KENDRIYA VIDYALYALAYA SANGATHAN
NEW DELHI

COMPETENCY BASED LESSON PLANS IN ACCORDANCE WITH NEP 2020

CLASSES XI & XII 2024-25

KVS, ZONAL INSTITUTE OF EDUCATION AND TRAINING
MYSORE

COMPETENCY BASED LESSON PLANS IN ACCORDANCE WITH NEP 2020

PATRON

Ms. MENAXI JAIN

Deputy Commissioner &

Director, ZIET Mysore

COORDINATOR

Mr. RAJENDRAN

Training Associate (Eng)

ZIET Mysore

DIRECTOR'S MESSAGE……

It gives me immense pleasure in presenting this comprehensive compilation of Competency-Based Lesson Plans designed in alignment with NEP 2020 by a team of teachers. These lesson plans mark a significant step towards transforming education by focusing on student-centric learning approaches where understanding and applying knowledge supersede rote memorization.

Competency-based education (CBE), as outlined in the NEP, prioritizes skills over content, allowing students to develop their skills accommodating different learning styles and paces. The lesson plans follow an organized approach, with each lesson plan focusing on distinct competencies related to real-life skills and knowledge.

The implementation of these plans is anticipated to bring about a vibrant shift in the classrooms moving away from traditional lectures to dynamic learning environments where students participate, interact, and grow.

It is with pleasure that I place on record my commendation for the commitment of the team of dedicated teachers and Principals as Convenors from the four Feeder Regions namely Bangalore, Chennai, Ernakulum and Hyderabad and all the Training Associates of ZIET Mysore for their sincere efforts in making this possible.

I am confident that this compilation of sample lesson plans will help teachers to gain a deep understanding of their subject, develop essential life skills and promote curiosity and inquiry-based learning.

Best wishes and regards

(Menaxi Jain)
Director

LIST OF TEACHERS/HMs and PRINCIPALS FOR PREPARATION OF SAMPLE COMPETENCY BASED LESSON PLANNING FOR CLASSES XI & XII 2024-25

Sl.No.	Name of the Principal/Teacher	Designation	Name of KV	Region	Class allotted for preparing Lesson Plan	Subject
1	Ms.Anjana S	Principal	KV NAD Aluva	Ernakulam	Convenor	English
2	Ms.Jyothi V N	PGT(Eng)	KV Adoor	Ernakulam	XI	
3	Mr.Appollo Arulraj	PGT(Eng)	KV Vijayanarayanam	Chennai	XII	
4	Mr.Rakesh Kumar Goyal	Principal	KV Dharwad	Bangalore	Convenor	Hindi
5	Dr.Jyoti Tiwari	PGT(Hindi)	KV Hebbal	Bangalore	XI	
6	Dr.Saroj Kumari Singh	PGT(Hindi)	KV DRDO	Bangalore	XII	
7	Mr. K P Sudhakaran	Principal	KV NO.1 CPCRI Kasaragod	Ernakulam	Convenor	Maths
8	Mr. V Eswaran	PGT(Maths)	KV Hebbal	Bangalore	XI	
9	Mr. Balaji	PGT(Maths)	KV Dharwad	Bengaluru	XII	
10	Mr.Gopi Krishna Gorinta	Principal	KV No.2 Kalpakkam	Chennai	Convenor	Physics
11	Ms.Ayushi Jain	PGT(PHY)	KV Dharwad	Bengaluru	XI	
12	Mr.Santosh	PGT(PHY)	KV Vijayanarayanam	Chennai	XII	
13	Mr.Yodha Prasad	PGT(PHY)	KV ISLAND Ground	Chennai	XI	
14	Mr.Sreekanth	PGT(PHY)	KV No. 2 Calicut	Ernakulam	XII	
15	Mr.Randheer Vannery	PGT(PHY)	KV PALAKKAD	Ernakulam	XII	
16	Mr.Jyothi Mohan N.V.	Principal	KV RB Kottayam	Ernakulam	Convenor	Chemistry
17	Mr.Sibu John	PGT (Chem)	KV Kollam	Ernakulam	XI	
18	Ms.Shyla P	PGT (Chem)	Port trust Kochhi	Ernakulam	XII	
19	Mr.Lakshmi Narayanan	Principal	KV Virudhunagar	Chennai	Convenor	Biology
20	Ms.Seeniamol M V	PGT(Bio)	KV Mysore	Bangalore	XI	
21	Mrs.P.Prabitha	PGT(Bio)	KV Chenneerkara	Ernakulam	XII	
22	Mr.Davinder Singh	Principal	KVChamaraja Nagara	Bangalore	Convenor	Computer Science
23	Ms.Ligina	PGT(CS)	KV No.2 Mangalore	Bangalore	XI	
24	Ms.Sonam Dutta	PGT(CS)	KV DRDO	Bangalore	XII	
25	Mr.Manpreet	Principal	KV NLC Neyveli	Chennai	Convenor	Informatics Practices
26	Ms.Anju Rani	PGT(CS)	KV OCF Avadi	Chennai	XI	
27	Ms.Beena J.Stuvert	PGT(CS)	KV Virudhunagar	Chennai	XII	

28	Mr.Mithilesh Kumar	Principal	BRBNMPL	Bangalore	Convenor	History
29	Mr.Surya Prakash Reddy	PGT(Hist)	KV MEG & Centre	Bangalore	XI	
30	Ms.Rekha Dall	PGT(Hist)	KV AFS Yelahanka	Bangalore	XII	
31	Mr.Suresh J.Babu	Principal	KV No.2 Trichy	Chennai	Convenor	Geography
	Ms.Asha Devi A.	PGT(Geo)	KV Pattom	Ernakulam	XI	
32	Ms.Asha L.R	PGT(Geo)	KV DGQA, Chennai	Chennai	XII	
33	Mr.N.Hari Prasad	Principal	KV NFC Nagar	Hyderabad	Convenor	Economics
34	Mr. P Veeresham	PGT(Eco)	KV NFC Nagar	Hyderabad	XI	
35	Dr. Santosh Roddawar	PGT(Eco)	KV Trimulgherry	Hyderabad	XII	
36	Mr. Kamlesh Rautela	Principal	AFS Bidar	Bangalore	Convenor	Accountancy
37	Ms. Isha Mahajan	PGT(Com)	KV 1 Jalahalli west	Bangalore	XI	
38	Mr. Narendra Verma;	PGT(Com)	KV Donimalai	Bangalore	XII	
39	Ms.Varsha Jain	Principal	KV ONGC Rajamundhry	Hyderabad	Convenor	Business Studies
40	M.Balaji	PGT(Com)	KV Vijaynagaram	Hyderabad	XI	
41	Mr.A.Satyanarayana	PGT(Com)	KV Waltair	Hyderabad	XII	
42	Mr.S G Dubey	Principal	K V CRPF Prayagraj	Varanasi	Convenor	Business Studies (Review)
43	Mr.Manoj Kumar Singh	PGT(Com)	KV NTPC Shaktinagar		XI & XII	
44	Ms.Neetu Pandey	PGT(Com)	KV Mankapur			

CLASS XI
LESSON PLANS

KENDRIYA VIDYALAYA SANGATHAN LESSON PLAN (CLASS XI) Date:

General Information:	
1. Name and Designation of the Teacher: 2. Class Section: XI SCIENCE 3. Subject**: ENGLISH** 4. Number of Enrolled Students: 5. Name of the Lesson: **"We're Not Afraid to Die if We Can All Be Together**	6. No. of Periods required: 06 7. Date of Commencement: 8. Estimated Time Period from: 9. Actual date of completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Reads the narrative non-fiction Identifies key details, Makes inferences, analyses events, characters and appreciates the impact of literary devices in prose Uses various types of vocabulary	Introduction Listening & Reading	Brainstorming (to relate to the story's theme of survival) 'A challenging moment in life where teamwork was crucial' Listen to the audio text and while listening to	Geography: Mapping the route taken by the family, and understanding the global geography involved in their voyage. Science (Physics): Discussion on how storms form at sea and	All Is Lost is a 2013 survival drama film written and directed by J. C. Chandor https://youtu.be/b-5oBQTiRH4?si=XsWfUJXZvkY_8QA7	Cloze gap exercise to check global comprehension While reading the text you must have seen how well prepared were they for the journey;	Conduct small group reading sessions for students struggling with comprehension. Use simpler texts to build their reading confidence and gradually	**Inclusive Practices** Differentiated Instruction: For learners with difficulties, provide simplified versions of the text or allow them to work in pairs for all tasks.

Analyses the structure and parts of words Uses grammatical structures accurately and appropriately Develops informational texts with appropriate research and structure	Reading aloud Narrative structure Use visual aids Group Discussion (small group)	the audio text, follow the text book carefully Read selected passages from the story, especially focusing on critical moments like the storm and the family's reaction Discuss how the first-person perspective enhances the emotional depth of the story Trace the family's route on a World Map Present a character analysis, focusing on leadership, courage, and unity of the assigned character (e.g., the narrator, the children, the wife)	the physics of sailing, Instruments used etc. Social Studies: Exploring the concepts of leadership, teamwork and crisis management. **Infusion of 21st Century Skills & Values:** Critical Thinking: Analyzing characters' actions in the face of adversity. Collaboration: Working in groups to discuss and analyse key elements of the text. Creativity: Storyboard activity encourages visualization and creative expression. Media Skills : Report writing	Abhilash Tomy Interview: The Man Who Defied Limits Of Human Endurance https://www.youtube.com/watch?v=SBz4bLMruoY	count the details/ objects, etc. Complete the table of problem solving using the tenets of problem solving procedure. Rewrite the given paragraph from the text from the point of view of a third person by using third person personal pronouns to find out which style of narration is more effective. Storyboard'Ship' terms as homonyms. Compound words with '-ship' with different connotations	increase difficulty. Slip tests, flashcards, interactive worksheets	Use audio aids for auditory learners and offer visual aids like storyboards for visual learners. Encourage peer tutoring where advanced learners assist struggling classmates. Highlight gender roles as depicted in the text –Mary and Sue

Writes items related to the workplace - formal reports for school magazines/events/processes/ or in local newspapers about events or occasions Develops familiarity with themes of perseverance and survival Expresses opinions, facts, arguments in the form of speech using a variety of accurate sentence structures Understanding of basic narrative techniques - first-person perspective in literature Understanding of Adventure and Survival Narrative	Art Integrated Learning Word power Note Making Reflective writing Guided writing	after a group discussion on his/her responses to the challenges faced Create a storyboard of the key events from the story, using images and short captions finding facts from the Internet, encyclopedia, and maps	Values: Promoting values of courage, family unity, and perseverance.		Label the parts of a yacht Locate Ile Amsterdam on the world map and prepare a brochure. Integrated Grammar Exercise Locate Ile Amsterdam on the world map/Google Earth. Study the topography and terrain. Collect information from the Internet and prepare a brochure. You are a reporter. You interviewed the narrator and his family and gathered information to write a report about the disaster		

Knowledge of Nautical Terms - sea navigation, boats, and terms related to sailing Awareness of concepts like bravery, teamwork, and facing fear in adversity, perseverance and survival		Converting sentences from direct to indirect speech and vice versa Using phrasal verbs in writing Researches information for writing a report & brochure Writes Subtitles based on the text			they encountered at sea. Write the report in 150-200 words with special emphasis on the courage displayed by the narrator. Reorder the jumbled subtitles for the different parts of the journey and prepare notes on each of them. 1 Atrocious weather 2 Setting sail 3 The painful Ordeal 4 Unusual heroism in the face of grave danger 5 Determination, Courage & Optimism pays in the end		

					6 Introduction 7 Face to Face with death 8 Ashore again 9 X-mas in the Indian Ocea Describe the impact of the following situation on the children. a. The first indication of impending disaster came at about 6 p.m., with an ominous silence. b. We were getting no replies to our Mayday calls.		

Comments/Suggestions on Lesson Plan

Comments/Suggestions on Lesson Plan

Signature of the Teacher

Signature of VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN
LESSON PLAN

General Information:

Date:

1. Name and Designation of the Teacher :
2. Class & Section : 11 A,B
3. Subject : Hindi
4. Number of Enrolled Students :
5. Name of the Lesson : **नमक का दारोगा**
6. No. of Periods required : 07
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
छात्र इस पाठ के माध्यम से "सत्यमेव जयते" जैसे आदर्श वाक्य को चरितार्थ होते देखेंगे|	'सत्य और ईमानदारी' पर चर्चा करके, कहानी के शीर्षक की व्याख्या करना।	**समूह चर्चा:** पाठ के मुख्य बिन्दुओं (धर्म/अधर्म,सत्य/ असत्य,ईमानदारी/ बेईमानी) पर चर्चा।	**इतिहास और संस्कृति से संबंध-** रामायण, महाभारत जैसे महाकाव्य के सन्देश की संक्षिप्त चर्चा कर पाठ से सम्बन्ध दिखाना।	प्रेमचंद का जीवन, उनकी लेखन शैली एवं पाठ की पावर पॉइंट प्रस्तुति।	**लिखित परीक्षण-** वंशीधर के नौकरी लेने के पश्चात् भी पंडित अलोपीदीन द्वारा अपनी संपत्ति का निरीक्षक बनाना क्या स्पष्ट करता है?	कमजोर छात्रों की पहचान कर उनकी पाठ संबंधी कमजोरियों का मूल्यांकन करना।	**अभिनय और नाट्य गतिविधियाँ:** विभिन्न शारीरिक क्षमताओं के छात्रों को शामिल करने के लिए रोल प्ले और नाट्य गतिविधियाँ।
सत्य और ईमानदारी के महत्व को समझेंगे और यह भी जानेंगे कि किस प्रकार नैतिक	छात्रों द्वारा पाठ का अनुकरण वाचन।	कहानी का नाट्य रूपांतरण एवं मुख्य घटनाओं का नाटकीय प्रदर्शन।	**साहित्य और समाज से संबंध-** साहित्य समाज का आईना होता है और प्रत्येक	ऑनलाइन संसाधन (जैसे- दीक्षा,	**समूह चर्चा-** वंशीधर के पिता द्वारा अपने पुत्र को भ्रष्टाचार की शिक्षा देना कहाँ तक	व्यक्तिगत ध्यान देना एवं पाठ के मुख्य बिन्दुओं का	**दृश्य-श्रव्य पाठ सामग्री का प्रयोग:** पाठ के विभिन्न पहलुओं को समझाने के लिए दृश्य

मूल्यों को जीवन में अपनाना आवश्यक है।			साहित्य(चाहे वह कहीं का भी हो, किसी भी भाषा का हो) समाज के यथार्थ से रूबरू कराते हुए नैतिक मूल्य को बनाये रखने की शिक्षा देता है।	विकिपीडिया, यूट्यूब)	युक्तिसंगत है? यह पिता की किस विवशता को दर्शाता है?	लिखित रूप से सारांश उपलब्ध कराना।	और श्रवण संसाधनों का उपयोग।
कठिन परिस्थितियों में भी धैर्य, साहस और ईमानदारी का साथ देना ही भारत देश की परम्परा रही है, इस तथ्य से अवगत होंगें।	कहानी का पटकथा में रूपांतरण। पात्र के चरित्र का मानचित्र बनाना।	**समूह चर्चा-**'वर्तमान परिस्थियों को देखते हुए बताइए कि बड़ी-बड़ी डिग्रियां ,न्याय विद्वता का क्या सही दिशा में उपयोग हो रहा है?'	**सामाजिक विज्ञान:** सत्य/ईमानदारी/धर्म/न्याय/नैतिकता और शासन पर चर्चा।	ऑडियो-विजुअल उपकरण	पाठ की समझ, शब्दावली और नैतिक मूल्यांकन पर ध्यान केंद्रित करते हुए बहुविकल्पी प्रश्न (वर्कशीट)।	उदाहरण द्वारा पाठ की अवधारणा का सरल भाषा में व्याख्यान प्रस्तुत करना।	**समूह कार्य:** विभिन्न क्षमताओं और पृष्ठभूमियों के छात्रों का समूह बनाकर उन्हें समूह कार्य के लिए प्रेरित करना।
	समूह गतिविधि: मुख्य पात्र (वंशीधर के पिता, वंशीधर और पंडित अलोपीदीन) के नैतिक गुणों का विश्लेषण।	कहानी के मुख्य पात्रों की चर्चा।	**कला-** कहानी का नाट्य रूपांतरण।		छात्रों द्वारा समूहवार प्रश्न मंच तैयार करवाना।	छात्र को पाठ संबंधी प्रश्न पूछने के लिए प्रोत्साहित करना।	**लैंगिक संवेदनशीलता की चर्चा:** कहानी के पात्रों और उनकी भूमिकाओं पर जेंडर संवेदनशीलता के दृष्टिकोण से चर्चा करना।
समाज की यथार्थ स्थिति से रूबरू होंगे।	कहानी का नाट्य रूपांतरण एवं मुख्य घटनाओं का नाटकीय प्रदर्शन।	कहानी के सामाजिक और राजनीतिक संदेशों पर समूह चर्चा।	**प्रेरक प्रश्न और विचार-विमर्श:** नैतिकता, सत्य और ईमानदारी पर प्रेरक प्रश्न पूछकर चर्चा करना।			पाठ संबंधी छोटे-छोटे अभ्यास प्रश्न देना एवं उनके उत्तरों का मूल्यांकन करना।	

