ANNUAL PEDAGOGICAL PLAN FOR CLASS IX
SESSION 2024-2025
ARTIFICIAL INTELLIGENCE (417)

UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI)

Month	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
April	Excite	To identify and appreciate Artificial Intelligence and describe its applications in daily life.	Session: Introduction to AI and setting up the context of the curriculum
			Ice Breaker Activity: Dream Smart Home idea Learners to design a rough layout of floor plan of their dream smart home. Recommended Activity: Make a statement about lighting and LUIS will interpret and adjust the house accordingly (https://aidemos.microsoft.com/luis/demo)
		To relate, apply and reflect on the Human-Machine Interactions. To identify and interact with the three domains of AI: Data, Computer Vision and Natural Language Processing.	Recommended Activity: The AI Game Learners to participate in three games based on different AI domains. − Game 1: Rock, Paper and Scissors (based on data) (https://next.rockpaperscissors.ai/) − Game 2: Semantris (based on Natural Language Processing - NLP) (https://research.google.com/semantris/) − Game 3: Quick Draw (based on Computer Vision - CV) (https://quickdraw.withgoogle.com/)
		To undergo an assessment for analysing progress towards acquired AI-Readiness skills.	Recommended Activity: AI Quiz (Paper Pen/Online Quiz)

	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
		To imagine, examine and reflect on the skills required for futuristic job opportunities.	Recommended Activity: To write a letter. Writing a Letter to one's future self Learners to write a letter to self-keeping the future in context. They will describe what they have learnt so far or what they would like to learn someday
	Relate	Learners to relate to application of Artificial Intelligence in their daily lives.	Video Session: To watch a video Introducing the concept of Smart Cities, Smart Schools and Smart Homes
		To unleash their imagination towards smart homes and build an interactive story around it. To relate, apply and reflect on the Human-Machine Interactions.	Recommended Activity: Write an Interactive Story Learners to draw a floor plan of a Home/School/City and write an interactive story around it using Inklewriter. (https://www.inklewriter.com/)
	Purpose	To understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.	Session: Introduction to UN Sustainable Development Goals
			Recommended Activity: Go Goals Board Game: Learners to answer questions on Sustainable Development Goals AI for Ocean- "helping to conserve oceans is by fighting plastic pollution with machine learning." (https://code.org/oceans)
	Possibilities	To research and develop awareness of skills required for jobs of the future. To imagine, examine and reflect on the skills required for the futuristic opportunities. To develop effective communication and collaborative work skills.	Session: Theme-based research and Case Studies Learners will listen to various case-studies of inspiring start-ups, companies or communities where AI has been involved in real-life. Learners will be allotted a theme around which they need to search for present AI trends and have to visualise the future of AI in and around their respective theme.

			Recommended Activity: Job Ad Creating activity Learners to create a job advertisement for a firm describing the nature of job available and the skill set required for it 10 years down the line. They need to figure out how AI is going to transform the nature of jobs and create the Ad accordingly.
	AI Ethics	To understand and reflect on the ethical issues around AI.	Video Session: Discussing about AI Ethics Recommended Activity: Ethics Awareness Students play the role of major stakeholders, and they have to decide what is ethical and what is not for a given scenario. Students to explore Moral Machine (https://www.moralmachine.net/) to understand more about the impact of ethical concerns

	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
		To gain awareness around AI bias and AI access.	Session: AI Bias and AI Access Discussing about the possible bias in data collection Discussing about the implications of AI technology
		To let the students analyse the advantages and disadvantages of Artificial Intelligence.	Recommended Activity: Balloon Debate Students divide in teams of 3 and 2 teams are given same theme. One team goes in affirmation to AI for their section while the other one goes against it. They have to come up with their points as to why AI is beneficial/ harmful for the society.

UNIT 2: AI PROJECT CYCLE:

	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
May	Problem Scoping	Identify the AI Project Cycle framework.	Session: Introduction to AI Project Cycle Problem Scoping Data Acquisition Data Exploration Modelling Evaluation
		Learn problem scoping and ways to set goals for an AI project.	Activity: Brainstorm around the theme provided and set a goal for the AI project. Discuss various topics within the given theme and select one. Fill in the 4Ws problem canvas and a problem statement to learn more about the problem identified in the community/ society List down/ Draw a mind map of problems related to the selected topic and choose one problem to be the goal for the project.

		Identify stakeholders involved in the problem scoped. Brainstorm on the ethical issues involved around the problem selected.	Activity: To set actions around the goal. List down the stakeholders involved in the problem. Search on the current actions taken to solve this problem. Think around the ethics involved in the goal of your project.
		Understand the iterative nature of problem scoping for in the AI project cycle. Foresee the kind of data required and the kind of analysis to be done.	Activity: Data and Analysis What are the data features needed? How will the features collected affect the problem? Where can you get the data? How frequent do you have to collect the data? What happens if you don't have enough data? What kind of analysis needs to be done? How will it be validated? How does the analysis inform the action?
	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
		Share what the students have discussed so far.	Presentation: Presenting the goal, actions and data. Teamwork Activity: Brainstorming solutions for the problem statement.
July	Data Acquisition	Identify data requirements and find reliable sources to obtain relevant data.	Activity: Introduction to data and its types. Students work around the scenarios given to them and think of ways to acquire data. Activity: Data Features Identifying the possible data features affecting the problem. Activity: System Maps Creating system maps considering data features identified.

August	Data Exploration	To understand the purpose of Data Visualisation	Session: Data Visualisation Need of visualising data Ways to visualise data using various types of graphical tools. Quiz Time
		Use various types of graphs to visualise acquired data.	Recommended Activities: Let's use Graphical Tools Selecting an appropriate graphical format and presenting the graph sketched. Understanding graphs using (https://datavizcatalogue.com/) Listing of newly learnt data visualization techniques. Top 10 Song Prediction: Identify the data features, collect the data and convert into graphical representation. Collect and store data in a spreadsheet and create some graphical representations to understand the data effectively.
September	Modelling	Understand modeling (Rule-based & Learning- based)	Session: Modeling Introduction to modeling and types of models (Rule-based & Learning-based)
			Recommended Activity: Rule-based & Learning- based) Rule-based: Students can be asked to create text to speech bot using (https://theaiplayground.com/blocks/new) Learning-based Activity: Students can be asked to use (https://teachablemachine.withgoogle.com/)
		Understand, create and implement the concept of Decision Trees.	Session: Decision Tree To introduce basic structure of Decision Trees to students. Recommended Activity: Decision Tree To design a Decision Tree based on the data given. (Spot the Elephant)

	SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
		Understand and visualise computer's ability to identify alphabets and handwritings.	Recommended Activity: Pixel It To create an "AI Model" to classify handwritten letters. Students develop a model to classify handwritten letters by dividing the alphabets into pixels. Pixels are then joined together to analyse a pattern amongst same alphabets and to differentiate the different ones.

UNIT 3: NEURAL NETWORK:

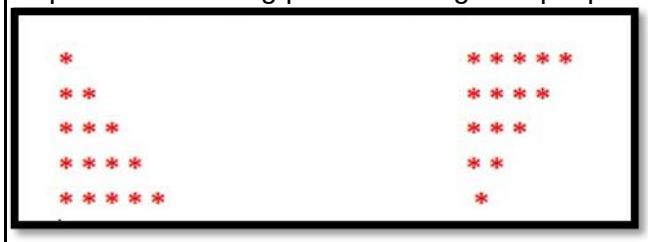
	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
October	Understand and appreciate the concept of Neural Network through gamification.	Session: Introduction to neural network Relation between the neural network and nervous system in human body Describing the function of neural network.
		Recommended Activity: Creating a Human Neural Network Students split in four teams each representing input layer (X students), hidden layer 1 (Y students), hidden layer 2 (Z students) and output layer (1 student) respectively. Input layer gets data which is passed on to hidden layers after some processing. The output layer finally gets all information and gives meaningful information as output. Teamwork Activity: Students in groups shall be assigned the task to create and present the neural networks on a cardboard/chart paper.

