

**SURENDRANATH CENTENARY SCHOOL SESSION – 2026–27**  
**ANNUAL PEDAGOGICAL PLAN – CLASS IX (ENGLISH)**

Subject: English

Books: NCERT Beehive, Moments, Words and Expression , Kaveri

<b>Month</b>	<b>Chapter</b>	<b>No. of Periods</b>	<b>Topics</b>	<b>Learning Objective</b>	<b>Learning Outcome</b>
April	The Fun They Had; The Road Not Taken,Wind	21	Recapitulation, prose & poem, Determiners, Tenses, notices, informal invitation,editorial letters, application letter writing.	To help learners develop reading, grammar and writing skills	Learners will comprehend texts and write effectively.
May	How I taught my grandmother to read; Bharat our Land,	10	Story, poem, emotions, reported speech, formal e-mail	To help learners interpret and express ideas	Learners will analyse themes
June	The sound of music(1 and 2)	11	Subject verb agreement, clauses.	To strengthen grammar	Learners will apply grammar rules
July	Vitamin- M, The Lake Isle Of Innisfree.	22	Prose & poem, comprehension, magazine articles, factual description, descriptive paragraph.	To develop appreciation, analysis, writing skills.	Learners will interpret texts

August	Subject enrichment strategies, revision of integrated grammar exercises, writing skills; revision of HALF YEARLY EXAMINATION.	20	Satire, patriotism, integrated grammar and writing skills.	To build analytical skills, communication skills, apply grammatical rules in writing.	Learners will analyse and write the answers.
October	My Childhood; gifts of grace, I cannot remember my mother.	15	Values, poetry	To understand life lessons and answer the questions.	Learners will relate text with the real life situation.
November	Reach for the Top(1and2),no men are foreign.	16	Inspiration, poem, narrative essay.	To motivate learners	Learners will identify themes.
December	Twin Melodies; A slumber did my spirit seal.	20	Compassion, emotions, letter writing	To build emotional understanding	Learners will analyse tone
January	The Last Leaf; subject enrichment activities, revision of FINAL EXAMINATION.	20	Hope, dignity,integrated grammar, writing .	To reinforce skills, apply rules , enhance writing and communication skill.	Learners will write effectively

**SURENDRANATH CENTENARY SCHOOL**  
**SESSION - 2026-27**  
**ANNUAL PEDAGOGICAL PLAN**  
**CLASS IX**

Subject- **हिंदी**

Book- **गंगा (कक्षा नवम के लिए) कृतिका भाग-1, नवयुग हिंदी व्याकरण**

Month	Chapter	N o. of pr .	Topics	Learning Objective	Learning Outcome
April '26	<p>साहित्य की रूपरेखा: एक परिचय</p> <p><b>गंगा:- 8. रैदास के पद</b></p> <p>1. दो बैलों की कथा</p> <p><b>कृतिका:-</b> इस जल प्रलय में</p> <p><b>व्याकरण:-</b> उपसर्ग, अनुच्छेद-लेखन, पत्र-लेखन</p>	2 1	<p><b>साहित्य की चर्चा ,पूर्वानुभव समीक्षा</b></p> <p><b>गंगा:- रैदास के पद</b></p> <p>निर्गुण संत, काव्य भक्ति, आडंबरों का विरोध</p> <p>जीवन मूल्यों की समझ, पशु जीवन की मार्मिकता</p> <p><b>कृतिका:- इस जल प्रलय में</b> बाढ़ की विभीषिका</p> <p><b>व्याकरण:- उपसर्ग शब्द निर्माण</b></p> <p><b>व्याकरण:- अनुच्छेद लेखन विभिन्न शीर्षकों पर लेखन अभ्यास</b></p>	<p>निर्गुण संत, काव्य भक्ति, आडंबरों का विरोध</p> <p>जीवन मूल्यों का विकास</p> <p>बैलों के माध्यम से जीवन मूल्यों की समझ</p> <p>बाढ़ की विभीषिका</p> <p>प्रस्तावना (Introduction)</p> <p>विषय से संबंधित प्रश्न या कहानी से शुरुआत</p> <p>विकास (Presentation)</p> <p>पाठ की व्याख्या, उदाहरण, चर्चा</p> <p>अभ्यास (Practice)</p> <p>प्रश्न-उत्तर, लेखन कार्य</p> <p>मूल्यांकन (Evaluation)</p> <p>टेस्ट, मौखिक प्रश्न</p> <p>शब्द निर्माण में उपसर्ग की भूमिका</p> <p>रचनात्मक लेखन का विकास</p>	<p><b>निर्गुण संत, काव्य भक्ति, आडंबरों का विरोध समझ सकेंगे</b></p> <p><b>आजादी, मित्रता एवं संघर्ष के मूल्यों का विकास होगा</b></p> <p><b>शब्द निर्माण की क्षमता विकसित होगी</b></p> <p><b>रचनात्मक लेखन में अभिरुचि होगी</b></p> <p>बाढ़ की विभीषिका से कैसे निबटा जाय, बच्चे सीख सकते हैं। बाढ़ आने से क्या-क्या परेशानी होती है इस कहानी से सीखा जा सकता है और एक उज्ज्वल भविष्य के निर्माण में परिस्थितियों से कैसे निपटा जाए सीखना आवश्यक होता है।</p>

May '26	<p><b>गंगा:- 2. क्या लिखू?</b></p> <p>9.राम - परशुराम लक्ष्मण संवाद</p> <p><b>कृतिका:- इस जल प्रलय में</b></p> <p>व्याकरण:- प्रत्यय, अनौपचारिक पत्रलेखन,</p>	10	<ul style="list-style-type: none"> <li>● गंगा:- क्या लिखू?</li> <li>● राम - परशुराम लक्ष्मण संवाद</li> <li>● व्याकरण:- प्रत्यय शब्द निर्माण, लघुकथा लेखन विभिन्न शीर्षकों पर लेखन अभ्यास</li> <li>● कृतिका: इस जल प्रलय में</li> </ul>	<ul style="list-style-type: none"> <li>□ लेखन प्रक्रिया निबंध शैली भारतीय ज्ञान</li> <li>□ सगुण भक्ति राम और लक्ष्मण के स्वभाव में अंतर अवधि भाषा का लालित्यप्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> <li>□ नए शब्दों का निर्माण कर सकेंगे</li> <li>□ रचनात्मक लेखन का विकास</li> </ul>	<p><b>लेखन प्रक्रिया निबंध शैली भारतीय ज्ञान समझेंगे</b></p> <p><b>सगुण भक्ति राम और लक्ष्मण के स्वभाव में अंतर समझेंगे</b></p> <p><b>अवधि भाषा का लालित्य और भाव कि समझ बढ़ेगी</b></p> <p><b>नए शब्द गढ़ने की क्षमता विकसित होगी</b></p> <p><b>बाढ़ की विभीषिका से कैसे निबटा जाय के महत्व को समझेंगे, लघुकथा लेखन विभिन्न शीर्षकों पर लेखन कर सकेंगे</b></p>

				<ul style="list-style-type: none"> <li>□ बाढ़ की विभीषिका से कैसे निबटा जाय</li> </ul>	
June '26	<p style="text-align: center;"><b>गंगा</b></p> <p>3. संवादहीन</p> <p>4. ऐसी भी बातें होती हैं</p> <p><b>कृतिका:- इस जल प्रलय में</b></p> <p>अनुच्छेद लेखन, पत्रलेखन</p>	1 1	<ul style="list-style-type: none"> <li>● गंगा: संवादहीन</li> <li>● पीढ़ीगत अंतर संवेदना विचार और भाव में द्वंद्व एवं संतुलन</li> <li>● ऐसी भी बातें होती हैं</li> <li>● संगीत और कला जेंडर शास्त्रीय एवं लोक संगीत</li> </ul> <p><b>कृतिका:- मेरे संग की औरतें</b></p> <ul style="list-style-type: none"> <li>● व्याकरण:- प्रत्यय, अनुच्छेद लेखन</li> </ul>	<ul style="list-style-type: none"> <li>□ पीढ़ीगत अंतर संवेदना विचार और भाव में द्वंद्व एवं संतुलन</li> <li>□ संगीत और कला जेंडर शास्त्रीय एवं लोक संगीत रचनात्मक लेखन</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> </ul>	<ul style="list-style-type: none"> <li>□ पीढ़ीगत अंतर संवेदना विचार और भाव में द्वंद्व एवं संतुलन कि समझ बढ़ेगी</li> </ul> <p>संगीत और कला जेंडर शास्त्रीय एवं लोक संगीत संरचना को जान सकेंगे</p> <p style="text-align: center;"><b>रचनात्मक लेखन में रुचि होगी</b></p>
July '26	<p><b>गंगा:-</b> 5. आखिरी चट्टान तक</p> <p>9. राम - परशुराम लक्ष्मण संवाद</p>	2 3	<ul style="list-style-type: none"> <li>● गंगा:- आखिरी चट्टान तक</li> <li>● राम - परशुराम लक्ष्मण संवाद</li> <li>● कृतिका:- मेरे संग की औरतें</li> <li>● व्याकरण:-, संज्ञा सर्वनाम वाक्यभेद</li> <li>● अनौपचारिक पत्र</li> </ul>	<ul style="list-style-type: none"> <li>□ आखिरी चट्टान तक</li> <li>□ कन्याकुमारी वृतांत, राज्य विशेष का भूगोल प्रकृति वर्णन दर्शन हस्तशिल्प</li> <li>□ राम - परशुराम लक्ष्मण संवाद</li> </ul>	<ul style="list-style-type: none"> <li>□ कन्याकुमारी वृतांत, राज्य विशेष का भूगोल प्रकृति वर्णन दर्शन हस्तशिल्प को समझ पाएंगे।</li> <li>□ राम - परशुराम लक्ष्मण संवाद</li> <li>□ सगुण भक्ति राम और लक्ष्मण के स्वभाव में अंतर समझेंगे</li> </ul>

<p><b>कृतिका:-</b> मेरे संग की औरतें</p> <p><b>व्याकरण:-</b> संज्ञा सर्वनाम</p> <p>अलंकार- (अनुप्रास, यमक, श्लेष अलंकार)</p> <p>अनौपचारिक पत्र , अपठित गद्यांश एवं पद्यांश</p>		<ul style="list-style-type: none"> <li>● अपठित गद्यांश एवं पद्यांश</li> <li>● कथन : कारण प्रश्न अभ्यास एक परिचय</li> </ul>	<ul style="list-style-type: none"> <li>□ सगुण भक्ति राम और लक्ष्मण के स्वभाव में अंतर समझेंगे</li> <li>अवधि भाषा का लालित्य और भाव कि समझ बढ़ेगी</li> <li>□ <b>पुरुष मानसिकता को त्याग समाज का निर्माण किया जा सकता है</b></li> <li>□ <b>प्रस्तावना (Introduction)</b></li> <li><b>विषय से संबंधित प्रश्न या कहानी से शुरुआत</b></li> <li><b>विकास (Presentation)</b></li> <li><b>पाठ की व्याख्या, उदाहरण, चर्चा</b></li> <li><b>अभ्यास (Practice)</b></li> <li><b>प्रश्न-उत्तर, लेखन कार्य</b></li> <li><b>मूल्यांकन (Evaluation)</b></li> <li><b>टेस्ट, मौखिक प्रश्न</b></li> <li>□ संज्ञा, सर्वनाम की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>□ वाक्यभेद को समझेंगे एवं अभ्यास कर सकेंगे।</li> <li>□ रचनात्मक लेखन एवं रचनाशीलता के प्रति जागरूक होंगे</li> </ul>	<p>अवधि भाषा का लालित्य और भाव कि समझ बढ़ेगी</p> <p>मेरे संग की औरतें</p> <ul style="list-style-type: none"> <li>□ <b>पुरुष मानसिकता को त्याग समाज का निर्माण किया जा सकता है</b></li> <li>□ संज्ञा, सर्वनाम की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>□ वाक्यभेद को समझेंगे एवं अभ्यास कर सकेंगे।</li> <li>□ रचनात्मक लेखन एवं रचनाशीलता के प्रति जागरूक होंगे</li> </ul>
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<p>August '26</p>	<p>गंगा:- 10. भारती जय विजय करें</p> <p>6. रीढ़ की हड्डी</p> <p>निर्मलजीत सिंह सेखों (साथ साथ पढ़ें)</p> <p>कृतिका:- मेरे संग की औरतें</p> <p>व्याकरण:- विशेषण क्रिया</p> <p>अलंकार- (अनुप्रास, यमक, श्लेष)</p> <p>पत्रलेखन, अनुच्छेद लेखन</p>	<p>2 1</p>	<p>गंगा:- 10. भारती जय विजय करें</p> <p>6. रीढ़ की हड्डी</p> <ul style="list-style-type: none"> <li>● व्याकरण :- अलंकार,</li> <li>● विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>● संवादलेखन पत्रलेखन, अनुच्छेद लेखन</li> </ul>	<ul style="list-style-type: none"> <li>□ छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि</li> <li>□ स्त्री शिक्षा और सशक्तिकरण कुरीतियों पर चोट राष्ट्रीयता</li> </ul> <p>पुरुष मानसिकता को त्याग कर ही स्वस्थ समाज का निर्माण किया जा सकता है</p> <ul style="list-style-type: none"> <li>□ पारिवारिक पृष्ठभूमि में लेखिका मृदुला गर्ग के भाई एवं बहनों के लेखकीय जीवन शैली उनके स्वभाव एवं व्यवहारों में परिवर्तन दिखेगा।</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> </ul>	<p>छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि और राष्ट्रीयता को समझेंगे।</p> <p>स्त्री शिक्षा और सशक्तिकरण कुरीतियों पर चोट सामाजिक कुरीतियों की सुधार पर एक नया कदम होगा।</p> <p>पुरुष मानसिकता को त्याग कर ही स्वस्थ समाज का निर्माण किया जा सकता है की समझ सकेंगे</p> <p>पारिवारिक पृष्ठभूमि में लेखिका मृदुला गर्ग के भाई एवं बहनों के लेखकीय जीवन शैली उनके स्वभाव एवं व्यवहारों में परिवर्तन दिखेगा।</p> <p>अलंकार प्रयोग एवं पहचान में समर्थ हो पाएंगे</p> <p>रचनात्मक लेखन में अभिरुचि होगी</p>
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			<ul style="list-style-type: none"> <li>□ कविता में अलंकार प्रयोग की जानकारी</li> <li>□ रचनात्मकलेखन के प्रति जागरूक होंगे,</li> </ul>		
September '26	पठित पाठों का पुनरावृत्ति		<ul style="list-style-type: none"> <li>• पुनरावृत्ति</li> </ul>	विषयनिष्ठ ज्ञान से परिपूर्ण हो सकेंगे	
October '26	<p>गंगा:- 11. झांसी की रानी</p> <p>7. मैं और मेरा देश</p> <p>व्याकरण:- उपसर्ग संज्ञा सर्वनाम विशेषण क्रिया</p> <p>पत्रलेखन</p> <p>कृतिका:- मेरे संग की औरतें</p>	1 4	<ul style="list-style-type: none"> <li>□ झांसी की रानी</li> <li>□ पठन, अभ्यास एवं प्रश्नोत्तरी</li> <li>□ मैं और मेरा देश</li> <li>□ पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव</li> <li>□ उपसर्ग</li> <li>□ संज्ञा सर्वनाम विशेषण क्रिया अभ्यास</li> <li>□ औपचारिकपत्र</li> <li>□ स्त्री शिक्षा के लिए चिंतन करेंगे</li> </ul>	<ul style="list-style-type: none"> <li>□ 1857 का संग्राम इतिहास स्त्री शिक्षा सशक्तिकरण लोकगीत शैली</li> <li>□ देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> <li>□ नए शब्दों का निर्माण कर सकेंगे</li> </ul>	<p>1857 का संग्राम इतिहास स्त्री शिक्षा सशक्तिकरण लोकगीत शैली ज्ञान से परिपूर्ण हो सकेंगे</p> <p>देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव से अवगत होंगे।</p> <p>नए शब्दों के निर्माण में समर्थ होंगे</p> <p>संज्ञा सर्वनाम विशेषण क्रिया का अभ्यास व्यावहारिक व्याकरण को समझेंगे।</p> <ul style="list-style-type: none"> <li>□ रचनात्मकलेखन के प्रति जागरूक होंगे,</li> <li>□ स्त्रियों की शिक्षा के महत्व को जानेंगे</li> </ul>