	कहानी का वीडियो/फ़िल्म निर्माण।						

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

ज्योति Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher:
2. Class & Section: **XI**
3. Subject: **Mathematics**
4. Number of Enrolled Students:
5. Name of the Lesson: **Complex Numbers & Quadratic Equations**
6. No. of Periods required: **10**
7. Date of Commencement:
8. Estimated Time Period from: to
9. Actual date of completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
1. Extends the idea of real numbers to a larger system of complex numbers.	I. Inductive, II. Deductive and III.Problem solving 1. To understand and realize the need of	1. Represent Complex numbers in Argand diagram. 2. To find the conjugate of a complex number in Argand diagram	Argand plane is a kind of carteasian plane in two dimensions. Theory of equations. Exponential series, Trigonometric functions sine, cosine etc.. are	1. Basic: NCERT BOOK-Class-11-Mathematics 2. Videos of You tube channel - for demonstrating	1. Quiz while teaching a particular concept. 2. Ask student to complete the solution after initiation.	After Identifying individual learning weakness/difficulties, feedback through various assessment strategies, customized remedial teaching plan should be	Teacher should ensure all students feel respected, valued, and safe, regardless of their backgrounds, abilities, or identities. Teachers should encourage a variety of ideas and perspectives, and help

2. Power of Imaginary number “i” 3. Standard form of a complex number. 4. To identify Real and Imaginary part of a complex number. 5. Equality of two complex numbers. 6. Algebra of complex numbers 7. Conjugate of a complex number	complex numbers as real numbers system is not sufficient. 2.To provide a situation to find solution of an equation $x^2+x+1=0$. 3. Combination of real number and an imaginary number as complex number 4. Meaning of complex number in	3. To find the modulus of a complex number in Argand diagram.	infinite series. Understanding and accepting new theories/idea after thinking them logically.	geometrical meaning of each concept. 3. Wikipedia -to know the History of Complex Numbers and contribution of various mathematicians in the topic.	3. Framing MCQ to assess all learning outcomes. 4. HOTS level question to assess problem solving skill achieved among students. For Example; 1. The smallest positive integer n for which $\left(\frac{1+i}{1-i}\right)^n=1$ is ____ 2. $1+i^5+i^{10}-i^{15}$ is - 3. Prove that $\left(\frac{2+3i}{3+4i}\right)\left(\frac{\overline{2-3i}}{3-4i}\right)$	adopted, it may be re-teaching during or after school hours.	students develop a sense of belonging.

8.Multiplicative inverse of a complex number 9. Modulus of a complex number 10. Argand diagram 11. Find non real solutions of a quadratic equation.	Argand diagram. 5. Geometrical meaning of Modulus and conjugate of a complex number.				Is purely real. 4. If a+ ib = $\frac{c+i}{c-i}$ P.T $a^2+b^2=1$ and $\frac{b}{a}=\frac{2c}{c^2-1}$ 5. Find x, y if $\frac{(1+i)x-2i}{3+i}+\frac{(2-3i)y+i}{3-i}=i$ 6. Solve: $x^3-1=0$ 7. If 1+i is a root of the equation $x^2+ax+b=0$ a, b are reals, then find a+b.		

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

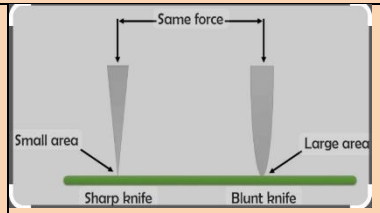
KENDRIYA VIDYALAY SANGATHAN

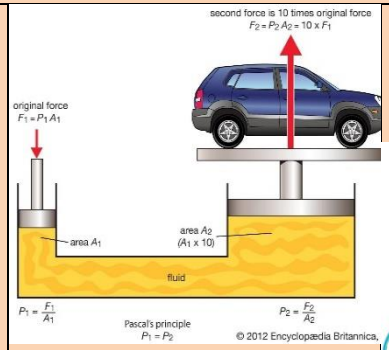
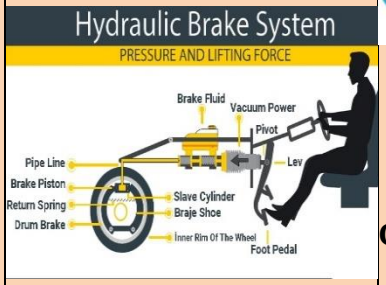
LESSON PLAN

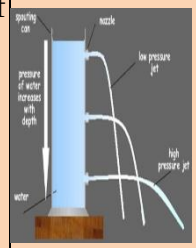
General Information: Date:

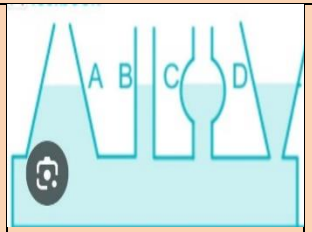
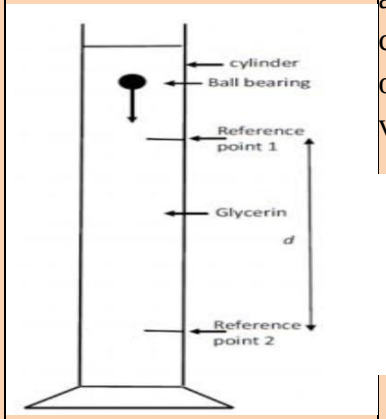
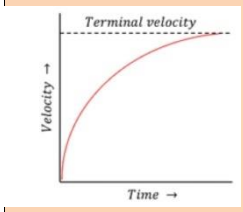
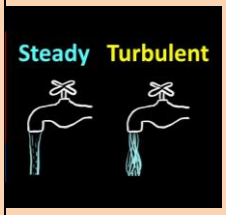
1. Name and Designation of the Teacher : PGT PHYSICS
2. Class & Section : XI
3. Subject : Physics
4. Number of Enrolled Students :
5. Name of the Lesson : Mechanical Properties of Fluids
6. No. of Periods required :
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

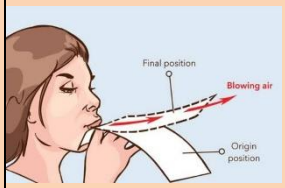
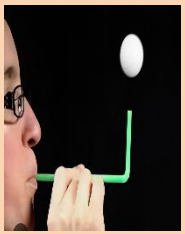
Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life- skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
1. Learners- Understand and state **Pascal's law** -Understand relationship between Force, Area and Pressure, how changes in	Teacher will start the lesson by Introductory simple **activity** - effect of Area on Pressure	Activity- Hydraulic press 	**Mathematics:** proof of Pascal's law and other formulae using algebra.	Pascal's law - Animated and explained with 3d program - Hydraulic press kit White – board/	MCQ 1. The pressure exerted by a liquid column at the bottom of the liquid container is- (a) Dependent on the density of the liquid (b) Equal in all directions.	Short quiz / discussion with students to identify specific areas of misunderstanding for each topic	- Hands on demonstration - Diverse examples - Real life examples.

one affect the others and able to Solve Problems involving these quantities.	 Eg- A woman wearing high heels exerts more pressure on the ground than other woman wearing flat shoes. Why? - **Quiz** based on previous knowledge and simple numerical problems on force, area and pressure -**Participated teaching** cum discussion with suitable activity	- To understand the principal of Hydraulic press and Transmission of fluid pressure -	**Chemistry** – concept of pressure	Smart board	© Not dependent on the area of cross-section of container (d) All the above are true. - Define pressure, write its SI unit. If a force of 100 N is applied to a square area of side 5 m, what is the pressure exerted, what will happen if side of square area is halved?	Short Revision of each topic	
2. Understanding **Hydraulic Systems**- Explain working of hydraulic break, hydraulic lift - Identify real life applications of Pascal's law	Discussion various daily life applications of Pascal's law-hydraulic lift	DIY Hydraulic lift/ arm- Encourage the students to build it using syringes, plastic tubes and cardboard.	**Art & Innovation-** making models of hydraulic lift	Interactive panel Display required pictures / videos	State Pascal's law. Give real life examples where Pascal's law is used. Draw diagram of hydraulic lift and explain its working. **Problem Solving & Drae conclusion**	Remedial teaching by diagrams and suitable videos	Connecting to global perspectives . Encouraging questions and active participation. Offers various assessment formats

- Design simple experiments demonstrating Pascal's law.	   Hydraulic jack used in construction industry - Worked examples based on Pascal's law	**Collaboration** **PRESENTATION-** Students will present a case – study on a hydraulic system, explaining utilization of Pascal's law and its benefits.	Working smart rather than hard by identifying key areas where focused efforts can make a significant impact like in Pascal's law small amount of force applied in a specific way create powerful outputs. **Engineering:** designing hydraulic systems, Mechanism of Hydraulic systems , breaks		1. A hydraulic lift is used to raise a car weighing 15,000 N. The area of the small piston is 0.01 m^2, and the area of the large piston is 0.5 m^2. What force must be applied to the small piston to lift the car? 2. Two syringes of different cross-sections filled with water connected with a tightly fitted rubber tube filled with water. Diameters of the smaller piston and larger piston are 1 cm and 3 cm respectively. (a) Find the force exerted on the larger piston when a force of 10N is applied to the smaller piston. (b) If the smaller piston is pushed in through 6 cm, how much does the larger piston move out		like written explanation, oral presentation, practical demonstration of Pascal's law .

3. Estimates the pressure due to a fluid column . Learners understand **how fluid pressure varies with depth and density.** Derive the formula P = ρgh and use it to solve numerical problems Relate this concept to various real-life situations, Discuss applications in engineering and natural phenomena like atmospheric pressure **3. Effect of gravity on fluid pressure**	**Experiential Learning:** Students perform a simple activity to understand the variation of pressure with depth **Participative Teaching:** Derivation of Pressure due to liquid column to be done with clear explanation of each step. Discussion of various **applications** of this concept in daily life – - Structural Designs of Dams and reservoirs - Fluid Storage tank designs - Effect of gravity on Blood Pressure in Humans - Deep-Sea Exploration etc.	**Act. 1** To show if depth is same, pressure exerted by liquid column at each point will be same …..  **Act 2**. To show pressure due to liquid column increases with increase in depth  Students will observe, record the range for each jet stream, discuss and conclude the result.	Environmental Sciences – Effect of pressure with depth affects aquatic life. Water Resource Management . Aerospace Engineering	Plastic bottle, scale etc required for activity. White board / Smart board	1-Students to practice the derivation for P = **ρgh** **Understanding and Application-** 2-What happens to the pressure if we go deeper into a fluid? 3- Why is atmospheric pressure less on mountains**?** 4 - **Compare** the pressure exerted by two liquid columns having density 850 kg/m^3 and 1000 kg/m^3 respectively at depth of 10 m. 5 Which of these water vessels has maximum pressure at bottom?	Diagnostic Assessment Step-by-Step Problem-Solving Guides Provide extra practice problems , simple, moderate then difficult level	Hands on demonstration Use of Multisensory Teaching Techniques

Learners- Analyse pressure in different gravitational environment**.**							
4) Learner Understands and define **Viscosity** Learner derives **Stoke's law** using dimensional analysis Learner applies Stoke's law to determine **Terminal velocity** Learner differentiates types of fluid flow based on its **Reynold's no.**	Explanation cum discussion with suitable activity  - Derivation of Stoke's law and terminal velocity on chalkboard **Discussion with Examples** of -streamline flow- flow of	Students observe and record data from activity and calculate coefficient of viscosity of given fluid, terminal velocity.  	**Chemistry** – viscosity, surface tension, lubrication, Surface tension-molecular theory, capillary tube-checking concentration and molarity. Engineering **Biology**: Blood Flow and Heart Attack.	Required Materials for activity Graph Interactive board	**.** Define Viscosity. How viscosity of liquid changes with temperature**.** **2.** Explain how does a body attain a terminal velocity when it is dropped freely in a viscous medium**?** Why air bubbles in a medium move in upward direction?	Group work and peer Teaching.	Collaborative learning Opportunities, Encourage self assessment

	oil through thin tube/ blood flow in small arteries Turbulent flow of fluid – flow of water in river, smoke etc. 		Food Sciences- Understanding viscosity as the key factor in food products. **Atmospheric Science** – Concepts of turbulence and movement of air masses are important in climate studies				
5. Learner will State, Explain and Derive **Bernoulli's Theorem and** explains many **real- life phenomena** based on this principle	Derivation of Bernoulli's theorem   - **Activity –**	 Students will observe the effects of pressure, velocity of fluid on changing diameter of tube **Sports Activity-**	**life lesson-** Why people should stand away from fast moving trains on a platform **Cooperative learning-** Problem solving and group activity. **Natural Phenomena** - how birds fly, how rivers flow around obstacles.	https://youtu.be/DW4rItB20h4?si=TnOppgOIp_YiO4Fl - Short videos of the topics	**Application-** **- S**tate the reason – (a) Why light roofs blown off during wind storm? (b) Why we shouldn't stand near fast moving train? **Mathematical/ Problem Solving Competency-** -. Derive Bernoulli's theorem. If the speed of airflow over the top of the wing is 80 m/s	Timely and constructive feedback to help students understand their progress and areas of improvement	• Provide resources in different formats – Diagrams, text, short notes, videos, minimum learning material / extra ques practice according to need of student

	Application of Bernoulli's theorem -	Students can be asked to kick a ball without spin / with spin and see the effect.	**Engineering:** designing hydraulic systems, pumps, turbines. Optimising fluid transport systems, Aerospace Engineering, Civil Engineering.		and the pressure is measured 500 Pa, calculate the pressure on bottom of wing if speed of air is 60m/s there. List two real world applications of Bernoulli's theorem in Engineering / nature and explain how the theorem applies to each case.		
6.) Learner defines, explains and differentiate between **Surface Tension and Surface Energy** **- Identify factors** affecting surface tension - Calculate angle of contact and excess pressure.	**Inquiry based Learning** – Open ended questions- Why do small insects walk on water…… **Participated teaching** cum discussion of Surface Tension, Surface Energy, their relation.	Activity- Floating needle on water surface despite of being denser than water. 	Biology – Capillarity, photosynthesis Environmental Science- Soil and water interaction .	Activity required materials . Textbook / Reference book Interactive board.	. Define surface tension and surface energy. Write SI units of both. 2. A needle is gently placed on the surface of water and it remains floating. If surface tension of the water is 0.072 N/m and needle is 3 cm long find the force due to surface tension acting on needle.	Spiral teaching of each and every topic Timely and constructive feedback to help students understand their progress and areas of improvement Breakdown complex	- Hands on demonstration - Diverse examples - Real life examples

- Apply the concept of surface tension to Capillary rise, drops and bubbles	 Derivation of excess pressure in soap bubble, air bubble. **Hands on Activity-** - Use Capillaries to show different rising levels of different fluids Capillarity and **examples from daily life-** rising of oil through wick, Sap rising from roots of plant etc. Derivation of height in capillary rise, Explanation and calculation of angle of contact	 **Collaborative learning** – Group Project – To explore how different types of detergents and concentrations affect surface tension of water			3. if 1 J work is required to increases the surface area of a soap film by 0.1 m^2, calculate the surface energy of the soap film. 4. Write the effect on surface tension of water if – (a) NaCl is mixed in it (b) Dust is mixed © Temperature is increased (d) Soap is mixed in water.	concepts into smaller simple parts, providing support as needed and gradually increasing complexity	

