



# BIRLA PUBLIC SCHOOL GANGANAGAR

(A Unit of Birla Education Trust Pilani)

(A step ahead... ..)



CBSE Affiliation No. 1730974

## Weekly & Monthly Planner

Session: 2025-26

Class: XII  
Subject: Chemistry

Book Name: NCERT Chemistry Part 1 and Part 2  
Teacher's Name: ShayamSunder Giri

Month	Weeks & Dates	Chapter Name & No./ Topic	Learning Outcomes	Detail of Practical / Activity with Date	Name of Event with Date
April 06/04/2025 Ram Navami	Week-1 (1 to 5)	Chapter 1: Solutions	1. Student will be able to define solutions and explain types of solutions. 2. Student will be able to understand colligative properties and their significance.		
April	Week-2 (7 to 12)	Chapter 1: Solutions	1. Student will be able to calculate molarity, molality, and normality of solutions. 2. Student will be able to explain the effect of temperature and concentration on colligative properties.	1. Titration of a standard solution of oxalic acid against potassium permanganate to determine its molarity. (11/04/2025)	
April 14/04/2025 Ambedkar Jayanti	Week-3 (14 to 19)	Chapter 1: Solutions	1. Student will be able to explain Raoult's Law and its applications. 2. Student will be able to calculate the relative lowering of vapor pressure.	2. Titration of Mohr's salt (ferrous ammonium sulfate) solution against potassium permanganate to determine the concentration of ferrous ions. (18/04/2025)	
April	Week-4 (21 to 26)	Chapter 2: Electrochemistry	1. Student will be able to understand electrochemical cells		

			and their functioning. 2. Student will be able to apply Nernst equation to calculate cell potentials.	
<b>April</b>	Week-5 (28 to 30)	<b>Chapter 2: Electrochemistry</b>	1. Student will be able to understand the relationship between Gibbs free energy and cell potential. 2. Student will be able to calculate the equilibrium constant using cell potentials.	
<b>May</b>	Week-1 (1 to 2)	<b>Chapter 2: Electrochemistry</b>	1. Student will be able to apply the concepts of Faraday's laws of electrolysis. 2. Student will be able to distinguish between galvanic and electrolytic cells.	
<b>May</b> <b>07/06/2025</b> <b>Eid-ul-Juha</b> <b>(Bakrid)</b>	Week-2 (5 to 10)	<b>Chapter 2: Chemical Kinetics</b>	1. Students will be able to define chemical kinetics and explain the concept of reaction rate. 2. Students will analyze the effect of different factors on the rate of a chemical reaction.	3. Variation of cell potential in $Zn/Zn^{2+}    Cu^{2+}/Cu$ with change in concentration of electrolytes ( $CuSO_4$ or $ZnSO_4$ ) at room temperature. (9/05/2025)
<b>May</b>	Week-3 (12 to 14)	<b>Chapter 2: Chemical Kinetics</b>	1. Students will derive and apply the rate law equation for different reaction orders. 2. Students will determine the order	

			of reaction using experimental data.	
July	Week-1 (2 to 4)	Chapter 2: Chemical Kinetics	<ol style="list-style-type: none"> <li>1. Students will apply integrated rate equations to calculate concentration at any time.</li> <li>2. Students will derive and use the half-life equation for first-order reactions.</li> </ol>	
July	Week-2 (7 to 12)	Chapter 2: Chemical Kinetics	<ol style="list-style-type: none"> <li>1. Students will explain the collision theory and the role of activation energy in chemical reactions.</li> <li>2. Students will use the Arrhenius equation to calculate activation energy and understand the effect of temperature on reaction rates.</li> </ol>	<ol style="list-style-type: none"> <li>4. Variation of cell potential in <math>Zn/Zn^{2+}    Cu^{2+}/Cu</math> with change in concentration of electrolytes (<math>CuSO_4</math> or <math>ZnSO_4</math>) at room temperature. (11/7/2025)</li> </ol>
July	Week-3 (14 to 19)	Chapter 4: d- and f-Block Elements	<ol style="list-style-type: none"> <li>1. Student will be able to explain the properties and characteristics of transition metals.</li> <li>2. Student will be able to understand the lanthanide and actinide series.</li> </ol>	<ol style="list-style-type: none"> <li>5. Identification of cations such as <math>Pb^{2+}</math>, <math>Cu^{2+}</math>, <math>Al^{3+}</math>, <math>Fe^{3+}</math>, <math>Mn^{2+}</math>, <math>Zn^{2+}</math>, <math>Co^{2+}</math>, <math>Ni^{2+}</math>, <math>Ca^{2+}</math>, <math>Sr^{2+}</math>, <math>Ba^{2+}</math>, <math>Mg^{2+}</math>, <math>NH_4^+</math>. (19/7/2025)</li> </ol>