UNIT 4: INTRODUCTION TO PYTHON:

	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL

November	Learn basic programming skills through gamified platforms.	Recommended Activity: Introduction to programming using Online Gaming portals like Code Combat.
	Acquire introductory Python programming skills in a very user-friendly format.	Session: Introduction to Python language Introducing python programming and its applications
		Theory + Practical: Python Basics Students go through lessons on Python Basics (Variables, Arithmetic Operators, Expressions, Comparison Operators, logical operators, Assignment Operators, Data Types - integer, float, strings, type conversion, using print() and input() functions) Students will try some simple problem-solving exercises on Python Compiler.
	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
		Practical: Flow of control and conditions Students go through lessons on conditional and iterative statements (if, for and while) Students will try some basic problem-solving exercises using conditional and iterative statements on Python Compiler.
		Practical: Python Lists Students go through lessons on Python Lists (Simple operations using list) Students will try some basic problem-solving exercises using lists on Python Compiler.

PART-C: PRACTICAL WORK
UNIT 4: INTRODUCTION TO PYTHON: Suggested Program List

PRINT	To print personal information like Name, Father's Name, Class, School Name. To print the following patterns using multiple print commands-  To find square of number 7 To find the sum of two numbers 15 and 20. To convert length given in kilometers into meters. To print the table of 5 up to five terms. To calculate Simple Interest if the principle_amount = 2000 rate_of_interest = 4.5 time = 10
INPUT	To calculate Area and Perimeter of a rectangle To calculate Area of a triangle with Base and Height To calculating average marks of 3 subjects To calculate discounted amount with discount % To calculate Surface Area and Volume of a Cuboid
LIST	Create a list in Python of children selected for science quiz with following names- Arjun, Sonakshi, Vikram, Sandhya, Sonal, Isha, Kartik Perform the following tasks on the list in sequence- Print the whole list Delete the name "Vikram" from the list Add the name "Jay" at the end Remove the item which is at the second position. Create a list num=[23,12,5,9,65,44] Print the length of the list Print the elements from second to fourth position using positive indexing Print the elements from position third to fifth using negative indexing

	Create a list of first 10 even numbers, add 1 to each list item and print the final list. Create a list List_1=[10,20,30,40]. Add the elements [14,15,12] using extend function. Now sort the final list in ascending order and print it.
IF, FOR, WHILE	Program to check if a person can vote To check the grade of a student Input a number and check if the number is positive, negative or zero and display an appropriate message To print first 10 natural numbers To print first 10 even numbers To print odd numbers from 1 to n To print sum of first 10 natural numbers Program to find the sum of all numbers stored in a list
Important Links	https://cbseacademic.nic.in/web_material/Curriculum21/publication/secondary/Python_Content_Manual.pdf http://bit.ly/loops_jupyter https://bit.ly/40uovYK

Delhi Public Global School

APP for the session (2024-25)

Class – 9th **Subject - English** **Teacher's Name – Sayma Nisar**

Month	Chapter name	No. of Periods	Activity	Completion Status
April	**Beehive** Prose L 1 The Fun They Had Poem L 2 The Road Not Taken Poem 2 Wind **Moments** L 1 The Lost Child L 2 The Adventures of Toto **Grammar** Present Tense Modals **Writing** Formal Letter (Place and Order)	**03** **02** **02** **03** **03** **03** **03**	**Experiential Learning** Group Discussion on Technology in Education can never substitute/replace the teacher. **Joyful Learning** Gather information about the education system in the 90's and compare it with the present education system. **Expression Series** Write a speech to be presented in the morning assembly on 'The wind is both a friend and a foe'. **Joyful Learning** Description of the fair as seen by the child **Joyful Learning/ Experiential Learning** Write down few phrases on strips of paper such as drinks water, rides bicycle etc. and keep them in a bowl. Form pairs and ask each pair to pick up a stip. They have to make sentences using simple present, present continuous and present perfect for statements, negative statements and interrogative as first person, second and third. **Expression Series** Students will write a letter to the in charge of Enfotech, Preet Vihar,	

		03	Delhi, placing an order for a few laptops like, Dell, HP, Lenovo, and ASUS for school purpose.	
May	Prose L 2 The Sound of Music **Moments** L 3 Iswaran the Storyteller **Grammar** Determiners **Writing** Descriptive Paragraph Letter to Editor	**04** **03** **03** **02** **02**	**Experiential Learning** Groups discuss about the life of differently able people and come up with the names of some extremely talented and recognized differently able people and list them. **Joyful Learning** Task: Narrate any ghost story that you have heard/ read. Worksheets will be given to the students. **Expression Series** Students will write a paragraph on the topic of their interest. Students will write a letter to the editor of the Times of India regarding the nuisance of street dogs in their locality. **Periodic Test – 1** **Letter Writing (Place & Order)** **Present Tense, Modals** **Beehive Prose L 1, Poem 1** **Moments L 1**	

July	**Beehive** Prose L 3 The Little Girl Poem L 3 Rain on the Roof **Moments** L 4 In the Kingdom of Fools L 5 The Happy Prince **Grammar**	 **05** **02** **04**	**Joyful Learning** The teacher Students work in groups of 5. Think about their relationships with various family members **Joyful Learning** A discussion on the topic 'A Rainy Day' is initiated by the teacher. **Expression Series** Story Telling (Students will narrate a story about wise fools such as Tenalairama) **Joyful Learning**	

	Passive Voice **Writing** Short Story	**04** **04** **05**	The students imagine that each of them has won rupees 1 lakh. The teacher asks how they would spend the money. Worksheets will be given to the students. **Expression Series** Story Map **Periodic Test – 2** **Descriptive Paragraph** **Past Tense, Determiners** Beehive P- L 2, L 3 Poem – 3 Moments L 3	
August	**Beehive** Prose L 4 A Truly Beautiful Mind Poem L 4 The Lake Isle of Innisfree Prose L 5 The Snake and the Mirror **Moments** L 6 Weathering the Storm in Ersama L 7 The Last Leaf **Grammar** Sub-verb Concord Preposition **Writing** Letter of Complaint	**04** **02** **04** **03** **03** **03** **02** **04**	**Expression Series** Biography of Albert Einstein Importance of peace in life **Story Telling** Students will narrate a frightening incident which they experienced **Nature and Community Community Concern** Students will talk about the preparation of the community for a natural disaster.(Plans, warning, system relief, efforts) **Experiential Learning** Teacher will ask the students that ever they felt depressed and rejected. How did they overcome such feelings? Worksheets will be given to the students. Worksheets will be given to the students. **Expression Series** Letter writing questions will be given to the students for practice.	
September	**Beehive** Poem L 5 A Legend of the	**02**	Students could be asked to identify the features of a legend in the	

	Northland Prose L 6 My Childhood Poem L 6 No Men Are Foreign Prose L 10 Kathmandu **Moments** L 8 A House Is Not a Home **Grammar** Past Tense Noun Clause **Writing** Short Story Letter of Inquiry	**03** **02** **03** **03** **02** **02** **02** **02**	poem. Prepare an advertising leaflet for a hotel situated in Kathmandu. **Nature and Community Community Concern** distinguish between natural and human caused disasters. **Expression Series** Worksheets will be given to the students. Worksheets will be given to the students. **Expression Series** Letter writing questions will be given to the students for practice.	
October			**Revision and Half yearly Exams** **Writing - Descriptive Paragraph, Diary Entry** **Grammar - Determiners, Modals, Reported Speech, Subject verb concord** **Beehive Prose - Ch 1 The Fun They Had, Ch- 2 The Sound of Music, Ch-3 The Little Girl, Ch 4 A Truly Beautiful Mind, Ch 5 The Snake and the Mirror** **Poem - Ch 1 The Road Not Taken, Ch 2 Wind, Ch- 3 Rain on the Roof, Ch 4 The Lake Isle of Innisfree, Ch 5 A Legend of the Northland** **Moments - Ch 1 The Lost Child, Ch 2 The Adventures of Toto, Ch- 3 Iswaran the Storyteller, Ch 4 In the Kingdom, Ch 5 The Happy Prince**	
November	**Beehive** Prose L 7 Packing		**Joyful Learning**	

	Poem L 7 The Duck and the Kangaroo Prose L 8 Reach for the Top Poem L 8 On Killing a Tree Poem L 10 A Slumber Did My Spirit Seal Moments L 9 The Accidental Tourist Grammar Future Tense Adverb Clause Writing Article	**03** **02** **03** **02** **02** **03** **01** **02** **02**	'Comedies are enjoyable only when the characters do silly things.' The students speak for a minute on the topic, giving examples from real life, films, TV shows etc. **Expression Series** Worksheets will be given to the students. Worksheets will be given to the students. **Expression Series** Letter writing questions will be given to the students for practice. **Periodic Test - 3** Writing- Paragraph Writing, Diary Entry Grammar- Reported Speech, Tenses, Determiners Sec C – Literature Beehive- L 6 My Childhood, L 7 Reach For the Top Poem- 6 No Men are Foreign Moments- L 7 The Last Leaf	
December	**Beehive** Prose L 9 The Bond of Love Poem L 9 The Snake Trying Prose L 11 If I Were You Moments L 10 The Beggar	 **05** **03** **04** **04** **04**	**Dialogue Writing** The students are instructed to construct a dialogue and speak it in pairs on the following situation: "If Olga and Lushkoff met after the ending of the play, what would they say to each other."	