				<p>संज्ञा सर्वनाम विशेषण क्रिया का अभ्यास</p> <ul style="list-style-type: none"> <li>□</li> <li>□ रचनात्मक लेखन</li> <li>□ स्त्री शिक्षा के लिए चिंतन करेंगे</li> </ul>	
November '26	<p>गंगा:-7. मैं और मेरा देश</p> <p>12. घर की याद</p> <p>व्याकरण:- संज्ञा सर्वनाम विशेषण क्रिया</p> <p>अलंकार- (अनुप्रास, यमक, श्लेष)</p> <p>अनुच्छेद लेखन</p> <p>कृतिका:- मेरे संग की औरतें</p>	1 7	<ul style="list-style-type: none"> <li>● गंगा:- मैं और मेरा देश</li> <li>● घर की याद</li> <li>● कृतिका:- मेरे संग की औरतें प्रत्यय-अभ्यास</li> <li>● अनुच्छेद लेखन</li> <li>●</li> </ul> <p>संज्ञा सर्वनाम विशेषण क्रिया</p> <p>अलंकार- (अनुप्रास, यमक, श्लेष)</p> <p>अनुच्छेद लेखन</p> <p>कृतिका:- मेरे संग की औरतें</p>	<ul style="list-style-type: none"> <li>□ देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव</li> <li>□ पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव से अवगत होंगे।</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> <li>□ प्रत्यय की सहायता से नए शब्दों का निर्माण कर सकेंगे</li> </ul>	<p>देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव से अवगत होंगे।</p> <ul style="list-style-type: none"> <li>□ प्रत्यय की सहायता से नए शब्दों का निर्माण कर सकेंगे</li> <li>□ विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे। अलंकारों की पहचान एवं साहित्यिक प्रयोग से साहित्यिक सौंदर्य से परिचित होंगे।</li> </ul> <p>अनुच्छेद लेखन रचनात्मक लेखन में रुचि दिखाएं</p>

			<ul style="list-style-type: none"> <li>□ विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>अलंकारों की पहचान एवं साहित्यिक प्रयोग से साहित्यिक सौंदर्य से परिचित होंगे।</li> <li>□ स्त्री शिक्षा के लिए चिंतन रचनात्मक लेखन</li> </ul>		
December '26	<p>गंगा:- 11. मैं और मेरा देश</p> <p>12. घर की याद</p> <p>व्याकरण:- संज्ञा सर्वनाम विशेषण क्रिया</p> <p>वाक्यभेद</p> <p>कृतिका:- मेरे संग की औरतें</p> <p>अलंकार- (अनुप्रास, यमक, श्लेष)</p>	20	<ul style="list-style-type: none"> <li>□ गंगा:- मैं और मेरा देश</li> <li>□ घर की याद</li> <li>□ संज्ञा सर्वनाम विशेषण क्रिया</li> <li>□ वाक्यभेद:- पहचान एवं वाक्यपरिवर्तन</li> <li>□ अलंकारों की पहचान एवं साहित्यिक प्रयोग से साहित्यिक सौंदर्य से परिचित होंगे।</li> </ul>	<ul style="list-style-type: none"> <li>□ देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव</li> <li>□ पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव से अवगत होंगे।</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</li> </ul>	<ul style="list-style-type: none"> <li>□ देशप्रेम कर्तव्यबोध स्वाधीनता आंदोलन चुनाव</li> <li>पठन, अभ्यास एवं प्रश्नोत्तरी से पाठ के अंतर्गत समग्र भाव से अवगत होंगे।</li> <li>जेलप्रवास और घर अंग्रेजों भारत छोड़ो आंदोलन इतिहास संयुक्त परिवार स्मृति समग्र भाव से अवगत होंगे।</li> <li>नवीन शब्दों के निर्माण की क्षमता विकसित होगी</li> <li>□ विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे। अलंकारों की पहचान एवं साहित्यिक प्रयोग से साहित्यिक सौंदर्य से परिचित होंगे।</li> </ul>

	अनुच्छेद लेखन			<ul style="list-style-type: none"> <li>□ जेलप्रवास और घर अंग्रेजों भारत छोड़ो आंदोलन इतिहास संयुक्त परिवार स्मृति</li> <li>□ नए शब्दों का निर्माण कर सकेंगे</li> <li>□ विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>□ अलंकारों की पहचान एवं साहित्यिक प्रयोग से साहित्यिक सौंदर्य से परिचित होंगे।</li> <li>□ समाज में होने वाले बदलाव को महसूस कर सकेंगे</li> <li>□</li> </ul>	अनुच्छेद लेखन से रचनात्मक लेखन में रुचि दिखाएंगे समाज में होने वाले बदलाव को महसूस कर सकेंगे
January '27	<p><b>गंगा:- 10. भारती जय विजय करें</b></p> <p><b>6. रीढ़ की हड्डी</b></p> <p><b>व्याकरण:-संज्ञा सर्वनाम विशेषण क्रिया</b></p> <p><b>अलंकार</b></p>	19	<ul style="list-style-type: none"> <li>□ <b>गंगा:- 10. भारती जय विजय करें</b></li> <li>□ <b>6. रीढ़ की हड्डी</b></li> <li>□ <b>व्याकरण:-संज्ञा सर्वनाम विशेषण क्रिया</b></li> <li>□ <b>अलंकार</b></li> </ul>	<ul style="list-style-type: none"> <li>□ छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा अभ्यास (Practice)</li> </ul>	छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि और राष्ट्रीयता को समझेंगे। स्त्री शिक्षा और सशक्तिकरण कुरीतियों पर चोट सामाजिक कुरीतियों की सुधार पर एक नया कदम होगा। <b>पुरुष मानसिकता को त्याग कर ही स्वस्थ समाज का निर्माण किया जा सकता है की समझ सकेंगे</b>

	<p><b>कृतिका:-</b> मेरे संग की औरतें</p> <p>अपठित गद्यांश एवं पद्यांश</p> <ul style="list-style-type: none"> <li>● संवादलेखन पत्रलेखन, अनुच्छेद लेखन सूचना लेखन</li> </ul>	<p><b>कृतिका:-</b> मेरे संग की औरतें</p> <p><b>Group discussion-</b> अपने बचपन के अनुभवों को साथियों के साथ प्रस्तुत करेंगे</p>	<p>प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न</p> <ul style="list-style-type: none"> <li>□ विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</li> <li>□ कविता में अलंकार के प्रयोग को समझेंगे</li> <li>□ समाज में होने वाले बदलाव को महसूस कर सकेंगे</li> <li>□ रचनात्मक लेखन के प्रति जागरूक होंगे</li> </ul>	<p><b>पारिवारिक पृष्ठभूमि में लेखिका मृदुला गर्ग के भाई एवं बहनों के लेखकीय जीवन शैली उनके स्वभाव एवं व्यवहारों में परिवर्तन दिखेगा।</b></p> <p>विशेषण, क्रिया की परिभाषा, भेदों का परिचय, प्रश्नोत्तरी एवं अभ्यास एवं इनकी पहचान से व्यावहारिक व्याकरण को समझेंगे।</p> <p><b>अलंकार के अनुप्रयोग को जान सकेंगे</b></p> <p>समाज में होने वाले बदलाव को महसूस कर सकेंगे</p> <p><b>रचनात्मकता के साथ लेखन कर सकेंगे</b></p> <p>लेखन जैसे तकनीकी दक्षता प्राप्त करेंगे</p> <p><b>तकनीकी लेखन कर पाएंगे</b></p>
February '27	<p><b>गंगा:-</b> 7. मैं और मेरा देश</p> <p>तब याद तुम्हारी आती है</p> <p>(साथ साथ पढ़ें)</p> <p>व्याकरण- पुनरभ्यास</p>	<p>2 2</p> <ul style="list-style-type: none"> <li>□ <b>गंगा:-</b> 7. मैं और मेरा देश</li> <li>□ तब याद तुम्हारी आती है</li> <li>□ (साथ साथ पढ़ें)</li> <li>□ व्याकरण- पुनरभ्यास</li> <li>□</li> <li>□ पठित पाठों का पुनरावृत्ति</li> </ul>	<ul style="list-style-type: none"> <li>□ छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि</li> <li>□ प्रकृति सृष्टि निर्माता के प्रति आभार</li> <li>□</li> <li>□ प्रस्तावना (Introduction) विषय से संबंधित प्रश्न या कहानी से शुरुआत विकास (Presentation) पाठ की व्याख्या, उदाहरण, चर्चा</li> </ul>	<ul style="list-style-type: none"> <li>□ छायावादी काव्य भारत का भौगोलिक एवं सांस्कृतिक और प्रकृति वर्णन कृषि</li> <li>□ प्रकृति सृष्टि निर्माता के प्रति आभार</li> <li>□</li> <li>□ व्याकरण- पुनरभ्यास</li> <li>□</li> <li>□ पठित पाठों का पुनरावृत्ति</li> </ul>

	पठित पाठों का पुनरावृत्ति			अभ्यास (Practice) प्रश्न-उत्तर, लेखन कार्य मूल्यांकन (Evaluation) टेस्ट, मौखिक प्रश्न  □ व्याकरण- पुनरभ्यास  □  □ पठित पाठों का पुनरावृत्ति	
March '27	<b>वार्षिक परीक्षा</b>				

**SURENDRANATH CENTENARY SCHOOL**  
**SESSION – 2026-27**  
**ANNUAL PEDAGOGICAL PLAN**  
**CLASS IX**

Subject संस्कृत Book शारदापाठ्यपुस्तकम्					
Month	Chapter	No. of pr.	Topics	Learning Objective	Learning Outcome
April ,26	वर्णमाला - उच्चारणस्थान म् अपठितगद्यां श व्याकरण-कार क उपपद विभक्ति ●संधिप्रकरणम् ●अनुच्छेदलेख नम् शारदापाठ्यपु स्तकम्	30	स्वर वर्ण, व्यंजन वर्ण और उच्चारण स्थानम् । अपठितगद्यांश पर आधारित प्रश्नोत्तर।  <b>अनुभवजन्य शिक्षण</b> ●सर्वनाम् शब्दरूपाणि त्रिषु लिंगेषु, शब्दरूपाणि त्रिषु लिंगेषु , एवं धातुरूपाणि पञ्चलकारेषु । सन्धि- स्वर, व्यंजन और विसर्ग संधि ।  ● अनुच्छेदलेखन का अभ्यास-कार्य ।  ●1. सत्यं शिवं सुन्दरं संस्कृतम् (आधुनिकगीत)	संस्कृत वर्णमाला एवं उच्चारणस्थान का ज्ञान तथा शुद्ध उच्चारण तथा सही प्रयोग करना । अपठितगद्यांश की समझ और उस पर आधारित प्रश्नोत्तर करने में निपुण ।  ● उपपद-विभक्ति  कारक प्रथमा - सप्तमी तक । उपपद विभक्ति द्वितीया - उपपद - सप्तमी ●सर्वनाम् शब्दरूपों, शब्दरूपों एवं धातुरूपों तथा सन्धियों (स्वर व्यंजन एवं विसर्ग सन्धि) का प्रायोगिक ज्ञान।  ● “पर्यावरणम्” प्रकृति का सांनिध्य । ●गीत का स्वरपाठ(लयबद्ध गायन)का ज्ञान। नवीनशब्दों का अर्थ- ज्ञान। नई धातुएँ, गीत का अन्वय प्रश्नोत्तर करने में समर्थ।	छात्र सक्षम हुए – शुद्ध पढ़ने-लिखने और उच्चारण करने में समर्थ। ● वर्णमाला एवं शुद्ध उच्चारण का बोध।  ● भाषा की समझ प्रश्नोत्तर लिखने में सक्षम। ● संधियों का ज्ञान ।  ● अनुच्छेदलेखन की समझ।  ● समूह गायन, सकारात्मक सोच की भावना । संस्कृत भाषा के प्रति गौरव की अनुभूति ।
May ,26	शारदापाठ्यपु स्तकम्	16	2..सुखस्य मूलं धर्मः धर्मस्य मूलंअर्थः (आर्थिक साक्षरता)	छात्रों की सहायता करना -  ● पाठ का अर्थ, भाव, प्रश्नोत्तर। ● नवीनशब्दों का अर्थ- ज्ञान।	छात्र सक्षम हुए- ● जीवन में सुख प्राप्ति के लिए धन आवश्यक है इसका ज्ञानबोध।

	व्याकरण- [प्रत्ययाः,]		3.आत्मवतसर्भूतेषु यः पश्यति सः पण्डितः।(अध्योत्म )  [क्त्वा,तुमुन् ,ल्यप्,क्त ,क्तवतु ,शतृ ,शानच् ]	नई धातुएँ, व्याकरण का ज्ञान । ● शब्द और प्रत्यय के संबंध की पहचान कर पाना । ii)शब्दों में उचित प्रत्यय जोड़कर नए शब्द बना सकें। iii) प्रत्ययों का वाक्यों में सही प्रयोग कर सकें। iv) रचनात्मककार्य ।	पाठ से संबंधित अभ्यास-कार्य करने में समर्थ।  ● प्रत्यय की समझ, पहचान और सही प्रयोग करने में [
June ,26	शारदापाठ्यपु स्तकम्  पत्रलेखनम्	16	4. न खलु वयस्तेजसो हेतुः ।(जीवनी). ●वाचन - अर्थ ।प्रश्नोत्तर, विशेषण- विशेष्य अभ्यास-कार्य।  ●औपचारिक अनौपचारिक पत्र ।	छात्रों की सहायता करना - ●शुद्ध वाचन व अर्थ स्पष्ट कर पाठ को सुगम करने में। ●विशेषण- विशेष्य का संबंध।  •पत्र का प्रारूप और शब्दों का चयन।	छात्र निपुण हुए - वीरता भाव से परिपूर्ण हुए । पाठ को समझने में एवं पाठ में दिए गए भिन्न-भिन्न अभ्यास-कार्य को स्वयं कर पाने में। ● लेखन कौशल विकास। ● रचनात्मक कौशल विकास।
July ,26	शारदापाठ्यपु स्तक  6. व्याकरणम् -  शारदापाठ्यपु स्तकम्	30	5.एषा सा कृतकबुद्धिः मानवबुद्धेः सहकारी  ●चित्र वर्णनम्- कला समेकित शिक्षण  संख्या (1- 100)1- 4 तक प्रथमा में रूप प्रयोग।  ● मनः पूतःसमाचरेत्(सुभाषित)	छात्रों की सहायता करना - ● पाठ का अर्थ, भाव, अभ्यास-कार्य तथा व्याकरण ज्ञान।कवि ●दिये गए शब्दों की सहायता से चित्र पर आधारित वाक्य रचना में ●अनुवाद कार्य कौशल विकास। ●लिंग और वचन के अनुसार संख्या का सही प्रयोग ।  ● श्लोक वाचन-अर्थ -अन्वय- प्रश्नोत्तर तथा व्याकरण।	छात्र में - ● AI कृत्रिमबुद्धि का ज्ञान। ● रचनात्मक कौशल विकास।  ●लिंग और वचन के अनुसार संख्या का सही प्रयोग का ज्ञान-बोध। ● संस्कृत संवाद में रुचि।  ● अनुभवजन्य शिक्षण