July	Week-4 (21 to 26)	Chapter 4: d- and f-Block Elements	1. Student will be able to understand the magnetic properties and oxidation states of d-block elements. 2. Student will be able to describe the chemistry of lanthanides and actinides.	6. Identification of anions such as $\text{CO}_3^{2-}$ , $\text{S}^{2-}$ , $\text{SO}_3^{2-}$ , $\text{SO}_4^{2-}$ , $\text{NO}_2^-$ , $\text{Cl}^-$ , $\text{Br}^-$ , $\text{I}^-$ , $\text{PO}_4^{3-}$ , $\text{C}_2\text{O}_4^{2-}$ , $\text{CH}_3\text{COO}^-$ . (25/7/2025)	
July	Week -5 (28 to 31)	Chapter 4: d- and f-Block Elements	1. Student will be able to explain the uses of d-block and f-block elements in industry. 2. Student will be able to relate the electronic configuration of transition elements to their chemical properties.		
August	Week-1 (1 to 2)	Chapter 4: d- and f-Block Elements	1. Student will be able to explain the properties and characteristics of transition metals. 2. Student will be able to understand the lanthanide and actinide series.		
August 09/08/2025 Raksha Bandhan	Week-2 (4 to 9)	Chapter 5: Coordination Compounds	1. Student will be able to define coordination compounds and explain their bonding. 2. Student will be able to describe the different types of ligands and their bonding.	7. Effect of concentration and temperature on the rate of reaction between sodium thiosulfate and hydrochloric acid. (8/08/2025)	
August 15/08/2025 Independence Day	Week-3 (11 to 16)	Chapter 5: Coordination Compounds	1. Student will be able to understand		

<p><b>16/08/2025</b> <b>Janmashami</b></p>			<p>isomerism in coordination compounds. 2. Student will be able to calculate the oxidation state of the central metal in a complex.</p>		
<p><b>August</b></p>	<p>Week-4 (18 to 23)</p>	<p><b>Chapter 5: Coordination Compounds</b></p>	<p>1. Student will be able to explain the bonding in coordination compounds using Valence Bond Theory. 2. Student will be able to explain the color and magnetic properties of coordination compounds.</p>	<p>8. Confirmatory tests for identified ions to substantiate their presence. (22/08/2025)</p>	
<p><b>August</b></p>	<p>Week -5 (25 to 30)</p>	<p><b>Chapter 6: Haloalkanes and Haloarenes</b></p>	<p>1. Student will be able to understand the structure and reactivity of haloalkanes and haloarenes. 2. Student will be able to apply the concepts of nucleophilic substitution.</p>		
<p><b>September</b></p>	<p>Week-1 (1 to 6)</p>	<p><b>Chapter 6: Haloalkanes and Haloarenes</b></p>	<p>1. Student will be able to explain the electrophilic substitution mechanism in haloarenes. 2. Student will be able to identify the types of reactions involving haloalkanes and haloarenes.</p>	<p>9. <i>Analysis of a given salt to detect the presence of specific cations and anions.</i> (5/09/2025)</p>	

September	Week-2 (8 to 13)	Chapter 6: Haloalkanes and Haloarenes	1. Student will be able to describe the different methods of preparation of haloalkanes and haloarenes. 2. Student will be able to explain their industrial applications.		
September	Week-3 (15 to 20)	<b>Mid Term Examination</b>			
September	Week-4 (22 to 27)				
September	Week -5 (29 to 30)				
October 02/10/2024 Gandhi Jayanti Dussehra	Week-1 (1 to 4)				
October	Week-2 (6 to 11)	Chapter 7: Alcohols, Phenols, and Ethers	1. Student will be able to understand the mechanism of electrophilic aromatic substitution in phenols. 2. Student will be able to explain the formation and reactions of ethers.	10. Preparation of lyophilic (e.g., starch, egg albumin) and lyophobic (e.g., ferric hydroxide) sols and studying their properties. (10/10/2025)	
October	Week-3 (13 to 18)	Chapter 7: Alcohols, Phenols, and Ethers	1. Student will be able to distinguish between alcohols, phenols, and ethers based on their		

			<p>reactivity.</p> <p>2. Student will be able to apply the knowledge of functional groups in synthesis reactions.</p>	
<b>October</b>	<b>Week-3 (16 to 18)</b>	<b>Deepawali Vacation</b>		
<b>October</b>	<b>Week-4 (20 to 25)</b>			
<b>October</b>	<b>Week-4 (23 to 25)</b>	<b>Chapter 8: Aldehydes, Ketones, and Carboxylic Acids</b>	<p>1. Student will be able to explain the nomenclature and structure of aldehydes, ketones, and carboxylic acids.</p> <p>2. Student will be able to differentiate between aldehydes, ketones, and carboxylic acids.</p>	<p><b>11.</b> Effect of concentration and temperature on the rate of reaction between sodium thiosulfate and hydrochloric acid. (24/10/2025)</p>
<b>October</b>	<b>Week-5 (27 to 31)</b>	<b>Chapter 8: Aldehydes, Ketones, and Carboxylic Acids</b>	<p>1. Student will be able to study the various reactions of aldehydes and ketones.</p> <p>2. Student will be able to apply chemical tests to differentiate between aldehydes and ketones.</p>	
<b>November 05/11/2025 Guru Nanak Jayanti</b>	<b>Week-1 (3 to 8)</b>	<b>Chapter 8: Aldehydes, Ketones, and Carboxylic Acids</b>	<p>1. Student will be able to study the formation and reactions of carboxylic acids.</p> <p>2. Student will be able to compare the properties of aldehydes, ketones, and carboxylic acids.</p>	<p><b>12.</b> Identification of functional groups such as alcohols, aldehydes, ketones, carboxylic acids, and amines in a given organic compound. (7/11/2025)</p>