January & February	Grammar Relative Clause		**Expression Series** Worksheets will be given to the students. Revision & Final Examination **All syllabus covered**	

ANNUAL PEDAGOGY PLAN
SESSION (2022- 2023)
CLASS 9
SUBJECT HINDI

S.NO	MONTH	CHAPTER	CLASSS ACTIVITY	LEARINING SPEAKING READING	WRITING SKILL	ACTIVITY AS PER THE GUIDE LINES OF CBSE
1	अप्रैल	दो बैलो की कथा बाख वाक्य अर्थ के आधार पर	पठन – पाठन बाख वचन	गंधाश प्र0 उ0 पदों की व्याख्या वाक्य के उदाहरण	पाठ का सारांश अनुवाद वाक्य के प्रकार	झूरी का चरित्र चित्रण एंव किसान का बैलो से आत्मीय संबध बाख का अनुवाद **(worksheet)**
2	मई	ल्हासा की ओर सवैये उपसर्ग प्रत्यय	पठन –पाठन पद वाचन	अभ्यास कार्य प्र0 उ0 काव्यांश प्र0 उ0	पाठ का सारांश अनुवाद व्याख्या	तिब्बत यात्रा का वर्णन भगवान श्री कृष्ण के प्रति रसखान की भक्ति एंव गोपियों का प्रेम
3	जुलाई	साँवले सपनो की याद कैदी और कोकिला अलंकार	पठन –पाठन कविता वचन	अभ्यास कार्य प्र0 उ0 बहुविकल्पीय प्रश्न काव्यांश पर अधारित प्रशन अभ्यास कार्य अंलकार की परिभाषा	पाठ का सारांश (अनुवाद व्याख्या) अंलकार उदाहरण सहित	डा0 सलीमा अली का पक्षी प्रेम एंव चरित्र चित्ररण कैदी कोकिला पाठ की व्याख्या **(worksheet)**
4	अगस्त	प्रेमचन्द्र के फटे जूते इस जल प्रलय में समास	पठन –पाठन पाठ का वाचन	अभ्यास कार्य प्र0 उ0 अभ्यास कार्य प्र0 उ0 समास की परिभाषा	पाठ का सारांश पाठ का सारांश समास उदाहरण सहित	मुंशी प्रेमचन्द्र का चरित्र चित्ररण एंव उनका अभावग्रस्त जीवन पर प्रकाश बाढ़ की स्थिति का मार्मिक वर्णन
5	सितम्बर	रीढ़ की हड्डडी चन्द्रगहन से लौटती बेर	पठन –पाठन एंव (वार्तालाप) कविता वाचन	अभ्यास कार्य प्र0 उ0 पाठ की व्याख्या पत्रों के प्रकार	पाठ का सारांश अनुवाद पत्रों के	उमा का चरित्र चित्ररण एंव नारी जागरूकता पर

		औपचारिक पत्र			प्रारुप (प्रकार)	प्रकाश ग्रामीण संस्कृति की अभिव्यक्ति
6	अक्टूबर	मेरे बचपन के दिन मेघ आए निबंध लेखन	पठन – पाठन कविता वचन	अभ्यास कार्य प्र0 उ0 काव्यांश प्र0 उ0 निबंध के प्रकार	पाठ का सारांश संदर्भ सहित व्याख्या विभिन्न शीर्षको पर अधारित निंबध	महादेवी वर्मा के जीवन से जुड़ी रचनात्मक विवरण पाठ का मानवीकरण अंलकार द्वारा प्रस्तुतीकरण **(worksheet)**
7	नवम्बर	बच्चे काम पर जा रहे है मेरे संग की औरते संवाद लेखन कहानी लेखन	कविता वाचन पठन –पाठन	अभ्यास कार्य प्र0 उ0 अभ्यास कार्य प्र0 उ0 विभिन्न क्षेत्रों मे संवाद कहानी को पूर्ण करना	पाठ की ससंदर्भ व्याख्या पाठ का सारांश शीर्षक पर संवाद लिखना शीर्षक के द्धारा कहानी पूर्ण करना	बाल श्रम पर प्रकाश डालना लेखिका के जीवन मे घर की महिलाओं की भूमिका
8	दिसम्बर	बोर्ड परीक्षा सेम्पल पेपर पुनरावर्ती				कार्यपत्रक

DELHI PUBLIC GLOBAL SCHOOL
MATHEMATICS CURRICULUM PLAN
CLASS : IX
(SESSION: 2024-2025)

Month **Topic**	**Sub Topic**	**Miscellaneous**
April **Topic**: Real Numbers **No. of** **Periods**: 16	A number *r* is called a rational number, if it can be written in the form *p/q*, where *p* and *q* are integers and $q \neq 0$. **2.** A number *s* is called a irrational number, if it cannot be written in the form *p/q*, where *p* and *q* are integers and $q \neq 0$. **3.** The decimal expansion of a rational number is either terminating or non-terminating recurring. Moreover, a number whose decimal expansion is terminating or non-terminating recurring is rational. **4.** The decimal expansion of an irrational number is non-terminating non-recurring. Moreover, a number whose decimal expansion is non-terminating non-recurring is irrational. **5.** All the rational and irrational numbers make up the collection of real numbers. **6.** If *r* is rational and *s* is irrational, then $r + s$ and $r – s$ are irrational numbers, and *rs* and *r/s* are irrational numbers, $r \neq s$..	• Lab Activity Construct a square root spiral. • Assignment Number System • Discussion of Scoring Points/ Marking Scheme/Sample Questions
Topic: Polynomials **No. of** **Periods**: 23	1. A polynomial of one term is called a monomial. 2. A polynomial of two terms is called a binomial. 3. A polynomial of three terms is called a trinomial. 4. A polynomial of degree one is called a linear polynomial. 5. A polynomial of degree two is called a quadratic polynomial. 6. A polynomial of degree three is called a cubic polynomial. 7. A real number ‘a’ is a zero of a polynomial p(x) if p(a) = 0. In this case, a is also called a root of the equation p(x) = 0.	• Assignment Polynomials

	8. Every linear polynomial in one variable has a unique zero, a non-zero constant polynomial has no zero, and every real number is a zero of the zero polynomial. 9. Factor Theorem : x – a is a factor of the polynomial p(x), if p(a) = 0. Also, if x – a is a factor of p(x), then p(a) = 0. 10.$(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$, $x^3 + y^3 + z^3 — 3xyz = (x + y + z)\ (x^2 + y^2 + z^2 — x\ y — y\ z —\ z\ x)$ $(x+y)^3 = x^3 + y^3 + 3xy(x+y)$ $(x-y)^3 = x^3 - y^3 - 3xy(x-y)$	

Month **Topic**	**Sub Topic**	**Miscellaneous**
May **Topic**: Coordinate Geometry **No. of Periods**:6	**Periodic Test - 1**	
	The Cartesian plane, coordinates of a point, names and terms associated with the coordinate plane, notations, plotting points in the plane.	• Assignment Coordinate Geometry • Discussion of Scoring Points/ Marking Scheme/Sample Questions
Topic: Linear equations in two variables **No. of periods**: 14	1. An equation of the form ax + by + c = 0, where a, b and c are real numbers, such that a and b are not both zero, is called a linear equation in two variables. 2. A linear equation in two variables has infinitely many solutions. 3. Every point on the graph of a linear equation in two variables is a solution of the linear equation. Moreover, every solution of the linear equation is a point on the graph of the linear equation.	• Lab Activity Verify that if two lines intersect each other • Assignment Coordinate Geometry • Discussion of Scoring Points/ Marking Scheme/Sample Questions