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAYA SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher:
2. Class & Section: XI-Science
3. Subject: CHEMISTRY

Number of Enrolled Students:

4. Name of the Lesson:

6. No. of Periods required :
7. Date of Commencement :
8. Estimated Time Period from-to :
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life- skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
•Students will be able to apply Le-Chatelier's Principle and predict how a system at equilibrium will respond to changes in concentration, temperature, and pressure. •Students will be able to interpret the equilibrium constant (K) and understand its implications for the	The teacher: •Starts the topic by helping learners to recall explaining the principle in simple, relatable terms giving an analogy of a "seesaw" or a "balancing scale", where disturbing the system causes the system to adjust to maintain balance.	•Cobalt Chloride Equilibrium Experiment Materials: Cobalt (II) chloride solution ($CoCl_2$), Hydrochloric acid, Water, Beakers, Ice bath and hot water bath Thermometer •Chromate-Dichromate Equilibrium	•Climate Change and Ocean Chemistry: Apply the idea to ocean acidification, a process that affects marine life by changing the ocean's carbonic acid and carbonate equilibrium	• Explanation of Chatelier's Principle • https://youtu.be/iiO2kL9jsg • Video of interconversion of NO2 gas into N2O4 gas (effect of temperature) • https://youtu.be/ScWBj0hqOLE • Video of interconversion of chromate into	• Worksheet comprising of competency based questions. • Diagram based questions • Case based questions	• Identify student misconceptions or areas of difficulty related to Le-Chatelier's Principle. • Provide Immediate, Constructive and Specific Feedback	Provide multiple resources (videos, articles, diagrams) that cater to different learning styles—visual, auditory and kinesthetic. Organize students

position of equilibrium in a chemical reaction. •Students will be able to work collaboratively to solve equilibrium problems and effectively communicate their findings and reasoning to peers.	•Lists out the factors that affect the state of equilibrium •Uses online simulations and videos that allow students to manipulate conditions such as concentration, temperature, and pressure. These simulations provide immediate visual feedback on how the system adjusts. •Guides learners to perform simple in-class demonstrations or laboratory experiments that show equilibrium in action. •Gives opportunity to learners to give feedback and follow up of the discussed topic.	Experiment Materials: Potassium chromate, Potassium, Dilute sulfuric acid, Sodium hydroxide solution, Test tubes and beakers •Iron Thiocyanate Equilibrium Expt Materials: Iron(III) chloride, Potassium thiocyanate, Water Beakers, Dropper •Pressure and Volume Effects on Gas Equilibria (Syringe Experiment) Materials: Syringe, Container with stopper, Nitrogen dioxide gas.	due to rising CO2 concentratio ns. •Haber Process: The optimization of industrial processes, such as ammonia synthesis, depends on Le Chatelier's Principle. •In biological system : Equilibrium is important in biological systems for processes like blood pH maintenance buffer systems and pulmonary gas exchange (O_2 and CO_2 exchange).	dichromate (effect of concentration) • https://youtu.be/coB 36Qo2t4		• Remedial Teaching Plan for Reinforcing Conceptual Understand ing • Addressing Specific Areas of Difficulty	into diverse groups based on varying skills and backgrounds to encourage peer learning and support.

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN

LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher : ----------
2. Class & Section : XI
3. Subject : BIOLOGY
4. Number of Enrolled Students :
5. Name of the Lesson : PLANT GROWTH AND DEVEOPMENT
6. No. of Periods required : 9
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/ Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Explain the processes of plant growth and development. Identify and describe the phases of plant growth. Measure and analyse growth using different parameters. Understand the role	**Introduction**: Brief lecture on basic concepts of plant growth. **Interactive Discussion**: Engage students in discussing what they already know about plant growth.	**Interactive Discussion**: Engage students in discussing what they already know about plant growth.	**Mathematics**: Calculating growth rates and analysing data. **Environmental Science**: Exploring the impact of environmental factors on plant growth.	Seeds, soil, water, and pots for the germination experiment. Rulers and scales for measuring growth parameters.	**Formative Assessment**: Observations and feedback during group activities and discussions. **Summative Assessment**: A quiz on the concepts covered in the lesson.	**Student Feedback**: Collect feedback on the lesson to understand what worked and what didn't.	Differentiated instruction to cater to diverse learning needs. Providing materials in multiple formats (visual, auditory, tactile).

of intrinsic and extrinsic factors in plant growth Differentiate between absolute and relative growth rate Explain differentiation, dedifferentiation and redifferentiation in plants Recall and explain the observations that led to the discoveries of various PGR Classifies the plant growth hormones in terms of their chemistry and function with examples Explain the physiological effects of PGRs	**Hands-on Activity**: Conduct an experiment on seed germination and measure growth parameters. **Group Work**: Students will work in groups to analyse data and present their findings. **Use of Visual Aids**: Diagrams and videos to illustrate the phases of growth and the role of meristems.	**Hands-on Activity**: Conduct an experiment on seed germination and measure growth parameters. **Group Work**: Students will work in groups to analyse data and present their findings. **Use of Visual Aids**: Diagrams and videos to illustrate the phases of growth and the role of meristems.	**Chemistry**: Understanding the biochemical processes involved in growth	Charts and diagrams illustrating growth phases. Access to multimedia resources for visual learning	**Practical Assessment**: Evaluation of the experiment and data analysis conducted by students	**Self-Reflection**: Teachers reflect on their teaching methods and student engagement. **Continuous Improvement**: Modify and adapt lesson plans based on reflections and feedback for future classes.	Encouraging peer support and group learning to include all students. Ensuring physical accessibility to all experimental setups.

Signature of the Teacher

Comments / Suggestions on Lesson Plan
VP/HM

Comments / Suggestions on Lesson Plan
Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :
2. Class & Section : XI A
3. Subject : COMPUTER SCIENCE
4. Number of Enrolled Students :
5. Name of the Lesson : DICTIONARIES
6. No. of Periods required : 10
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Identify the utility of advanced data type-Dictionary	**Conceptual teaching with analogies:** Use real world example to explain abstract concept -Compare dictionaries to	Creation of dictionary using Python Idle software	**Problem solving skill** **Communication skill** **Critical thinking skill** **Creative Skill** **Collaborative skill** Relate with mathematical operations like mapping, arithmetic and logical reasoning.	Python IDLE	**Coding assignment** Program writing to create a dictionary to store house name and points. **Assessment focus:**	Personalized instruction	Provide extra time to complete practical works

	phonebook or an address book where name maps to phone number or address				Correct use of key value pairs in dictionary and interactive updating in dictionary.		
Understand memory mapping	Use live coding session to create and execute dictionary programs	Guess the output-group activity	Use diagram (or any visual art) to represent key-value relationship in a dictionary.	PowerPoint presentation	**Predict the output** Based on the given program,ask the students to write output **Assessment focus:** Correct answer in correct output format	Schedule additional classes	Give opportunities to work with peers based on their needs, interest or skill levels
Organize data as key value pairs Identify mutable nature	Active learning with hands on coding	Debugging activity-Identify errors and suggest corrections required for the desired result.	Create dictionary that map species to their scientific name or biological classifications.	Interactive panel/LCD projector/ Visualizer	**Debugging** Challenge the students with code containing intentional errors, and guide them in identifying and correcting the mistakes.	Peer tutoring	Use assistive technology, such as software that read aloud text, convert speech to text or increases font size, to enhance learning and engagement.
Define dictionary methods	Case based learning	Coding -dictionary creation to store frequency of characters present in a string	Design dictionary program to store geographical data, historical data etc.	Worksheets		Frequent assessment	

Apply dictionary methods in code	Interactive visualization of code: Apply each function in a code and explain the difference.	Solving practical assignment and worksheets	Make dictionary project to store AI model and business data	White board	**MCQ** competency based sample questions.	Parent involvement	Encourage leadership roles for both boys and girls throughout the project to ensure balanced participation and representation.
Develop coding skill							

Comments / Suggestions on Lesson Plan

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Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN
LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :
2. Class & Section : XI C
3. Subject : Informatics Practices (IP)
4. Number of Enrolled Students :
5. Name of the Lesson : Data Visualization
6. No. of Periods required : 06
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Learners will be able to 1. Understand basics of computers and computing: Evolution of computing devices, components of a computer specially in reference to IPO Cycle (Input/Output/Processing) 2. Identify Computer System and their interconnections, Input/output devices.	● Learners Identify the components and Memory units of computer system. ● Practice of Flow of Data based on different types of applications/logical linking of flow.	Group activity 1. Discussion on configuration of computers, concept of RAM, HARD DISK, motherboard, processor etc. 2. Conceptual discussion on various real world situation of data storage like LIBRARY – HARD DISK, BOOK –	• Interdisciplinary linkages, infusion of 21st Century Skills, values etc. • Integrate the topic with science, mathematics, finance, engineering • Constructivism is a paradigm of learning that describes the process of knowledge	1. PPT 2. Physical PC (For Hardware demonstration)	1. Multiple choice questions 2. Oral test 3. Slip test 4. Draw Block Diagram of Computer 5. Define the Input and Output/ input Devices	● Focusing on how to Interconnect Data with Input/ Output Devices ● Detailed Working of Bus with Digital Architecture of Memory Units and Data Flow in all Data Bus, Address Bus,	● MLL questions ● SPIRAL Learning ● HOTS questions ● Peer learning ● Inclusive language.

3. Differentiate between hardware and software.		RAM, CHAPTER/PAGE – CACHE and reading/understanding – PROCESSING	formation. In constructivist learning, students learn actively rather than wait passively for the teacher to spoon-feed them with information.			and Control Bus. ● Memory Measurement Units and Types of Memory.	

Comments / Suggestions on Lesson Plan

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Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN

LESSON PLAN

General Information: Date:

1. **Name and Designation of the Teacher**: , PGT HISTORY
2. **Class & Section**: **XI**
3. **Subject**: **HISTORY**
4. **Number of Enrolled Students**: **------**
5. **Name of the Lesson :** WRITING AND CITY LIFE
6. **No. of Periods required :** 05
7. **Date of Commencement**: .
8. **Estimated Time Period from :**
9. **Actual date of completion :**

Specific Learning Outcomes	**Pedagogical Strategies for Experiential Learning**	**Individual/Group activities / experiments / hand-on-learning**	**Interdisciplinary Linkages and infusion of Life-skills, Values**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
Elucidate the interwoven social and cultural aspects of civilization in order to understand the connection between city life and culture of contemporary civilizations through their writings.	To use a table to bring out the connection between city life and culture of contemporary civilizations.	Students will locate Important cities of Mesopotamian civilization on the map of west Asia. Iran, Uruk, Uk, Babylon & Caspian Sea, Arabian Sea, Mediterranean Sea, Aran Sea.	-**Critical Thinking**: students have to discover the role played by geographical features in human settlements. **-Collaboration** : students need to work together -Communication Skills: students have	https://www.youtube.com/watch?v=EwY-ziBL1Jw	Explain the connection between the growth of human civilization and the tradition of writing.	Key points discussion, Peer teaching, Providing graded worksheets for Map work, source-based questions.	-Inclusion of low bloomers in classroom discussion and encouraging them to take initiation in group activities. They may be drafted for doing map work and collecting information, Class

			to make a presentation in the class. -Information Literacy: students need to travel beyond textbooks to collect information on the topic.				groups shall have mix of both boys & girls.
Describes the importance of geography in shaping history.	Using Visuals to explain.	Students will read the textbook and draw a rough diagram/map to represent the region discussed and identify the geographical conditions and associated activities practiced.	-Developing spatial awareness with the help of map work, analysing and understanding interdependence between geographical conditions and economical activities, their impact on society.		Elucidate the importance of geography in shaping history.		
Analyses the outcomes of a sustained tradition of writing.	Group discussion to discuss whether writing is significant as a marker of civilization.	Making Clay tablet to understand how people made and used clay tablets to keep records (group activity)		https://www.twinkl.co.in/teaching-wiki/ancient-mesopotamian-writing#:~:text=Cuneiform%20is%20a%20method%20of,between%203400%20and%203100%20BCE	Analyze the outcomes of a sustained tradition of writing.		
Explains the connection between the growth of human civilization and the tradition of writing.				https://diksha.gov.in/play/collection/do_3131034752974028801107 2?contentId=do_3130879718174310401153			

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

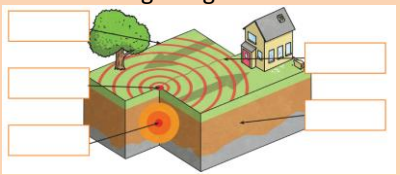
Signature of the Teacher

VP

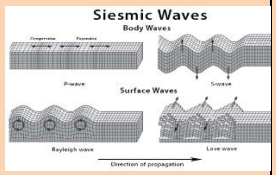
Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

1. Name and Designation of the Teacher:
2. Class and Section XI
3. Subject **GEOGRAPHY**
4. Number of Enrolled Students:
5. Name of the Lesson: INTERIOR OF THE EARTH/ EARTHQUAKE
6. No of Periods required :
7.Date of Commencement
8. Estimated time Period from to
9. Actual date of completion:

Specific learning outcomes	Pedagogical Strategies for Experiential learning	Individual/Group activities/ experiments/ hands on learning	Interdisciplinary linkages and infusion of life skills, values	Resources [including ICT]	Competency based assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
(At the end of the chapter students are able to) Describe the concept of earthquakes Define the terms related to earthquakes and explains the process of occurrence of earthquakes Explain the different types of earthquake waves, the process of	Video- showing fault and release of energy leading to earthquake https://youtu.be/uA_OLKfQpYA	Watching the video and participating in discussion Noting the important terms related to earthquake- fault, focus, epicenter, seismograph Draw a diagram showing focus and epicenter	Link with Physics Shadow zone- Refraction of waves when passing through materials of various states and density Propagation of p and s waves Global awareness and citizenship (Explore how different cultures respond to earthquakes and how preparedness varies globally.) Digital Literacy (Use online resources and databases to	Physical resources Worksheet Diagrams Maps and Globe ICT resources Your tube videos Smart board Google forms for MCQ test	Label the diagram given  Prepare a model of seismograph[art integrated work]	Instant feedback is given during activities and rectification of errors are done. Mind map of important concepts for slow bloomers. Additional simplified worksheets for students needing extra help	Design Earthquake Safety Procedure Display poster and demonstrate in the class  **Role-Playing by all students- Drop, Cover, Hold (Multiple Means of Engagement** by Offering choices in activities)
	video- showing types of earthquake waves https://www.britannica.com/video/181934/rock-vibrations-Earth-earthquake-waves-P-surface	Watching the video and participating in discussion			Label the waves given in the seismogram		

<table>
<tr>
<td>their propagation, and shadow zones</td>
<td>video and diagram of shadow zone
https://www.youtube.com/watch?v=7eeqzRUg4DU

diagram showing the propagation of p and s waves
 
</td>
<td>Watch the video and drawing the diagram showing shadow zone of p and s waves
Noting the features and presenting it

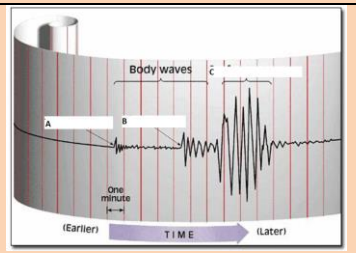
Study of the diagrams to know the propagation of earthquake waves and note the findings</td>
<td>gather information on earthquake statistics and case studies.)
Adaptability (Develop resilience by discussing how communities can adapt to living in earthquake-prone areas.)</td>
<td></td>
<td> 