<b>November</b>	Week-2 (10 to 15)	<b>Chapter 9: Amines</b>	<p>1. Student will be able to explain the types of amines and their properties.</p> <p>2. Student will be able to distinguish between primary, secondary, and tertiary amines.</p>	
<b>November</b>	Week-3 (17 to 22)	<b>Chapter 9: Amines</b>	<p>1. Student will be able to understand the reactions of amines with acids and other reagents.</p> <p>2. Student will be able to explain the importance of amines in biological systems.</p>	<b>Chemistry Event (The Elemental Quest) (22/11/25)</b>
<b>November</b>	Week-5 (24 to 29)	<b>Chapter 10: Biomolecules</b>	<p>1. Student will be able to understand the structure and function of carbohydrates, proteins, and lipids.</p> <p>2. Student will be able to describe enzyme action and its importance in biochemical reactions.</p>	<b>13. Determination of pH of various solutions using pH paper or universal indicator. (28/11/2025)</b>
<b>December</b>	Week-1 (1 to 6)	<b>Chapter 10: Biomolecules</b>	<p>1. Student will be able to Classify vitamins into water-soluble and fat-soluble categories and understand their deficiency diseases.</p> <p>2. Classify vitamins into water-soluble and fat-soluble categories and understand their deficiency diseases.</p>	

December	Week-2 (8 to 13)	Revision of chapter 1,2,3			
December	Week-3 (15 to 20)	Revision of chapter 3,4			
December	Week-4 (22 to 23)	Revision of chapter 5,6			
January	Week-3 (17)	Revision of chapter 7			
January 26/01/2026 Republic Day	Week-4 (19 to 24)	Revision of chapter 8,9			
January	Week-5 (26 to 31)	Revision of chapter 10			
February	Week-1 (2 to 7)	Revision of chapter 11,12,			
February	Week-2 (9 to 14)	Revision of pyq of chapter 10,11,12			
February 16/02/2026 Mahashivratri	Week-3 (16 to 21)	Revision of pyq of chapter 7,8,9			
February	Week-4 (23 to 28)	Revision of pyq of chapter 4,5,6,7			
March 03/03/2026 Holika Dahan 04/03/2026 Holi	Week-1 (2 to 7)	Revision of pyq of chapter 1,2,3			
March	Week-2 (8 to 14)	<b>Annual Examination</b>			

March	Week-3 (16 to 21)				
March	Week-4 (23 to 28)				
March	Week-5 (30 to 31)				



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CBSE Affiliation No. 1730974

### Weekly & Monthly Planner

Session: 2025-26

Class: X  
Subject: Mathematics

Book Name: NCERT Mathematics  
Teacher's Name: Mr. Mukesh Kumar

Month	Weeks & Dates	Chapter Name & No./ Topic	Learning Outcomes	Detail of Practical/ Activity with Date	Name of Event with Date
April 06/04/2025 Ram Navami	Week-1 (1 to 5)	<b>Chapter 1: Relations and Functions</b> <b>Topics:</b> Types of Relations (Reflexive, Symmetric, Transitive, Equivalence)	Understand different types of relations and functions and their properties.		
April	Week-2 (7 to 12)	<b>Chapter 1: Relations and Functions</b> <b>Topics:</b> Types of Functions (One-One, Onto, Bijective)	Understand different types of relations and functions and their properties.		

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<p><b>April</b>  <b>14/04/2025</b>  <b>Ambedkar Jayanti</b></p>	<p>Week-3  (14 to 19)</p>	<p><b>Chapter 2: Inverse Trigonometric Functions</b>  <b>Topics:</b> Principal Value Branches, Properties of Inverse Trigonometric Functions</p>	<p>Solve problems based on inverse trigonometry and understand their applications.</p>	<p>Graphing inverse trigonometric functions using graph paper.</p>	
<p><b>April</b></p>	<p>Week-4  (21 to 26)</p>	<p><b>Chapter 3: Matrices</b>  <b>Topics:</b> Types of Matrices, Operations (Addition, Multiplication, Transpose)</p>	<p>Perform matrix operations and apply properties in solving algebraic problems.</p>	<p>Verifying matrix multiplication properties using numerical examples.</p>	
<p><b>April</b></p>	<p>Week-5  (28 to 30)</p>	<p><b>Chapter 4: Determinants</b>  <b>Topics:</b> Properties of Determinants, Minors</p>	<p>Apply determinants to solve systems of equations and understand their properties.</p>	<p>Solving linear equations using determinants</p>	
<p><b>May</b></p>	<p>Week-1  (1 to 2)</p>	<p><b>Chapter 4: Determinants</b>  <b>Topics:</b> Cofactors, Adjoint, Inverse</p>	<p>Apply determinants to solve systems of equations and understand their properties.</p>		
<p><b>May</b>  <b>07/06/2025</b>  <b>Eid-ul-Juha</b>  <b>(Bakrid)</b></p>	<p>Week-2  (5 to 10)</p>	<p><b>Chapter 5: Continuity and Differentiability</b>  <b>Topics:</b> Definition of Continuity, Differentiability</p>	<p>Understand the concept of continuity, differentiability, and chain rule.</p>	<p>Verifying continuity and differentiability graphically.</p>	
<p><b>May</b></p>	<p>Week-3  (12 to 14)</p>	<p><b>Chapter 5: Continuity and Differentiability</b></p>	<p>Understand the concept of continuity, differentiability, and chain rule.</p>		

