

**LESSON PLAN**  
**CLASS – VII**  
**Ch 5:ACIDS, BASES AND SALTS**

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| Unit                                        | <b><u>Ch 5: ACIDS, BASES AND SALTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Class Transaction                           | Total: 14 periods (approx. 40 min each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Pre-requisite for the course                | This lesson requires basic knowledge of facts like:<br>What is common between orange juice, curd and lemon juice?<br>Name some substances that taste bitter.<br>Why do orange juice, curd and lemon juice taste sour?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Assessment of qualifying knowledge          | <ol style="list-style-type: none"> <li>1. Written test</li> <li>2. Lab activity</li> <li>3. Group Discussion</li> <li>4. HW notebook</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Objective                                   | <p>Given the content (chapter) the learners will be able to</p> <ul style="list-style-type: none"> <li>• Differentiate between an acid and a base.</li> <li>• Analyse the effect of indicators on acids and bases.</li> <li>• Define neutralization and its application in day to day life.</li> <li>• with 90% accuracy</li> </ul> <p><b>DOL 1, 2, 3, 4</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Learning Outcomes                           | <p><b><u>KNOWLEDGE-</u></b> <i>Students will know and understand</i></p> <ol style="list-style-type: none"> <li>1. The importance of acids and bases to human beings.</li> <li>2. Properties of acids and bases.</li> <li>3. Understand neutralization and cite its examples from day to day life.</li> </ol> <p><b><u>SKILLS-</u></b> <i>Students would be able to</i></p> <ol style="list-style-type: none"> <li>1. Appreciate different ways in which acids and bases is useful to us.</li> <li>2. Interact with peers critically analyse and Identify chemical nature of different solutions develop <b>critical thinking and collaboration in the process</b></li> <li>3. Use analytical skills to visualize the given scenario and use the concepts of neutralization learnt in everyday problems.</li> <li>4. Answer knowledge, understanding and application based complex questions based on the topics</li> <li>5. Use <b>analytical skills</b> to visualize the given scenario and use the concepts learnt in everyday problems.</li> </ol> <p><b><u>Competencies developed-</u></b> <b>Critical thinking collaborative, communication, character, citizenship</b></p> |
| Transaction Methodology<br>(The teacher can | <p>Transaction would proceed in the following manner-</p> <p><b><i>Brain Storming-</i></b>The class would start with a discussion on what the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| use the mentioned techniques, wherever applicable, and can use any other too.) | <p>students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying.</p> <p><b>Active learning-</b> Active learning- <i>Frayer Model</i> on acids and bases<br/>(<b>Critical thinking</b>)</p> <p><b>Group learning-. (Communication, Collaboration)</b><br/><i>Think, pair and share;</i><br/><i>Experimentation</i><br/><b>Circle the Sage-</b>Group learning- The class will be divided in the group of 5 students. The question will be asked by the teacher about the topic and the students who knows the answer will stand at the various corners of the room. (<b>Communication, Collaboration</b>)</p> <p><b>Differentiation- (Character, Citizenship)</b><br/>Interest centers or interest group. Independent study</p> <p><b>Questioning-</b> <i>Multiple level question-</i> Teacher will prepare a list of questions on different topics and will ask these questions during discussions. (<b>Critical thinking, Communication</b>)</p> <p><b>Guided practice followed by Independent Practice-</b> NCERT questions to be discussed in the classroom.</p> <p><b>Techniques to be used:</b><br/>Quiz<br/>Daily Practice Problem<br/>MCQ<br/>Peer Assessment<br/>Student -teacher interaction,<br/>Wipro- G.O.s(web chart, flow chart and differentiation table,compare-contrast matrix),<br/>surveys</p> |