Table completion
<table><tr><th>FEATURE</th><th>P WAVE</th><th>S WAVE</th></tr><tr><td>Type of Wave</td><td></td><td>Transverse</td></tr><tr><td>Medium of Travel</td><td></td><td>Can only travel through solids</td></tr><tr><td>Movement</td><td>Compresses and expands the medium (back and forth)</td><td></td></tr><tr><td>Detection on seismograph</td><td>First waves detected by seismographs</td><td></td></tr><tr><td>Effect on Structures</td><td></td><td>More destructive</td></tr><tr><td>Examples</td><td></td><td>Waves on a guitar string</td></tr></table>Provide students with a blank version of the diagram of shadow zone for labelling the following:
Crust, Mantle, Outer Core, Inner Core, P-waves, S-waves, Shadow Zone, Epicentre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains the types of earthquakes –</td>
<td>Discussion on types of earthquakes</td>
<td>Participation in the discussion</td>
<td></td>
<td></td>
<td>Written assignment- Types of Earthquakes</td>
<td></td>
<td></td>
</tr>
</table>

tectonic, volcanic, collapse, explosion and induced earthquakes							
Defines Richter Scale and evaluates the use of the Intensity Scale in measuring earthquakes	Study of the chart showing measurement of earthquake using Richter and Mercalli scale	Study of the chart provided and note the findings discussion on differences between the two scales and their applications.			Table completion		

Feature	Richter Scale	Mercalli Scale
Type of Measurement		Qualitative (measures intensity based on observed effects)
Scale Range	Typically from 0 to 10	
Measurement Method	Uses seismic wave amplitude recorded by seismographs	
Purpose		To describe the impact of an earthquake on people, structures, and the Earth's surface
Geographic Variation		Subjective and can vary depending on the location and local conditions
Example Descriptions	4.0: Minor earthquake; 7.0: Major earthquake	II: Felt by a few people; VI: Causes significant damage
Usage	Commonly used in scientific contexts	

Explains the effects and frequency of earthquakes	Images of various effects of earthquakes are shown and its discussion Data from internet – major earthquakes and its magnitude https://www.mapsofworld.com/thematic-maps/earthquake/	Observing the images and participation in discussion Study the given data and make inferences regarding the magnitude and frequency of earthquakes			Written assignment- effects of earthquakes On a world map mark the location (using red beads) where major earthquakes have occurred. [art integrated work] Competency Based questions 1. If an area is prone to earthquakes there are some other natural disasters that are also likely to be common to these regions. Which of these is not an earthquake-related disaster? a. Forest Fires c.avalanche b. Tsunami d. floods 2. Vijaya stays on the western coast of India in the town of Karwar in the state of Karnataka. There was an earthquake near Karachi off the coast of Pakistan. The town of Karwar is more than 1300 kilometres away from Karachi. However, the town authorities sent out a warning for a possible tsunami event. What would have led the authorities to send out the warning?		

	and media reporting	
Strengths		Captures human experience and structural damage
Limitations		Subjective; can be influenced by location and observer bias

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP

Comments / Suggestions on Lesson Plan

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher: **PGT-ECONOMICS**
2. Class & Section: **XI**
3. Subject: **ECONOMICS**
4. Number of Enrolled Students:
5. Name of the Lesson: **DEMAND AND ELASTICITY OF DEMAND**
6. No. of Periods required: **12**
7. Date of Commencement:
8. Estimated Time Period from: to
9. Actual date of completion:

Specific Learning Outcomes	**Pedagogical Strategies for Experiential Learning**	**Individual/Group activities / experiments / hand-on-learning**	**Interdisciplinary Linkages and infusion of Life-skills, Values**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
#The students will be able to: #Define demand. #Differentiate betweenindividual demand and market demand.	**Art Integrated Learning** (Role play of daily market on individual demand and market demand, and relation between the two)	**Derivation of Market demand** https://docs.google.com/document/d/11yJh3W58bBi9htoBkoP9KlDTollAq1eVZDQ7pzFkXXo/edit?usp=sh aring **Project:** Students will be asked to compare the price	**#Interdisciplinary Linkages** *Correlation of demand schedule with formation of a table. **(Interdisciplinary)** *Demand curve with graphical presentation of data. **(Inter disciplinary)** *Demand function	#Power Point Presentation to show demand schedule and demand curve. #NCERT text book.	# Slip test Quiz # Oral Questions during discussion. (**Assessment for Learning)**	# List of students identified for not having understood the topic/ chapter taught (Through slip test /	# Use of visual aids (charts, graphs, PPTs, Videos) and real-life examples. # Differentiated instruction with varied teaching methods.

#Explain demand function. #Analyse the factors affecting demandfor a commodity.	**Case based learning** (listing of factors affecting demand for a good)	and demand of any product during the off- season and same product during regular period and try to find the reasons of the same.	and Supply function. **(Intra disciplinary)** *Numerical ability. **(Inter disciplinary)** *Meaning of elasticity of metals in physical science. **(Inter disciplinary)** **#Infusion of 21st Century Skills, values etc** ***Critical and creative thinking.** (Making of demand schedule and demand curves.) ***Communication.** (Group discussion on demand function and law of demand) ***Collaboration** (Discussing with peers to construct learning)	#Flip charts on Factors affecting demand for a good. #Different diagrams to show movement along a demand curve and shiftin demand curve.	# Home assignment. #Report submission. # Peer-assessment- **Group discussion onLaw of Demand**.	learner's dairy / any other assessment. # 5 minutes doubt clearing at the end of each period. # Allow the students to ask their doubt during period and clarificationat the same time. # Peer teaching (Encourage the late	# Group discussions and collaborative learning activities. #Simplified language and definitions for complex terms. # Use of case studies related to government budgets. #Assistive technology and learning aids for students with special needs. # Real-life application projects. # Frequent assessments and
#Analyse the relationshipbetween price and demand (**law of demand)**	**Art integrated learning** (Drawing Demand Curve with the help ofDemand Schedule	**Hands on activity- Innovative derivation of law of demand- link** https://diksha.gov.in/play/collection/do_3131034754279833601109 8?contentId=do_3130879323408056321314 9			# 05 minutes Question - Answer Session duringclassroom discussion. # Making of diagrams.		
#Differentiate movementalong a demand curve and	**Art integrated** (Drawing the Diagrams on	**Debate:** Different betweenchanges in quantity demanded					

shift in demand curve.	movement along a demand curve and shift in demand curve)	& changes in demand **Audio lesson:** https://diksha.gov.in/play/collection/do_3131034754279833601109 8?contentId=do_3130879323408056321314 9	*__Information and numerical literacy__ (Identify different items having different value of elasticity of demand and group discussion on elasticity of demand)		**#Handouts material for practice:** **1.** https://diksha.gov.in/play/collection/do_3131034754279833601109 8 ?contentId=do_3130702844016885761284	bloomer to clarify their doubt from the bright students as per their convenience). # Provide e-learning material/ support material.	feedback for all students. # Creating an inclusive class environment for diverse participation.
#Describe price elasticityof demand. #Identify different types ofelasticity of demand. #Apply the formula of calculating Elasticity of Demand for things which they seearound them.	**Problem solving:** Numericals on degrees of price elasticity of demand	**Debate:** on types of priceelasticity of demand **Video lesson:** https://diksha.gov.in/play/collection/do_3131034754279833601109 8?contentId=do_3130879323408056321314 9 **Audio lesson**: https://diksha.gov.in/play/collection/do_3131034754279833601109 8?contentId=do_3130879323408056321314 9					

#Identify the relationshipbetween elasticity of demand and its different factors.	**Peer learning** (Group discussion on factors affecting elasticity of demand)	**Seminar:** Seminar by bright students on factorsaffecting elasticity of demand			**2.** https://docs.google.com/document/d/1AiigSGroaF_D8JV6AUoC8vq_m_LczoQzvhSjxFPW88E/edit?usp=sharing		

Signature of the Teacher

Comments / Suggestions on Lesson Plan
VP/HM

Comments / Suggestions on Lesson Plan
Signature of the Principal

KENDRIYA VIDYALAYA ……

LESSON PLAN

Name of the Teacher: Designation : PGT COMMERCE Sub: Accountancy

Class/Section : XI Topic/Chapter : Depreciation No of periods required: 22

Specific Learning Outcomes	**Pedagogical Strategies**	**Group Activities/ Experiments/Hands-on-Learning**	**Interdisciplinary linkages, infusion of life skills, values etc (21st Century Skills)**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment Of Learning Outcomes .**	**Feedback and Remedial Teaching Plan.**	**Inclusive Practices/ Gender Sensitivity**
Students will Explain the necessity of providing depreciation. **Students will Develop** the skill of using different methods for computing depreciation. **Students will Understand** the accounting treatment of providing depreciation	**Active Learning** : Encourage students to engage actively through group discussions and problem-solving activities related to real-world scenarios involving depreciation. **Case Studies**: Use of case studies to illustrate the	**Role-Playing**: Creating a simulation where students take on roles as financial managers, accountants, or auditors. They can make decisions on asset purchases, choose depreciation methods, and discuss the impact of these choices on financial reports. **Calculation Relay**: Organize a relay race where groups compete to solve	**Interdisciplinary Linkages** **Economics:** Explore how depreciation affects the economic decisions of businesses, investment strategies, and cost management. **Mathematics:** Apply mathematical concepts in calculating depreciation using formulas, enhancing numerical literacy. **Business Studies** : Connect depreciation with	**Resources (including ICT)** Textbooks and Reference Materials, Visual Aids Online quiz Self-made PPT & Videos. Chalk, Duster & Green Board CBSE PYQs in PDF	**Questioning between the session:** Asking Multiple Choice Questions (MCQs) to test students' understanding of key concepts, such as types of depreciation methods, definitions, and formulas. **Assignment of Numerical Problems:** Providing practical problems requiring calculations using different depreciation methods (e.g., straight-line,	**Remedial Teaching Plan/Plan for Learners facing difficulties** **Identify Learning Gaps**: Gathering feedback from students on their challenges and areas where they feel less confident. **Creating a Supportive Learning Environment:** Organising students into	**Inclusive Practices Differentiated Instruction:** Providing resources at varying levels of complexity to accommodate diverse learning paces and styles. **Cooperative Learning:** Encourage collaboration and peer learning among students of varying abilities in mixed-ability groups, fostering peer support and shared learning experiences.

directly to the concerned asset account. **Students will Understand** the accounting treatment of providing depreciation by creating provision for depreciation account. **Students will Appreciate** the method of asset disposal through the concerned asset account or by preparing asset disposal account.	impact of different depreciation methods on financial statements and business decisions, allowing students to analyse and discuss outcomes. **Collaborative Learning**: Implementing group projects where students can work together to research and present on various depreciation methods, enhancing teamwork and communication skills.	depreciation calculation problems (e.g., straight-line, diminishing balance). Each member of the group must contribute to solving a part of the problem. **Creative Presentations**: Encourage students to create skits or role plays demonstrating the consequences of poor asset management and depreciation decisions in a fictional business setting. **Use of BALA:** Building as additional source of information in respect of charging depreciation. Arranging an access to records maintained by	broader business concepts like asset management, financial planning, and budgeting. **Infusion of 21st Century Skills** **Critical Thinking** : Encourage students to evaluate the advantages and disadvantages of different depreciation methods and their impacts on financial statements. **Collaboration**: Foster teamwork through group projects and presentations, promoting communication and collaborative problem-solving skills. **Creativity**: Allow students to present depreciation concepts through creative formats (e.g., infographics,		diminishing balance) to assess accuracy and understanding of the calculation process. **Quizzes:** Conducting periodic quizzes to reinforce learning and assess retention of key concepts and calculations related to depreciation. **Solving questions on Board by students.** **Class Tests/Slip Tests** **Brief note on Reflective practices** **Group Discussions**:Facilitate discussions where students share their reflections and insights on depreciation topics, fostering collaborative learning and diverse perspectives.	small groups based on their learning needs to foster peer support. **Step-by-Step Guidance:** Break down the calculation process for each method (straight-line, diminishing balance). Use examples with simple numbers initially**.** **Plan for advanced Learners** **Advanced Problem Solving:** Providing challenging problems that require multi-step calculations, including scenarios with varying asset lifespans,salvage	**Scaffolded Learning**: Breaking down complex concepts into manageable parts and provide step-by-step guidance to help all students build confidence in their understanding of concepts and calculations of depreciation.

	Visual Aids: Use of charts, graphs, and other visual aids to help students better understand the concept of depreciation and its effects on financial statements. **Peer learning**: Encouraging students to learn from each other certain key concepts, fostering a deeper understanding through peer-to-peer interaction.	school for hands on learning,helping students see the relevance of their studies.	videos), encouraging innovative thinking. **Communication** : Develop oral and written communication skills through presentations, reports, and discussions about depreciation practices. **Values and Ethical Considerations** **Integrity**:Emphasize the importance of ethical accounting practices and honesty in reporting financial information. **Responsibility**: Instil a sense of responsibility towards asset management and the implications of financial decisions on stakeholders.		**Peer Feedback** : Encourage students to give and receive feedback on assignments and projects related to depreciation, allowing them to reflect on their learning processes and outcomes.	values, purchase & sale of multiple assets. **Industry Guest Speakers**: Invite professionals from accounting firms or corporate finance to discuss real-world applications of depreciation and asset management. **Continuous Assessment:** Use quizzes that require application of knowledge and analytical skills rather than rote memorization.	

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAYA SANGATHAN

LESSON PLAN

General Information Date

1. Name and Designation of the Teacher:		2. Class & Section: XI	3.Subject: Business Studies.
4.Number of Enrolled Students:	5. Name of the Lesson: **Entrepreneurship Development**		6.No. of Periods required 03
7.Date of commencement:	8.Estimated Time Period from:	to	9.Actual Date of Completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential learning	Individual/group activities/Experiments/Hand-on-Learning	Interdisciplinary Linkages and Infusion of Life-skills, Values	Resources (Including ICT)	Competency Based Assessment Items for measuring the Attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
1. Understand the concept of Entrepreneurship Development 2. Explain the characteristics of entrepreneurship 3. Able to start an enterprise by himself / herself	Experiential learning i.e learning by doing a model project work by group of students which can be scalable to the real situation with improvement or refining the idea of the students	Students can be divided into small groups of 4 or 5 and assigning a project work. Students will visit few nearby shops with a questionnaire and get answers from the shop owners and then based on their survey students will do brain-storming session and arrive at a common business idea to start an	1.The project work assigned will cover business studies, accountancy and economics like finance, budget etc. 2. 21st Century Skills like Critical Thinking, Creativity, Collaboration and Communication while doing brain-storming	PC with internet connection is required to analyse the collected data. Stationery for making questionnaire sheets for the groups for collecting information from the nearby shops. Posters of successful	1. Viva-voce can be conducted for students based on the Project File prepared by the group. 2. Pen-Paper test can be conducted by including MCQs including Assertion-Reason questions, short-answer questions etc. 3. The story of a real successful entrepreneur like Ola / Swiggy / Paytm can be given to students	Individual guidance and explanation will be given to one to one or to few selected students regarding the concept by asking and giving small tasks for them to understand the concept and encouraging them whenever they give good	Irrespective of gender / intelligence levels / socio-economic status (and including CWSN) students are grouped randomly for the intended project work and for filling the questionnaire from the real business people so that learning will take place for everyone in the group. Students are encouraged to listen to each one's ideas in the model project sessions.

4. Creating an enthusiasm and inspiration among students to take entrepreneurship as a career choice over employment and profession.	which may lead to a real business idea which may be covered under Start-up India Scheme.	imaginary enterprise.	session with other students.	entrepreneurs like Bhavish Aggarwal and Ankit Bhatia, Vijay Shekhar Sharma, Byju Raveendran etc. to show and inspire the students.	followed by questions to identify the characteristics of entrepreneurship. 4. Group Discussion can be organized among the different groups of students.	responses. Work-sheets can be prepared with fill-in-the blanks.	