					<ul style="list-style-type: none"> <li>संधि, समास, विपरीतार्थक आदि का ज्ञान।</li> </ul>
August ,26	शारदापाठ्यपुस्तकम् <ul style="list-style-type: none"> <li>प्रश्न निर्माण</li> <li>अव्ययानि           <ul style="list-style-type: none"> <li>समास प्रकरण</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>7.उपार्थ यथा चिन्नायेतत्</li> <li>8.अन्नात् आन्दम् प्रति</li> </ul> विषय संवर्धन गतिविधयः <ul style="list-style-type: none"> <li>प्रश्न निर्माण ( किम् शब्द रूप तीनों लिङ्गों में)</li> <li>अव्ययानिप्रयोगाः।           <ul style="list-style-type: none"> <li>तत्पुरुषार्थमेव समास का प्रयोग एवं पहचान।</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>छात्रों की सहायता करना -</li> <li>पञ्चतंत्र के आधार पर कथा से परिचित कराना।</li> <li>अर्थ, भाव, प्रश्नोत्तर, तथा व्याकरण ज्ञान।</li> <li>अव्यय पदों के प्रयोग में निपुण।</li> <li>तत्पुरुषार्थमेव के अन्तर्गत नञतथा विभक्ति तत्पुरुष समास की पहचान।</li> </ul>	छात्र सक्षम हुए – <ul style="list-style-type: none"> <li>पंचतंत्र की कथा धर्मबुद्धि और पापबुद्धि के माध्यम से कया करना चाहिए और कया नहीं करना चाहिए।</li> <li>संस समस्तपदों का विग्रह एवंअलग अलग पदों को समस्तपद बनाने की समझ ॥</li> </ul>
September ,26	पुनरावृत्ति	16	<ul style="list-style-type: none"> <li>पठित पाठों की पुनरावृत्ति</li> </ul>	पठित पाठों की दोबारा समीक्षा, अभ्यास और दोहराव करना।	विद्यार्थी गहन ज्ञान के साथ परीक्षा देने को तैयार हैं।
October ,26	शारदापाठ्यपुस्तकम् <ul style="list-style-type: none"> <li>कथा पूर्ति</li> </ul>	30	<ul style="list-style-type: none"> <li>9.कृतं प्राकृतं भूयादेश सवाततः ।</li> <li>पत्रलेखन ।</li> </ul> विषय संवर्धन गतिविधयः <ul style="list-style-type: none"> <li>कथा पूर्ति</li> </ul>	छात्रों की सहायता करना - पाठ का वाचन व अर्थ स्पष्ट करना । कथा पर आधारित दिये गये शब्दों द्वारा रिक्त स्थानों की पूर्ति । कथा की क्रमबद्धता (sequence) को समझकर सही ढंग से आगे बढ़ाना ।	छात्र सक्षम हुए – <ul style="list-style-type: none"> <li>महाभारत की कथा का ज्ञान।</li> <li>भिन्न-भिन्न अभ्यास-कार्य को स्वयं कर पाने में ।</li> <li>रचनात्मक कौशल ।</li> </ul>

November ,26	शारदापाठ्यपुस्तकम् व्याकरण	35	<ul style="list-style-type: none"> <li>●णमो अरिहन्तारम् वाचन व अर्थ।</li> </ul> <p>कला समेकित शिक्षण</p> <ul style="list-style-type: none"> <li>• चित्र वर्णनम्</li> <li>• पत्रलेखन</li> </ul>	<p>छात्रों की सहायता करना -</p> <ul style="list-style-type: none"> <li>●णमो अरिहन्तारम् वाचन व अर्थ।</li> <li>• चित्रवर्णनम्</li> <li>•पत्रलेखन के लिए दिये गए शब्दों की सहायता से विषय पर आधारित पत्र का प्रारूप तैयार करने में।</li> </ul>	<ul style="list-style-type: none"> <li>●जैनधर्म पर आधारित कथालेखन। वर्णन के लिए उपयुक्त शब्दों और वाक्यों का ज्ञान।</li> <li>●पत्रलेखन रचनात्मक कौशल विकास।</li> <li>●लघुवाक्य द्वारा चित्र वर्णन करने में</li> </ul>
December ,26	शारदापाठ्यपुस्तकम् व्याकरण- अनुच्छेद लेखनम्	25	<ul style="list-style-type: none"> <li>●णमो अरिहन्तारम् वाचन व अर्थ।</li> <li>●व्याकरण अंश</li> </ul> <ul style="list-style-type: none"> <li>• अनुच्छेद लेखनम् में निपुण।</li> </ul>	<p>छात्रों की सहायता करना -</p> <ul style="list-style-type: none"> <li>●णमो अरिहन्तारम् वाचन , अर्थ और प्रश्नोत्तर।</li> <li>●व्याकरण अंश ,शब्दार्थ, सन्धि-संयोग युक्तशब्द व अर्थ।</li> <li>अनुच्छेद लेखनम् में निपुण ।</li> </ul>	<p>छात्र सक्षम हुए –</p> <ul style="list-style-type: none"> <li>●जैनधर्म पर आधारित कथालेखन। वर्णन के लिए उपयुक्त शब्दों और वाक्यों का ज्ञान।</li> <li>●वाक्य संरचना में निपुण।</li> <li>• व्याकरण की दृष्टिकोण से शुद्ध वाक्य रचना में समर्थ।</li> </ul>
January ,27	व्याकरण-	21	<p>आवृत्ति</p> <ul style="list-style-type: none"> <li>●अनुच्छेदलेखन/संवाद/ कथालेखन ।</li> </ul> <p>अनुभवजन्य शिक्षण</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>छात्रों की सहायता करना -</p> <p>रूपं /कारक विभक्तिरूपेण/उपपदविभक्त्यानुसारेण वाक्य निर्माण।</p>	<p>छात्र सक्षम हुए –</p> <ul style="list-style-type: none"> <li>● व्याकरण का सम्पूर्ण ज्ञान प्राप्त करने में सक्षम।</li> </ul>
February ,27	शारदापाठ्यपुस्तकम् तथा व्याकरणम्		<ul style="list-style-type: none"> <li>• पठित पाठों की पुनरावृत्ति।</li> <li>• अभ्यास प्रश्न पत्र की आवृत्ति।</li> </ul>	<p>पठित पाठों की पुनरावृत्ति।</p> <p>समीक्षा, अभ्यास और दोहराव करना।</p>	<p>विद्यार्थी गहन ज्ञान के साथ परीक्षा देने को पूर्णतः तैयार हैं।</p>



**SURENDRANATH CENTENARY SCHOOL**  
**SESSION – 2026-27**  
**ANNUAL PEDAGOGICAL PLAN**  
**CLASS IX**

Subject : Mathematics Book: NCERT					
Month	Chapter	No. of period	Topics	Learning Objective	Learning Outcome
April	Number System	21	Types of numbers rational numbers irrational numbers  <b>SDG 8</b> Decent work & Economic growth <b>ACTIVITY- 1</b> <b>SUBJECT ENRICHMENT</b> Construct the squareroot spiral to represent irrational numbers  Exploring Algebraic Identities A Linear Equation in Two Variables	<ul style="list-style-type: none"> <li>• Introduction of rational numbers</li> <li>• Representation of rational numbers on the number line</li> <li>• Density of rational numbers and its proof</li> <li>• Finding rational numbers between any two rational numbers</li> <li>• Decimal representation of rational numbers</li> <li>• Introduction to irrational numbers</li> <li>• Proof of irrationality of <math>\sqrt{2}</math> and <math>\sqrt{3}</math></li> </ul> <p>The squareroot spiral</p> <p>Algebraic expressions</p> <ul style="list-style-type: none"> <li>• Definition of a polynomial.</li> <li>• Degree of a polynomial</li> <li>• Introduction to linear polynomials and applications</li> <li>• Exploring linear patterns</li> <li>• Modelling linear growth and linear decay</li> <li>• Linear relationships</li> </ul>	<p>The student will be able to:</p> <ul style="list-style-type: none"> <li>Understand the concept of a rational number.</li> <li>Represent rational numbers on the number line.</li> <li>Understand the properties of rational numbers.</li> <li>Explain the concept of density of rational numbers.</li> <li>Compute decimal representation of rational numbers.</li> <li>Understand the concept of irrational numbers.</li> <li>Prove the irrationality.</li> <li>Construct the squareroot spiral.</li> <li>Apply computational thinking to represent rational and irrational.</li> </ul> <ul style="list-style-type: none"> <li>• Understand the meaning of an algebraic expression.</li> </ul>

- Visualising linear relationships
- Slope and y-intercept of a line  $y = ax + b$  Visualising identities using geometrical models
- Factorisation of algebraic expressions using identities
- More identities and their applications
- Visualising factorisation of quadratic expressions through algebra tiles and without using algebra tiles
- Finding new identities  
Simplifying rational expressions

- Define a polynomial.
- Identify the degree, terms and coefficients of terms in a polynomial.
- Model linear growth and decay using linear polynomials.
- Explain and identify patterns in linear relationships.
- Identify the slope and y-intercept of a linear equation in two variables.
- Graph a linear equation in two variables.  
Use computational thinking to identify patterns ,construct linear expressions, and systematically represent and analyse linear relationships using equations and graphs Visualise algebraic identities using geometric models.
- Determine the factors of algebraic expressions using identities.
- Interpret factors of quadratic expressions through geometric models.
- Find simplified version so fractional expressions.

Use computational thinking strategies, such as decomposition and step-by- step

					procedures to visualise algebraic identities, factor expressions, and simplify rational expressions
May	Linear Equations in Two Variables	14	<p>Methods of solving a pair of linear equations</p> <p><b>SDG 10</b> Reduced inequalities</p> <p><b>ACTIVITY -II</b></p>	<ul style="list-style-type: none"> <li>• Introduction to linear equations in two variables through practical examples</li> <li>• Solution of linear equation in two variables: graphical representation</li> <li>• Slope-intercept form of linear equation in two variables</li> <li>• Drawing graphs of linear equations when x and y assume only certain values</li> <li>• Pair of linear equations in two variables</li> <li>• Graphical method for solving a pair of linear equations in two variables</li> <li>• Nature of solutions: consistency and inconsistency</li> <li>➤ Algebraic methods of solving a pair of linear equations: substitution and elimination method</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the concept of a linear equation in two variables.</li> <li>• Graph of pair of linear equations.</li> <li>• Solve a pair of linear equations graphically.</li> <li>• Solve a pair of linear equations through the methods of substitution and elimination.</li> <li>• Determine the nature of solutions of a pair of linear equations.</li> <li>• Model and solve contextualised problems using a pair of linear equations and draw conclusions.</li> <li>• Model daily-life phenomena using</li> </ul>

			<p><b>SUBJECT ENRICHMENT</b> To represent conditions of consistency and inconsistency graphically.</p>		<p>representations, such as graphs, tables, and equations.</p> <p>Use computational thinking to systematically represent, solve, and interpret pairs of linear equations through graphs, tables, and step-by-step procedures.</p>
June	Coordinate Geometry	15	<p>Distance Formula</p>	<ul style="list-style-type: none"> <li>• Brief history of coordinate geometry</li> <li>• The 2-D Cartesian coordinate system</li> <li>• Distance between two points in the 2-D plane</li> </ul> <p>Midpoint of the line-segment between two points in the 2-D plane</p>	<ul style="list-style-type: none"> <li>• Specify locations and the position of one point relative to another point using coordinates.</li> <li>• Represent a floor plan on a grid using coordinates.</li> <li>• Compute the distance between two points using coordinates.</li> <li>• Determine whether three points lie in a straight line using coordinates.</li> <li>• Compute the position of the midpoint of a line segment using coordinates.</li> <li>• Check whether a triangle is right-angled using coordinates.</li> </ul> <p>Apply computational thinking to model situations on the coordinate plane and verify geometric properties through systematic reasoning</p>

July	<p>Introduction to Euclid's Geometry: Axioms and Postulates</p> <p>Lines and Angles</p>	28		<ul style="list-style-type: none"> <li>• History of geometry</li> <li>• Constructing a square with a given side as described in the Baudhayana's Sulbasutras</li> <li>• Discovering Euclid's definitions</li> <li>➤ Axioms: Axioms of measurement and rules for geometric objects</li>   <li>• Rays and angles</li> <li>• Measures of angles</li> <li>• Intersecting lines and angles</li> <li>• Pairs of angles</li> <li>• Theorems and examples on intersecting lines</li> <li>• Theorems and examples on parallel lines</li> </ul>	<ul style="list-style-type: none"> <li>• Describe how geometry grew from the practical needs ancient civilisations.</li> <li>• Describe contributions of India, Egypt and Greece to the development of geometric ideas.</li> <li>• Understand the role of definitions, axioms, and postulates.</li> <li>• Explain that there are elements of plane geometry (point, line, surface) for which we have an intuitive sense.</li> <li>• State the 5 postulates of Euclidean geometry.</li> <li>• Define parallelism of straight lines.</li> <li>• Explain the construction of a square as given in the Sulbasutras.</li> </ul> <p>Justify simple constructions using the axioms.</p> <ul style="list-style-type: none"> <li>• Explain the notion of an angle.</li> <li>• Explain the notion of arc.</li> <li>• Explain that angles are formed between two rays with a common starting point.</li> </ul> <p>State that a straight angle equals two right angles and measures <math>180^\circ</math> while a right angle measures <math>90^\circ</math>.</p> <p>Classify angles as acute, right, obtuse, or reflex.</p> <ul style="list-style-type: none"> <li>• Define parallelism. State and apply the linear pair theorem and its converse.</li> </ul>
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					<ul style="list-style-type: none"> <li>• Follow proof by contradiction in geometry.</li> <li>• Prove that vertically opposite angles are equal.</li> <li>• Identify corresponding ,alternate ,and interior angles.</li> <li>• Explain transitivity of parallelism.</li> <li>• Explain why a triangle must have at least two acute angles; why it cannot have two obtuse angles, or all three angles less than <math>60^\circ</math></li> </ul> <p>Apply computational thinking to analyse geometric ideas by breaking constructions into ordered steps, using axioms and postulates as rules, and justifying geometric results through logical step-by-step reasoning</p>
August	Triangles: Congruence Theorems			<ul style="list-style-type: none"> <li>• Practical applications of triangles</li> <li>• Proofs of conditions of congruence of triangles</li> <li>• Theorems on triangles</li> <li>• Propositions and their converse</li> </ul> <p>Problems based on applications of theorems on triangles</p>	<ul style="list-style-type: none"> <li>• Explain that a triangle is rigid ,unlike a quadrilateral.</li> <li>• Identify uses of triangle rigidity.</li> <li>• Explain why triangles give strength and stability to structures.</li> <li>• Describe what it means for two triangles to be congruent.</li> </ul>