		<b>Topics: Differentiation Rules</b>			
<b>July</b>	Week-1 (2 to 4)	<b>Chapter 6 : Applications of Derivatives</b>  <b>Topics: Rate of Change, Tangents and Normals</b>	Solve real-life optimization problems and understand derivatives' applications.	Finding the maximum profit using derivatives	
<b>July</b>	Week-2 (7 to 12)	<b>Chapter 6 : Applications of Derivatives</b>  <b>Topics: Maxima and Minima</b>	Solve real-life optimization problems and understand derivatives' applications.		
<b>July</b>	Week-3 (14 to 19)	<b>Chapter 7: Integrals</b>  <b>Topics: Definite Integrals and Properties</b>	Understand integration techniques and compute definite and indefinite integrals.	Evaluating areas under curves using integration	
<b>July</b>	Week-4 (21 to 26)	<b>Chapter 7: Integrals</b>  <b>Topics: Definite Integrals and Properties</b>	Understand integration techniques and compute definite and indefinite integrals.		
<b>July</b>	Week -5 (28 to 31)	<b>Chapter 7: Integrals</b>  <b>Topics: Definite Integrals and Properties</b>	Understand integration techniques and compute definite and indefinite integrals.		
<b>August</b>	Week-1 (1 to 2)	<b>Chapter 8: Applications of Integrals</b>  <b>Topics: Area under Curves, Area between Two Curves</b>	Apply definite integrals in real-life applications like calculating areas.	Finding the area of real-world objects using integrals.	

<b>August</b> <b>09/08/2025</b> <b>Raksha Bandhan</b>	Week-2 (4 to 9)	<b>Chapter 9: Differential Equations</b>  <b>Topics:</b> Formation, Order and Degree	Solve real-life problems involving differential equations.		
<b>August</b> <b>15/08/2025</b> <b>Independence Day</b> <b>16/08/2025</b> <b>Janmashami</b>	Week-3 (11 to 16)	<b>Chapter 9: Differential Equations</b>  <b>Topics:</b> Solution of Differential Equations by Variable Separation	Solve real-life problems involving differential equations.		
<b>August</b>	Week-4 (18 to 23)	<b>Chapter 10: Vector Algebra</b>  <b>Topics:</b> Addition, Subtraction of Vectors, Dot and Cross Product	Understand vector operations and their geometric applications	Solving vector problems using geometrical tools	
<b>August</b>	Week -5 (25 to 30)	<b>Chapter 10: Vector Algebra</b>  <b>Topics:</b> Dot and Cross Product	Understand vector operations and their geometric applications		
<b>September</b>	Week-1 (1 to 6)	<b>Revision for Mid Term</b>			
<b>September</b>	Week-2 (8 to 13)	<b>Revision for Mid Term</b>			
<b>September</b>	Week-3 (15 to 20)	<b>Mid Term Examination</b>			

September	Week-4 (22 to 27)				
September	Week -5 (29 to 30)				
October 02/10/2024 Gandhi Jayanti Dussehra	Week-1 (1 to 4)	<b>Chapter 11: Three-Dimensional Geometry</b>  <b>Topics:</b> Direction Cosines and Ratios,	Solve 3D geometry problems involving distance and angles	Finding shortest distance between skew lines	
October	Week-2 (6 to 11)	<b>Chapter 11: Three-Dimensional Geometry</b>  <b>Topics:</b> Equations of a Line and Plane, Shortest Distance Between Two Lines	Solve 3D geometry problems involving distance and angles		
October	Week-3 (13 to 18)	<b>Chapter 11: Three-Dimensional Geometry</b>  <b>Topics:</b> Shortest Distance Between Two Lines	Solve 3D geometry problems involving distance and angles		
October	Week-3 (16 to 18)	Deepawali Vacation			
October	Week-4 (20 to 25)	<b>Chapter 12: Linear Programming</b>  <b>Topics:</b> Formulation of LPP, Graphical Method for Maximization and Minimization	Learn to formulate and solve linear programming problems.	Solving LPP problems using real-life constraints	

<b>October</b>	Week-4 (23 to 25)	<b>Chapter 13: Probability</b> <b>Topics:</b> Conditional Probability,	Apply probability rules and solve real-world probability problems.	Conducting probability experiments using dice.	
<b>October</b>	Week-5 (27 to 31)	<b>Chapter 13: Probability</b> Bayes' Theorem Probability Distributions	Apply probability rules and solve real-world probability problems.		
<b>November</b> <b>05/11/2025</b> <b>Guru Nanak Jayanti</b>	Week-1 (3 to 8)	<b>Revision &amp; Problem-Solving Sessions</b>	Mock test with past CBSE papers		
<b>November</b>	Week-2 (10 to 15)	<b>Revision &amp; Problem-Solving Sessions</b>	Mock test with past CBSE papers		
<b>November</b>	Week-3 (17 to 22)	<b>Revision &amp; Problem-Solving Sessions</b>	Mock test with past CBSE papers		
<b>November</b>	Week-5 (24 to 29)	<b>Revision &amp; Problem-Solving Sessions</b>	Mock test with past CBSE papers		
<b>December</b>	Week-1 (1 to 6)	<b>Preboard I</b>			
<b>December</b>	Week-2 (8 to 13)	<b>Preboard I</b>			
<b>December</b>	Week-3 (15 to 20)	<b>Revision &amp; Problem-Solving Sessions</b>	Mock test with past CBSE papers		