Comments/suggestion on Lesson Plan

Comments/suggestion on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

CLASS XII
LESSON PLANS

KENDRIYA VIDYALAYA SANGATHAN LESSON PLAN (CLASS XII)

Date:

General Information:	
6. Name and Designation of the Teacher: 7. Class Section: XII SCIENCE 8. Subject: **ENGLISH** 9. Number of Enrolled Students: 10. Name of the Lesson: Aunt Jennifer's Tigers	11.No. of Periods required: 04 12. Date of Commencement: 13. Estimated Time Period from: to 14. Actual date of completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment Of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
□ To identify the central themes of the poem, such as gender roles, oppression, and empowerment □ **To** analyze the use of literary devices such as symbolism, imagery, and tone, discussing how these contribute to	Introduction to Adrienne Rich and the historical context of feminist literature. Discuss the significance of women's rights movements. Initial Thoughts: Ask students what they know about gender roles and oppression.	Role-playing activity where students act out scenes inspired by the poem. Writing a personal narrative or poem from Aunt Jennifer's perspective or from the viewpoint of one of her tigers to encourage empathy and deeper understanding of her struggles. Facilitating group discussions focused on specific stanzas or	History Discussions on **Early Feminist Movements (19th Century)**, **Second Wave Feminism (1960s-1980s and Inter=sectionality (1980s-Present)**: *** The Evolution of Women's Rights**:	Textbook "Aunt Jennifer's Tigers" Whiteboard and markers Art supplies (paper, markers, etc.) Access to multimedia resources (videos, articles on feminist literature)	Write a 500-750 word essay analyzing the themes of oppression and empowerment in "Aunt Jennifer's Tigers." Assessment Criteria: Clear thesis statement, use of textual evidence, depth of	Feedback Plan 1. Individual Feedback Sessions 2. Group Feedback Discussions Remedial Teaching Plan 1. Identify Learning Gaps	Discuss how gender intersects with race, class, and other identities, ensuring students understand that women's experiences are not monolithic. Engage students in activities that allow them to step into the shoes of different characters, including Aunt Jennifer and her tigers. This can foster empathy and a deeper understanding of gender struggles.

the poem's overall meaning. □ **To** examine the historical and cultural context of the poem, discussing how it reflects societal attitudes towards women during the time it was written. □ **To** reflect on their own interpretations of the poem, discussing how Aunt Jennifer's experiences may resonate with contemporary issues of gender and identity. □ To engage in critical discussions about the implications of the poem's ending and what it suggests about the nature of personal liberation versus societal constraints.	Facilitate a brief discussion to activate prior knowledge. Read the poem aloud as a class. Discuss the imagery and language. Ask students to underline or highlight key phrases that resonate with them. Group Analysis: In small groups, have students discuss their interpretations of the poem's imagery, particularly the tigers and Aunt Jennifer's needlework. *Creating visual representations of Aunt Jennifer and her tigers. This could be through drawing, painting, or digital art * Identify Themes: In groups, students	themes. Each group can analyze a different aspect, such as gender roles or the contrast between Aunt Jennifer and her tigers, and then present their findings to the class. Organize a debate on topics related to the poem, such as the impact of societal expectations on women's lives	* **Cultural Perspectives**: * **Literature as Reflection and Resistance**	Video clips, art, or music that reflect themes of feminism and empowerment.	analysis, and ability to connect themes to historical and cultural contexts. 2. Creative Project: Create a visual representation (painting, digital art, collage) that reflects the central themes of the poem. Accompany the artwork with a written explanation (250 words) of how it relates to Aunt Jennifer's experience. Assessment Criteria: Creativity, relevance to the poem's themes, clarity of explanation, and artistic expression. Research Assignment Research a significant	2 Collaborative Learning Activities 3 Provide further learning materials. Resources: Share supplementary readings, videos, or online lectures that explore feminist literature and themes relevant to the poem. After implementing remedial strategies, gather feedback from students on what they found helpful and what still needs clarification. Adjust plans accordingly.	Encourage students to critically analyze media representations of gender, comparing them with the themes in "Aunt Jennifer's Tigers." This helps develop critical thinking and media literacy.

	brainstorm themes such as: Oppression vs. empowerment The role of art and creativity Gender expectations *literary appreciation of the poem dentify students who may need additional help understanding the poem or themes. Provide one-on-one support or additional resources, such as simplified texts or guided questions.				historical event or movement related to women's rights and write a 400-600 word report discussing its connection to the themes in "Aunt Jennifer's Tigers." Assessment Criteria: Quality of research, relevance to the poem, clarity of writing, and ability to draw connections between the two. Multimedia Presentation Task: Create a multimedia presentation (slides, video, or podcast) that explores the themes of "Aunt Jennifer's Tigers" in relation to contemporary feminist issues.		

					Assessment Criteria: Creativity, clarity of content, relevance to the poem, and effectiveness of the presentation format.		

Signature of the Teacher

Comments/Suggestions on Lesson Plan

Comments/Suggestions on Lesson Plan

Signature of VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN

LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :
2. Class & Section : 12
3. Subject : **Hindi**
4. Number of Enrolled Students :
5. Name of the Lesson : लक्ष्मण मूर्छा और राम का विलाप
6. No. of Periods required :
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
1. छात्रों में भाई के प्रति स्नेह भाव में अभिवृद्धि होगी । 2. रामचरित के मार्मिक प्रसंग (लक्ष्मण मूर्च्छा) से	.तुलसी का परिचय .आदर्श गायन . अनुकरण	**व्यक्तिगत गतिविधियाँ:** 1. भातृ शोक में डूबे राम के मनोभावों को अपने शब्दों में लिखिए ।	अंतर्विषयक संबंध 1. साहित्य और इतिहास: कविता के ऐतिहासिक संदर्भों का अध्ययन।	• तुलसी का चित्र • रामचरितमानस की प्रति	-मौखिक प्रश्नीकरण -लघु उत्तरीय प्रश्न	-पाठ के अध्यापन के उपरांत जिन छात्रों को पाठ को समझने अथवा जिस	1. छात्रों की विभिन्न पृष्ठभूमियों और अनुभवों को पहचानना।

छात्र परिचित हो सकेंगे । 3. छात्रों में सहयोग के भाव बढ़ेगी । छात्र कविता के माध्यम से हिंदी भाषा की व्याकरणिक संरचना को समझेंगे। छात्र कविता के माध्यम से अपनी रचनात्मकता और कल्पना को विकसित करेंगे।	गायन .शब्दार्थ लेखन .अर्थ स्पष्टीकरण .छंद परिचय .अभ्यास के प्रश्नोत्तर .गृह कार्य .समूह चर्चा .कविता लेखन कार्यशाला . कविता का नाटकीय	2. राम के प्रलाप वचन में नारियों के प्रति कैसा सामाजिक दृष्टिकोण लक्षित हुआ है ? 3. हनुमान के अवतरण से करुण रस में वीर रस का संचार कैसे हो गया ? 4. दोहा, चौपाई और सोरठा छंदों की पहचान बताइए । उदाहरण भी दीजिए ।	2. साहित्य और दर्शन: कविता में दर्शनशास्त्रीय विचारों का विश्लेषण। 3. साहित्य और संस्कृति: कविता में सांस्कृतिक तत्वों का अध्ययन। 4. साहित्य और मनोविज्ञान: कविता में मनोवैज्ञानिक विचारों का विश्लेषण। 5. साहित्य और तकनीक: कविता के डिजिटल रूपों का अध्ययन।	• छंद का एक चार्ट • शब्दार्थ चार्ट • यहाँ इस कविता के शिक्षण के लिए आईसीटी संसाधन हैं: • ऑनलाइन प्लेटफ़ॉर्म . कविता कोश (Kavitakosh) -	-दक्षता आधारित प्रश्न -कक्षा परीक्षण -मासिक परीक्षण -कार्य पत्रक	चरण एवं छंद में कठिनाई होगी उनका पुनः अध्यापन किया जाएगा । -यह कार्य उन्हें खेल-कूद अथवा पुस्तकालय कालांश में किया जाएगा । -भाव को पुनः स्पष्टीकरण, महत्त्वपूर्ण बिन्दुओं को	2. कविता के माध्यम से विभिन्न संस्कृतियों और समुदायों को प्रस्तुत करना। 3. छात्रों को अपनी मातृभाषा में कविता पढ़ने और लिखने का अवसर प्रदान करना। विशेष आवश्यकता वाले छात्रों के लिए विशेष

	प्रस्तुति .कविता का वीडियो निर्माण .कविता का संगीत रचना . कविता का फिल्म निर्माण	5. यहाँ इस कविता शिक्षण के लिए समूह गतिविधियाँ, प्रयोग और हाथों-हाथ सीखने की गतिविधियाँ निम्नलिखित हैं: **समूह गतिविधियाँ** .कविता लेखन समूह . कविता विश्लेषण समूह . कविता प्रस्तुति समूह . कविता चर्चा समूह	21वीं सदी के कौशल 1. सृजनात्मकता: कविता लेखन और प्रस्तुति में सृजनात्मकता का विकास। 2. संचार: कविता के माध्यम से प्रभावी संचार का विकास। 3. समूह कार्य: कविता के अध्ययन में समूह कार्य का महत्व। 4. महत्वपूर्ण चिंतन: कविता के विश्लेषण में	हिंदी कविताओं का ऑनलाइन संग्रह। • डिजिटल पुस्तकें . हिंदी कविता ई-बुक्स (Hindi Kavita E-Books) - हिंदी कविताओं की डिजिटल पुस्तकें। • वीडियो संसाधन . यूट्यूब चैनल (YouTube Channels) -		रेखांकित कराया जाएगा । इन आईसीटी संसाधनों का उपयोग करके इस कविता के शिक्षण को अधिक आकर्षक और प्रभावी बनाया जा सकता है। परीक्षा कीदृष्टि से महत्वपूर्ण प्रश्नों के उत्तर लिखने और	समर्थन प्रदान करना। 2. छात्रों को अपनी राय और विचार व्यक्त करने का अवसर देना।ऑनला इन कविता संसाधनों का उपयोग करना। कविता लेखन और अभिनय के लिए समूह गतिविधियाँ आयोजित करना।

		. कविता नाटकीय प्रस्तुति समूह **प्रयोग** .कविता लेखन प्रयोग . कविता विश्लेषण प्रयोग . कविता प्रस्तुति प्रयोग . कविता निर्माण प्रयोग . कविता अनुवाद प्रयोग **हाथों-हाथ सीखने की गतिविधियाँ** .कविता लेखन कार्यशाला .कविता चित्रण कार्यशाला .कविता संगीत	महत्वपूर्ण चिंतन का विकास। 5. डिजिटल साक्षरता: कविता के डिजिटल रूपों का अध्ययन और उपयोग। मूल्य 1. सांस्कृतिक समृद्धि: कविता में सांस्कृतिक तत्वों का अध्ययन। 2. भाषाई समृद्धि: कविता में भाषाई विविधता का अध्ययन। 3. सामाजिक जिम्मेदारी: कविता	हिंदी कविता वीडियो। • ऑडियो संसाधन . पॉडकास्ट (Podcasts) - हिंदी कविता पॉडका • मोबाइल ऐप्स . कविता संग्रह ऐप (Kavita Sangrah App) - हिंदी कविता संग्रह ऐप।		याद करने के लिए प्रेरित किया जाएगा ।	2. छात्रों को कविता के माध्यम से संवाद करने का अवसर देना।

		रचना कार्यशाला .कविता नृत्य प्रस्तुति कार्यशाला .कविता फिल्म निर्माण कार्यशाला **गतिविधियाँ** .कविता पाठ और विश्लेषण .कविता लेखन और प्रस्तुति .कविता नाटकीय प्रस्तुति .कविता संगीत और नृत्य इन गतिविधियों को अपनाकर इस कविता के शिक्षण को अधिक आकर्षक और प्रभावी बनाया जा सकता है	में सामाजिक मुद्दों का विश्लेषण। 4. नैतिक मूल्य: कविता में नैतिक मूल्यों का विकास। 5. आत्म-अभिव्यक्ति: कविता में आत्म-अभिव्यक्ति का विकास।				

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Comments / Suggestions on Lesson Plan

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher:
2. Class & Section: **XII**
3. Subject: **Mathematics**
4. Number of Enrolled Students:
5. Name of the Lesson: **THREE-DIMENSIONAL GEOMETRY**
6. No. of Periods required: **18**
7. Date of Commencement:
8. Estimated Time Period from: to
9. Actual date of completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
By the end of this lesson, students should be able to: 1. Understand the basic concepts of direction cosines and	**1. Introduction:** Begin with a quick recap of vector algebra and two-dimensional geometry. Teacher will start the lesson how to write a vector in	**1. Group Task:** Students will work in pairs to derive the equations of lines given specific conditions.	1. Physics use of vectors. 2. Critical thinking, problem-solving, and	Textbooks and reference materials on 3D Geometry. https://ncert.nic.in/exem	1. **Formative Assessments:** Quiz on direction ratios and cosines.	Re-teach difficult concepts such as direction ratios and the shortest distance	➢ Were all students engaged in all activities? ➢ Were the questions framed to test

direction ratios of a line in space. 2. Derive and apply the equation of a line in space using vector and Cartesian forms. 3. Understand the equation of lines in space and the angle lines. 4.Find the shortest distance between two skew lines. 5.Find the equation of a line passing through the point and perpendicular to two lines 6. The foot and image of a point to a line in space. 7.Solve real-life problems using three-dimensional geometry.	point form and a point in vector form Teacher can ask the equation of a line passing through a point having slope Also equation of a line passing through the two points 2. **Explanation of Concepts:** Explain direction cosines and direction ratios with examples. Derive the equations of a line in space using vectors and Cartesian forms. The derivation of equation of line passing through a point and parallel to a vector in both vector and Cartesian form https://youtu.be/QLLJxc7h0mw?si=uDn0O1ftYpoikT7_	2. **Hands-on**  **Activity:** Use string or wire models to physically represent the concept of skew lines and their shortest distance. Refer the lab activity 26 of NCERT lab manual https://drive.google.com/file/d/1sSUjlk3g01oKYoClmtJWg	spatial awareness.	plar-problems.php?ln=en 3D geometry visualization software (e.g., GeoGebra). https://cbseacademic.nic.in/manual.html (Competency focused questions, Mathematics Grade 12 Volume 2)	https://drive.google.com/file/d/10eIMATp59JieZLIPkf0krELjWJNf4gY/view?usp=sharing. Find the angle between the lines whose direction cosines are given by the equations: $3l + m + 5n = 0$ and $6mn - 2nl + 5lm = 0$. Solve a worksheet on equations of lines in 3D. 2. **Summative Assessment:** A written test including problems on finding the shortest distance	between skew lines using simpler examples and models. Provide additional worksheets and one-on-one tutoring sessions. Breakdown of complex concepts into smaller simple parts Worksheet on simple problems and motivate students then move to simple to complex problems	students understanding appropriate? ➢ Use of visual aids and models for students with learning difficulties ➢ Personalized attention during group activities to ensure all students understand

	3.The equation of a line passing through two points in both vector and Cartesian forms 4. **Examples and Illustrations:** Solve problems related to the shortest distance between two skew lines, and the angle between lines. The derivation of shortest between two lines https://youtu.be/BXzj9mJvTKQ?si=ZMgJhdhqqOLslu0U Find the equation a line passing through (1,2,-4) and perpendicular to the lines $\frac{x-8}{3}=\frac{y+19}{-6}=\frac{z-10}{7}$ and $\frac{x-15}{3}=\frac{y-29}{8}=\frac{z-5}{-5}$ **5. Real-Life Applications:** The equation of motion of a missile are x = 3t, y = -4t, z = t, where the time 't' is given in seconds, and the distance is measured in kilometers.	C_uWJa5ie7S/view?usp=sharing			between skew lines and the angle between them. The Indian coast guard, while patrolling, saw a suspicious boat with people. They were nowhere looking like fishermen. The coast guards were closely observing the movement of the boat for an opportunity to seize the boat. They observed that the boat is moving along a planar surface. At an instant of time, the coordinates of the position of		

	 Based on the above answer the following: 1. Find the distance will the rocket be from the starting point (0, 0, 0) in 5 seconds? 2. If the position of rocket at a certain instant of time is (5, -8, 10), then what will be the height of the rocket from the ground? (The ground is considered as the xy - plane). 3.At a certain instant of time , If the missile is above the sea level , where the equation of the surface of sea is given by 2x + y + 3z = 1and the position of the missile at that instant of time is (1,1,2) then find the image of the position of the rocket in the sea. **Use of ICT:**				the coast guard helicopter and the boat is (1, 3, 5) and (2, 5, 3) respectively. Based on the above answer the following: If the coast  guard decide to shoot the boat at that given instant of time, then what is the distance (in meters) that the bullet has to travel?		

	https://youtu.be/VZIP0PrViYQ?si=oVm3vfV9xf9Otb4J				If the coast guard decides to shoot the boat at that given instant of time, when the speed of bullet is 36m/sec, then what is the time taken for the bullet to travel and hit the boat? Find the equation of line passing through the positions of the helicopter and boat.		