		28	<b>ACTIVITY IV ( SUBJECT ENRICHMENT )</b>		<ul style="list-style-type: none"> <li>• Identify correspondence between the vertices, sides, and angles of two congruent triangles.</li> <li>• Use the SAS congruence axiom.</li> <li>• Use the SSS congruence condition.</li> <li>• Use the ASA congruence condition.</li> <li>• Use the RHS congruence condition.</li> <li>• Use the AAS congruence condition.</li> <li>• Prove the basic properties of isosceles triangles.</li> <li>• Explain the notion of a proposition.</li> <li>• Explain the notion of converse of a proposition.</li> <li>• Identify the converse of a given proposition.</li> <li>• Explain that not all converses are true; use counter examples to show that some converses are false.</li> </ul> <p>Explain why SSA is not, in general, a valid congruence condition</p>
September	Mensuration :HERONS FORMULA		Area of triangle	To find the area of any triangle with length of three sides given.  Heron's formula as a special case of Brahmagupta's formula	<ul style="list-style-type: none"> <li>• Use Heron's formula to compute the area of a triangle from its sides.</li> <li>• Explain the classical problem of 'squaring' a given shape.</li> </ul>



					<ul style="list-style-type: none"> <li>Define perimeter as the length around the boundary of any shape.</li> </ul> <p>Explain that the circumference-to-diameter ratio is constant for all circles</p> <ul style="list-style-type: none"> <li>List historical approximations to <math>\pi</math> (from Archimedes, Aryabhata and Zu Chongzhi).</li> <li>Compute the circumference of a circle and the length of an arc.</li> <li>Apply ideas of circle perimeter and arc-length to real-world contexts.</li> <li>Explain why a median of a triangle divides it into two triangles of equal area.</li> </ul>
November	Mensuration :Surface Areaand Volume	26	<b>SDG 9</b> Industry, Innovation and Infrastructure Qualityeducation	Surface areas and volumes of spheres (includinghemispheres) and right circular cones	<ul style="list-style-type: none"> <li>Recognisecuboidsandcubesi nreal- life situations.</li> <li>Computethesurfaceareaandv olume of a cuboid.</li> <li>Explainhowacubeisa ‘special case’ of a cuboid.</li> <li>Describerightcircularcylind erusing its radius and height.</li> <li>Computethesurfaceareaandv olume of a cylinder.</li> <li>Recognise cones in daily life, and describethemusingradiusand heightComputethesurfaceare aandvolume of a cone.</li> <li>Recogniseapyramid,andide ntifyits base and apex.</li> <li>Computethesurfaceareaandv olume of a pyramid.</li> </ul>

					<ul style="list-style-type: none"> <li>• Recognises spheres in real-life situations.</li> <li>• Computes the surface area and volume of a sphere.</li> </ul> <p>Use computational thinking to systematically calculate, and compare surface areas and volumes of 3-D shapes by varying dimensions and analysing patterns</p>
December	4-gons (Quadrilaterals)	19		<ul style="list-style-type: none"> <li>• Properties of parallelograms</li> <li>• Important theorems related to parallelograms and their proof</li> <li>• Mid point theorem and its applications</li> </ul> <p>Understanding the notion of central symmetry in the context of parallelograms.</p>	<ul style="list-style-type: none"> <li>• Frame a precise definition of a 4-gon.</li> <li>• Prove various characterizations of a parallelogram.</li> <li>• Prove the midpoint theorem.</li> <li>• Prove a converse of the midpoint theorem.</li> <li>• Prove that the medians of a triangle are concurrent and each median is divided in the ratio 2:1 at the point of concurrence.</li> <li>• Prove that the 4-gon formed by joining the midpoints of a given 4-gon is a parallelogram.</li> <li>• Find the coordinates of the midpoint of a line-segment given its endpoints and find the coordinates of the fourth vertex of a parallelogram given the other three.</li> <li>• Understand reflection and rotation symmetries of 4-gons.</li> <li>• Understand how many 4-gons can tile a plane.</li> </ul>
January	Circles	18		<ul style="list-style-type: none"> <li>• Practical applications and uses of circles</li> <li>• Definitions related to a circle — centre, diameter, and radius</li> <li>• Chords and the angles they subtend</li> <li>• Midpoints and perpendicular bisectors of</li> </ul>	



	Introduction to Probability			<ul style="list-style-type: none"> <li>• Concept of probability and randomness</li> <li>• The probability scale</li> <li>• Empirical probability: analyzing statistical data and performing experiments</li> <li>• Theoretical probability: sample space and events</li> </ul> <p>Representing probability through tree diagrams and tables</p>	<ul style="list-style-type: none"> <li>• centre are equal’.</li> <li>• Explain why the line from the centre of a circle to the midpoint of a chord is perpendicular to the chord’.</li> <li>• Explain why ‘a perpendicular from the centre to a chord bisects the chord’.</li> <li>• State the relationship between length of a chord and its distance from the centre of the circle.</li> <li>• Explain why ‘equal chords are equidistant from the centre (and conversely)’.</li> <li>• Explain why ‘among unequal chords, the longer chord is closer to the centre’.</li> <li>• Explain why ‘the diameter is the longest chord’.</li> <li>• Explain why ‘the angle subtended by an arc at the centre is double the angle subtended by the arc at any point on the remaining part of the circle’.</li> <li>• Explain why ‘angles in the same segment of a circle are equal’.</li> <li>• Explain why ‘the angle in a semicircle is a right angle’.</li> <li>• Determine when four given points are concyclic.</li> <li>• Explain why ‘a quadrilateral with</li> </ul>
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					<p>supplementary opposite angles is cyclic, and conversely’.</p> <ul style="list-style-type: none"> <li>• Explain how circular wheels have influenced transport ,farming ,building , and technology.</li> <li>• Identify cultural motifs involving circles, for example, the Dharmachakra, Ashoka Chakra, Sudarshan Chakra.</li> </ul> <p>Use computational thinking to break down circle-related problems apply geometric rules step-by-step, and verify properties of figures, such as chords, angles, and cyclic quadrilaterals through systematic reasoning.</p> <ul style="list-style-type: none"> <li>• Collect, organize , visualize and interpret data to answer a statistical investigative question.</li> <li>• Compute and apply weighted average in different settings.</li> <li>• Read and interpret stacked bargraphs and 100% stacked bar graphs.</li> </ul> <p>Apply computational thinking strategies to analyse real-life data, create appropriate graphical representations, and interpret mean, median and mode for decision-making.</p>
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					<ul style="list-style-type: none"><li>• Understand the concept of randomness.</li><li>• Describe the likelihood of an event using the probability scale.</li><li>• Estimate the empirical probability of the occurrence of an event by analysing statistical data.</li><li>• Define theoretical probability of an event.</li><li>• Apply the definition of theoretical probability to compute the probability of an event.</li><li>• Compute probability of events with the help of tree diagrams and tables.</li></ul> <p>Use computational thinking strategies, such as pattern recognition and simulation, to model random experiments and estimate probabilities.</p>
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**SURENDRANATH CENTENARY SCHOOL**  
**SESSION – 2026-27**  
**ANNUAL PEDAGOGICAL PLAN**  
**CLASS IX**

<b>Subject: PHYSICS</b>					
<b>Books:1) SCIENCE TEXTBOOK FOR CLASS IX (NCERT)</b>					
<b>2) NUMERICAL PHYSICS-IX (LAXMI PUBLICATIONS)</b>					
<b>3) LAB MANUAL SCIENCE-IX (BLUE PRINT)</b>					
<b>Month</b>	<b>Chapter</b>	<b>No. of pr.</b>	<b>Topics</b>	<b>Learning Objective</b>	<b>Learning Outcome</b>
April 26	Motion	8	<ul style="list-style-type: none"> <li>• Motion (Kinematics) Displacement, velocity, acceleration</li> <li>• Motion in a straight line (constant velocity &amp; constant acceleration)</li> <li>• Graphical representation of motion (distance-time and velocity-time graphs)</li> </ul>	<ul style="list-style-type: none"> <li>• To develop understanding of displacement, velocity, and acceleration</li> <li>• To explain motion in a straight line under constant velocity and acceleration</li> <li>• To enable students to interpret and draw motion graphs</li> </ul>	<ul style="list-style-type: none"> <li>• Students will be able to define and differentiate displacement, velocity, and acceleration</li> <li>• Students will analyse motion in a straight line with constant velocity and acceleration</li> <li>• Students will interpret and construct distance-time and velocity-time graphs</li> </ul>
May 26	Motion	Contd.... 4	<ul style="list-style-type: none"> <li>• Derivation and application of kinematic equations (graphical method)</li> <li>• <b><u>ACTIVITY-1</u></b> <b><u>Experiential Learning:</u></b> Activity to compute the change in velocity of a moving object in non uniform motion in order to correctly calculate its acceleration. Skills: Problem solving, Critical thinking.</li> </ul>	<ul style="list-style-type: none"> <li>• To derive kinematic equations using graphical methods</li> <li>• To help students apply equations of motion in problem-solving</li> </ul>	<ul style="list-style-type: none"> <li>• Students will derive and use kinematic equations for solving numerical problems</li> <li>• Students will solve real-life problems involving motion accurately</li> </ul>

June 26	Motion	Contd...  4.	<ul style="list-style-type: none"> <li>Uniform circular motion (elementary idea)</li> </ul>	<ul style="list-style-type: none"> <li>To introduce the concept of uniform circular motion in daily life</li> <li>To strengthen analytical thinking and mathematical skills</li> </ul>	<ul style="list-style-type: none"> <li>Students will describe uniform circular motion with examples (e.g., motion of a fan, satellite)</li> <li>Students will apply concepts of motion in practical situations and observations</li> </ul>
July 26	Force and Laws of Motion	8	<ul style="list-style-type: none"> <li>Force; balanced and unbalanced forces</li> <li>Force of friction</li> <li>Newton's first law of motion</li> <li><b><u>Subject Enrichment:</u></b> Activity to show inertia of rest and motion.</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Understand the concept of force and identify different types of forces in daily life.</li> <li>Differentiate between balanced and unbalanced forces with suitable examples.</li> <li>Explain the concept of friction, its causes, advantages, and disadvantages.</li> <li>Interpret Newton's First Law of Motion and relate it to inertia in real-life situations.</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Define force and explain its effects on the motion and shape of objects.</li> <li>Classify forces as balanced and unbalanced and predict their effects on motion.</li> <li>Explain the role of friction in everyday life and suggest methods to increase or reduce it.</li> <li>State and apply Newton's First Law of Motion in practical situations.</li> </ul>
August 26	Force and Laws of Motion	8	<ul style="list-style-type: none"> <li>Newton's second law of motion</li> <li>Newton's third law of Motion</li> <li><b><u>Art Integrated Activity:-</u></b> Activity to show that action and reaction are equal and opposite. Skills- Creative and critical thinking.</li> </ul>	<ul style="list-style-type: none"> <li>Understand and apply Newton's Second Law of Motion (relation between force, mass, and acceleration).</li> <li>Describe Newton's Third Law of Motion and identify action-reaction force pairs.</li> <li>Develop analytical skills by solving numerical problems related to force and motion.</li> <li>Perform simple</li> </ul>	<ul style="list-style-type: none"> <li>Use the formula <math>F = ma</math> to solve numerical problems based on Newton's Second Law.</li> <li>Identify and explain action and reaction forces as per Newton's Third Law.</li> <li>Analyze real-life situations (e.g., walking, pushing objects, vehicle motion) using laws of motion.</li> </ul>

				activities/experiments to observe the effects of force.	<ul style="list-style-type: none"> <li>• Demonstrate understanding through experiments, class discussions, and problem-solving tasks</li> </ul>
September 26	Ch-Motion Ch- Force and Laws of Motion		<ul style="list-style-type: none"> <li>• Revision of half yearly syllabus.</li> </ul>	.....	.....
October 26	Work, Energy and Simple Machines  SDG:- Quality Education.		<ul style="list-style-type: none"> <li>• Work and Energy</li> <li>• Work done by a constant force</li> <li>• Work-Energy Theorem</li> <li>• Forms of Mechanical Energy (Kinetic &amp; Potential Energy)</li> <li>• <b><u>EXPERIENTIAL LEARNING:-</u></b> Activity to teach them an object moving faster can do more work than an identical object moving slower. Skills: observational and creative.</li> <li>• Law of Conservation of Energy</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand the concept of work and identify situations where work is done.</li> <li>• Calculate work done by a constant force using the appropriate formula.</li> <li>• Explain the relationship between work and energy through the work-energy theorem.</li> <li>• Differentiate between kinetic energy and potential energy.</li> <li>• Understand the transformation of energy from one form to another.</li> <li>• Explain and apply the law of conservation of energy in real-life situations.</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Define work, energy, and power with correct units and formulas.</li> <li>• Solve numerical problems related to work, energy, and power.</li> <li>• Demonstrate understanding of kinetic and potential energy through examples.</li> <li>• Analyze energy transformations in daily life (e.g., roller coaster, falling objects).</li> <li>• State and explain the law of conservation of energy with examples.</li> </ul>

November 26	Work, Energy and Simple Machines	8	<ul style="list-style-type: none"> <li>• Power</li> <li>• Simple Machines (Pulley, Lever, Inclined Plane) and Mechanical Advantage</li> </ul> <p><b><u>Subject Enrichment Task:</u></b> Students will prepare a simple working model of a lever, pulley, or inclined plane and answer basic questions to explain its working and usefulness.</p>	<ul style="list-style-type: none"> <li>• Define power and calculate it in different contexts.</li> <li>• Identify different types of simple machines and understand their uses.</li> <li>• Explain the concept of mechanical advantage and efficiency of machines.</li> </ul>	<ul style="list-style-type: none"> <li>• Calculate power and relate it to real-life devices.</li> <li>• Identify simple machines in their surroundings and explain their working.</li> <li>• Calculate mechanical advantage and understand how machines make work easier.</li> <li>• Apply concepts in practical situations and problem-solving tasks.</li> </ul>
December 26	Sound	6	<ul style="list-style-type: none"> <li>• Production of sound</li> <li>• Propagation of sound as a longitudinal wave</li> <li>• Graphical representation of sound waves</li> <li>• Characteristics of sound (wavelength, frequency, time period, amplitude, intensity, speed)</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand how sound is produced through vibrations.</li> <li>• Explain the propagation of sound as a longitudinal wave through different media.</li> <li>• Interpret graphical representations of sound waves.</li> <li>• Describe various characteristics of sound such as wavelength, frequency, amplitude, and speed.</li> </ul>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate that sound is produced due to vibrations using simple activities.</li> <li>• Illustrate how sound travels through different media with suitable examples.</li> <li>• Draw and label a sound wave showing its key features.</li> <li>• Relate frequency with pitch and amplitude with loudness.</li> </ul>