December	Week-4 (22 to 23)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		
January	Week-3 (17)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		
January 26/01/2026 Republic Day	Week-4 (19 to 24)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		Mathematics class Event 19/01/2026
January	Week-5 (26 to 31)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		
February	Week-1 (2 to 7)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		
February	Week-2 (9 to 14)	Revision & Problem-Solving Sessions	Mock test with past CBSE papers		
February 16/02/2026 Mahashivratri	Week-3 (16 to 21)	<h1>Board Exam</h1>			
February	Week-4 (23 to 28)				
March 03/03/2026 Holika Dahan 04/03/2026 Holi	Week-1 (2 to 7)				
March	Week-2 (8 to 14)				
March	Week-3 (16 to 21)				

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March	Week-4 (23 to 28)
March	Week-5 (30 to 31)



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CBSE Affiliation No. 1730974

### Weekly & Monthly Planner

Session: 2025-26

Class: XII

Subject: Biology

Book Name: NCERT book of Biology

Teacher's Name: Ms.Reena

Month	Weeks & Dates	Chapter Name & No./ Topic	Learning Outcomes	Detail of Practical / Activity with Date	Name of Event with Date
April 06/04/2025 Ram Navami	Week-1 (1 to 5)	<b>Chapter-1 Sexual reproduction in flowering plants</b> Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed.	<ol style="list-style-type: none"> <li>1. Understand the structure of a flower and the role of various parts in reproduction.</li> <li>2. Learn the processes of pollination, fertilization, and the development of seeds and fruits.</li> <li>3. Learn about the various modes of pollination (self-pollination and cross-pollination).</li> <li>4. Understand the process of double fertilization in angiosperms.</li> </ol>		
April	Week-2 (7 to 12)	<b>Chapter-1 Sexual reproduction in flowering plants</b> formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.	<ol style="list-style-type: none"> <li>1. Development of special modes of fruit formation and its key concepts.</li> <li>2. Concept of endosperm formation and its importance.</li> </ol>	Prepare a temporary mount to observe pollen germination.	

<p><b>April</b> 14/04/2025 <b>Ambedkar</b> <b>Jayanti</b></p>	<p>Week-3 (14 to 19)</p>	<p><b>Chapter 2 Human reproduction</b> Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis.</p>	<ol style="list-style-type: none"> <li>1. Students will be able to understand the concept of spermatogenesis and oogenesis and various hormonal changes occurring during it.</li> <li>2. Will know the various stages of implantation and its affect on uterus.</li> <li>3. Role of placenta and placental hormones during pregnancy.</li> <li>4. Students will be aware of various methods which are developed to combat infertility</li> </ol>	<p>Flowers adapted to pollination by different agencies (wind, insects, birds)</p>	
<p><b>April</b></p>	<p>Week-4 (21 to 26)</p>	<p><b>Chapter 2 Human reproduction</b> menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation(elementary idea)</p>	<ol style="list-style-type: none"> <li>1. Study the male and female reproductive systems, including the anatomy and physiology of the organs.</li> <li>2. Learn about gametogenesis (spermatogenesis and oogenesis).</li> <li>3. Understand the process of fertilization, pregnancy, and the role of hormones during pregnancy.</li> <li>4. Learn about the structure and function of the placenta.</li> </ol>	<p>Pollen germination on stigma through a permanent slide or scanning electron micrograph.</p>	
<p><b>April</b></p>	<p>Week-5 (28 to 30)</p>	<p><b>Chapter 2 Human reproduction</b> parturition (elementary idea); lactation (elementary idea).</p>	<ol style="list-style-type: none"> <li>1. Study the stages of human embryonic development and childbirth.</li> </ol>	<p>Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/ mice)</p>	

May	Week-1 (1 to 2)	<b>Chapter-3 Reproductive health</b> Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods.	1. Students will be aware of various methods which are developed to combat infertility. 2. Sexual transmitted diseases. 3. Birth Control Methods	eiosis in onion bud cell or grasshopper testis through permanent slides	
May 07/06/2025 Eid-ul-Juha (Bakrid)	Week-2 (5 to 10)	<b>Chapter-3 Reproductive health</b> contraception and medical termination of pregnancy (MTP); amniocentesis;	1. Use of contraceptions and their effect on body 2. Explore the issues surrounding reproductive health in society, such as population control and awareness.	T.S. of blastula through permanent slides (Mammalian)	
May	Week-3 (12 to 14)	<b>Chapter-3 Reproductive health</b> infertility and assisted reproductive technologies - IVF, ZIFT, GIFT	1. Students will be able to know about assisted modes of reproduction technologies	Prepare a temporary mount of onion root tip to study mitosis.	
July	Week-1 (2 to 4)	<b>Chapter-4 Principles of Inheritance &amp; Variation</b> Heredity and variation, Mendelian inheritance; deviations from Mendelism - incomplete dominance, co-dominance	1. Concept building on mendelian genetics. 2. Various attributes of mendelian and chromosomal disorders. 3. Blood groups and their role in various organisms.	Study of emasculation, tagging and bagging by trying out an exercise on controlled pollination.	
July	Week-2 (7 to 12)	<b>Chapter-4 Principles of Inheritance &amp; Variation</b> multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over.	1. Role of mutation and its affect can be studied. 2. Family diseases can be studied with the help of pedigree analysis chart. 3. Learn about genetic disorders and inheritance patterns (dominant, recessive, sex-linked).	Mendelian inheritance using seeds of different colour/sizes of any plant.	