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN

LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :
2. Class & Section : XII
3. Subject : **PHYSICS**
4. Number of Enrolled Students :
5. Name of the Lesson : CURRENT ELECTRICITY
6. No. of Periods required : 18
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Learner recalls all the technical terms defined for Charge, current, drift velocity and potential difference	Flipped Classroom **Introduction to electric current and Ohm's Law Experiment** **Demonstration**: Perform Ohm's law experiment in class to show the dependency of current on potentia	**Building Series and Parallel Circuits:** **Verification of Ohm's Law** ➢ Measuring Internal Resistance of a Cell ➢ Resistivity of a Wire ➢ Kirchhoff's Laws Experiment	**Mathematics**: Trigonometry, calculus in electric current. **Engineering**: Applications in motors, cells and battery.	Textbooks and Reference Books : NCERT Text book for Class 12 Physics, Concepts of Physics by H.C. Verma, Fundamentals of Physics by	**Multiple Choice Question (MCQ)** Two electric bulbs of 40W and 100W rated at 200V are connected in series to a power supply of 350V. Which of the bulb will fuse? (a) 40W bulb	**Identify Gaps**: Analyse assessments for learning difficulties.	**Differentiated Instruction** – Use varied teaching methods. **Collaborative Learning** Encourage group work and peer support.

	difference.	➢ Temperature Dependence of Resistance		Halliday, Resnick, and Walker	(b) 100W bulb (c) both bulbs (d) None of them		
✧ Learners draws circuit diagram correctly and know the correct connection of different component of electric circuit	✧ **Class Discussion**: Ask students what they observe and lead them into understanding the concept of resistance	**Verification and study of:** ➢ Power Dissipation in Resistors ➢ Circuit Simulation with Software ➢ Exploring EMF and Terminal Voltage	1. **Environmental Science**: Green energy (wind turbines, electric vehicles). 2. **Technology & Coding**: Electric current and cells in backup power supply.	• **Interactive Simulations.** • PhET simulations. https://phet.colorado.edu/sims/html/	**Graph-Based Questions** **Lab Reports/Practical Assessment** **Application-Based Questions**	• **Small Groups**: Targeted instruction for struggling students.	1. **Accessible Resources** -Provide materials in different formats. 2. **Flexible Assessments** -Offer diverse assessment options.
✧ Learner have to know and apply Ohm's law and Kirchhoff's laws to find electric current in the circuit.	✧ **<u>Wheat-Stone bridge</u>** **<u>Visualization Tools</u>**: Show video animations of the Wheat-Stone bridge in action, highlighting of finding of null point.	**Meter-Bridge experiments:** ✧ To determine resistance per cm of a given wire by plotting a graph for potential difference versus current. ✧ To find resistance of a given wire using metre bridge and	3. **History**: Contributions of sir Simon Ohm, Ampere, Kirchoff. 4. **Biology/Medicine**:electric cell and medical applications.	**OLabs Physics Experiments:** https://vlab.amrita.edu/index.php?sub=1&brch=192&sim=972&cnt=4	**<u>Assertion-Reasoning Question</u>** **Assertion:** When 3 identical cells are connected in series the total emf is always equal to 3 times the emf of each cell. **Reason:** In series combination of	• **Visual Aids**: Use diagrams and simulations. • **Hands-On Activities**: Engage with experiments.	3. **Scaffolded Learning** Break down complex topics. **Assistive Technology**-Use tools like simulations and screen readers

		hence determine the resistivity (specific resistance) of its material.			cells, the net emf is equal to the sum of the emfs of individual cells.		
✧ Learner explains various phenomena related to drift velocity, resistivity, mobility, **Wheat-Stone bridge and it's applications.**	✧ **Group Activity**: Have students derive the condition of null point and apply it to different circuit configurations in small groups	✧ To verify the laws of combination (series) of resistances using a metre bridge. ✧ To verify the laws of combination (parallel) of resistances using a metre bridge	1. **Critical Thinking**: Solve real-life electric circuit problems.**Collaboration**: Group projects (electric cells, electric circuits)	• **Animated videos on YouTube** • **Interactive Textbooks & eBooks:** https://epathshala.nic.in/process.php?id=&type=eTextbooks&ln=en	**Assertion:** The resistivity of the heating element of an electric heater should be low compared to the resistivity of connecting wires. **Reason:** The heat produced in the heating element is inversely proportional to the resistance	• **Individual Support**: One-on-one tutoring as needed.	• Evaluate lesson effectiveness on key concepts • Collect student feedback on difficult topics
✧ **Learner to understand the concept of Potential difference and current and also the process of finding the unknown current in a**	✧ Demonstrat-on of Simple Circuits and Interactive Lecture Method	**Activities:** ➢ To assemble the components of a given electrical circuit. ➢ To study the	2. **Creativity**: Design experiments on electric circuits and cells.	• **Modernisation of lab equipments**	**Short Answer Question** 1. A copper wire of non-uniform area of cross-	**Additional Resources:** Provide	• Adjust teaching strategies based on student needs • Self Assessment:

loop using KVL and KCL		variation in potential drop with length of a wire for a steady current	3. **Information Literacy**: Research advancements in the current.		section is connected to a dc battery. The physical quantity which remains constant along the wire is _____.	extra materials for practice.	• Error Analysis:
✧ **Learner to derives the relationship between electric current and drift velocity, conductivity and mobility and equivalent emf and resistance of cells**	✧ Analogies and Visual Aids, Hands-on Lab Activity and Incorporate Simulations and Virtual Labs	➢ To draw the diagram of a given open circuit comprising atleast a battery, resistor/ rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.	4. **Digital Literacy**: Use simulation tools to visualize current. 5. **Leadership**: Encourage team roles in group tasks.	• **Digital Presentations (PowerPoint /Google Slides, Prezi)** • **Assessment Tools (Google Forms/Quizzes)**	2. Two identical cells, each of emf E, having negligible internal resistance, are connected in parallel with each other across an external resistance R. What is the current through the resistance?	**Check-Ins**: Monitor progress with follow-up assessments	• Conceptual Reflection • Peer Feedback and Group Reflection • Concept Mapping • Problem-Solving Sessions

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :	PGT Physics	6. No. of Periods required :	16
2. Class & Section :	XII	7. Date of Commencement :	
3. Subject :	**PHYSICS**	8. Estimated Time Period from :	
4. Number of Enrolled Students :	39	9. Actual date of completion :	
5. Name of the Lesson :			

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life- skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices / Gender Sensitivity
Learners: Derive and apply Biot-Savart law to calculate the magnetic field produced by a circular current-carrying loop and evaluate its significance. Utilize Ampere's circuital law to compute the	**Introduction to Magnetic Field and Oersted's Experiment** **Demonstration**: Perform Oersted's experiment in class to show the deflection of a compass needle due to a current-carrying wire. **Class Discussion**: Ask students what they observe and lead them into understanding the concept	**Magnetic Field and Oersted's Experiment** Group demo of compass needle deflection around current-carrying wire. **Biot-Savart Law**	**Interdisciplinary Linkages:** 5. **Mathematics**: Vector algebra, calculus in magnetic fields. 6. **Engineering**: Applications in motors, generators, maglev systems.	**Interactive Simulations** 1. https://phet.colorado.edu/sims/html/magnets-and-electromagnets/latest/magnets-and-electromagnets_all.html 2. https://javalab.org/en/magnetic_field_aro	**Multiple Choice Question (MCQ)** A charging station for electric vehicles uses a current-carrying wire that creates a magnetic field around it. Which of the following would increase the strength of the magnetic field generated by the wire?	***Remedial Plan:*** • **Identify Gaps**: Analyse assessments for learning difficulties. • **Small Groups**: Targeted instruction for	• Use gender-neutral language and examples • Promote diverse role models in physics

magnetic field in various symmetrical current distributions and explain its application. Analyse the characteristics of solenoids and calculate the magnetic field strength based on current and number of turns per unit length. Apply principles of electric and magnetic fields to determine the path of charged particles in combined fields with real-life examples.	of magnetic fields around a current. **Biot-Savart Law** **Visualization Tools**: Show video animations of the Biot-Savart Law in action, highlighting magnetic fields generated by current elements. **Group Activity**: Have students derive the law and apply it to different current configurations in small groups. **Ampere's Circuital Law** **Graphical Representation**: Use diagrams to visualize magnetic fields created by different current configurations. **Discussion and Derivation**: Lead the class in deriving Ampere's Law with guided questions.	Group derivation and application of Biot-Savart Law using wire configurations. **Ampere's Circuital Law** Diagrammatic exploration and group discussion of magnetic fields in loops. **The Solenoid** Building solenoids with wire and battery, measuring magnetic fields.	7. **Environmental Science**: Green energy (wind turbines, electric vehicles). 8. **Technology & Coding**: Electromagnetic fields in tech (MRI, drones). 9. **History**: Contributions of Oersted, Ampere, Faraday. 10. **Biology/Medicine**: MRI and medical applications. **Life Skills:** 6. **Critical Thinking**: Solve real-life electromagnetic problems. 7. **Collaboration**: Group projects (electromagnets, motors).	und_a_wire_en/ 3. Charged Particle in a Magnetic Field- https://ophysics.com/em7.html **OLabs** • Magnetic Field Along the Axis of a Circular Coil Carrying Current- https://vlab.amrita.edu/index.php?sub=1&brch=192&sim=972&cnt=4 • **Animated videos on YouTube** • **Interactive Textbooks & eBooks:** https://epathshala.nic.in/process.php?id=&type=eTextbooks&ln=en	a) Decrease the current flowing through the wire. b) Increase the distance between the wire and the point of observation. c) Replace the wire with a thicker one while keeping the current constant. d) Increase the current flowing through the wire. **Assertion-Reasoning Question** Assertion (A): When a moving electric charge enters a magnetic field, it experiences a force perpendicular to both its velocity and the magnetic field. Reason (R): The magnetic force on a moving charge depends on the direction of its velocity relative to the magnetic field. **Numerical Problem**	struggling students. • **Visual Aids**: Use diagrams and simulations. • **Hands-On Activities**: Engage with experiments. • **Individual Support**: One-on-one tutoring as needed. • **Additional Resources**: Provide extra materials for practice. • **Check-Ins**: Monitor progress with follow-up assessments ***Plan for advanced Learners:*** • **Challenging Assignments:** Solve advanced	• Encourage collaborative learning • Address diverse learning styles • Avoid gender-based grouping • Encourage questions and normalize struggle with concepts • Provide supportive feedback • Awareness of classroom dynamics

Describes the path followed by charged particles projected in the region under the combined effect of electric and magnetic fields Explains the forces exerted by a pair of parallel current-carrying wires on each other and defines one ampere of current Evaluate the torque acting on a current-carrying loop in a magnetic field and explain its significance in electric motors. Describes the construction and working principle of	**<u>The Solenoid</u>** **Model Building**: Ask students to build their own solenoids using wire, batteries, and iron cores, and measure the magnetic field strength. **Experiment**: Compare the magnetic fields inside and outside the solenoid using compasses. **<u>Magnetic Force on Moving Charges and Current-Carrying Conductors</u>** **Inquiry-Based Learning**: Pose a question like, "What happens when a charged particle moves in a magnetic field?" and let students brainstorm. **Interactive Simulations**: Use online simulations to show how a magnetic field affects moving charges and conductors. **Hands-On Experiment:** Use a magnet and a	**Magnetic Force on Moving Charges** Interactive simulation on particle motion in magnetic fields. **Force Between Two Parallel Conductors** Experiment with parallel wires to observe attractive and repulsive forces. **Torque on Current-Carrying Loop** Rotating loop demonstration to visualize	8. **Creativity**: Design experiments on electromagnetic concepts. 9. **Information Literacy**: Research advancements in the field. 10. **Digital Literacy**: Use simulation tools to visualize fields. 11. **Leadership**: Encourage team roles in group tasks	• **Modernisation of lab equipments** • **Digital Presentations (PowerPoint/ Google Slides, Prezi)** • **Assessment Tools (Google Forms/Quizzes)**	A hospital uses MRI (Magnetic Resonance Imaging) machines, which create strong magnetic fields to align hydrogen nuclei in the body. Suppose the MRI generates a magnetic field of 3.0 Tesla, and a charged particle with a charge of 2×10^{-6} C moves at $500\ m/s$ perpendicular to the magnetic field. Calculate the magnetic force experienced by the particle. **<u>Short Answer Question</u>** 1. A long cylindrical conductor carries a uniform current density. Use Ampere's circuital law to derive the magnetic field inside and outside the conductor. How is this principle applied in the design of coaxial cables? 2. A rectangular loop of wire carrying a current is placed in a uniform	problems (IIT-JEE/Olympiad level). • **Research Projects:** Explore real-world applications (e.g., magnetic levitation). • **Peer Teaching:** Mentor classmates on difficult concepts. • **Extended Reading:** Study from advanced books (Feynman Lectures) and online courses (MIT OCW). • **Experimentation:** Build real-world models using Arduino/Raspberry Pi.	

moving coil galvanometer and design an experiment to convert an MCG into a voltmeter and an ammeter	current-carrying wire to show the force. **<u>Motion in Combined Electric and Magnetic Fields</u>** **Problem-Solving**: Provide practice problems where students calculate forces and predict charged particle trajectories. **<u>Force Between Two Parallel Current-Carrying Conductors</u>** **Demonstration**: Use two wires with current flowing in the same and opposite directions to show the attractive and repulsive forces. **Group Discussion**: Discuss the mathematical formula and its implications for power transmission lines. **<u>Torque on a Current-Carrying Loop</u>** **<u>Visual Demonstration</u>**: Use a simple motor or	torque in magnetic fields. **Moving Coil Galvanometer** Group construction of a simple galvanometer and its practical uses.			magnetic field. Calculate the torque acting on the loop. How is this principle used in the design of electric motors? **<u>Long Answer Question</u>** 1. A city's tram system is powered by electric currents running through overhead wires. Engineers want to reduce energy loss during transmission, especially in areas where the tram makes sharp turns. How would the engineers apply Biot-Savart Law to optimize the tram's wiring system to minimize energy loss, especially around curves? Derive the equation for magnetic fields created by current-carrying loop. 2. Two parallel high-voltage power lines carry currents in opposite directions. A maintenance engineer needs to ensure that the forces between the	• **Interdisciplinary Learning:** Connect electromagnetism with robotics, quantum physics, and electronics. • **Competitions :** Participate in Physics Olympiads and science fairs. ***<u>Reflective practices:</u>*** • Evaluate lesson effectiveness on key concepts • Collect student feedback on difficult topics • Adjust teaching strategies based on student needs	

	rotating loop to show how torque acts on a current-carrying loop in a magnetic field. **Simulation**: Show an animation of the torque effect to solidify understanding. **<u>The Moving Coil Galvanometer</u>** **Interactive Learning**: Have students construct a basic galvanometer with wire, magnets, and a needle. **Application Activity**: Discuss real-world uses of galvanometers and ask students to explain how it works in everyday devices.				lines are within safe limits to avoid mechanical strain on the poles. Explain how the force between the two parallel power lines can be calculated and what steps the engineer can take to ensure the forces are safe for operation.		