JULY **Topic**: Lines and Angles **No. of periods**: 13	1. If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and vice versa. This property is called as the Linear pair axiom. 2. If two lines intersect each other, then the vertically opposite angles are equal. 3. Lines which are parallel to a given line are parallel to each other	• Lab Activity Verify that the sum of all angles o triangle is 180° • Assignment Lines and Angles • Discussion of Scoring Points/ • Marking Scheme/Sample Questions
Topic: Introduction to Euclid's Geometry (not for assessment) **No. of periods**: 06	1. Though Euclid defined a point, a line, and a plane, the definitions are not accepted by mathematicians. Therefore, these terms are now taken as undefined. 2. Axioms or postulates are the assumptions which are obvious universal truths. They are not proved. 3. Theorems are statements which are proved, using definitions, axioms, previously proved statements and deductive reasoning. 4. Some of Euclid's axioms were : (1) Things which are equal to the same thing are equal to one another. (2) If equals are added to equals, the wholes are equal. (3) If equals are subtracted from equals, the remainders are equal. (4) Things which coincide with one another are equal to one another. (5) The whole is greater than the part. (6) Things which are double of the same things are equal to one another. (7) Things which are halves of the same things are equal to one another 5. Euclid's postulates were : Postulate 1 : A straight line may be drawn from any one point to any other point. Postulate 2 : A terminated line can be produced indefinitely. Postulate 3 : A circle can be drawn with any centre and any radius. Postulate 4 : All right angles are equal to one another.	• Assignment Introduction to Euclid's Geometry • Discussion of Scoring Points/ Marking Scheme/Sample Questions

Month **Topic**	**Sub Topic**	**Miscellaneous**
Topic: Areas **No. of** **Periods**:	Area of a triangle using Heron's formula (without proof)	• Assignment Areas • Discussion of Scoring Points/ Marking Scheme/Sample

04		Questions.
AUGUST **Topic**: Triangles **No. of periods**: 20	1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence). 2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence). 3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence). 4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence) 5. (Prove) The angles opposite to equal sides of a triangle are equal. 6. (Motivate) The sides opposite to equal angles of a triangle are equal. 7. (Motivate) Triangle inequalities and relation between ‘angle and facing side' inequalities in triangles.	• Lab Activity Verify different criteria for congruency of triangle • Assignment Triangles • Discussion of Scoring Points/ Marking Scheme/Sample Questions
SEPTEMBER **Topic:** Statistics **No of periods:** 13	1. Introduction to Statistics: Collection of data, presentation of data — tabular form, ungrouped / grouped, bar graphs, histograms (with varying base lengths), frequency polygons. Mean, median and mode of ungrouped data	• Lab Activity Draw histogram for **classes** of equal widths and varying widths • Assignment Statistics • Discussion of Scoring Points/ • Marking Scheme/Sample Questions

OCTOBER **Topic:** Quadrilaterals **No. of Periods:** 10	2. (Prove) The diagonal divides a parallelogram into two congruent triangles. 3. (Motivate) In a parallelogram opposite sides are equal, and conversely. 4. (Motivate) In a parallelogram opposite angles are equal, and conversely. 5. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal. 6. (Motivate) In a parallelogram, the diagonals bisect each other and conversely. 7. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and in half of it and (motivate) its converse.	• Lab Activity verify that sum of opposite angles of cyclic quadrilateral is 360° • Assignment Quadrilaterals • Discussion of Scoring Points/ Marking Scheme/Sample Questions
Topic: Constructions **No. of** **Periods:** 10	1. Construction of bisectors of line segments and angles of measure 60^o, 90^o, 45^o etc., equilateral triangles. 2. Construction of a triangle given its base, sum/difference of the other two sides and one base angle. Construction of a triangle of given perimeter and base angles **Half Yearly Examination**	• Assignment Constructions • Discussion of Scoring Points/ Marking Scheme/Sample • Questions
NOVEMBER **Topic**: Area **No. of Periods:** 07	**Review concept of area, recall area of a rectangle.** 1. (Prove) Parallelograms on the same base and between the same parallels have equal area. 2. (Motivate) Triangles on the same base (or equal bases) and between the same parallels are equal in area.	• Assignment Area • Discussion of Scoring Points/ Marking Scheme/Sample Questions

Month **Topic**	**Sub Topic**	**Miscellaneous**

Topic: Circles **No. of Periods:** 15	Through examples, arrive at definition of circle and related concepts-radius, circumference, diameter, chord, arc, secant, sector, segment, subtended angle. 1. (Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse. 2. (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord. 3. (Motivate) There is one and only one circle passing through three given non-collinear points. 4. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely. 5. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle. 6. (Motivate) Angles in the same segment of a circle are equal. 7. (Motivate) If a line segment joining two points subtends equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle. 8. (Motivate) The sum of either of the pair of the opposite angles of a cyclic quadrilateral is 180° and its converse. **Periodic Test - 3**	• Lab Activity Verify that angles in the same segment are equal • Assignment Circles • Discussion of Scoring Points/ Marking Scheme/Sample Questions
DECEMBER **Topic:** Surface Areas and Volumes **No of periods:** 12	Surface areas and volumes of cubes, cuboids, spheres (including hemispheres) and right circular cylinders/cones.	• Lab Activity Find the formula for finding area and volume of objects • Assignment Surface Areas and Volumes • Discussion of Scoring Points/ Marking Scheme/Sample Questions

December	
January	**Revision**
February	**Annual Examination**

DELHI PUBLIC GLOBAL SCHOOL

Annual Pedagogical Plan of Social Science (Session: 2024-25)

Class IX

Teacher's Name: Habiba Maryam

Book prescribed: NCERT

MONTH	Chapter name	Activity	Oral Work	Written work
APRIL	**Ch 1(Geography): India - Size & Location** • Location • Size • India and the World • India's Neighbours	**ICT** • India – Size and Location	Discussion on Ancient sea route and Silk route	Question Answers and book work
	Ch 1(Civics): What is Democracy? Why Democracy? • What is Democracy? • Features of Democracy • Why Democracy? • Broader meaning of Democracy	**Expression Series** Organizing a Debate on Positive and negative aspects of Democracy.	Discussion on whether democracy is the best form of government or not'	Question Answers and book work
	Ch 1(Economics): The Story of Village Palampur • Overview • Organization of production • Farming in Palampur	**Experiential Learning** Discussion on topic "Current situation of farmers in India during the lockdown".	Dependency of Indian Economy on agriculture	Question Answers and book work

	• Non-farm activities of Palampur			
	Ch 1(History): The French Revolution • French Society During the Late Eighteenth Century • The Outbreak of the Revolution • France Abolishes Monarchy and Becomes a Republic • Did Women have a Revolution? • The Abolition of Slavery • The Revolution and Everyday Life	**Art Integration** Make a timeline of the important events of French Revolution. **ICT** The French Revolution.	Discussion on 'the condition of third estate.	Question Answers and book work
MAY	**Ch 2(Geography): Physical features of India** • Major Physiographic Divisions • The Himalayan Mountains • The Northern Plains • The Peninsular Plateau • The Indian Desert • The coastal Plains The Islands	**Art & Integration** Map work "Mark the physical features of India"	Discussion about the major landform features and their association with various rocks and minerals as well as nature of soil types.	Question Answers and book work
JULY	**Ch 2(Civics): Constitutional Design** • Constitution in South Africa • Why do we need a Constitution? • Making of the Indian Constitution • Guiding Values of the Indian Constitution	**Experiential Learning** Making of Preamble **Skill Education & Activity** Discussion on comparison among the constitution of various democratic countries.	Discuss the process of Constitution making.	Question Answers and book work
	Ch 2(History): Nazism & the rise of Hitler • Birth of the Weimar Republic • Hitler's Rise to Power	**Story telling** How would you have reacted to Hitler's ideas if	Discuss the critical significance of Nazism in shaping the politics of modern world.	Question Answers and book work