July	Week-3 (14 to 19)	<b>Chapter-4 Principles of Inheritance &amp; Variation</b> sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.	<ol style="list-style-type: none"> <li>1. Study genetic variation, mutations, and the role of recombination in evolution.</li> <li>2. Learn about Chromosomal disorders</li> <li>3. Understand the concept of genetic counseling.</li> </ol>	Preparation of pedigree charts of genetic traits such as rolling of tongue, colour blindness.	
July	Week-4 (21 to 26)	<b>Chapter-5 Molecular Basis of Inheritance</b> Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication.	<ol style="list-style-type: none"> <li>1. Study the structure of DNA and RNA.</li> <li>2. Learn the process of DNA replication, transcription, and translation.</li> </ol>	Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.	
July	Week -5 (28 to 31)	<b>Chapter-5 Molecular Basis of Inheritance</b> Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon.	<ol style="list-style-type: none"> <li>1. Understand the genetic code and how genes are expressed.</li> <li>2. Study the processes of gene regulation and mutations.</li> </ol>		
August	Week-1 (1 to 2)	<b>Chapter-5 Molecular Basis of Inheritance</b> <b>Genome, Human and rice genome projects.</b>	<ol style="list-style-type: none"> <li>1. Explore the techniques of genetic engineering and biotechnology.</li> <li>2. Able to understand the human and rice genome.</li> </ol>		
<b>August</b> <b>09/08/2025</b> <b>Raksha</b> <b>Bandhan</b>	Week-2 (4 to 9)	<b>Chapter-5 Molecular Basis of Inheritance</b> DNA fingerprinting.	1. Understand the concept of DNA fingerprinting and its applications in daily life.		
<b>August</b> <b>15/08/2025</b> <b>Independence Day</b> <b>16/08/2025</b>	Week-3 (11 to 16)	<b>Chapter 6 Evolution</b> Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative	<ol style="list-style-type: none"> <li>1. Understand the theory of evolution and the principles behind it.</li> <li>2. Learn about Darwin's theory of natural selection and other theories of evolution.</li> </ol>		

<b>Janmashtha mi</b>		anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution			
<b>August</b>	Week-4 (18 to 23)	<b>Chapter 6 Evolution</b> mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy- Weinberg's principle; adaptive radiation; human evolution.	1. Study the evidence supporting evolution (fossils, embryology, homologous structures). 2. Understand the concept of speciation and the process of adaptive radiation.	Flash cards models showing examples of homologous and analogous organs.	
<b>August</b>	Week -5 (25 to 30)	<b>Chapter 7 Human Health &amp; Diseases</b>	1. Study the various types of diseases (infectious, non-infectious, genetic). 2. Learn about the causes, symptoms, and prevention of diseases like malaria, tuberculosis, AIDS, etc.	Identify common disease causing organisms like Ascaris (model) and learn some common symptoms of the disease that they cause	
<b>September</b>	Week-1 (1 to 6)	<b>Chapter 7 Human Health &amp; Diseases</b>	1. Understand the role of immunity in health and disease (immune response, vaccination). 2. Learn about the lifestyle-related diseases and their prevention.		
<b>September</b>	Week-2 (8 to 13)	<b>Mid term Revision</b>			
<b>September</b>	Week-3 (15 to 20)	<b>Mid Term Examination</b>			
<b>September</b>	Week-4 (22 to 27)				

September	Week -5 (29 to 30)				
October 02/10/2024 Gandhi Jayanti Dussehra	Week-1 (1 to 4)	<b>Chapter 8 Microbes in Human Welfare</b>	Students will be able to- -Know the importance of microbes in day to day life. -Role of antibiotics, its use and its manufacture. Role of microbes as biocontrol agents		
October	Week-2 (6 to 11)	<b>Chapter 8 Microbes in Human Welfare</b>	1. Study the role of microbes in human welfare, such as in food production (fermentation) and medicine (antibiotics). 2. Learn about the use of microbes in the production of industrial products (enzymes, alcohol, etc.). 3. Understand the role of microbes in nutrient cycling (nitrogen fixation, composting). 4. Explore the use of microbes in bioremediation and waste management.		
October	Week-3 (13 to 18)	<b>Chapter 9 Biotechnology:Principles &amp; processes</b>	1.Know the concept of biotechnology and its applications, 2.How this can be used in different methodologies 3.Formation and implications of rDNA		
October	Week-3 (16 to 18)	Deepawali Vacation			
October	Week-4 (20 to 25)	<b>Chapter 9 Biotechnology:Principles &amp; processes</b>	1.Understand the principles of biotechnology and the use of microorganisms in genetic engineering. 2.Learn about recombinant DNA technology, vectors, and gene cloning.		