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Comments / Suggestions on Lesson Plan

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1.	Name and Designation of the Teacher : ----------	6. No. of Periods required : 1	
2.	Class & Section : XII	7. Date of Commencement :	
3.	Subject : **Chemistry**	8. Estimated Time Period from :	to :
4.	Number of Enrolled Students :	9. Actual date of completion :	
5.	Name of the Lesson : Solutions (Topic – Osmotic pressure)		

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Define osmotic pressure Correlates two variables Interpret natural phenomena Scientifically Realize the advantages of osmotic	Group discussion on the phenomenon of osmosis and its applications in daily life Conducts simple experiments to	Dropping dry raisins in water Group discussion on home remedies adopted in our daily life to treat edema, preservation of food items by salting or caramelizing etc, revival of wilted flowers,	Biology and chemistry: Water movement from soil to plant roots and subsequently into upper portion of the plants. Physics and engineering: Relationship between thermodynamics and	Video link for activities Soft copy of study material and previous years' question papers Interactive simulations like o lab	Class test Multiple choice questions including Assertion reason type and case based/source based Online test using platforms like google	Oral test and Slip tests during the class Interaction with parents to discuss the progress of child Self-assessment check list Peer review Discussion of	Audio and video lessons to cater to the needs of differently abled students MLL questions HOT questions Creating diverse groups where students support each other to learn from each other

pressure measurement method to determine the molar mass of biomolecules and polymers Solve numerical problems Apply scientific knowledge to solve problems Explain the scientific principle involved in the RO water purifiers	demonstrate osmosis Derive relationship between osmotic pressure and concentration of solutions and temperature Incorporating van't Hoff factor in the relationship Solve numerical problems based on the formula derived	dropping carrots Solving numerical problems to calculate osmotic pressure, molar mass of solute etc. Activity to show the direction of flow of solvent in the given figures based on concentration gradient and excess pressure	biological processes Environmental science and ecology: Adaptation of plants in the changing environmental conditions to maintain water balance. Mathematics: Numerical problem solving using formula Medicine and Pharmacology: Treatment of edema, dehydration, Concentration of IV Fluid, Values: Honesty, objectivity and rational thinking	Power point presentations Animation videos Precautionary measures like gloves, goggles, lab coat etc	form Home assignments Quiz Group projects	frequently asked questions Additional support to solve numerical problems Individual attention, providing additional resources (both online and offline) Effective use of Study materials Appreciation for showing the progress in their performance and motivation for further improvement.	Peer assistance for hands on experiments Design activities varying difficulty levels Equal opportunity provided for all students irrespective of their gender for performing activities/projects. Create a safe space for all students to express themselves without fear. Usage of only gender neutral language and examples in the class

Comments / Suggestions on Lesson Plan

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Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN
LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher : (PGT BIO) 6. No. of Periods required : 10
2. Class & Section : XII A 7. Date of Commencement :
3. Subject : **BIOLOGY** 8. Estimated Time Period from : to
4. Number of Enrolled Students : 9. Actual date of completion :
5. Name of the Lesson : BIOTECHNOLOGY AND ITS APPLICATIONS

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Learner: applies scientific terminology for organisms and processes such as plasmid; vectors; genetically modified organisms (GMO). explains efficiently the use of relationships in controlling the pests using GMOs and in finding out	The learners may be provided with opportunities individually or in groups and encouraged to: collect and analyze wide variety of information about genetically modified organisms from newspapers, magazines or the internet. share and discuss their beliefs and	Debate- Are GMOs an essential need in agriculture sector? Are GMOs safe to the society and for ecosystem balance? Are gene therapy available to every category of Citizens? Article – collect information and prepare an article	Interdisciplinary linkage with Bioengineering processing in creating genetically modified crops Molecular biology in isolating cry genes from *Bacillus thuringensis* and in forming dsRNA for	NCERT Textbook DIKSHA Power Point Presentation Videos (few link pasted above) Internet – https://www.ars.usda.gov/ARSUserFil	Selected assessment questions – MCQs such as Which of the following explains why production of transgenic plants is easier than production of transgenic animals? Plants cells can grow in cell	Flow chart representation on working of Bt Cotton, RNA interference, Humulin formation, gene therapy- Step by step explanation of the process Making them to write the missing links. Topic wise	Use multiple representation methods – Debate, field visits, article writing- making sure of the involvement of everyone in the class in the above activities.

symptoms, biochemical processes etc using transgenic animals. describes contribution of researchers all over the world to develop agricultural, medical sectors. makes linkages at the interface of Biology with other disciplines by relating various interdisciplinary concepts such as recombinant DNA technology, bioprocess engineering. draws conclusion on the basis of data collected in activities such as does GMOs disturb the ecological stability?	views regarding myths, taboos, superstitions, etc., by initiating an open-ended debate- Are GM food crops approved in INDIA? Why and why not? Is it correct to create transgenic animals? How rDNA helps in medical sector especially in gene therapy? Etc. appreciate the efforts of scientists made over time- Vaccine for corona virus. Use of animation video to aware how recombinant DNA technology have played role in various sectors. Eg: "Story of Bt Cotton in India" and the working process of Bt cotton. Suggestive links of video: https://www.isaaa.org/Resources/vid	on application of GMOs in agriculture, medical field and in diagnosis in INDIA. Field visits to nearby agricultural university to enhance students learning experience and to expose them with new environments and perspectives.	RNA interference. Pathology and pharmacology in understanding the genetic makeup of various diseasing causing microbes for creating vaccines and medicines. Molecular chemistry in identifying various chemical compounds involved in the processes. Controlling pests through organic methods to maintain stable ecosystem Increased quality production like golden rice will	es/oc/np/btcotton/btcotton.pdf https://www.genome.gov/genetics-glossary/Gene-Therapy	culture. Plant cells have a lower number of potentially lethal genes. Plant cells are totipotent. Production of mutant plant possess less ethical dilemmas than the production of mutant animals. Constructed response questions such as (a) Give a reason why, although a toxin, Bt toxins are deadly for insects but not for plants producing them. (b) Describe the steps in which Bt toxins act on insects.	Mind Map Topic wise Mini materials	

	eos/btcotton/default.asp https://agbiotech.oregonstate.edu/video/bacillus-thuringiensis-bt		enhance economy of the country. Exhibits values of honesty, objectivity, rational thinking, decision making, respect for nature by participating in debate from the information collected on GMOs				

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN LESSON PLAN

General Information: Date:

1. Name and Designation of the Teacher :
2. Class & Section : XII-
3. Subject : **Computer Science**
4. Number of Enrolled Students :
5. Name of the Lesson : Function
6. No. of Periods required : 15
7. Date of Commencement :
8. Estimated Time Period from : to
9. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/ Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Basic Concepts	Lecture and Discussion	Define functions	**Critical thinking** – Math, Management	PPT	**Code Review** – Correctness,	Feedback of Lesson	**Different instructions**
Structure of Function	Mind mapping	Identify and rectify errors	**Decision Making** – Logical Reasoning	e-Classroom	Efficiency, Modularity	Concept revision	for students with different
Types of Functions	Experiential learning	Find output of a code	**Creativity**– Design layout of solution	Worksheet	**Quiz**- Fundamental understanding,	Individual doubt clear	learning curve
Types of Parameters	Case-based learning	Write programs using functions		Exercise and Sample QP	Accuracy of Response	Problem Solve - MLL	**Focus** on personal
Scope of Variables	Differentiated instructions	Practical and Problem Solve		Practical Assignments	**Monthly Test** – Assess Performance		learning progress

Comments / Suggestions on Lesson Plan

Signature of the Teacher VP/HM

Comments / Suggestions on Lesson Plan

Signature of the Principa

KENDRIYA VIDYALAY SANGATHAN
LESSON PLAN

General Information: Date:

6. Name and Designation of the Teacher :
7. Class & Section : XII B
8. Subject : Informatics Practices (IP)
9. Number of Enrolled Students :
10. Name of the Lesson : Data Visualization

10. No. of Periods required : 05
11. Date of Commencement :
12. Estimated Time Period from : to
13. Actual date of completion :

Specific Learning Outcomes	Pedagogical Strategies for Experiential Learning	Individual/Group activities / experiments / hand-on-learning	Interdisciplinary Linkages and infusion of Life-skills, Values	Resources (including ICT)	Competency Based Assessment items for measuring the attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
Learners will be able to 1. Identify methods of the library i.e. matplotlib used for plotting graph. 2. Create line graph using plot() function 3. Create vertical/ horizontal bar graph using bar()/barh() function. 4. Create histogarm using hist() function. 5. Customize the plot by adding title, x-axis, y-axis, legend etc.	● Introduce key concepts-importance of data visualization through discussion methods. ● Use of python library in hands on workshop. ● Analysis based on real data set makes the practice more engaging.	Group activity 1. Collection of any real world data set (e.g. Covid 19, social media engagement matrix, global temperature over time etc.) 2. Representation of the given collected data using any of the graphs. 3. Implementation of the relevant graph using any python IDE	Interdisciplinary linkages, infusion of 21st Century Skills, values etc. Integrate the topic with science, mathematics, finance, engineering	1. PPT 2. Python IDLE or any python IDE	1. Learners can execute the written python code for checking correctness using any python IDE. 2. Coding practice based on different types of charts including multiple charts.	● Focusing on how to import matplotlib module ● Writing practice to understand the correct syntax and how to access functionality from a module.	● MLL questions ● HOTS questions ● Peer learning ● Inclusive language.

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principa

KENDRIYA VIDYALAY SANGATHAN

LESSON PLAN

General Information: Date:

1. **Name and Designation of the Teacher:** ABC, PGT HISTORY
2. **Class & Section**: XII
3. **Subject: HISTORY**
4. **Number of Enrolled Students:**
5. **Name of the Lesson:** DANDI MARCH & MAKING OF SALT
6. **No. of Periods required:** 04
7. **Date of Commencement:**
8. **Estimated Time Period from**:
9. **Actual date of completion**:

Specific Learning Outcomes	**Pedagogical Strategies for Experiential Learning**	**Individual/Group activities / experiments / hand-on-learning**	**Interdisciplinary Linkages and infusion of Life-skills, Values**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
ts will be able to: To understand the nationalist movement in chronological order correlate the significant elements of the	**PREPARE FOR THE SIMULATION of the Indian National Congress.** "Our class is now going reenact a meeting of the Indian National	**Hands on activity** Write on the board: "1930, India. How to make Salt". Say to the	Students will have Appreciation for Indian nationalist movement and Mahatma	**NCERT Textbook PPT-** https://drive.google.com/file/d/1dV_frN5XrAmGFpV9hsD3ov4-	**Critical thinking-** Students will critically analyse from the various sources regarding Dandi March.	1. Minimum learning material will be given to the children. 2.Providing graded	**Diverse Perspectives**: Introduce students to historical perspectives from a variety of cultural, social, and

nationalist movement and the nature of ideas, individuals, and institutions under the Gandhian leadership To Debate on the significant contributions of Gandhi to understand his mass appeal for nationalism. To Explore the ways of interpreting historical source such as newspapers, biographies and auto- biographies diaries and letters	Congress in 1930. The Indian National Congress was made up of Indians from diverse ethnic, religious, and language groups throughout India, and it was led by Mahatma Gandhi. The goal of the Indian National Congress is to make India free and independent from England. Today our class is going re-enact a meeting of the Indian National Congress. During this meeting we are going to try figure out a way to get rid of the Salt Tax law, and hopefully find a way to make India free." Divide the class into 6 student teams. Hand out the "Character Role Sheet for the Indian National Congress." Tell students that	class: "I want you to imagine that it is the year 1930, and we are in India. During this time, 1930, salt was very important for Indian cooking. So, let's learn about salt. Salt is very important to everyone in India, whether rich, or poor, Muslim or Hindu, everyone uses salt. Does anyone know how salt is made? (Let students guess). Today I am going to show you how was salt made in India. But first, remind me,	Gandhi's non-violence method, and it will also enhance leadership qualities among them	rNlVsmlg/view?usp=sharing **Videos link-** **https://www.youtube.com/watch?v=G1_Dm1ZjRAM** **Bullet notes**	**Communication** -Students will present thereby learn clarity of speech, how to use and synthesize information) about the effectiveness of Mahatma Gandhi's non-violent campaign to achieve Independence from the British Empire. **Collaboration** – **Students will be divided in Small groups to discuss and solve problem related to the topic** **Creativity** - Students could participate in role-playing exercises where they enact key events from	worksheet for map work and Picture demonstration of the chapter. 3. Source based questions of the chapter. 4. Sample papers by CBSE. 5. focus on peer group study of given topics.	economic backgrounds. Including marginalized voices, such as those of women, indigenous groups, and other underrepresented communities, gives students a fuller understanding of history. **Multisensory Learning**: Use visual aids, artifacts, maps, videos, and even storytelling to make historical concepts accessible to students with different learning styles.

	for our class simulation they will no longer be themselves, instead, they become a new character: one which I will assign to them. Assign Character Roles to each member of the team. Post the following question: "You are members of the Indian National Congress. Describe from your character's point of view what the Indian National Congress should do to fight against the England's Salt Tax and other humiliating laws like it? Give suitable arguments in support of your answer. *Keep in mind Gandhi's ideas about non-violent methods of "Satyagraha", as well as other methods that	what year is it? That's right 1930. And where are we? India! For this activity I need a volunteer..." (Make this following activity seem like a cooking show on the food network/ pre-heat the water so that is at a warm to begin with) Give directions to the volunteer and LET THE VOLUNTEER MAKE THE SALT How to make salt... You take sand from the beach and boil it in seawater, and			Gandhi's life, like the Salt March or his meetings with other leaders. Citizenship - Gandhi led movements like the Non-Cooperation Movement, the Salt March, and the Quit India Movement, all of which involved mass participation and civil disobedience. By studying these movements, students see the power of collective action and the impact that citizens can have when they come		This approach also helps in retaining complex information. **Encouraging Critical Thinking**: Challenge students to analyse historical sources critically, considering who wrote them, their context, and any biases they may contain. This helps students develop a balanced view of history and encourages indepen dent thought.

	revolutionaries had espoused. **Compare and synthesize out of two given methods to deal with Britishers, which one is more suitable for India, a country which stands for tolerance—recall Asoka's policy of Dhamma & Akbar's policy of Sulhe-kul**	then you remove the sand and let the salty water evaporate into salt. Do this in class by bringing a hot plate, a glass plate, sand that is pre-mixed with table salt.			together for a cause, motivating them to engage actively in societal issues.		