January 27	Sound	10	<ul style="list-style-type: none"> <li>• Human perception of sound (pitch and loudness)</li> <li>• Propagation of sound in solids and liquids</li> <li>• Reflection of sound (echo, reverberation) and echolocation</li> <li>• <b><u>Art Integrated:-</u></b> Examine the paths of reflection of sound on different surfaces.</li> </ul>	<ul style="list-style-type: none"> <li>• Differentiate between pitch and loudness based on sound properties.</li> <li>• Compare the propagation of sound in solids and liquids.</li> <li>• Explain reflection of sound and its applications like echo and reverberation.</li> <li>• Understand the concept of echolocation and its real-life applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve simple numerical problems related to speed, frequency, and wavelength of sound.</li> <li>• Distinguish between echo and reverberation with real-life examples.</li> <li>• Explain why sound travels faster in solids than in liquids.</li> <li>• Apply the concept of echolocation to understand how animals like bats navigate.</li> </ul>
February 27		6	Revision of Full syllabus		
March 27			FINAL TERM EXAM		

**SURENDRANATHCENTENARYSCHOOL, RANCHI**  
**ANNUAL PLAN 2026-27**

**Class: IX**

**Book: NCERT book for Science**

**Subject: Chemistry**

**Lab manual: Blue Print**

Month	Chapter	No. of periods	Topic	Learning Objective	Learning Outcome
April	<b>Exploring mixtures and their separation</b>	12	<ul style="list-style-type: none"> <li>• Homogeneous and heterogeneous mixtures.</li> <li>• Differentiate between homogeneous and heterogeneous mixtures on the basis of their properties .</li> <li>• Demonstrate separation techniques, such as crystallisation, distillation, paper chromatography, sublimation, centrifugation and coagulation .</li> <li>• Classify mixtures as solutions, suspensions, or colloids based on their properties.</li> </ul> <p>SDG 4: Quality Education</p> <p><b>Activity:</b> on paper chromatography and sublimation.</p>	<ul style="list-style-type: none"> <li>➤ Differentiate between homogeneous and heterogeneous mixtures on the basis of their properties .</li> <li>➤ Apply the knowledge of homogeneous and heterogeneous mixtures in daily life..</li> <li>➤ . Demonstrate separation techniques, such as crystallisation, distillation, paper chromatography, sublimation, centrifugation and coagulation.</li> <li>➤ Classify mixtures as solutions, suspensions, or colloids based on their properties.</li> <li>➤ Relate different separation techniques with daily life activities.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Differentiate between homogeneous and heterogeneous mixtures on the basis of their properties.</li> <li>➤ Demonstrate separation techniques, such as crystallisation, distillation, paper chromatography, sublimation, centrifugation and coagulation.</li> <li>➤ Explain the scientific principles behind separation techniques.</li> <li>➤ Apply the knowledge of homogeneous and heterogeneous mixtures in daily life.</li> <li>➤ Draw labelled diagrams or flow charts of separation techniques</li> </ul>

May	<b>Exploring mixtures and their separation</b>	8	<ul style="list-style-type: none"> <li>• Solute, solvent and solution. Classification of solution as homogeneous and heterogeneous. True solutions, suspension solution and colloidal solution.</li> <li>• Properties of colloidal solution- Brownian movement and Tyndall effect. Examples of colloids from day-to-day life.</li> <li>• Classification of substances as elements and compounds. Difference between elements and compounds.</li> </ul> <p><b>Experiential Learning:</b> <u>Activity 1</u> To prepare solutions of different types in order to understand the difference between sol, colloid and suspension.</p> <p><b>Skills:</b> Critical thinking.</p>	<ul style="list-style-type: none"> <li>➤ Differentiate between homogeneous and heterogeneous mixtures to classify mixtures based on their properties.</li> <li>➤ Classify homogeneous and heterogeneous mixtures into solution, suspension and colloids.</li> <li>➤ Differentiate between homogeneous and heterogeneous mixtures.</li> <li>➤ Classify substances into elements and compounds.</li> </ul> <p>Differentiate between elements and compounds to classify different materials based on their physical and chemical properties .Classify elements as metals, nonmetals and metalloids.</p>	<ul style="list-style-type: none"> <li>➤ . To differentiate between homogeneous and heterogeneous mixtures.</li> <li>➤ To classify solutions into true solution, suspension and colloids on the basis of some properties.</li> </ul> <p>To differentiate between elements and compounds based on their physical and chemical properties</p>
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June	<b>Exploring mixtures and their separation</b>	8	<ul style="list-style-type: none"> <li>• Concentration of a Solution and strength of a solution. Calculation of mass percentage and volume percentage for a solution.</li> <li>• Evaporation, distillation, fractional distillation, crystallization, chromatography, centrifugation, sublimation, using separating funnel etc.</li> </ul> <p><b>Experiential Learning:</b> <b>Activity 1</b> To prepare saturated and unsaturated solutions using salt and water.</p> <p><b>Skills:</b> Applications of known facts.</p>	<ul style="list-style-type: none"> <li>➤ Determine the effect of concentration of solution on its physical properties</li> <li>-</li> <li>➤ Determine the concentration of sol<sup>n</sup></li> <li>➤ Examine the process of crystallization and identify the principle involved.</li> <li>➤ State the underlying principle behind centrifugation and locate its use.</li> <li>➤ Deduce the process of chromatography and identify mixtures that can be separated through this process.</li> <li>➤ Elaborate the technique of fractional distillation to separate miscible liquids. Recognize the basis of distillation and identify mix. that can be separated by this. <ul style="list-style-type: none"> <li>➤ Explain the basis for use of separating funnel to separate immiscible liquids.</li> </ul> </li> </ul>	<p>To determine the effect of concentration of solution on its physical properties.</p> <ul style="list-style-type: none"> <li>➤ To identify various techniques to separate mixtures depending on the nature of its components.</li> <li>➤ To know the basic principle working behind centrifugation, crystallization, distillation, fractional distillation, chromatography</li> </ul>
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July	<b>Structure of atom</b>	14	<ul style="list-style-type: none"> <li>• Thomson’s atomic model and its limitations.</li> <li>• Rutherford’s alpha scattering experiment.</li> <li>• Atomic Models (Thomson’s Model, Rutherford’s Model, and Bohr’s Model) .</li> <li>• Distributions of electrons in elements (up to 18 elements) .</li> <li>• Symbols</li> <li>• Valency as the combining capacity.</li> </ul> <p>SDG 4: Quality Education</p>	<ul style="list-style-type: none"> <li>➤ Knowing the different constituents of an atom and differentiate between electrons and protons.</li> <li>➤ Identifying isobars on the basis of their scientific notation.</li> <li>➤ Find out valency of an element on the basis of their electronic configuration.</li> <li>➤ Postulate the reason for different atomic masses for isotopes and the different constituents of an atom and differentiate between electrons and protons.</li> <li>➤ Identifying isobars on the basis of their scientific notation.</li> <li>➤ Find out valency of an element on the basis of their electronic configuration.</li> <li>➤ Postulate the reason for different atomic masses for isotopes of an element.</li> </ul>	<ul style="list-style-type: none"> <li>➤ . To identify isobars on the basis of their scientific notation.</li> <li>➤ To find out valency of an element on the basis of their electronic configuration.</li> <li>➤ To postulate the reason for different atomic masses for isotopes and the different constituents of an atom and differentiate between electrons and protons.</li> <li>➤ To identify examples of isobars and their properties</li> <li>➤ Find out valency of an element on the basis of their electronic configuration.</li> <li>➤ To show the distribution of electrons in elements from atomic numbers 1 to 20.</li> </ul>
August	<b>Structure of atom</b>	14	<ul style="list-style-type: none"> <li>• Rutherford’s atomic model. Limitations of Rutherford’s atomic model. Reason for failure of Rutherford’s atomic model.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Calculate the number of electrons distributed in different orbits according to Bohr- Bury rules and find out valence electrons of different elements.</li> <li>➤ Show the distribution of electrons in elements from Atomic Nos 1 to 20.</li> </ul>	<ul style="list-style-type: none"> <li>➤ To explain Thomson’s model of atom and its incoherent features with the results of other experiments.</li> <li>➤ To conclude from Rutherford’s</li> </ul>

			<ul style="list-style-type: none"> <li>Bohr's model of atom. Understanding the scheme of maximum electrons in an orbit under Bohr-Bury rule. Writing the electronic configuration on the basis of Bohr-Bury scheme.</li> <li>Finding out the valency from the electronic configuration of the element.</li> <li>Atomic number</li> <li>Mass number</li> <li>Isotopes</li> <li>Isobars</li> </ul> <p>SDG 3: Good health and well being</p>	<ul style="list-style-type: none"> <li>Write the scientific notations of atoms of commonly known elements and calculate their atomic mass and atomic number. Explain Thomson's model of atom and its incoherent features with the results of other experiments.</li> <li>Draw logical conclusions from Rutherford's experiment to understand the structure of atom.</li> <li>Compare Rutherford's model and Thomson's model and state their relative advantages and limitations.</li> <li>State the postulates of Bohr's model of atom and their significance</li> </ul>	<p>experiment to understand the structure of atom.</p> <ul style="list-style-type: none"> <li>To compare Rutherford's model and Thomson's model and state their relative advantages Comparison of Rutherford's model and Thomson's model and state their relative advantages and limitations.</li> <li>The postulates of Bohr's model of atom and their significance.</li> </ul>
September	<b>Chapters 1 &amp; 2</b>		HOTS questions and revision of the chapters 1 & 2.		
September	<b>Atoms and molecules</b>	6	<ul style="list-style-type: none"> <li>Laws of chemical combination. Law of constant proportion. Law of conservation of mass.</li> <li>Dalton's atomic theory. Indivisibility of atoms.</li> </ul>	<ul style="list-style-type: none"> <li>Apply the law of conservation of mass to determine the mass of elements in a mixture.</li> <li>Calculate the mass ratio of atoms in a molecule to validate law of constant proportions. Correlate the fact of invisibility of atoms to the size of atoms</li> </ul>	<ul style="list-style-type: none"> <li>To calculate the mass ratio of atoms in a molecule to validate law of constant proportions.</li> <li>To determine the number of atoms in a molecule to determine its atomicity. To know atomic symbols of commonly known elements.</li> </ul>

October	<b>Atoms and molecules</b>	12	<ul style="list-style-type: none"> <li>• Understanding the concept of indivisibility of atoms. Formation of molecules and idea of atomicity.</li> <li>• Symbols of commonly known elements and Greek names from where the formula is derived.</li> <li>• Formula and valencies of complex as well as simple ions. Activity2 Group discussion on formula making in the classroom.</li> <li>• Writing the formula of commonly known compounds using formula of ions.</li> <li>• Understanding the concept of formula of complex ion sand its use in making the formula of commonly known compounds. Understanding the Concept of molecular mass and its calculation.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Determine the number of atoms in a molecule to determine its atomicity.</li> <li>➤ List atomic symbols of commonly known elements as per IUPAC.</li> </ul> <p>Write chemical formulae using chemical symbols and valencies.</p> <ul style="list-style-type: none"> <li>➤ Calculate the number of moles, mass, atoms and molecules Using Avogadro's number.</li> <li>➤ Recall atomic masses of a few elements to reinforce the idea of different atomic mass for different elements.</li> </ul> <p>Calculate the relative molecular mass of commonly known chemical compounds</p>	<p>To be able to write chemical formulae using chemical symbols and valencies.</p> <ul style="list-style-type: none"> <li>➤ To be able to calculate the number of moles, mass, atoms and molecules using Avogadro's number.</li> </ul> <p>To calculate the relative molecular mass of commonly known chemical compounds</p>
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			<p>Know about the atomic masses of different elements and their application</p>		
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November	<b>Atoms and molecules</b>	14	<ul style="list-style-type: none"> <li>• Molecules of elements, Molecules of covalent compounds and their properties</li> <li>• Ions, Ionic compounds and their properties</li> <li>• Writing formulae</li> <li>• Molecular mass chemical</li> <li>• Formula unit mass</li> <li>• Draw diagrams of electron dot structures of atoms and molecules.</li> </ul> <p>SDG 12: responsible consumption and production.</p> <p><b>Activity:</b> Design a game to write formula of the compounds using ions.</p>	<ul style="list-style-type: none"> <li>➤ Describe how atoms and molecules can lead to beneficial applications, such as medicine, energy and peaceful use of atomic science • Relate atomic bonding to social bonding.</li> <li>➤ Design educational games to write chemical formulae using symbols.</li> <li>➤ Describe the basic concepts that matter are made of particles; elements combine in fixed ratios to form compounds; the law of conservation of mass; and different types of bonding (ionic and covalent).</li> <li>➤ Exhibit creativity and work collaboratively in groups to construct simple models of compounds.</li> <li>➤ Formulate hypotheses about scientific phenomena by applying prior knowledge and understanding of scientific concepts and laws, and predict the results of data based on the hypotheses.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Calculate the charge on an ion, valency from the atomic number, the molecular and formula unit mass.</li> <li>➤ Handle common laboratory chemicals and apparatus safely . Use scientific conventions, symbols, and valency to write the chemical formulae of simple compounds .</li> <li>➤ Display awareness about the scientific discoveries, such as the contributions of Antoine Lavoisier etc. Display awareness about the contributions of Indian scientists in promoting the peaceful use of atomic energy and the traditional use of the red pigment 'cinnabar' obtained from rocks</li> </ul>
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				<ul style="list-style-type: none"> <li>➤ Accurately use scientific instruments, apparatus and chemicals to collect data .</li> <li>➤ Analyse results and findings using scientific terms.</li> <li>➤ Represent data in multiple modes, including appropriate figures, tables, graphs or digital formats.</li> <li>➤ Communicate findings and conclusions effectively, such as those from experiments, activities or projects, both orally and in written form</li> </ul>	
December	<b>Earth as a system: Energy, matter and life</b>	12	<ul style="list-style-type: none"> <li>• Earth as interconnected system.</li> <li>• Nature of solar energy: solar radiation, electromagnetic .</li> <li>• spectrum, and speed of light .</li> <li>• Solar energy interaction with the Earth’s Surface and differential heating of the Earth (the role of the atmosphere and the Earth’s surface).</li> <li>• Differential warming of the Earth causes winds</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the interconnectedness between different spheres of the Earth (biosphere, geosphere, hydrosphere, cryosphere and atmosphere).</li> <li>➤ Explain the nature of solar radiation.</li> <li>➤ Explain that solar radiation is an electromagnetic waves having different Frequencies .</li> <li>➤ Explain the interconnectedness between different spheres of the Earth (biosphere, geosphere, hydrosphere, cryosphere and atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the interconnectedness between different spheres of the Earth (biosphere, geosphere, hydrosphere, cryosphere and atmosphere.</li> <li>➤ Explain the interconnectedness between different spheres of the Earth (biosphere, geosphere, hydrosphere, cryosphere and atmosphere</li> </ul>

January	<b>Earth as a system: Energy, matter and life</b>	12	<ul style="list-style-type: none"> <li>• Biogeochemical cycles (water cycle, carbon cycle, nitrogen cycle, oxygen cycle).</li> <li>• Human impact on Earth's system.</li> </ul> <p>SDG 15: Life on land</p>	<ul style="list-style-type: none"> <li>➤ Explain the interaction of solar radiation with the Earth's surface and relate the differential heating of the Earth's surface with the atmospheric phenomena, such as air movement, evaporation, etc., and describe phenomena like mountain, valley, sea and land breezes</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the nature of solar radiation.</li> <li>➤ Explain that solar radiation is an electromagnetic waves having different Frequencies</li> </ul>
February	<b>Chapters 3 &amp; 4</b>		HOTS questions and revision of the chapters 3 & 4.		