	• The Nazi Worldview • Youth in Nazi Germany • Ordinary People and the Crimes Against Humanity	you were (a) Jewish woman (b) Non Jewish woman.		
	Ch 2(Economics): People as Resource • Overview • Economic activities by men and women • Quality of Population • Unemployment	**Experiential Learning** Students to find out the different types of unemployment found in Moradabad. Presentation of any two types of Unemployment found here in the form of a talk show.	Discussion on the importance of health and education in formation of human resource.	Question Answers and book work
AUGUST	**Ch 3(Civics): Electoral Politics** • Why Elections? • What is our System of Elections? • What makes elections in India democratic?	**Experiential Learning** Students are required to form a Political Party and Name it. -Choose a Political Symbol and draw it. -Preparing of Manifesto -Frame Plan and Policies of their party post elections.	Debate on 'Challenges to conduct free and fair elections in India'.	Question Answers and book work
	Ch 3(Geography): Drainage • Major rivers and tributaries • Lakes • Role of rivers in the economy • Pollution of rivers	**Art Integration** Make a list of Natural and Artificial lakes with the help of Atlas	Discussion about the role of rivers in the human society.	Question Answers and book work
	Ch 3(History): Forest Society and Colonialism • Why Deforestation? • The Rise of Commercial Forestry	**Skill Education & Activity**	Discussion on 'Colonial forest laws and deforestation in India'.	Question Answers and book work

	• Rebellion in the Forest • Forest Transformations in Java	Discussion about the impacts of deforestation and Industrialization.		
SEPTEMBER	**Ch 4(Civics): Working Of Institutions** • How is the major policy decision taken? • Parliament • Political Executive Judiciary	**ICT** Presentation on the Powers of President, Prime Minister, Parliament and Judiciary.	Discussion on powers and function of Parliament.	Question Answers and book work
OCTOBER	**Ch 5(Geography): Natural Vegetation and Wildlife** • Factors affecting Vegetation • Vegetation types • Wild Life Conservation	**Experiential Learning** Plant a tree either on your birthday or one family member's birthday. Note the growth of the tree and notice in which season it grows faster.	Discussion on endangered species of wildlife and make a presentation on ways of conserving them.	Question Answers and book work
	Ch 4 (Geography): Climate • Concept • Climatic Controls • Factors influencing India's climate • The Indian Monsoon • Distribution of Rainfall Monsoon as a unifying bond	**Art Integration** Collect photographs of typical rural houses and clothing of people from different regions of India. Examine whether they reflect any relationship with the climatic condition and relief of the area.	Discussion on the importance and unifying role of monsoons.	Question Answers and book work
NOVEMBER	**Ch 3(Economics): Poverty as A Challenge** • Two typical cases of poverty • Poverty as seen by Social Scientists • Poverty Estimates • Vulnerable Groups • Interstate disparities • Global Poverty Scenario	**Art Integration** Preparation of Graphs on Vulnerable groups of India and Inter-State Disparity	Discussion on whether COVID has increased or decreased the poverty rate	Question Answers and book work

	• Causes of Poverty • Anti-poverty measures • The Challenges Ahead			
	Ch 4(History): Socialism in Europe & the Russian Revolution • The Age of Social Change • The Russian Revolution • The February Revolution in Petrograd • What Changed after October? • The Global Influence of the Russian Revolution and the USSR	**Skill Education & Activity** Research and Group Discussion on Impact of Russian Revolution and emergence of socialism on Indian freedom fighters.	Discussion on Socialism versus Capitalism.	Question Answers and book work
DECEMBER	**Ch 6(Geography): Population** • Distribution • Population Growth and Process of Population Change	**Experiential Learning** Interview the children in your locality who are engaged as household helpers, laborer, etc. and narrate what you feel are the reasons for this.	Discussion on how to convert India's population into resource.	Question Answers and book work
	Ch 5 (Civics): Democratic Rights • Life without rights • Rights in a Democracy • Rights in the Indian Constitution • Expanding the scope of rights Life without rights • Rights in a Democracy • Rights in the Indian Constitution • Expanding the scope of rights	**Skill Education & Activity** Do you know what the minimum wage in your state are? If not, can you find out. Speak to 5 five people doing different types of work in your neighborhood and find out if they are earning the minimum wages or not.	Discussion on the expanding scope of rights.	Question Answers and book work

JANUARY	**Ch 4 (Economics): Food Security in India** • Overview • What is Food Security? • Why Food Security? • Who are food insecure? • Food Security in India • What is Buffer Stock? • What is the Public Distribution System? • Current Status of Public Distribution System	**Experiential Learning** Visit to a nearby ration shop and know more about PDS system.	Discussion on ways of ensuring food security in India.	Question Answers and book work

DELHI PUBLIC GLOBAL SCHOOL

Class IX (Session: 2024-2025)

Subject: Science

Book prescribed: Science NCERT

Month	Topic	Learning objectives/Skills to be developed	Art Integration/ Joyful learning/Activites	Practical/Investigatory Project/Case Studies	Experiential Learning/ Learning Outcome
APRIL	**CHAPTER 1** **MATTER IN OUR SURROUNDINGS** *Physical nature of matter. *Characteristics of particles. *States of matter. *Interconversion of matter *Factors that affect interconversion. *Evaporation and boiling.	**CONCEPT BUILDING** **Define** matter, latent heat of fusion and vaporization, boiling, melting point, sublimation, diffusion **List** the conditions necessary for evaporation. **Differentiate** i. solids, liquids and gases. ii. Evaporation and boiling **Demonstrate** that matter is made up of particles and the particles are tiny and characteristics of particles. **Describe** the effect of temperature and pressure on interconversion of matter. **Identify** various processes during change of states of matter. **Know** the units of temperature.	**GROUP ACTIVITY** Role Play activity to explain the forces of attraction between particles of different states of matter and explain their properties **JOYFUL ACTIVITIES:** 1.Warm up activity Matter is particulate and tiny 2. Finding melting and boiling point of water. 3. To prove that gases are highly compressible, 4 .Sublimation. **VIDEO TUTORIALS** https://www.youtube.com/watch?v=ahKVfILY1M0 Boiling point https://www.youtube.com/watch?v=OjElFVfHdWs&t=211s particles are		**Classify** matter into solids, liquids and gases. **Infer** that intermolecular spaces make diffusion possible. **Provide explanation** for the life situations that demonstrates effects of evaporation. **Analyse** the constancy of temperature during the change in states of matter. **Compare** the boiling points at sea level and higher altitude **Convert** kelvin to Celsius scale and vice versa. **Analyse** the use of adding salt at its freezing point. **find** melting and boiling point of water.

	CHAPTER 2 **IS MATTER AROUND US PURE?** *Pure and Impure substances *True solutions colloids and suspensions.	**Concept Building** **Differentiate** a) elements, compounds and mixtures b) homogeneous and heterogeneous mixtures c) true solutions, colloids and suspensions d) physical and chemical changes e) distillation and fractional distillation f) solubility and concentration of a solution g) different types of colloids **Solve** conceptual numericals. **Analyze** the conditions necessary to separate the constituents of air and for purification of water. **Segregate** different types of mixtures and **Learn** different techniques to separate them.	tiny https://www.youtube.com/watch?v=MrTxRn9MNWM&t=86s solids liquids and gases **Appreciate** the scattering of light by colloidal particles in darkroom and cinema halls. **Makes** butter from milk. **Admires** the use of naphthalene balls as an insect repellent. **Appreciates** the use of distilled water in invertors and car radiators **Apply** crystallization at home to obtain pure crystals from saturated solution. **Admires** the use of alum to purify muddy water. **VIDEO TUTORIALS** https://www.youtube.com/watch?v=6TS9qPuKRgI chromatography https://www.youtube.com/watch?v=WdCRrcfan44 Fractional distillation of air Homogeneous and heterogeneous	**Practical:** 1.Prepare true solutions, colloids and suspensions and distinguish between them 2.Preparation of a mixture and a compound 3.Separation of components of a mixture. 4.Classifying reactions into physical and chemical changes.	**Identify** elements, compounds and mixtures around them. **Relate** the nature of mixture to the appropriate method of separation and know their principle and applications. **Find** concentration percentage. **Analyze** that the impurities in water can be separated using different techniques depending upon the nature of the impurities present. **Identify** different types of colloids. **Analyze** the reasons to classify the mixtures into two solutions i.e., colloids and solutions. **Classify** the elements into metals, non-metals and metalloids. **Analyse** reasons for classifying reactions as physical and chemical changes.