			<p>3. Study the process of bioprocessing and its industrial applications.</p> <p>4. Explore the applications of biotechnology in medicine, agriculture, and environmental management.</p>		
<b>October</b>	Week-4 (23 to 25)	<b>Chapter-10 Biotechnology &amp; its applications</b>	<p>1.The students will be able to understand the concept of gene therapy and its applications in various diseases</p> <p>2.The use of various GMOs and their benefit to organisms.</p>		
<b>October</b>	Week-5 (27 to 31)	<b>Chapter-10 Biotechnology &amp; its applications</b>	<p>1.Learn about the applications of biotechnology in agriculture (GMOs, pest resistance).</p> <p>2. Study the medical applications of biotechnology (gene therapy, recombinant proteins, vaccines).</p> <p>3. Understand the ethical, legal, and environmental issues associated with biotechnology.</p> <p>4. Explore the potential and challenges of biotechnological advancements in society.</p>	Study the plant population frequency by quadrat method.	
<b>November</b> 05/11/2025 <b>Guru Nanak Jayanti</b>	Week-1 (3 to 8)	<b>Chapter-11 Organisms and Populations</b>	<p>The students will be able to-</p> <p>1.Relate the various kinds of population interactions</p> <p>2.Population characteristics and its estimation will be known.</p> <p>3.Concept of habitat and niche will be broadened.</p>	Study the plant population density by quadrat method.	
<b>November</b>	Week-2 (10 to 15)	<b>Chapter -12 Ecosystem</b>	<p>The students will be able to understand-</p> <p>1.The concept of primary and secondary productivity will be developed.</p> <p>2.Ecological succession and its</p>	Models specimen showing symbolic association in root modules	

			application Nutrient cycling and its impact on environment. Energy flow and its estimation via 10% law	of leguminous plants, Cuscuta on host, lichens	
<b>November</b>	Week-3 (17 to 22)	<b>Chapter- 13 Biodiversity &amp; conservation</b>	1.Understand the importance of biodiversity and its components (species diversity, genetic diversity, ecosystem diversity). 2.Learn about the threats to biodiversity and conservation strategies. 3. Study the role of protected areas (national parks, wildlife sanctuaries) in conservation. 4. Explore the concept of sustainable development and its importance for conservation.		Class XII Biology (The Genetic Code: Decoding Life's Blueprint) 22/11/2025
<b>November</b>	Week-5 (24 to 29)	<b>Revision</b> Chapter-1 Sexual reproduction in flowering plants Chapter 2 Human reproduction Chapter-3 Reproductive health	Students will be able to revise the concepts and solve their problems.		
<b>December</b>	Week-1 (1 to 6)	<b>Revision</b> Chapter-4 Principles of Inheritance & Variation Chapter-5 Molecular Basis of Inheritance Chapter 6 Evolution	Students will be able to revise the concepts and solve their problems.		
<b>December</b>	Week-2 (8 to 13)	<b>Revision</b> Chapter 7 Human Health & Diseases Chapter 8 Microbes in Human Welfare <b>Chapter 9 Biotechnology: Principles</b>	Students will be able to revise the concepts and solve their problems.		

		& processes		
<b>December</b>	Week-3 (15 to 20)	<b>Revision</b> Chapter-10 Biotechnology & its applications <b>Pre Board Examination</b>	Students will be able to revise the concepts and solve their problems.	
<b>December</b>	Week-4 (22 to 23)	<b>Revision</b> Chapter-11 Organisms and Populations <b>Pre Board Examination</b>	Students will be able to revise the concepts and solve their problems.	
<b>January</b>	Week-3 (17)	<b>Revision</b> Chapter -12 Ecosystem Chapter- 13 Biodiversity & conservation	Students will be able to revise the concepts and solve their problems.	
<b>January</b> 26/01/2026 <b>Republic Day</b>	Week-4 (19 to 24)	<b>Revision</b> Chapter-1 Sexual reproduction in flowering plants Chapter 2 Human reproduction Chapter-3 Reproductive health	Students will be able to revise the concepts and solve their problems.	
<b>January</b>	Week-5 (26 to 31)	<b>Revision</b> Chapter-4 Principles of Inheritance & Variation Chapter-5 Molecular Basis of Inheritance Chapter 6 Evolution	Students will be able to revise the concepts and solve their problems.	
<b>February</b>	Week-1 (2 to 7)	<b>Revision</b> Chapter 7 Human Health & Diseases Chapter 8 Microbes in Human Welfare <b>Chapter 9 Biotechnology: Principles &amp; processes</b>	Students will be able to revise the concepts and solve their problems.	

February	Week-2 (9 to 14)	<b>Revision</b> Chapter-10 Biotechnology & its applications Chapter-11 Organisms and Populations	Students will be able to revise the concepts and solve their problems.		
February 16/02/2026 Mahashivratri	Week-3 (16 to 21)	<b>Revision</b> Chapter -12 Ecosystem Chapter- 13 Biodiversity & conservation	Students will be able to revise the concepts and solve their problems.		
February	Week-4 (23 to 28)	<b>Revision</b> Final Practicals and Annual Examinations			
March 03/03/2026 Holika Dahan 04/03/2026 Holi	Week-1 (2 to 7)				
March	Week-2 (8 to 14)	<b>Annual Examination</b>			
March	Week-3 (16 to 21)				
March	Week-4 (23 to 28)				
March	Week-5 (30 to 31)				

ESTD. 2019



# BIRLA PUBLIC SCHOOL GANGANAGAR

(A Unit of Birla Education Trust Pilani)

(A step ahead... ..)



