationalism. ➢ Understand the way the idea of nationalism emerged and led to the formation of nation states in Europe and elsewhere ➢ To recalls names, places, dates, people associated with some important historical events **Power Sharing** ➢ Understand reasons for power sharing ➢ Study about division of power in democracy ➢ Familiarize with the centrality of power sharing in a democracy. Understand the working of spatial and social power sharing mechanisms.			
Expected Learning Outcomes	**The Rise of Nationalism in Europe** ➢ To defines terms and concepts such as nationalism, colonialism etc. ➢ Critically examine formation of Nation states. ➢ Analyse developments such as French Revolution, nationalism, industrialisation, globalisation, and urbanization in world history. Identify and locate places related to European nationalism on map. **Power Sharing** ➢ Know about need and importance of Power Sharing. ➢ Better understanding of urban development in the present by comparing it with the past.			
Teaching Aid/Resource	E-Modules Online Images of Maps, timeline E Textbook illustrations Digital Content Online Resources PPT Resource			
Lab Activity				

MONTH: April

Content / Topic	1st week	2nd week	3rd week	4th week
(Political Science) **2. Federalism** **(GEO)** 1. **Resources and Development**	**Federalism** • What is Federalism? • What make India a Federal Country?	**Federalism** • How is Federalism practiced? • Decentralization in India	**Resources and Development** • Types of Resources • Development of Resources • Resource Planning in India • Land Resources • Land Utilization Land Use Pattern in India	**Resources and Development Contd.** • Land Degradation and Conservation Measures • Soil as a Resource • Classification of Soils • Soil Erosion and Soil Conservation
Learning Objectives	**Federalism** ➢ Study characteristic features of Federalism. ➢ Learn about various aspects of Federalism in India. ➢ Familiarise with the federal structure and provisions. Describe the working of the organs of government. **2. Resources and Development** ➢ Learn about Resources and their categorisation ➢ List the Features of Resource planning in India ➢ Need and importance of resource conservation ➢ Understand the value of resources and the need for their judicious utilization and conservation. ➢ Need and importance of Soil and its conservation Explain the concept of Sustainable Development			
Expected Learning Outcomes	**Federalism** ➢ Analyse federal provisions and institutions. ➢ Explain decentralization in rural and urban areas ➢ Classify subjects into Union List, State List, Concurrent List & Residuary Subjects **1. Resources and Development** ➢ Analyze the importance of resources. ➢ Classify various land use pattern in India ➢ Explain the formation of Soil ➢ List and describe some methods of soil conservation ➢ Suggest ways to solve the problem of pollution in urban centres ➢ Understand importance of Sustainable Development			
Teaching Aid/Resource	E-Modules E Textbook illustrations Digital Content Online Resources Online Images of Map			
Lab Activity				

MONTH: MAY

Content / Topic	1st week	2nd week	3rd week	4th week
(GEO) **Agriculture** **(POLITICAL SCIENCE)** **Political Parties**	**Agriculture** ➢ Types of farming ➢ Cropping Patterns ➢ Major Crops	**Agriculture** ➢ Technological and Institutional Reforms ➢ Impact of Globalization on Agriculture	**Political Parties** • Why do we need Political Parties? • How many Parties should we have? • National Political Parties	**Political Parties** • State Parties • Challenges to Political Parties • How can Parties be reformed?
Learning Objectives	**Agriculture** ➢ Explain the importance of agriculture in national economy. ➢ Identify various types of farming and discuss the various farming methods; ➢ Describe the spatial distribution of major crops as well as understand the relationship between rainfall regimes and cropping pattern. **Political Parties** ➢ Analyse party systems in democracies. ➢ Introduction to major political parties, challenges faced by them and reforms in the country.			
Expected Learning Outcomes	**Agriculture** ➢ Differentiate between different methods of farming. ➢ Analyze the role of various government policies for institutional as well as technological reforms since independence **Political Parties** ➢ Differentiate between regional and national political parties. ➢ Evaluate the policies and programmes of different political parties in the states of India ➢ Suggest ways to deal with the challenges to Political Parties			
Teaching Aid/Resource	E-Modules E Textbook illustrations Digital Content Online Resources			
Lab Activity				

ARTIFICIAL INTELLIGENCE
MONTH: MARCH

Content / Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Introduction to artificial intelligence	What is Intelligence? Decision Making How do machines become Artificially Intelligent?	Applications of Artificial Intelligence around us What is not AI?	Artificial Intelligence (AI) Machine Learning Deep learning	**AI Domains** **CV** **Data Science** **NLP**	**Bayesian theorem** **AI Ethics**
Learning Objectives	**Students will be able to** To understand and appreciate AI and describe its application in daily life To understand the process of decision making Introduction to AI related terminology such as AI, ML, DL and domains- Data , Cv, NLP Basics of Ethics				
Expected Learning Outcomes	**Students would be able to –** **Basics of AI ethics (who is accountable, transparency and Explianability, Actions of AI Impact of AI)** **Figure out the meaning of language inputs and problem use a combination of different types of information** **Select AI model for any real life problem**				
Teaching Aids	• White Board, E-Notes , You Tube • Hand on activity • http://www.youtube.com/watch?v=h2OfQdYrHRs • https://www.youtube.com/watch?v=y5swZ2Q_lBw&t=36s • https://www.youtube.com/watch?v=SkC8S3wuIfg&t=925s				
Assessment	• Class +Homework Assignments • Class Tests • Chapter wise sample paper solve				

APRIL

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
AI Project Cycle	Problem Scoping 4Ws Problem Canvas	Data Acquisition Data Feature Data Exploration	Rule Based Approach Learning Based Approach Supervised Learning classification: Regression: Unsupervised Learning Clustering: Dimensionality Reduction:	Evaluation Neural Networks
Learning Objectives	**Students will be able to -** **Introduction to AI Project Cycle** Understanding Problem Scoping and Sustainable Development Goals Simplifying Data Acquisition Data Visualization Techniques Rule-based and Learning AI Approaches Supervised , Unsupervised and reinforcement Learning Models Evaluation of Idea			
Expected Learning Outcomes	**Students would be able to –** Differentiate between IT cycle and AI project Cycle Collect data from different reliable resources Identify problem and find a solution with AI to achieve Goal			
Teaching Aids	• White Board, E-Notes , You Tube • Hand on activity • https://www.youtube.com/watch?v=Qhyaur_UA3w • https://www.youtube.com/watch?v=8ZfzkIj-Q7g			
Assessment	• Class +Homework Assignments • Class Tests • Chapter wise sample paper solve			

MAY

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
Advance Python	Introduction to Virtual Environments Introduction to Python	Python Basics Keywords & Identifiers Variables & Datatypes Operators statements	Conditional Statements Looping	Python Packages Num py Pandas Matplotlib
Learning Objectives	**Students will be able to -**			
	Introduction to Python Basics of Python and Jupyter Notebook			
Expected Learning Outcomes	Students would be able to – Install python and anaconda for different platforms and work with different libraries Work with Jupyter notebook Implement in AI / ML in projects			
Teaching Aids	• White Board, E-Notes , You Tube • Hand on activity Lab practice			
Assessment	• Class +Homework Assignments • Class Tests • Chapter wise sample paper solve			