MAY	**CHAPTER 3** **ATOMS AND MOLECULES** *Law of conservation of mass. *Law of constant proportion. *Atoms/molecules/ ions/polyatomic ions *Atomicity. *Valency *Writing chemical formulae *Molecular mass *Mole and molar mass.	**Concept Building** **State** the laws of chemical combinations. **List** the Dalton's Postulates and identify the drawbacks. Differentiate a. Atoms/Molecules/ Ions/Polyatomic ions/cations/anions b. Atomic number and mass number c. Atomic mass/molecular mass/molar mass d. Valency and valance electrons **List** the first 20 elements. **Recall** valencies. **Calculate** molecular mass **Identify** and write correct symbols of elements **Understand** mole concept **Solve** numericals based on mole concept	mixtures https://www.youtube.com/watch?v=t0iHbY9sjDc crystallization https://www.youtube.com/watch?v=Ag9Dym0Fwd0 fractional distillation https://www.youtube.com/watch?v=c40yPpQG8e0 purification of water https:// **Write** chemical formulae using symbols and valencies. **Gather** information of the elements present in food substances. **Collect** information of compounds present in soaps, cleaning agents etc. **Activities:** 1.To make a model of an atom / molecule. 2.To take a print out of modern periodic table and circle all the familiar elements. **VIDEO TUTORIALS** **https://www.youtube.com/watch?v=-wpTWZoyZsA** Dalton's postulates **https://www.youtube.com/watch?v=_lNF3_30lUE** size of atom		**Identify** atom, molecule, ion and radical by their symbols. **Analyse** that molecular mass is sum total of atomic masses. **Know** the first 20 elements and related data by heart. **Analyse** that mole is a measure of number of atoms, molecules or ions in a substance. **Read and write** correct chemical formula. **Know** the importance of atomic number. **Calculate** relate molecular of compounds. **Solve** conceptual numericals.

JULY **AUGUST**	**CHAPTER 4** **STRUCTURE OF THE ATOM** ***Subatomic particles * Thomson's Model *Bohr's model *Bohr and Bury rules for distribution of electrons. *Valency *Atomic mass/ atomic number *Isotopes and isobars. **CHAPTER 5** **THE FUNDAMENTAL UNIT OF LIFE** *Diffusion/osmosis *Permeability/semi- *Permeability/non-permeability *Tonicity of solution *Hypotonic/hypertonic/isotoni	**Know** the steps to write a chemical formula. **Concept Building** **Know** the different constituents of an atom and differentiate between them. **Explain** Thomson's model of an atom. **Comprehend** Rutherford's expt. Observation, conclusions and nuclear model. **Analyze Rutherford's** drawbacks. **State** the postulates of Bohr's model. **Comprehend** the reasons for distribution of electrons in different shells. **distinguish** isotopes and isobars **Concept Building** **Know and understand** the structural organization of the cell. **Recognize** the role and importance of various organelles. **Analyze** the functions of cell	**Appreciate** the method of finding the age of carbon-based materials. (carbon dating) **Admire** the use of static electricity in day-to-day applications. **ACTIVITIES:** 1.Make a chart of first twenty elements. Thomson model **VIDEO TUTORIALS** https://www.youtube.com/watch?v=lLwnACfo7hY Rutherford model https://www.youtube.com/watch?v=1EdTw4I6L0U part 2 https://www.youtube.com/watch?v=B-k_kMwB1zM **Identify** that water is released from salads when salt is sprinkled. **Interpret** that raisins/gram/kidney beans swell when soaked in water. **analyze** why salt is added at the beginning of cooking curries. : **obedience** as all organelles obeys. **Identify** that cuts and wounds are healed by cell division. **Relate** the importance of saline	**Practicals** 1.To observe the structure of onion peel cells. 2.To observe the structure of cheek cells. 3.To study osmosis with	**Understand** the concept ofstructural organization of cell. **Identify** the different parts of microscope. **Describe** the various parts of nucleus. **Categorize** cells as unicellular and mulicellular. **Realize** the importance of stains while preparing slides. **Differentiate** between prokaryotes and eukaryotes.

	c solutions *Plasmolysis *Prokaryotes and eukaryotes *Division of labor *Cell division	membrane/cell wall with reference to their importance in vital role of life. **Explore** their critical thinking by studying the permeability concepts. **Evaluate** the different types of tonicity depending upon the concentration of solute and solvent. **Justify** the concepts of osmosis and diffusion with real life examples **Enhance** the ability to **comprehend** the role and importance of different organelles present in the cell. **Explain** about the flexibility of cell membrane and its significance with the example of virus which they correlate with the recent pandemic caused by viruses.	solution which giving injection to humans. **Activity 1**: draw a simple cell on an inflated balloon with a marker, deflate it and again inflate slowly. This is how a cell enlarges in size. **Activity-2** to observe the different parts of microscope **Activity-3** to find the similarities and dis-similarities between different cells with the help of diagrams/collage. **VIDEO TUTORIALS** https://www.youtube.com/watch?v=wMgXsrpVrJg&t=306s – onion and cheek cells experiment. https://www.youtube.com/watch?v=SSS3EtKAzYc&t=9s hypotonic, hypertonic solutions experiment.	the help of an egg. 4.To observe plasmolysed cells under microscope. **Practicals:**	**Explains** functions of different organelles. **Describes** discovery of cell with invention of microscope.

	CHAPTER 6 **TISSUES** **Plant tissues:** *Meristematic *Permanent *Simple *Complex **Animal tissues:** *Epithelial *Connective *Muscular	**Concept Building** **Understand** the location and structural organization of different tissues. **Enhance** the ability to **analyze** the role and importance of different tissues present in plants and animals. Make them **share** their opinions on simple/complex tissues. **Evaluate** different functions of tissues depending on their location and structure. **Differentiate** between i. cell and tissue ii. simple and complex tissue iii. parenchyma, collenchyma and sclerenchyma iv ligament and Tendons. **Identify** the characteristic difference between earlier	**Identify** that obesity is due to adipose tissue which stores fat in our body. **Analyze** pumping of heart, jumping of frog and movement of different organs involve movement of voluntary and involuntary muscles organs. **Interpret** that sprain /fatigue is due to lactic acid built up in muscle tissues. **Understand** the different organizational levels of living things. **VIDEO TUTORIALS** https://www.youtube.com/watch?v=9hDLnGtfc7M&t=20s – overall tissues of plants https://www.youtube.com/watch?v=P3714_a3l0w&t=28s – epithelium tissue https://www.youtube.com/watch?v=sfNBe9jCsT4 – muscular tissue https://www.youtube.com/watch?v=DebIq3fEBVo – connective tissue https://www.youtube.com/watch?v=NsBaPtemAjs&t=15s – nervous tissue	1.Activity with spring onions (observing the growth of their root tip). 2.Preparing a temporary mount of leaf peel to observe stomata. 3.Observing various permanent slides of plant and animal tissues. 4.Observing the TS of stem, to observe the arrangement of cells.	**Differentiate** the different types of tissues and their coordination to carry out the function of the body(plant and animal) effectively. **Define** what a tissue is and **classify** various types of plant tissues.

SEPTEMBER	CHAPTER 7 **DIVERSITY OF LIVING ORGANISMS:** *Classification and evolution *The hierarchy of classification groups *Plantae and Animalia *Classification of plants *Classification of animals	evolved and later evolved living beings. **Analyze** the basis for classification of organisms into kingdoms and name the various levels in a kingdom. **Examine** the characteristic criterion between the five kingdoms (monera, protista , fungi, plantae and animalia) and categorise species into a particular kingdom on this basis. **Differentiate** a.Rest / motion b.Distance /	JOYFUL LEARNING **Activities:** Group activity: 1.Collection of things in the vicinity and classifying them 2.Supermarket grouping of items 3.Comparison of a desi cow with jersey cow. 4.Carousel activity. 5.MNEMONICS to remember for hierarchy: 6.Write flash cards with division names and characteristics are distributed to students. Now the student with division name has to pair up with their respective characteristics. **Skit**- Enacting in the form of a skit. Students with different characteristics come in front of the class and narrate their body features. Students have to identify that particular phylum they belong to. **Introduction to classification**: https://www.youtube.com/results?search_query=taxonomy+and+the+tree+of+life https://www.youtube.com/watch?v=llIpKRFcVyQ&t=162s https://www.youtube.com/watch?v=R61GoO8j048 **Classification and evolution** https://www.youtube.com/watch?v=HbZsqLQUKec/watch?v=Kq6faK3XHuM **Activities:**		**Create** an activity on Whittaker's five kingdom classification of organisms. **Identify** the basis of classification-concrete examples of characteristics used for hierarchical classification. **Analyze critically** various organisms that belongs to the division or phylum assigned to them. **Explain** the classification of invertebrate and vertebrates.