CBSE Affiliation No. 1730974

## Weekly & Monthly Planner

Session: 2025-26

Class: XII

Subject: Artificial Intelligence

Book Name: AI (KIPS)

Teacher's Name: Mr. Bharat

Month	Weeks & Dates	Chapter Name & No./ Topic	Learning Outcomes	Detail of Practical / Activity with Date	Name of Event with Date
April 06/04/2025 Ram Navami	Week-1 (1 to 5)	<b>Chapter:</b> Review of Class 11 Python & Basics		Python warm-up	
April	Week-2 (7 to 12)	<b>Chapter:</b> Functions & Recursion	Implements recursion		
April 14/04/2025 Ambedkar Jayanti	Week-3 (14 to 19)	<b>Chapter:</b> File Handling (Advanced)	Binary files, CSV	CSV reader/writer program	
April	Week-4 (21 to 26)	<b>Chapter:</b> Data Structures	Topics: Stack, Queue using lists	Stack/queue simulation	
April	Week-5 (28 to 30)	Revision of Unit 1			
May	Week-1 (1 to 2)	<b>Chapter:</b> Pandas - Series	Creates and manipulates Series	Lab on Series	

May 07/06/2025 Eid-ul-Juha (Bakrid)	Week-2 (5 to 10)	<b>Chapter:</b> Pandas - DataFrames		Students DataFrame operations	
May	Week-3 (12 to 14)	<b>Chapter:</b> Matplotlib Basics		Draw line & bar charts	
July	Week-1 (2 to 4)	<b>Chapter:</b> MySQL Revision	<b>Topics:</b> DDL, DML	Simple MySQL operations	
July	Week-2 (7 to 12)	<b>Chapter:</b> SQL - Joins	INNER, LEFT, RIGHT JOIN	Join queries	
July	Week-3 (14 to 19)	<b>Chapter:</b> SQL - Aggregate Functions		Group By, Having, Order By	
July	Week-4 (21 to 26)	<b>Chapter:</b> Computer Networks	<b>Topics:</b> Network types, devices, protocols	Network diagram creation	
July	Week -5 (28 to 31)	<b>Chapter:</b> Communication Media	<b>Topics:</b> Guided, unguided media	LAN lab demo	
August	Week-1 (1 to 2)	<b>Chapter:</b> Network Security	<b>Topics:</b> Malware, cryptography		
August 09/08/2025 Raksha Bandhan	Week-2 (4 to 9)	<b>Chapter:</b> Web Services	<b>Topics:</b> WWW, HTTP, Email protocols	Hands-on: DNS lookup	
August 15/08/2025 Independence Day 16/08/2025 Janmasthanmi	Week-3 (11 to 16)	<b>Chapter:</b> Cyber Laws & Ethics			
August	Week-4 (18 to 23)	<b>Chapter:</b> Project Work (Start)		Project proposal submission	

August	Week -5 (25 to 30)	<b>Chapter:</b> Project Work – Coding Phase				
September	Week-1 (1 to 6)	Revision Units 1-5	Recalls concepts	MCQs + Skill-based questions		
September	Week-2 (8 to 13)	Sample Paper Practice	Solves sample	Worksheet		
September	Week-3,4,5 (15 to 20)	<b>Mid Term Examination</b>				
October 02/10/2024 Gandhi Jayanti Dussehra	Week-1 (1 to 4)	<b>Chapter:</b> Data Handling Revision				
October	Week-2 (6 to 11)	Project Development – Phase II		Project proposal + coding plan		
October	Week-3 (13 to 17)	Finalisation of Project				
October	Week-5 (27 to 31)	Project Viva + Practical File Check				
November 05/11/2025 Guru Nanak Jayanti	Week-1 (3 to 8)	Theory Revision – Python, DS, DBMS	Revision	Revision		
November	Week-2 (10 to 15)	CS Practical File Completion				
November	Week-3 (17 to 22)	Network Revision	Revision	Revision		
November	Week-5 (24 to 29)	Sample Paper Set 1,2	Practices papers	Practices papers		
December	Week-1 (1 to 6)	Pre-Board Revision	Practices papers	Revision		

<b>December</b>	Week-2,3 (8 to 13)	<b>PT - II EXAM</b>			
<b>January</b>	Week-3 (17)	<b>Project Presentation</b>	Presents project confidently. Answers viva questions	<b>Prepare PPT (10 slides). Prepare AI Portfolio.</b>	
<b>January</b> <b>26/01/2026</b> <b>Republic Day</b>	Week-4,5 (19 to 24)	Revision & Problem-Solving Sessions: Mock test with past CBSE papers	Practices papers	Revision	
<b>February</b>	Week-1 (2 to 7)	Revision & Problem-Solving Sessions: Mock test with past CBSE papers	Practices papers	Revision	
<b>February</b> <b>16/02/2026</b> <b>Mahashivratri</b>	Week-2,3 (16 to 21)	Revision & Problem-Solving Sessions: Mock test with past CBSE papers	Practices papers	Revision	
<b>February</b>	Week-4 (23 to 28)	Revision & Problem-Solving Sessions: Mock test with past CBSE papers	Practices papers	Revision	
<b>March</b> <b>03/03/2026</b> <b>Holika Dahan</b> <b>04/03/2026</b> <b>Holi</b>	Week-1 (2 to 7)	Revision & Problem-Solving Sessions: Mock test with past CBSE papers	Practices papers	Revision	
<b>March</b>	Week-2,3,4,5 (8 to 14)	<b>Annual Examination</b>			

**ESTD. 2019**