**SURENDRANATH CENTENARY SCHOOL SESSION 2026-27**

**ANNUAL PEDAGOGICAL PLAN CLASS IX**

<b>Subject: Biology</b> <b>Books: Textbook of Science-IX (NCERT)</b> <b>Lab Manual</b>					
MONTH	CHAPTER	No. of Pds.	TOPICS	LEARNING OBJECTIVES	LEARNING OUTCOMES
APRIL	CH- 1 The Fundamental Unit of Life	12	<p><b>Recapitulation: A brief knowledge of</b></p> <ul style="list-style-type: none"> <li>· Structure of amoeba</li> <li>· Various life process performed by and organisms</li> </ul> <p><b>Academic Vocabulary:</b></p> <ul style="list-style-type: none"> <li>· Cell, Prokaryotic, Eukaryotic, Osmosis, Diffusion, Hypertonic, Hypotonic and Isotonic solutions, Cytoplasm, Cell Organelles - Endoplasmic Reticulum, Golgi Apparatus, Lysosomes, mitosis, meiosis</li> </ul> <p>What are living organisms made up of? Cell Theory,</p> <p>membrane-structure and function, Osmosis and diffusion, hypotonic, hypertonic and isotonic solutions,</p> <ul style="list-style-type: none"> <li>· Cell wall- composition and function, Nucleus – Structure and functions, Prokaryotic and eukaryotic cells, Cytoplasm, Cell Organelles - Endoplasmic Reticulum, Golgi Apparatus, Lysosomes</li> <li>· Cell Organelles – structure and functions of Mitochondria, Plastids – Chloroplast, Chromoplast &amp; Leucoplast</li> <li>· Cell Organelles – structure and functions of Endoplasmic Reticulum, Golgi apparatus, Lysosomes, Vacuoles</li> </ul>	<p>To help the learner</p> <ul style="list-style-type: none"> <li>➤ Compare cell wall and cell membrane</li> <li>➤ Locate different cell organelles and state their functions</li> <li>➤ Compare a prokaryotic and an eukaryotic cell</li> <li>➤ Differentiate between types of endoplasmic reticulum and explain their functions</li> <li>➤ Explain the function of mitochondria in a cell</li> <li>➤ Relate the functions of lysosomes in a cell</li> <li>➤ Name the cell organelle responsible for storage, modification and packaging of products in a cell</li> <li>➤ Compare a plant and an animal cell</li> </ul>	<p>Learners will be able to</p> <ul style="list-style-type: none"> <li>➤ Explain the structural difference and functions of cell wall and cell membrane</li> <li>➤ Identify cell organelles and list their functions and correlate the structure with the functions of cell organelles</li> <li>➤ List the differences between plant and animal cells</li> <li>➤ Justify the cell as a self – sustaining unit</li> </ul>

MAY	CH- 5 The Fundamental Unit of Life Contd.		<ul style="list-style-type: none"> <li>· Cell Division – Mitosis and Meiosis – stages and process</li> <li>· Comparison and Significance of mitosis and meiosis</li> <li>· Cellular division and cancer • Recent advancement in cell biology</li> </ul> <p><b>ACTIVITY:1 Cell Model Making</b> Make 3D models of plant and animal cells using clay, thermocol, jelly, or even household items.</p> <p><b>ACTIVITY 2:Cell City ANALOGY</b> Create an analogy comparing a cell to a city (e.g., nucleus = city hall, mitochondria = power plant).</p>	<ul style="list-style-type: none"> <li>➤Elaborate the role of chromosomes during cell division</li> <li>➤Explain mitosis and meiosis and compare the two types of cell division</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the role of chromosome in inheritance</li> <li>➤List the type of cell division-</li> </ul>
JUNE	CH- 2 Tissues	20	<p><b>Academic Vocabulary:</b> Tissue, Meristematic Tissue, Parenchyma, Sclerenchyma, Collenchyma, Stomata, Cork, Epidermis, Xylem, phloem, Epithelium, connective tissue, Muscular tissue, Nervous tissue, Tendon, ligament, cartilage, Areolar, Adipose, striated, cardiac</p> <ul style="list-style-type: none"> <li>· Are Plants and Animals made of same types of Tissues? Plant Tissues- Meristematic tissues, Features of meristematic cells, Location and functions of meristematic tissues</li> </ul> <p><b>ACTIVITY 1:Case study: based on meristem</b></p> <ul style="list-style-type: none"> <li>· Permanent Tissues-Features and Classification, Simple permanent tissues- Parenchyma, Collenchyma, Sclerenchyma (Comparison and Functions), Structure and Functions of – Epidermis (osmosis and protection) and Stomata, Cork- impervious nature</li> </ul> <p><b>ACTIVITY 2:</b> <b>Subject Enrichment:</b> To observe temporary mount of onion peel and cheek cells</p>	<ul style="list-style-type: none"> <li>➤ Classify the meristematic tissue based on their location in the plant body</li> <li>➤ Describe the locations and functions of meristematic tissue in plants</li> <li>➤ Compare parenchyma, collenchyma and sclerenchyma</li> <li>➤ Explain functions of simple permanent tissues</li> <li>➤ Describe the functions of epidermis and stomata</li> </ul>	<ul style="list-style-type: none"> <li>➤ Identify the various types of plant tissues</li> <li>➤ List functions of various types of plant tissues</li> </ul> <p>Compared meristematic and permanent tissues</p> <ul style="list-style-type: none"> <li>➤ Draw and label the locations of plant tissues on the body of plants</li> <li>➤ Explain the role of protective layer- epidermis and stomata</li> </ul>

<p><b>JULY</b></p>	<p>CH- 2 Tissues</p> <p><b>SDG: 3 Good Health and Well Being</b></p>		<ul style="list-style-type: none"> <li>· Complex Permanent Tissue – Xylem and Phloem- their components (Comparison of structure and functions)</li> <li>· Tissues, levels of organization, Comparison of plant and animal tissues</li> <li>· Animal tissues- Features and types, Tissues designed to perform the functions in animals</li> <li>· Classification of animal tissue – epithelial, muscular, connective and nervous</li> </ul> <p><b><u>ACTIVITY1: Group discussion-</u></b> “Most of the tissues in plants are dead whereas living in animals”</p> <p><b><u>ACTIVITY 2: Live Demonstration of Capillarity (Xylem Function)</u></b></p>	<ul style="list-style-type: none"> <li>➤ Identify the types of complex permanent tissues and their functions</li> <li>➤ Classify animal tissue</li> <li>➤ Compare the tissues present in plants and animals</li> </ul>	<ul style="list-style-type: none"> <li>➤ List various types of complex permanent tissues and their functions</li> <li>➤ Classify animal tissues into epithelial, muscular, connective and nervous</li> <li>➤ Compare various types of animal tissues</li> </ul>
<p><b>AUGUST</b></p>	<p>CH- 2 Tissues</p>		<ul style="list-style-type: none"> <li>· Animal Tissues – Epithelial Tissue: Features, Types, Location and Functions</li> </ul> <p><b>HOTs:</b> Correlate the location of epithelial tissues with their functions</p> <p>Connective Tissue: areolar, adipose, tendon, ligament, bone, cartilage, blood and lymph - Features, Location and Functions</p> <p>Muscular Tissue: Striated, smooth and cardiac muscles- Features, Location and Functions</p> <p>Nervous Tissue: Features, Types, Location and Functions, Stimuli and responses</p> <p>Elementary idea of musculoskeletal system Care of musculoskeletal system: injuries, postural care, nutrition and exercise</p> <p><b><u>ACTIVITY 1: Microscopic Observation of Tissues</u></b> Observe prepared slides of onion cells, muscle tissue, blood smear, sclerenchyma, etc</p>	<ul style="list-style-type: none"> <li>➤ Correlate the structure of epithelial tissue to their functions in an organism</li> <li>➤ Describe different types of connective tissues and relate their structure to specific functions</li> <li>➤ Compare the structure of different types of muscular tissues and relate their functions</li> <li>➤ Describe the structure of a neuron and explain the functioning of nervous</li> <li>➤ Explain the importance of yoga exercises for physical agility and in maintaining the correct posture</li> </ul>	<ul style="list-style-type: none"> <li>➤ List the functions of various types of animal tissues</li> <li>➤ Draw labelled diagrams of epithelial, connective, muscular and nervous tissues</li> <li>➤ Connect structure of a tissue with its functions</li> <li>➤ Discuss significant contributions of India, for example, Professor Sipra Guha Mukherjee and Professor S.C. Maheshwari for their significant contribution in the plant cell and tissue culture research in India Discuss the techniques and medical recommendations in recovery from muscular injuries</li> </ul>

<p style="text-align: center;"><b>SEPTEMBER</b></p>	<p style="text-align: center;">CH- 03 Reproduction</p>	<p style="text-align: center;">13</p>	<p><b>Recapitulation:</b> A brief knowledge of Comparative study of living and non living things</p> <p><b>Academic Vocabulary:</b> Reproduction, DNA Copying, Variation, Asexual Reproduction, Sexual Reproduction, Fission Budding, Fragmentation, Regeneration Spore Formation, Vegetative Propagation Gametes, Pollination, Fertilisation, Zygote Embryo, Placenta, Puberty, Menstruation, Contraception, STDs, Reproductive Health</p> <p>Introduction to different forms of reproduction — sexual and asexual • Types of asexual reproduction with examples • Sexual reproduction in flowering plants (flower and its parts, pollination, fertilisation, seed dispersal)</p> <p><b>ACTIVITY- 1 Subject Enrichment</b> Dissect a bisexual flower (like <b>Hibiscus</b> or <b>Datura</b>). Identify and separate the <b>sepals, petals, stamens (Anther/Filament), and pistil (Stigma/Style/Ovary)</b>. Stick the parts on a sheet, label them, and write the function of each part in the <b>fertilisation</b> process</p>	<ul style="list-style-type: none"> <li>➤ Compare asexual and sexual reproduction</li> <li>➤ Explain how variations are introduced by sexual reproduction</li> <li>➤ Describe male and female reproductive organs in plants and animals</li> <li>➤ Differentiate between ovule and seed, ovary and fruit</li> <li>➤ Explain pollination and fertilisation</li> <li>➤ Analyse the interactions between members of different groups of organisms, such as plants and pollinators</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the significance of reproduction in ensuring the continuity of species and population stability.</li> <li>➤ Differentiate between asexual and sexual modes of reproduction based on parental involvement and genetic variation.</li> <li>➤ Describe various asexual methods such as fission, budding, fragmentation, and vegetative propagation with examples.</li> </ul>
<p style="text-align: center;"><b>OCTOBER</b></p>	<p style="text-align: center;">CH- 03 Reproduction</p>		<p>Sexual reproduction in humans: male and female reproductive systems (structure and function, formation of gametes, sperm and egg, fertilisation, pregnancy and development of embryo, menstrual cycle)</p> <p>• Reproductive health and hygiene • Introduction to birth control methods and importance</p> <p><b>ACTIVITY – 2</b> Research STDs (like HIV/AIDS or Warts) and Contraceptive Methods (Mechanical, Chemical, Surgical). Create an informative <b>poster</b> explaining the importance of Reproductive Health and the myths surrounding it.</p> <p><b>Skills:</b> Curiosity and critical thinking</p>	<ul style="list-style-type: none"> <li>➤ Illustrate the structure of male and female reproductive units or systems in plants and animals</li> <li>➤ Recognise the significance of contraceptive devices for population control and health including reproductive health</li> </ul>	<ul style="list-style-type: none"> <li>➤ Identify the parts of a flower and explain the processes of pollination and double fertilisation in plants.</li> <li>➤ Examine the human reproductive system, identifying the functions of male and female organs and the role of gametes.</li> <li>➤ Understand the menstrual cycle and the physiological</li> </ul>

<p><b>NOVEMBER</b></p>	<p>CH- 04 Biodiversity and Classification</p>	<p>13</p>	<p><b>Academic Vocabulary:</b> Biodiversity, Classification, Taxonomy, Evolution Hierarchy of Classification, Binomial Nomenclature Kingdom, Phylum (Animals) / Division (Plants) Class, Order, Family, Genus, Species, Monera, Protista Fungi, Plantae, Animalia, Thallophyta, Bryophyta Pteridophyta, Gymnosperms, Angiosperms ( Porifera, Coelenterate, Platyhelminthes, Nematoda Annelida, Arthropoda, Mollusca, Echinodermata Chordata (Vertebrata), Pisces, Amphibia, Reptilia Aves, Mammalia</p> <ul style="list-style-type: none"> <li>• Importance of classification-</li> <li>• Five kingdoms and their key features with examples</li> </ul>	<ul style="list-style-type: none"> <li>➤ Distinguish organisms based on certain characteristics, such as number of cells present, cellular organisation and mode of nutrition</li> <li>➤ Classify various organisms in groups, such as five kingdoms, on the basis of their cellular organisation and ecological role</li> </ul>	<ul style="list-style-type: none"> <li>➤ Explain the importance of classification in understanding the vast variety of life forms on Earth.</li> <li>➤ Identify the hierarchy of classification, including Kingdom, Phylum/Division, Class, Order, Family, Genus, and Species.</li> <li>➤ Analyze the basis of classification, such as cell type (Prokaryotic vs. Eukaryotic), body organization, and mode of nutrition.</li> </ul>
<p><b>DECEMBER</b></p>	<p>CH- 04 Biodiversity and classification</p>		<p>Major division of animals and plants</p> <ul style="list-style-type: none"> <li>• Binomial nomenclature</li> <li>• Acellular entities: viruses</li> </ul> <p><b>Group discussion-</b> <b>ACTIVITY1:</b> Activity: Permanent Slide Observation. Task: Observe slides of Amoeba (Protista), Bacteria (Monera), <b>and</b> Spirogyra (Thallophyta) under a microscope. Draw the labelled diagrams based on your actual observations, noting the presence or absence of a defined nucleus.</p> <p><b>Skills:</b> Curiosity and observation</p>	<ul style="list-style-type: none"> <li>➤ Describe the significance and rules of binomial nomenclature</li> <li>➤ Apply binomial nomenclature on some common organisms in their surroundings</li> <li>➤ Analyse the interactions between members of different groups of organisms, such as lichens</li> <li>➤ Discuss ecological role of diverse organisms</li> <li>➤ Recognise three domains of classification of organisms on molecular basis</li> </ul>	<ul style="list-style-type: none"> <li>➤ Distinguish between Animal Phyla (e.g., Porifera, Arthropoda, Mollusca) based on body symmetry, coelom, and level of organization.</li> <li>➤ Recognize the features of Vertebrata, including the five classes: Pisces, Amphibia, Reptilia, Aves, and Mammalia.</li> <li>➤ Apply Binomial Nomenclature to understand how scientific names are assigned to organisms globally using Genus and Species.</li> <li>➤ Relate evolution to classification, understanding how body designs change over time for survival.</li> </ul>