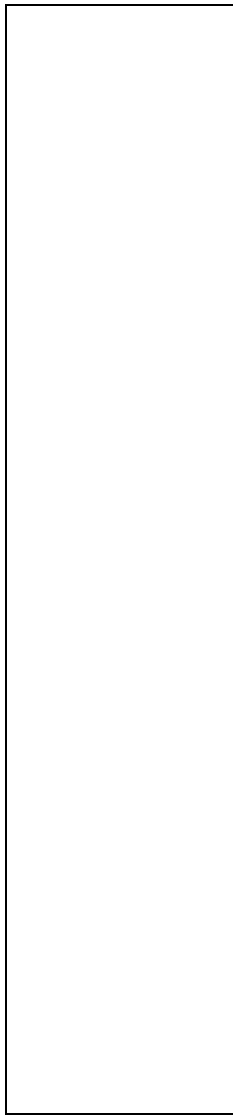
	CHAPTER 8 **MOTION** *Rest/motion *Scalar/vector *Distance/displacement *Speed/velocity *Acceleration *Equations of motion. CHAPTER 9 **FORCE AND LAWS OF MOTION.** *Balanced and unbalance forces. *First law of motion *Second law of motion. *Third law of motion**.** *****Consevation of momentum	Displacement c. Speed / Velocity Average speed / average velocity d. Uniform acceleration / non-uniform acceleration. e. scalar and vector quantities. **Derive** equations of motion graphically. **Explain** uniform circular motion. **Know** the units of physical quantities **State** First and Second law of motion. **Derive** mathematical formulation of the law F=p2-p1/t	1.To measure distance and displacement. 2.Record the values of distance covered and speed of their respective vehicles by the help of odometer and speedometer. 3.To identify different types of motion in everyday life**.** rest and motion **Appreciates** the use of seat belt to prevent injuries. **Activities:** 1.Striking a pile of carom coins. 2.Striking a five-rupee coin, placed on card board. 3.Turning around holding A tray of water. https://www.youtube.com/watch?v=B6mi1-YoRT4 force https://www.youtube.com/watch?v=LEHR8YQNm_Q first law of motion https://www.youtube.com/watch?v=erghLWXDScI FIRST LAW ILLUSTRATIONS second law https://www.youtube.com/watch?v=BlgPnnwUNOQ III LAW https://www.youtube.com/watch?v=		**Apply** the knowledge of speed and velocity to solve numerical. **Identify** accelerated and non-accelerated motion in a body and reasons out for the same. **analyze** the possibility to relate velocity, acceleration, distance and time by a set of equations. Example:- $S=ut+1/2\ at^2$ **Illustrate** and explain the day-to-day applications of Newton's laws **Analyses** the effects of force. **Analyses** the effects of friction. **Solve** the conceptual numerical. **Know** the SI units and other units of force and momentum. **Applies** the conservation of momentum in day-to-day life.

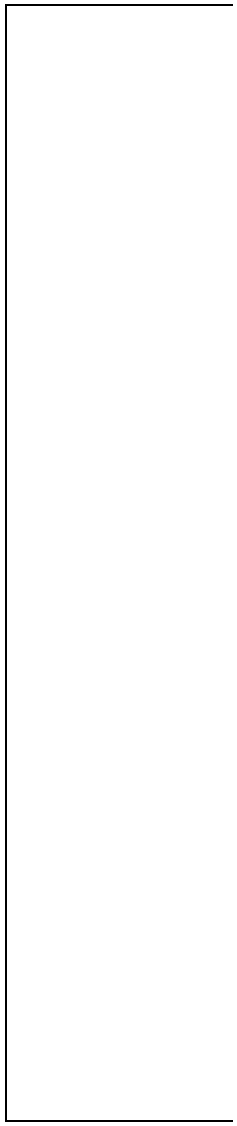
OCTOBER	**CHAPTER 10** **GRAVITATION** *Introduction to Gravitation. *Universal law of gravitation. *Free fall *Mass and Weight *Thrust and pressure *Pressure in fluids. **CHAPTER 11** **WORK AND ENERGY** *Scientific conception of work/ units/ types *Energy/ units/ Potential and kinetic energy. *Interconversion of energy. *Conservation of energy. *Power/units	**Differentiate** a. Force and gravitational force b. Acceleration and acceleration due to gravity c. Mass & Weight d. Buoyant force and weight **Derive** the expression for gravitational force. **Know** the value of gravitational constant (G) and also its units **Find** the value of g on the earth. **Differentiate** force and pressure. **Define** Archimedes principle. **Differentiate** density and relative density. **Derive** an expression for work – W = F x S **Understand** scientific conception of work. **Know** the units of work. **Define** energy. **Derive** an expression for kinetic energy and potential energy. **State** the law of conversion of energy.	BCnWQrXoHeo i, ii, iii laws illustrations. **ACTIVITIES:** 1.Whirling a stone tied to a thread and note the direction of motion of the stone. 2. Dropping a stone and paper from a certain height and make observations. 3.Checking the elongation of a rubber string due to weight of a stone, in air and water using spring balance. **Activities:** 1.Lifting an object and identifying the type of work done. 2.Comparing the depth of the depressions created in the sand bed when objects are dropped from different heights.		**Interpret** reasons for planetary motion and importance of gravitational force. **Analyze** the factors that affect acceleration due to gravity. **Analyze** the factors that affect weight of the bodies **Analyze** the factors that affect buoyant force. **Analyse** the criterion to classify the work as positive, negative or zero and gives illustrations. **Identify** potential energy and kinetic energy in bodies.

NOVEMBER	*Commercial units of energy. **CHAPTER 12** **SOUND** *Production of sound *Propagation of sound. *Medium for propagation *Longitudinal and transverse waves. *Characteristics of a sound wave. *Reflection of sound. *Echo **CHAPTER 13** **WHY DO WE FALL ILL?** *Significance of health *Distinctions between healthy and disease free. **Disease and its causes:** *What does disease looks like? *Acute and chronic diseases *Chronic diseases and poor health. *Causes of diseases *Infectious and Non-infectious diseases. **Infectious diseases:**	**Define** a. frequency b. amplitude c. velocity d. wave length e. time period **Differentiate** a. Transverse and longitudinal wave b. Infrasonic/ultrasonic waves c. Echo and reverberation. **Understand** the requirements for being 'healthy', and thus differentiate between healthy, unhealthy & disease-free human body. **Infer** 'symptoms' and 'signs' of falling ill, in order to identify a disease **Identify** acute and chronic diseases, in order to develop a better plan for recovery **Identify** different causes/ agents for the diseases in order to prevent & cure them **Predict** how a disease (communicable) spreads in order to prevent it from affecting others.	**Activities:** 1.To prove that only vibrating objects produce sound using a tuning fork. 2.To verify the laws of reflection of sound. 3.Determination of the speed of a pulse propagated through a stretched string. https://www.youtube.com/watch?v=5U3ML-VfHVQ Structure of ear https://www.youtube.com/watch?v=pWe-BXOhldQ characteristics of sound wave https://www.youtube.com/watch?v=yZty_W8ySng uses of ultra sound **Activities:** 1.Warm up quiz on Corona 2.Find out what provisions are made by your local authority (GHMC) for the supply of clean drinking water. 3.Students are divided in to various groups and given the task of preparing PPT. on various diseases which includes: disease name, causative agent, symptoms, modes of spread, prevention and treatment. 4.Find out the measures that are taken in your locality about rabies vaccine i.e to control rabies. 5.Find out the various vaccines that you have taken so far(during childhood) from your parents.		**Infer** that sound is produced due to vibration of different objects. **Generalise** that sound travels as successive compressions and rarefactions in the medium. **Relate** frequency, amplitude of a sound wave to determine its loudness and frequency. **Relates** processes and phenomena with causes and effects, such as, symptoms with diseases and causal agents . **Applies** scientific concepts in daily life and solving problems, such as, takes preventive measures to control disease causing agents, etc.