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP

Signature of the Principal

KVS, ZONAL INSTITUTE OF EDUCATION AND TRAINING MYSORE

LESSON PLAN

General Information: **Date:**

1. Name and Designation of the Teacher:
2. Class & Section: **XII**
3. Subject: **Geography**
4. Number of Enrolled Students:
5. Name of the Lesson : TRANSPORT AND COMMUNICATION
6. No. of Periods required: **15**
7. Date of Commencement:
8. Estimated Time Period from: to
9. Actual date of completion:

Specific Learning Outcomes (At the end of the chapter students are able to)	**Pedagogical Strategies for Experiential Learning**	**Individual/Group activities / experiments / hand-on-learning**	**Interdisciplinary Linkages and infusion of Life-skills, Values**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
Acquire knowledge about various modes of transport in different continents. Compare and synthesize the information about major transport routes around the globe. Understand the development of communication networks and	.Explain cause and effect relationship on human environment interaction such as population distribution, migration, cropping patterns, transportation & communication, trade, etc. 2. Case studies: Use real-world examples to illustrate concepts	1. Students can be asked to do a survey of their class about the means of transport being used by students to reach school. 2. Prepare a Bar diagram with the help of the data collected. 3. Analyze the connection between physical landscape and	• **Historical Evolution**: Connect Geography and History by exploring how physical landscapes and historical trade routes (like the Silk Road) influenced transport development. • **Economic Impact**: Link Geography and Economics by	Textbooks: 1. NCERT Geography textbook "Fundamentals of Human Geography" (Chapter 7: Transport, Communication, and Trade) 2. NCERT Geography textbook "People and Economy	1. Geographical understanding: Familiarity with basic geographical concepts, terminologies, and theories. 2. Spatial analysis: Ability to analyze and interpret spatial data, including maps, graphs, and charts. 3. Critical	• **Identify Learning Gaps**: Use quizzes, assignments, and class participation to pinpoint specific areas where students struggle. • **Provide** Targeted **Feedback**: Offer clear, constructive feedback on strengths and	Inclusive Practices: 1. Use diverse examples and case studies that reflect various regions, cultures, and communities. 2. Incorporate perspectives and experiences of marginalized groups, such as indigenous peoples, women, and minorities. 3. Use gender-neutral language and avoid gender stereotypes.

their impact on the modern world.	and encourage critical thinking. 3. Fieldwork and field trips: Conduct practical exercises and field visits to transportation hubs, communication networks, and related infrastructure. 4. Group discussions and debates: Encourage collaborative learning and critical thinking through group activities. 5. Role-playing and simulations: Use interactive methods to demonstrate transportation and communication systems. 6. Use of technology and multimedia resources: Incorporate digital tools, videos, and interactive maps to enhance learning. 7. Problem-solving exercises: Provide students with real-world scenarios to	development of various modes of transport. 4. Mark and label the terminal stations of Trans-Siberian Railway, Trans Canadian Railway and Trans Australia Railway on an outline world map. 5.Draw a sketch map of Suez Canal, Panama Canal, St Lawrence Sea ways and Rhine Waterways, and mark them on an outline map of the world. 6.On an outline map of the world mark and label the following major airports of each continent: a.Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden b.Africa: Johannesburg & Nairobi	examining how transport and communication systems boost trade, economic growth, and market connectivity. • **Environmental Sustainability**: Combine Geography and Environmental Studies to discuss the environmental effects of transportation and the need for sustainable alternatives like electric vehicles and public transit.	India" (Chapter 7: Transport, Communication, and Trade) Online Resources: 1. National Council of Educational Research and Training (NCERT) website: ncert.nic.in 2. Central Board of Secondary Education (CBSE) website: cbse.nic.in Power point presentations done by the teachers of KVS Notes and Study Materials: Done by the teachers of KVS from various regions and	thinking: Capacity to evaluate information, identify patterns, and make logical connections. 4. Problem-solving: Skill to apply geographical concepts to real-world problems and scenarios. 5. Communication skills: Ability to effectively communicate geographical ideas and concepts through written and oral presentations. 6. Data interpretation: Proficiency in interpreting and analyzing data related to transport and communication trade. 7. Map reading and analysis:	areas for improvement, focusing on the identified gaps. • **Design Remedial Activities**: Create tailored activities (e.g., worksheets, discussions, or small group work) to reinforce challenging concepts. • **Monitor Progress**: Regularly assess students through short tests or interactive sessions to check understanding and improvement. • **Encourage Peer Support**: Pair students for peer tutoring to reinforce learning and boost confidence. • **Adapt Teaching Methods**: Use	4. Encourage participation and contributions from all students, regardless of gender, ability, or background. 5. Use accessible language and materials that are inclusive of different learning needs. 6. Address power dynamics and privilege in the classroom and in geographical contexts. 7. Foster a safe and respectful learning environment that promotes empathy and understanding **Gender Sensitivity:** 1. Avoid gendered assumptions and stereotypes in teaching and materials. 2. Use gender-neutral terms and avoid binary gender classifications. 3. Incorporate gender analysis and perspectives in geographical concepts and case studies. 4. Address gender-

	apply geographical concepts and develop solutions. 8. Guest lectures and expert talks: Invite industry experts to share practical insights and experiences. 9. Project-based learning: Assign students to work on projects that integrate geographical concepts with transport and communication trade. 10. Map analysis and spatial thinking: Develop students' spatial thinking and map analysis skills through practical exercises. 11. Formative assessments and feedback: Regularly assess student progress and provide constructive feedback to enhance learning. 12.	c. Europe: Moscow, London, Paris, Berlin and Rome d. North America: Chicago, New Orleans, Mexico City e. South America: BuenosAires, Santiago f. Australia: Darwin and Wellington		ZIET, study materials from cbseguide.com learncbse learninsta etc. Atlas Practice Questions and Test Papers: 1. NCERT Geography practice questions (ncert.nic.in) 2. CBSE Geography practice questions (cbse.nic.in)	Ability to read and analyze maps, including identifying transport routes, communication networks, and related infrastructure. 8. Case study analysis: Capacity to analyze and interpret case studies related to transport and communication trade. 9. Research skills: Ability to conduct research and gather information from various sources. 10. Collaboration and teamwork: Willingness to work collaboratively and engage in group discussions and activitie	varied instructional strategies (visual aids, practical examples) to address different learning styles.	based inequalities and discrimination in geographical contexts. 5. Promote gender equality and empowerment in the classroom and beyond. 6. Use inclusive visuals and images that reflect diverse genders and identities. 7. Encourage critical thinking about gender and geography and their intersections.

	Interdisciplinary connections: Connect geographical concepts to other subjects, such as economics, politics, and environmental studies. 13. Real-world applications and examples: Use everyday examples to illustrate geographical concepts and make learning relevant.						

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAY SANGATHAN
LESSON PLAN

General Information: **Date:**

6. Name and Designation of the Teacher: **PGT-ECONOMICS**
7. Class & Section: **XII**
8. Subject: **ECONOMICS**
9. Number of Enrolled Students:
10. Name of the Lesson : **GOVERNMENT BUDGET AND ECONOMY**

10. No. of Periods required: **17**
11. Date of Commencement:
12. Estimated Time Period from: to
13. Actual date of completion:

Specific Learning Outcomes	**Pedagogical Strategies for Experiential Learning**	**Individual/Group activities / experiments / hand-on-learning**	**Interdisciplinary Linkages and infusion of Life-skills, Values**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
#Define Government Budget. #Describe the important objectives of	**#Art integrated learning *** (Drawing of charts of types of budgets and on components of Budget).	#Encourage students to actively engage with the material through: *Discussions, Debates Group work. #Hands-on activities.	**#Creating Cross-Curricular Linkages** i.e. *Mathematical data handling and interpretation can be effectively applied while teaching this topic. *Language skills can be developed while discussions, debates etc.	#PPT to show art integration on government budget. #Video /photos of government budget.	#Allow the students to ask their doubt during period and clarification at the same time. #Peer teaching (Encourage the	#5 minutes for doubts clearing at the end of each period. #Allow the students to ask their doubt during period and clarification	#Use of visual aids (charts, graphs) and real-life examples. #Differentiated instruction with varied teaching methods

government budget. #Different components of government budget. #Define different types of government budget. (budget deficits)	*creating a cartoon or comic strip that illustrates a budget-related concept, (such as taxation, government spending, or fiscal policy.)	Like preparing budget of various events organized in school i.e. Teachers day celebration, annual day celebration, source of income and expenditure of school. *Estimate the budget Of student annual expenditure and various income sources etc.	**#Life skills** this chapter focused on the development of following life skills of the students: *Flexibility *Leadership *Initiative *Productivity and *Self-awareness. **21st Century Skills** **#Critical and creative thinking.** (Drawing, poster making on government budget and its components).	#Flow charts on different components of budget. #NCERT text book #News Papers #Budget Speeches #Economic Survey #Union Budget (www.indiabudget.gov.in)	late bloomer to clarify their doubt from the bright students as per their convenience). #**HOT/**Challenging questions for practice. **#MCQ type question**. #Slip test #Quiz #Oral Questions during discussion.	at the same time. #Peer teaching (Encourage the late bloomer to clarify them from the bright students as per their convenience). #Provide e-learning material/support material. #Provide Practice material for self-learning	#Group discussions and collaborative learning activities. #Simplified language and definitions for complex terms. #Use of case studies related to government budgets. #Assistive technology and learning aids for students with special needs. #Real-life application projects, like creating mini-budgets. #Frequent assessments and feedback for all students.

#Describe implications of different types of budget deficit.			**#Communication.** (Group discussion on government budget). **#Collaboration** (Discussing with peers to construct learning). **#Literacy Skills** such as Information literacy, Media Literacy and Technology Literacy.		(**Assessment for Learning)** #Home assignment **(Assessment of Learning)**		#Creating an inclusive class environment for diverse participation. #Encouraging critical thinking about the social impacts of the budget.

Comments / Suggestions on Lesson Plan

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Signature of the Principal

KENDRIYA VIDYALAYA LESSON PLAN

NAME OF THE TEACHER: DESIGNATION: **PGT-Commerce** SUBJECT: **Accountancy**

CLASS: **XII Commerce** TOPIC/CHAPTER: **Cash Flow Statement** No. of periods required: **20**

Specific Learning Outcomes	**Pedagogical Strategies**	**Group Activities/ Experiments/ Hands-on-Learning**	**Interdisciplinary linkages, infusion of life skills, values etc (21st Century Skills)**	**Resources (including ICT)**	**Competency Based Assessment items for measuring the attainment Of Learning Outcomes**	**Feedback and Remedial Teaching Plan**	**Inclusive Practices/ Gender Sensitivity**
Students will state the meaning of cash flow statement. **Student will understand** the objectives of preparing cash flow statement. **Students will differentiate** among operating, investing and financing activities. **Students will get trained** in preparation	**Inquiry based learning-** Encourage students to ask more and more questions to generate interest and answer all those questions to quench their curiosity. **Integrative learning-** Put efforts to connect the contents with what they already know and understand better even in other subjects. **Collaborative learning-** Try	**Simulated Activities:** Engaging students in simulations where students can manage the finances of their family including preparation and analysis of cash flow statement. **Role Play:** Students may be given the different roles such as finance manager, production	**Interdisciplinary Linkages** **Economics:** students will relate it with circular flow of income. **Business Studies:** students will relate it to financial management. **Entrepreneurship:** students will relate it with resource mobilization. **Mathematics:** students will relate it with linear programming. **Infusion of 21st Century Skills (Life Skills)**	• Self-made YouTube Video for introduction https://youtu.be/-jjAwwDqRhk?si=xU4Edo0JsnBg9qgd • Self-made PPT • Chalk, Duster & Green Board • Textbook & Refer	**Question-Answer Session:** it will include Competency based Questions in form of MCQs, Case based Questions, application based Questions, High Order Thinking Questions as well as Minimum Learning Level Questions **Home Assignment:** it will include making notes of theoretical concepts and giving a few numerical problems from simple to complex calculation for practice at home to be followed by doubt solving session next day. **Chapter end Written Test:** it will include	**Feedback:** • Oral Quiz in class • Solving Numerical Problems on Board by students • Slip Test **Remedial Teaching Plan:** • Individual Counselling • Encouragement to Initiate • Use of Inductive Method • Identification of Learning Gaps	*Peer learning *Sensitisation with the complexities of subject *Writing legibly and with bold letters on board *Speaking loudly and with clarity *Proper eye contact *Special focus on the contents being noted

of cash flow statement incorporating adjustments, as per AS-3 (revised) using Indirect Method.	to involve students in a group to give example and also provide them opportunity to work together. **Reflective learning-** Make students add something to what has been taught and ask them where they may apply it. **Constructivist learning-** Ensure what the students have understood and how they have perceived the contents taught.	manager, and general manager of a particular company and asked to comment on its cash flow statement. **Real life Activities:** Students may be given a task of preparing their own cash flow statement on a week basis assuming the three main activities as Learning Activities, Fun Activities and Saving Activities where inflows will be their pocket money or money received from their relatives.	**Problem Solving:** students will develop problem-solving skills. **Financial Literacy:** students will know about investment & finance opportunities. **Emotional Intelligence:** students will experience how inflows may be increased. **<u>(Values)</u>** **Equity:** students will relate it with subtracting an item from a place but adding it to another place. **Justice:** students will connect it with consideration of all activities of business for the increase or decrease in cash & cash equivalents.	ence Book • CBSE PYQs in PDF • Self-made YouTube Videos of Numerical Problems for repetition purpose https://youtu.be/YgS6_WTJoC4?si=zUKspIFZ3x3T651j https://youtu.be/ZSx0VVIZh8k?si=iAMDBQDCZCkd5oSP https://youtu.be/SLYSGBq5Ucg?si=y-gBQQWSn9ykE4MO	questions as per the CBSE pattern; 1 marker (2 MCQs), 3 marker (1 VSA), 4 marker (1 SA) and 6 marker (1 LA), Total 15 Marks with time limit of 40 Mints to accelerate their speed and accommodate them with CBSE pattern. **Discussion on Written Test:** it will include solution to all questions and explanation of their doubts followed by rewriting the answers or solving the numerical problems which were earlier wrong.	• Re-explanation • Solving of Worksheets from simple to complex • Re-diagnosis followed by requisite explanation Rigorous Practice again and again including PYQs of CBSE	

Comments / Suggestions on Lesson Plan

Signature of the Teacher

VP/HM

Comments / Suggestions on Lesson Plan

Signature of the Principal

KENDRIYA VIDYALAYA SANGATHAN

LESSON PLAN

General Information Date

1.Name and Designation of the Teacher: 2. Class & Section: XII 3.Subject: Business Studies
4.Number of Enrolled Students: 5. Name of the Lesson: Financial Leverage 6.No. of Periods required 01
7.Date of commencement: 8.Estimated Time Period from: to 9.Actual Date of Completion:

Specific Learning Outcomes	Pedagogical Strategies for Experiential learning	Individual/group activities/Experiments /Hand-on-Learning	Interdisciplinary Linkages and Infusion of Life-skills, Values	Resources (Including ICT)	Competency Based Assessment Items for measuring the Attainment of Learning Outcomes	Feedback and Remedial Teaching Plan	Inclusive Practices/ Gender Sensitivity
After the topic/concept has been taught, Learners are expected to receive, understand, learn and able demonstrate: 1.Use of debt capital in the capital structure. 2. Use of debt	1.Promoting active learning by involving all students in teaching-learning process (Experiential learning) 2. Connecting the topic with outside class room experience with suitable examples. 3. Focusing on	Teacher will give hypothetical data and he will solve the question by involving the learners in solving the question And Learners will follow the activity. Total funds used: 30 Lac Rate of Interest: 10% p.a Tax rate: 30% EBIT: 4Lac Share value: 10/ each DEBT: Situation-I: NIL Situation-II: 10 lac	Teacher provides related links about the topic and He/she also suggest reference books if any for more understanding	NCERT text book, /Black board, / Projector, /Internet/PPT/resource material/CBSE question papers/Case studies etc.	1. Conducting class tests/oral tests/monthly tests after the topic. Giving 2.practical/project work on the topic Concept mapping 3.Observing and identification of topics 4. Interview schedule and case studies. 5.Group discussion **Home assignment** Total funds used: 40 Lac Rate of Interest: 9% p.a Tax rate: 30% Share value: 100/ each EBIT: 8Lac DEBT:	1. After the topic is taught, the teacher tries to get the feedback so as to know the fact if any student (s) faced any difficulty of not understood or confusion. 2. In this process the teacher identifies those students by means of asking simple questions/class tests/monthly tests/ group discussion as the case may be as	1.Class room seating arrangement 2.Flexibility in bringing note books notebooks 3.Flexibility in doing and submitting class work and home work 4.Accessibility of note books and text books from the library 5.Availability co student help whenever necessary

capital and its impact on earnings per share 3.Use of debt capital and saving of tax (reduction in overall tax liability) 4.Relation between Interest on debt capital and ROI. 5.Understand that increase in financial leverage increases EPS	reflections on the topic. 4. Following the principle of inclusive teaching. 5. Creating conclusive class room environment. 6.Attending individual differences.	Situation-III | 20 Lac EBIT-EPS ANALYSIS particulars | Situation-I | Situation-II | Situation-III EBIT | 4000000 | 4000000 | 4000000 Interest | NIL | 1000000 | 2000000 EBT | 4000000 | 3000000 | 2000000 Less-Tax | 1200000 | 900000 | 600000 EAT | 2800000 | 2100000 | 1400000 No. of shares of rs-10 each | 3000000 | 2000000 | 1000000 EPS | 0.93 | 1.05 | 1.40 No. of shares= Amount of share capital/nominal			Situation-I | NIL Situation-II | 10 lac Situation-III | 30 Lac **Ans-EPS-situation-I14/ Situation-II 16.56 and Situation-III 37.10**	teacher felt suitable. 3. On the basis of analysis, the teacher identifies the areas that the student (s) not understands. 4.After that the teacher prepare remedial action plan which may be re teaching the identified areas with some different pedagogy that the teacher felt suitable and best to make them learn. After re-teaching the teacher may go for retesting the learners and ensure that they can demonstrate the learning experiences in the exam.	

		value of each share EPS=EAT/No. of shares NOTE It is to be noted that use of debt capital increases EPS as long as Rate of interest on debt is lesser than the rate Interest on investment					

Signature of the Teacher

Comments/suggestion on Lesson Plan
VP/HM

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Signature of the Principal