<b>JANUARY</b>	CH- 1 & 2 The Fundamental Unit of Life & Tissues	12	<ul style="list-style-type: none"> <li>· Cell structure and functions</li> <li>· Mitosis and meiosis</li> <li>· Plant and animal tissues</li> </ul>		<ul style="list-style-type: none"> <li>➤ Concept map on Cell Organelles</li> <li>➤ HOT's questions on mitosis and</li> </ul>
<b>FEBRUARY</b>	CH- 3and 4 Reproducti on and Diversity	6	<ul style="list-style-type: none"> <li>· Asexual and Sexual reproduction</li> <li>· Types of Reproduction ,STD and Diseases</li> <li>· Population Control</li> </ul>		<ul style="list-style-type: none"> <li>➤ SAQ,LAQS,</li> <li>➤ Assertion Reason</li> <li>➤ HOTS</li> <li>➤ Concept map</li> </ul>

**SURENDRANATH CENTENARY SCHOOL**  
**SESSION – 2026-27**  
**ANNUAL PEDAGOGICAL PLAN**  
**CLASS - IX**

Subject- HISTORY AND POLITICAL SCIENCE					
Book - SOCIAL SCIENCE PART-1 (NCERT)					
SOCIAL SCIENCE PART-2 (NCERT)					
Month	Chapter	No. of pr.	Topics	Learning Objective	Learning Outcome
April '26	Understanding social science Democracy	12	<ul style="list-style-type: none"> <li>•Meaning,scope and relevance of SOCIAL SCIENCE</li> <li>•Understanding Social Science from an Indian perspective.</li> <li>•Meaning ,features and types of Democracy</li> </ul>	<p>Familiarise students with: The important phases in the Indian history.</p> <p>Draws insight to understand present day India.</p> <p>Understand the Indian Constitution and explores the essence of Indian democracy</p> <p>The characteristics of a democratic government.</p>	<p>Students will be able to: .Explain the relevance of studying Social science to understand society, environment,economy's me governance in our lives.</p> <p>Explain the meaning and scope of history, Political science.</p> <p>Appreciate diversity inclusivity, sustainability and equity as disciplines.</p>
May '26	Democracy	6	<p>Type of democracy</p> <p>Roots of democracy</p> <p>Challenges to democracy in India</p> <p>Democratic systems in the world.</p>	<p>How the Indian constitution draws from the great cultural heritage and common aspirations of the Indian nation,and recalls India's early experiments with democracy (assemblies in mahajanapadas ,kingdoms and empires at several levels of the society,guilds,sanghas and Banas,village councils and committee and uthiramerur inscriptions.</p>	<p>Understand the features of democracy</p> <p>Appreciate early democratic traditions</p> <p>Differentiate between Parliamentary and presidential system.</p> <p>Identify examples of both systems.</p>

June '26	Beginning of Civilization	6	Cultural development from 2 million yrs ago. till Mesopotamian Civilization and Chinese civilization.	How the Indian ethos and the cultural integration across India did not attempt uniformity, but respected and promoted a rich diversity in Indian society, and how the harmonisation and unity in diversity, with a historical respect for all cultures, women have counted among India's great strengths by promoting peaceful coexistence.	Describe how prehistoric time divisions are organised Explain how humans lived before the invention of writing. Explore the factors of urban development and transformation through time. Understand the diversity of food habits.
July '26	State and society( up to 1000 CE)	12	Vedic age Administrative structure of early empires. Quest for knowledge Traders and trade routes	Factors of Vedic facets of Vedic society and polity.  Achievements of Indian empires and their cultural legacy.  Foundations of the Indian social and political institutions and their continuity.	Explain various factors of Vedic facets of Vedic society and polity. Appreciate the achievements of Indian empires and their cultural legacy. Understand the foundations of the Indian social and political institutions and their continuity.
August '26	Elections	12	Factors of importance of elections Electoral system Delimitation Commission Election Commission of India Party system in India	Factors highlighting importance of elections in a democracy.  There types of elections in a democracy.  Major laws that govern conduct of elections in India Role and functions of election commission of India Constituency electoral roll, enumerator. Party system in India.	Identify the factors highlighting importance of elections in a democracy.  Categorise three types of elections in a democracy Identify the major laws that govern the conduct of elections in India  Describe the main provisions of the Representation of the People's Acts
September '26	History Lesson- 1,2,3  Political science	6	Revision for exam	Half -yearly Examination	-----

	Lesson- 1&2				
October '26	<b>Building Resilient India</b> (1000-1700CE)	6	Safeguarding Sovereignty Development of Art and Architecture, languages, and literature	Cultural, Political and military contributions of regional kingdoms in the medieval India.  Diverse communities and regions shaped India's history from 1000CE to 1700CE. Continuity of the civilisational history of India as a nation up to the 18th century.	Explain the cultural, political, and military contributions of regional kingdoms in the medieval India.  Appreciate how diverse communities and regions shaped India's history from 1000CE to 1700CE Analyse the continuity of the civilisational history of India as a nation up to the 18th century.
November '26	Authority	12	The roots of authority in Kautilya and Shukranidanda and relationships with Nyaya and Bala. Constitutional status of Justice and security since ancient times Types of authority- functional, sensitive, and welfare oriented.	Roots of authority in Indian Political thought.  Evolution of authority structures in India.  The post-Independence concept of Justice and security.	Explain the roots of authority in Indian Political thought. Trace the evolution of authority structures in India Understand the post-Independence concept of Justice and security Illustrate types of authority
December '26	India and the world-class (1900BCE-1200CE)	8	Trade and commerce--trade with Mesopotamia, Greece, Roman Empire, China and Southeast Asia	India's relations with early civilization of the world.  Major articles of trade and the major trading ports.	Explore India's relations with early civilization of the world. Identify the major articles of trade and the major trading ports.
January '27	India and the world - 1 (1900CE-1200)	12	Cultural connections— Interactions with Greece and Rome Central Asia, China and influence on South Asia Indian knowledge systems.	Significant contributions of India in diverse spheres in an integrated manner.  Influence of Indian religion and culture in Southeast Asia.	Appreciate the significant contributions of India in diverse spheres in an integrated manner.  Appreciate the influence of Indian religion and culture particularly in Southeast Asia

February '27	History: Lesson- 3,4,5  Political science:  Lesson- 1,2,3	6	<b>REVISION</b>	<b>ANNUAL EXAMINATION</b>	
March '27			-----	. ANNUAL EXAMINATION	

**SURENDRANATH CENTENARY SCHOOL, RANCHI**

**SESSION- 2026-2027**

**ANNUAL PEDAGOGICAL PLAN**

**CLASS- IX Part – 1**

**SUBJECT: GEOGRAPHY AND ECONOMICS**

**BOOK: NCERT**

<b>Month</b>	<b>Theme (time allocation in instructional hours)</b>	<b>Learning Objectives/Outline concepts</b>	<b>Learning Outcomes and competencies Students will be able to :</b>
April '26	Understanding Social Science (4 Hours)	<ul style="list-style-type: none"><li>• Meaning, scope and relevance of social Science.</li><li>• Understanding Social Science from an Indian perspective</li></ul>	<ul style="list-style-type: none"><li>• Explain the relevance of studying social science to understand society environment economy and governance in our lives.</li><li>• Explain the meaning and scope of geography and economics as a discipline and recognized and their interconnection.</li><li>• Appreciate and diversity, sustainability and values when studying society and making decisions.</li></ul>
April '26	Shaping of the Earth's Surface (8 Hours)  Building Blocks in Economics.	<ul style="list-style-type: none"><li>• Theory of plate tectonics</li><li>• Interior of the Earth</li><li>• Role of weathering and erosion: agents of gradation-river, waves and currents, wind, glaciers, and underground water.</li><li>• Scarcity of resources,</li><li>• Opportunity cost and the need for making choice. What do economics do?</li></ul>	<ul style="list-style-type: none"><li>• Describe the concept of plate tectonics and analyze its relevance in understanding Earth's dynamics</li><li>• Locate major tectonics plates on a world map.</li><li>• Explain the meaning of scarcity, choice, and opportunity cost in everyday life and economic decision making.</li></ul>
May '26	Shaping of the Earth's Surface (8 Hours) Building Blocks in Economics.	<ul style="list-style-type: none"><li>• Landforms and disasters: earthquakes, landslides, avalanches, Glacial Lake Outburst Flood (GLOF) and duststorns.</li></ul>	<ul style="list-style-type: none"><li>• Identify the prominent agents of gradation operating in a given region.</li><li>• Explain processes of weathering and erosion with suitable examples</li></ul>

		<ul style="list-style-type: none"> <li>• What to produce, how to produce and for whom to produce?</li> </ul>	<ul style="list-style-type: none"> <li>• Describe major landforms and explain the processes involved in their formation.</li> <li>• Recognize how economic analysis helps in policy making and solving real world issues.</li> </ul>
June'26	Shaping of the Earth's Surface (8 Hours) Building Blocks in Economics.	<p><b>Activity:</b> <b>3 D Model- The interactive boundary.</b> <b>The ring of fire – Data mapping projects.</b></p> <ul style="list-style-type: none"> <li>• Difference between market, centrally planned and mixed economic systems</li> <li>• Welfare economy.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the causes of natural disasters and propose strategies for their mitigation</li> <li>• Identify the differentiate the characteristics of planned, free market and mixed economic systems.</li> <li>• Explain the concepts of a welfare economy and the importance of social safety nets.</li> </ul>
July'26	Atmosphere and Climate (7 Hours) The Prices Puzzle: What Drives the Market (8Hours)	<ul style="list-style-type: none"> <li>• Structure and composition: Elements of weather and climate.</li> <li>• The laws of demand and supply.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the different atmospheric layers and represent them using sketches and diagrams.</li> <li>• Explain the law of demands and law of supply with the help of real-life examples.</li> </ul>
August '26	Atmosphere and Climate (7 Hours) The Prices Puzzle: What Drives the Market (8Hours)	<ul style="list-style-type: none"> <li>• Seasons of India and monsoons,</li> <li>• Real-world deviations from textbooks theory, such as incase of necessity luxury goods perishable items, and expectations.</li> <li>• <b>ROLE PLAY- HIGH DEMAND LOW SUPPLY</b></li> </ul>	<ul style="list-style-type: none"> <li>• Observe and analyze local winds and their impact.</li> <li>• Understand the impact of he Indian monsoon on life, agriculture, and livelihoods across different regions.</li> <li>• Interpret how changes in price effect the quantity demanded and quantity supplied of goods and services.</li> <li>• Identify the equilibrium price and quantity where demand and supply intersect.</li> </ul>
September'26	Atmosphere and Climate (7 Hours) The Prices Puzzle: What Drives the Market (8Hours)	<ul style="list-style-type: none"> <li>• Climate change, Floods, Carbon footprint.</li> <li>• Some related concepts-price ceilings and market failures (externalities information asymmetry, public goods)</li> <li>• <b>PROJECT ON CLIMATE CHANGE.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Explain the causes and effects of climate change.</li> <li>• Represent climatic data (temperature, Rainfall etc.) through appropriate graphs, charts or diagrams.</li> <li>• Analyze how climate change and influences the frequency and intensity of natural disasters.</li> <li>• Explain the concepts of price ceiling and how they can lead to shortage or black markets.</li> <li>• Understand markets failures and identify their main types.</li> </ul>

			<ul style="list-style-type: none"> <li>• Understand public goods (non-excludable and non-rival goods like parks or street lighting)</li> </ul>
<b>PART 2</b>			
October'26	Oceans and Life (7 Hours) Authority (10 Hours)	<ul style="list-style-type: none"> <li>• Introduction to ocean relief, movement of ocean water- waves tides and currents.</li> <li>• Marine resources and their significance; Open seas, navigation fishing and livelihood concerns and challenges.</li> <li>• The Roots of authority: in Kautilya and shukraniti - danda and relationship with nayaya and bala: the types of nyaya and bala</li> <li>• Constitutional status of justice and security since ancient times.</li> <li>• <b>ROLE PLAY</b> : Kautilya's court</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the movement of ocean waters including waves, tides and currents.</li> <li>• Analyze the connections between ocean currents and global and regional climate patterns.</li> <li>• Understand the importance of marine resources for human livelihoods and ecosystems.</li> <li>• Examine the relationship between oceans climate livelihoods and natural disasters.</li> <li>• Explain the roots of authority in Indian political thought.</li> <li>• Interpret the relationship between Danda (discipline/force) and Nyaya(justice) as the twin foundations of authority, development and security</li> <li>• Trace the evolution of authority structures in India.</li> </ul>
November'26	Oceans and Life (7 Hours) Authority (10 Hours)	<ul style="list-style-type: none"> <li>• Cyclones and Tsunamis-early warning systems.</li> <li>• International maritime rules and regulations</li> <li>• Links the role of citizens with the elections and the democratic institutions,</li> <li>• Types of authority – functional, sensitive and welfare oriented</li> </ul>	<ul style="list-style-type: none"> <li>• Highlights key rules, Conventions, and international agreements governing ocean navigation and use of marine resources.</li> <li>• Explain the need for international cooperation and agreements in the sustainable use of ocean resources.</li> <li>• Construct models or sketches representing ocean relief.</li> <li>• Understand the post-independence concept of justice and security.</li> <li>• Illustrate type of authority.</li> <li>• Develop an understanding of citizen discipline, justice and strength.</li> <li>• Illustrate the role of citizen in authority.</li> </ul>
December'26	Life on Earth (7 Hours) From Ideas to Startups (8 Hours)	<ul style="list-style-type: none"> <li>• Biomes: Distribution and characteristics; biosphere reserves in India.</li> <li>• Forest and ecotourism; forest dwellers; their livelihoods and challenges.</li> <li>• Forest and wildlife conservation.</li> <li>• Government efforts to support forest dwellers.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the major biomes of the world and describe.</li> <li>• Locate biosphere reserves on the map of India.</li> <li>• Appreciate local traditional practices related to biodiversity conservation and analyze their effects.</li> <li>• Analyze the concept of ecotourism and discuss its role.</li> <li>•</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>A PROJECT ON MSME.</b></li> </ul>	
January '27	Life on Earth (7 Hours) From Ideas to Startups (8 Hours)	<ul style="list-style-type: none"> <li>• What is entrepreneurship and explain the resources required to start business,</li> <li>• Case studies of successful entrepreneurs</li> <li>• Creative destruction with examples.</li> <li>• Start-up ecosystem in India.</li> <li>• Make in India initiative, role MSMEs and the unorganized sector in India's economic growth.</li> <li>• Stages of starting and executing a business idea through a business plan.</li> <li>• Some basic accounting concepts.</li> </ul>	<ul style="list-style-type: none"> <li>• Define entrepreneurship and explain its importance innovation, job creation and economic growth.</li> <li>• Analyse real world examples of successful entrepreneurs.</li> <li>• Describe the features of India's start-up ecosystem and initiatives like Make in India, Start-up India, Digital India.</li> <li>• Recognize the role of Micro, Small and Medium Enterprises and the unorganized sector in promoting employment innovation and inclusive growth.</li> </ul> <p>Understand simple profit and loss. Identify the key components of a balance.</p>
February '27	Revision		