DECEMBER	***Infectious agents** *Means of spread *Organ-specific and tissue-specific Manifestations *Principles of treatment *Principles of prevention **CHAPTER 14** **NATURAL RESOURCES** *Components of biosphere *The role of the atmosphere in climate control. *Importance of water *Water pollution * Air Pollution *Factors that help in formation of soil *Soil erosion *Methods of preventing soil erosion.	**Identify** causes of a disease, and use adequate medicines for cure. **Tabulate** the composition of air around us & their role, in order to understand role of atmosphere in climate control **Comprehend** how air moves, in order to explain winds heating of land & water in order to explain process of raining **Enlist reasons** for air pollution in order to prevent them and keep air clean **List** down uses & distribution of water, in order to efficiently use it around the world.	Immunization chart if available stick in your class work. Link 1: https://www.who.int/diseasecontrol_emergencies/publications/idhe_2009_london_inf_dis_transmission.pdf Link 2: https://www.youtube.com/watch?v=bB_Pk0Wr1Zg&t=130s Link 3: https://www.youtube.com/watch?v=36WwOX1yFqQ&feature=youtu.be Link 4: https://www.mohfw.gov.in **Activities:** 1. To show land gets hotter than water and air. 2.Formation of clouds 3.Formation of air currents 4.Composition of soil 5.Soil erosion		**Learn** to read and write the meaning of the key terms. **Appreciate and justify** the importance of different natural resources collaboratively **Understand** and **Classify** the resources present on Earth and ways to save them in order to protect our planet. **Brings awareness** of pollution of air and water and takes appropriate measures to prevent it.

	CHAPTER 15 **IMROVEMENT IN FOOD RESOURCES** *Improvement in crop yields *Crop variety improvement *Inter varietal *Interspecific *Intergeneric *Genetically modified crops *Factors affecting crop variety improvement.	**Recognize** growth needs of different crops like temp., in order to produce them effectively**.** **Analyse** ways of growing crops in order to maximize yield**.** **Compare** Kharif and Rabi crops on the basis of their climatic conditions, temp. and photoperiods for their growth. **Acknowledge** management of crop production by fertilizers, manures, irrigation facilities and cropping patterns.	**Activities:** **1**.Make a herbarium of cereals, pulses and oil seeds and identify the seasons of their sowing and harvesting. **2**.Visit a livestock farm. Note the following: (1) Number of cattle and number of different breeds. (2) The amount of daily milk production from the different breeds. **3**.Visit a fish farm in fish breeding season and note the following: (1) Varieties of fish in the ponds (2) Types of ponds (3) Feed ingredients being used in the farm (4) Find out what the production capacity of the farm is.		**Identify** importance of food and food products. **Identify** the reason/factors for which crop variety improvement is done. **Analyze** animal husbandry practices that benefit the farmers.





Delhi Public Global School

2024-2025

Annual pedagogical plan

Class- 09th

Subject – Urdu

	ماہ	حِصّہ نثر	حِصّہ نظم	تدریسی سرگرمیاں	عملی کام
۱	اپریل	راجیندر سنگھ بیدی (بھولا) سعادت حسین منٹو (نیا قانون	غزل: سودا، بہار بے سپر جام ویار گزرے ہے، نظم: اکبر الہ آبادی، جلوہ دربارِ دہلی رباعی: انیس: گلشن میں پھروں کہ سیر صحرا دیکھوں	الفاظ معنی، سوالات کے جوابات، آشعار کی تشریح، سبق کا خلاصہ، راجیندر سنگھ بیدی سعادت حسین منٹو کا تعارف پیش کیجیے، (قواعد) واحد جمع الفاظ مُترادفات، الفاظ متضاد، محاوروں کا جملوں میں استعمال، اسم کی تعریف، اسم کی قسمیں	طلبا کو آڈی ٹوریم میں تعارف پیش کروایا جائے گا
۲	مئی	حیات اللہ انصاری (بھیک) الطاف حسین حالی سرسید کا بچپن	غزل: ذوق، لائی حیات اُے، قضا لے چلی، چلے نظم: اکبر الہ آبادی رباعی: انیس، گلشن میں پھروں کہ صحرا دیکھوں	الفاظ معنی، سوالات کے جوابات، آشعار کی تشریح اضمیر کی اقسام مضمون، چھٹی کی درخواست	کلاس میں سرسید پر اظہارِ خیال کیجیے

۳	جولائ	محمد مجیب: آزمائش سید عابد حسین چوری اور اس کا کفارہ	غزل:شاد عظیم آبادی ،ڈھندوگے ہمیں ملکوں ملکوں نظم: جوش گرمی اور دیہاتی بازار رباعی: تلوک چند:فترت کی دی ہوئ مُسرّت	الفاظ معنی، سوالات کے جوابات، سید عابد حسین کا تعارف، اضافت اور قافیوں کا استعمال، فعل کی اقسام ، مضمون، خط بڑے بھائ کا چھوٹے بھائ کے نام، والد کا خط بیٹے کے نام	مُقابلہ مز مضمون نگاری
۴	اگست	سر سید احمد خاں ،عورتوں کے حقوق، مولوی عبد الحق، مخلوط زبان	غزل: فانی: دنیا میری بلا جانے مہنگی ہے یا سستی ہے، نظم: اودیس سے آنے والے بتا، روباعئ تلوک چند محروم فطرت کی دی ہوئی مسّرت کھو کر	الفاظ معنی، سوالات کے جوابات، آشعار کی تشریح،لاحقے سابقے، ہم معنی الفاظ، اردو زبان کی اہمیت	---------- -
۵	ستمبر	آل احمد سرور: چکبست لکھنوی انشا	غزل:اصغر گونڈوی، آلام روزگار کو آساں بنادیا، نظم: کیفی آعظمی، آندھی	سوالات کے جوابات، الفاظ معنی، اشعار کی تشریح ،اسباق کے خلاصے	کوویز پروگرام

٦	اکتوبر	محمد اسلم پرویز ماحول بچائے	رباعی: فراق، ہر عیب سے مانا کے جدا ہو جاے	سوالات کے جوابات، الفاظ معنی آشعار کی تشریح، اسباق کے خلاصے	
۷	نومبر	بچوں کی پریشانیون کا حل، امتحان کی تیاری	----------	----------	----------

APP FOR THE SESSION (2024-25)

Class - 9 **Subject art** **Teacher's Name UMA SHUKLA**

Chapter name	No. of Periods	Activity	TEACHING METHOD	Completion Status
1- NATURE STUDY	(APRIL)	USING OIL PASTAL	EX LEARNING	COMPLETED
2- DIFFERENT TYPES OF STICHES	(MAY)	ONE FLOWER ON HANDKERCHEIF WITH CHAIN STICHES	JOY FUL	COMPLETED
3- TUG THE BUTTON	(MAY)	TUGGING BUTTON ON SHIRT	JOY FUL	COMPLETED
4- ROSE WITH WATER WATER	(JULY)	DECORATE DIFFERENT TYPES OF FLOWERS ON SOFT BOARD	NATURE STUDY	COMPLETED
5- HIBICUS WITH POSTER COLOURS	(JULY)	COLLECT KNOWLEDGE AND WRITE 4 LINE UNDER THE PAINTING	NATURE STUDY	COMPLETED
6- PAINTING ON SAVE ENERGY	(AUG)	DECORATE SOFT BOARD	ENVIRONMENT	COMPLETED
7- SALT TEXTURE	(AUG)	MAKE ENVELOPE WITH THIS TEXTURE	EX LEARNING	COMPLETED
8- LANDSCAPE ON PLYWOOD SHEET	(SEP)	PAINT ONE WOOD PENHOLDER	NATURE STUDY	COMPLETED

9- PREPARE PAINTING ON SAVE ENERGY COMP	(OCT)	DECORATE A OLD BULB WITH POSTER COLOUR	ENVIRONMENT	COMPLETED
10 -PAINTING FOR SWACHCH BHARAT MISSION	(NOV)	CLEAN ART ROOM	ENVIRONMENT	COMPLETED
11- TREE WITH INK PEN	(DEC)	DECORATE SOFT BOARD WITH SAVE TREE	ENVIRONMENT	COMPLETED
12-LANDSCAPE WITH INK PEN	(JAN)	STUDENTS WRITE THEIR NAME WITH BEAUTIFUL CALLIGRAFY	NATURE	COMPLETED
13- STILL LIFE WITH 2B,4B,6B	(FEB)	MAKE BOADER WITH 6B PANCIL N DECORATE YOUR SOFT BOARD	EXPER	COMPLETED