**SURENDRANATH CENTENARY SCHOOL, RANCHI**  
**ANNUAL PEDAGOGICAL PLAN (2026-2027)**

CLASS: IX SUBJECT: ARTIFICIAL INTELLIGENCE(417)		BOOKS : Artificial Intelligence by Avartan Supplement:- AI Facilitator Handbook by CBSE.			
	CHAPTER	No. of Periods	Topic	LEARNING OBJECTIVES	Learning Outcome
APR.	<b>PART B:- Ch 1: AI Reflection, Project Cycle and Ethics contd...</b>  <b>SDG – Sustainable Cities and Communities</b>	8	<ul style="list-style-type: none"> <li>• History of AI</li> <li>• Task Domains of AI</li> <li>• Types of AI</li> <li>• Advantages of AI</li> <li>• Limitation of AI</li> <li>• Application of AI</li> <li>• Realms of AI</li> <li>• AI in everyday life</li> </ul>	<b>To help the learners</b> *To identify and appreciate AI and describe its application in daily life. * To identify and interact with three domains of AI. * To unleash their imagination towards smart homes and build and interactive story around it.	<b>Learners are able to</b> * Understands basic concept of AI. * Discuss about three domains of AI. * Enlist realms of AI. * Identify the usage of AI in day to day life.
MAY	Ch 1...Contd....	4	<ul style="list-style-type: none"> <li>• Understanding AI Project Cycle</li> <li>• 4W Problem Canvas</li> <li>• AI Ethics</li> </ul> <b>Subject Enrichment- Ice Breaker Activity 1 in Page no 144.</b>	* Identify the AI Project cycle framework, stakeholders involved in the problem scoped. *Foresee the kind of data required and the kind of analysis to be done. * To Discuss about 4W canvas and find it relevancy	* Elaborate different phases of AI project cycle and connect it with real world and see how AI is of great help. Identify the ethical concern occurs due to presence of AI and how to mitigate them.
JUNE	<b>Ch 2:- Data Literacy</b>  <b>SDG:- Quality Education</b>	4	<ul style="list-style-type: none"> <li>• Introduction to Data Literacy</li> <li>• Data Privacy and Security</li> <li>• Cyber security</li> <li>• Acquiring, Processing and Interpreting Data</li> <li>• Data Pre-processing</li> <li>• Data Visualisation</li> </ul>	* To enable students to understand the significance of data, how it is collected, processed, and interpreted, and how it serves as the foundation for Artificial Intelligence systems.	* Understand the role and importance of data in the functioning of AI systems. They will be able to collect, organize, analyze, and interpret data, while also recognizing issues like data bias and data quality.

<b>JULY</b>	<b>Ch 3:- Mathematics for AI.</b> <b>Life Skills – Logical Thinking</b>	8	<ul style="list-style-type: none"> <li>• Role of Mathematics in AI development</li> <li>• Numeric Data Types.</li> <li>• Different Mathematical Techniques.</li> <li>• Finding pattern in numbers and images</li> <li>• Application of Statistics</li> <li>• Stages of Statistical Evaluation</li> <li>• Probability</li> <li>• Application of Probability</li> </ul> <b>AIL:-Data Visualisation using</b> <a href="https://public.tableau.com">https://public.tableau.com</a>	To equip students with foundational mathematical concepts such as logic, statistics, and probability that are essential for understanding and applying Artificial Intelligence techniques.	To apply these concepts to analyze data patterns, make predictions, and support simple AI-based decision-making.
<b>AUG.</b>	<b>PART A:-</b> <b>Ch 1:-</b> <b>Communication Skills-I</b> <b>Ch 2:- Self Management Skills-I</b> <b>Ch 3:- ICT Skills-I</b>	8	<ul style="list-style-type: none"> <li>• Introduction to Communication</li> <li>• Types of Communication</li> <li>• Self Management</li> <li>• Strength and Weakness Analysis</li> <li>• Self Confidence</li> <li>• ICT Tools</li> <li>• Basic Component of a computer system</li> <li>• Hardware and software</li> <li>• Communication and networking</li> </ul> <b>Activity:- Online Self awareness Test</b>	<ul style="list-style-type: none"> <li>* To learn the importance of communication skills in personal and professional life.</li> <li>* To understand how self awareness is important for any individual.</li> <li>* To identify the basic utility of computer applications.</li> </ul>	<p>Student are able to use communication and self management skills to minimize the risk of Stress in our life,</p> <p>Use computer and its basic tools to get more familiar with their usage in real life</p>
<b>SEP.</b>	Part A- Ch 1,2 and 3 Part B- Ch 1,2 and 3	4	Practical Test / Oral Test / Revision <b>Term-I/Half yearly Examination</b>		
<b>OCT</b>	<b>PART B:-Ch 4</b> <b>Introduction to Generative AI contd...</b>  <b>SDG – Industry, innovation and Infrastructure.</b>	8	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Supervised Learning and Discriminative modelling</li> <li>• Unsupervised and Generative modelling</li> <li>• Timeline of Generative AI</li> <li>• Characteristics and importance of G.AI.</li> <li>• Conventional VS G. AI</li> <li>• Types of G.AI</li> </ul> Practical – Python <b>Subject Enrichment Activity:-Game 1,2 and 3 from Ch 4</b>	* To introduce students to the concepts, evolution, and applications of Generative AI, including its types, characteristics, and differences from conventional AI.	* Students are able to explain the fundamentals of Generative AI, differentiate it from conventional AI, and identify its types, timeline, and real-world significance.

NOV	<b>Ch 4 Introduction to Generative AI contd...</b>  <b>PART A:- Ch 4:- Entrepreneurship Skills-I Ch 5:- Green Skills-I</b>	8	<ul style="list-style-type: none"> <li>• G. AI Tools</li> <li>• Benefits and Limitation of G.AI</li> <li>• Ethical Consideration of using G.AI</li> <li>• Potential Negative impact on society</li> <li>• Responsible use of G. AI</li> <li>• Future Trends in G.AI</li> <li>• Practical- Python</li> </ul> <p>-----</p> <p>Entrepreneurship, Qualities of an Entrepreneur, Diff b/w business and entrepreneur Society and Environment, Environmental Protection and conservation, sustainable development and green economy.</p>	<p>* To help students understand the tools, benefits, limitations, ethical concerns, and societal impacts of Generative AI, along with promoting its responsible use and exploring future trends. * To introduce students to the concept of entrepreneurship, its key qualities.</p>	<p>* Students are able to identify popular Generative AI tools, evaluate their advantages and drawbacks, discuss ethical and societal implications, and describe ways to use Generative AI responsibly while anticipating future developments. * Students able to define entrepreneurship, list essential qualities of an entrepreneur, and distinguish between an entrepreneur and a businessperson with real-life examples.</p>
DEC	<b>PART B Ch 5:- Introduction to Python.</b>	6	<ul style="list-style-type: none"> <li>• Data Types</li> <li>• print() and input()</li> <li>• Indentation</li> <li>• Statement, Expression in python</li> <li>• Operators</li> <li>• Control structure</li> <li>• Conditional and iterative statement</li> <li>• List Operation</li> </ul> <p><b>Experiential Learning:- Learning Programming concept using <a href="https://codecombat.com">https://codecombat.com</a></b></p>	<p>To familiarize students with foundational Python programming concepts such as data types, input/output functions, control structures, and list operations, enabling them to write simple, structured programs.</p>	<p>Students will be able to identify different data types, use print() and input() functions, apply indentation rules, write expressions and statements, use operators, implement conditional and iterative structures, and perform basic list operations in Python.</p>
JAN	Part A:- Ch 1 to 5 Part B:- Ch 1 to 5	8	<ul style="list-style-type: none"> <li>• Revision of Term II Syllabus</li> <li>• Practical Exam</li> <li>• Viva</li> </ul> <p><b>Art Integrated Learning:-Generation of Music using AI :- <a href="https://experiments.withgoogle.com/instrument-playground">https://experiments.withgoogle.com/instrument-playground</a></b></p>		
FEB			Annual Examination		

**SURENDRANATH CENTENARY SCHOOL, RANCHI**  
**ANNUAL PLAN (2026-2027)**

CLASS: IX SUBJECT: DATA SCIENCE			BOOK: HAND BOOK OF DATA SCIENCE (GRADE -IX)		
MONTH	CHAPTER	No. of Periods	TOPICS	LEARNING OBJECTIVE	LEARNING OUTCOMES
APRIL	CH-1 Introduction  SDG-Quality Education	7	<ul style="list-style-type: none"> <li>• Introduction to data</li> <li>• Data Vs Information</li> <li>• Zeroes of a polynomial</li> <li>• DIKW Model</li> </ul>	<ul style="list-style-type: none"> <li>• Define Data</li> <li>• Identify Data Sources</li> <li>• Collect and record Data</li> <li>• Organized and Unorganized data</li> <li>• Flow chart of DIKW model</li> </ul>	<ul style="list-style-type: none"> <li>• Differentiate data and information</li> <li>• Draw DIKW model</li> </ul>
MAY	CH-1 (Continued)	3	<ul style="list-style-type: none"> <li>• Influence of data in our daily life</li> <li>• Data Footprints</li> <li>• Data loss and recovery</li> </ul> <p><b>PROJECT -1</b> <b>Make a project on Data footprint</b></p>	<ul style="list-style-type: none"> <li>• Define Data footprint</li> <li>• Identify types of data footprint</li> <li>• Recognize Data footprint implications</li> <li>• Evaluate Data footprint impact</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and evaluate data footprint impact</li> </ul>
JUNE	CH-2 Arranging & Collecting Data  SDG-Quality Education	5	<ul style="list-style-type: none"> <li>• Arrangement of Data</li> <li>• What is data collection</li> <li>• Variables</li> </ul>	<ul style="list-style-type: none"> <li>* Identify data sources</li> <li>* Define variables</li> <li>* Corelate variable</li> </ul>	Visualize Real life examples of data sources and identify variables <ul style="list-style-type: none"> <li>• Define data collection</li> <li>• Identify data sources</li> <li>• Evaluate data quality</li> </ul>

<b>JULY</b>	<b>CH- 2 Arranging &amp; Collecting Data Part -A Communication Skills</b>	7	<ul style="list-style-type: none"> <li>Types of Data</li> <li>Sources of Data</li> </ul> <b>PROJECT -2</b> <ul style="list-style-type: none"> <li><b>Data Analysis of result</b></li> <li>Verbal Communication</li> <li>Non-Verbal Communication</li> </ul>	<ul style="list-style-type: none"> <li>Collection of data</li> <li>Apply methods of collection</li> <li>Value Data accuracy</li> <li>To familiarize with formal communication</li> <li>To emphasize the role of listening</li> </ul>	Collect data offline and online by different methods and analyze . *To design and deliver structured presentation *To demonstrate the ability to draft clear documents.
<b>AUGUST</b>	<b>CH- 2 Arranging &amp; Collecting Data Part -A Self- Management -Skills</b>	9	<ul style="list-style-type: none"> <li>* Questioning your Data</li> <li>* Univariate and Multivariate Data</li> <li>*Strength &amp; Weakness Analysis</li> <li>*Positive thinking</li> </ul>	<ul style="list-style-type: none"> <li>*Define univariate data</li> <li>Visualize univariate data</li> <li>* Interpret univariate data</li> <li>* To explain the 4 components of SWOT</li> </ul>	<ul style="list-style-type: none"> <li>Draw Histogram, scatter plots, Bar charts</li> <li>Identify patterns and analyze</li> <li>To classify factors</li> </ul>
<b>SEPTEMBER</b>	<b>CH- 3 Data Visualization</b>	3	<ul style="list-style-type: none"> <li>* Introduction</li> <li>*Importance of plotting Data</li> </ul>	<ul style="list-style-type: none"> <li>*Tools of data visualization</li> <li>*Types of Data</li> <li>*Communicate findings</li> </ul>	Read the data ,observe and discuss the findings
<b>OCTOBER</b>	<b>CH- 3 Data Visualization</b>	4	<ul style="list-style-type: none"> <li><b>Histogram</b></li> <li>Use of shape</li> <li>Use of single and multivariate plots</li> </ul> <b>PROJECT -2</b> <b>Comparative study on digital payment transaction on Jharkhand and Telangana</b>	<ul style="list-style-type: none"> <li>Representation of Data</li> <li>Draw plots</li> <li>Comparative study on representation of Data</li> </ul>	Compare the representation of data by different methods
<b>NOVEMBER</b>	<b>CH- 3 Ethics in Data Science Part -A</b>	5	<ul style="list-style-type: none"> <li>Introduction</li> <li>Ethical guidelines around data analysis</li> <li>ICT tools</li> </ul>	<ul style="list-style-type: none"> <li>Data privacy</li> <li>Accountability</li> <li>Transparency</li> <li>Hardware and softwares</li> </ul>	<ul style="list-style-type: none"> <li>*Define key principles of data privacy</li> <li>*Protection of data</li> <li>* Identify theft</li> </ul>

	<b>ICT Skills</b>				
<b>DECEMBER</b>	<b>CH- 3</b> <b>Ethics in Data Science</b> <b>Part A</b> <b>Entrepreneurship skills</b>	6	<ul style="list-style-type: none"> <li>• Need for ethical guidelines</li> <li>• Goals of ethical guidelines</li> </ul> <b>PROJECT -3</b> <b>Applied Project</b>	<ul style="list-style-type: none"> <li>• Definition of Data Ethics</li> <li>• Principles of Data Ethics</li> <li>• Ethical issues</li> </ul> *Qualities of Entrepreneur * Types of business activities	<ul style="list-style-type: none"> <li>• Apply ethical principles</li> <li>• Communicate ethical concerns</li> <li>• Impact on society</li> </ul>
<b>JANUARY</b>	<b>CH- 3</b> <b>Ethics in Data Science</b> <b>Part -A</b> <b>Green Skills</b>	6	Data Governance * Need of Data Governance * Goals of Data Governance * Society & Environment * Conserving natural resources	<ul style="list-style-type: none"> <li>• Formulate statistical results</li> <li>• Objective of data governance</li> <li>• To explain green jobs</li> </ul>	<ul style="list-style-type: none"> <li>• Read and investigate the data</li> <li>• Write the result</li> <li>• Goals of Data</li> </ul>
<b>FEBRUARY</b>	<b>REVISION</b>	4	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Arranging &amp; Collecting Data</li> <li>• Data Visualization</li> <li>• Ethics in Data Science</li> <li>• Employability skills</li> </ul>		