| Resources                                                                      | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Self Study, Home Work, Assignments                                             | <p><b>Independent Practice:</b> Students would do the questions in their H.W notebooks as mentioned in the monthly planner by which we can assess their <b>understanding, writing skill</b> and <b>concept development</b>.</p> <p>HW notebooks to be marked as per the given plan:<br/><b>Assessment Parameters:</b> The total marks for the activity is 5 marks:<br/>On time submission 2 mark<br/>Presentation/ Neatness(<b>creativity</b>)2 mark<br/>Content (<b>critical thinking and creativity</b>)6 mark</p> <p>It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                                         | resources stated above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Assessments                             | <p><b>Unit tests:</b></p> <ol style="list-style-type: none"> <li>1. Unit Test 1 (25 marks)</li> <li>2. Unit Test 2 (25 marks)</li> <li>3. Unit Test 3 (25 marks)</li> <li>4. Unit Test 4 (25 marks)</li> </ol> <p>Half Yearly Exam (80 marks)<br/>Annual Exam (80 marks)</p> <p><b>PERIODIC TEST</b><br/>By administering pen paper test we assess understanding, conceptual knowledge and critical thinking.</p> <p><b>INTERNAL ASSESSMENT 20 Marks</b></p> <p>Subject Enrichment 10 Marks<br/>With the help of subject enrichment activities, we assess <b>communication, collaboration, character building and citizenship.</b></p> <p>Note Book Submission 10 Marks<br/>By writing the answers for relevant question we can assess their knowledge, critical thinking and understanding.</p>                             |
| Addressing Classroom Diversity          | <p>Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups:</p> <p><i>For gifted students:</i></p> <ul style="list-style-type: none"> <li>• EXEMPLAR questions to be done.</li> <li>• HOTS questions will be discussed.</li> <li>• Encouragement for referring other resources</li> </ul> <p><i>For weak students:</i></p> <ul style="list-style-type: none"> <li>• NCERT to be completed</li> <li>• Buddy help to be provided</li> <li>• Provide grade-up classes</li> </ul> <p><i>For differently abled students:</i></p> <ul style="list-style-type: none"> <li>• Ignore spelling mistakes and formulae, if not written</li> <li>• Call parents at regular intervals</li> <li>• Provide grade-up classes</li> </ul> |
| Marks                                   | The weightage would be given by CBSE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Questions for assessment during closure | <ol style="list-style-type: none"> <li>1. Compare the properties of acid and base.</li> <li>2. Litmus shows no colour in sugar solution. Explain.</li> <li>3. Acids are never stored in metal containers. Comment.</li> <li>4. Why is calamine used to treat bee sting?</li> <li>5. Taste of many fruits is sour. Why?</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Topic                                                                                                                      | <b>DAY 1- Acids and bases and their examples in daily life</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Class Transaction                                                                                                          | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of various examples of substances containing acids and bases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Assessment of qualifying knowledge                                                                                         | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Objective                                                                                                                  | <ul style="list-style-type: none"> <li>Students will be able to understand the properties of acids and bases.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Learning Outcomes                                                                                                          | <p><b><u>KNOWLEDGE</u></b>- <i>Students will be able to</i></p> <ul style="list-style-type: none"> <li>➤ Define acids and bases</li> <li>➤ Appreciate different ways in which acids and bases is useful to us.</li> </ul> <p><b><u>SKILLS AND COMPETENCIES</u></b>-</p> <ul style="list-style-type: none"> <li>➤ Students will be able to <b>critically analyse</b> acids and bases used in day to day life.</li> <li>➤ Students will <b>communicate</b> and compare their properties among themselves developing <b>collaboration</b> and <b>citizenship</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 20 min</b></p> <p><b>Wipro Technique (KWL- <i>What you Know, What you will Learn, What you have learned</i>)</b></p> <p>Facilitator asks students what they know about acids and bases and also to list 2 substances which contain acids and bases from daily life. After the list is made the teacher asks a few students to share the items they had listed.</p> <p>Students' responses will be listed on the blackboard by using the KWL chart</p> <p>Then she/ he introduces concept of acids and bases</p> <p><b>DOL 1,2,3</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/>(Critical Thinking and collaboration)</p> <p><b>Strategy-</b> discussion</p> <p><b>Active learning-</b> Then teacher asks students to Complete table 5.1 by writing the taste of substances given in table</p> <p>In the group students will discuss the taste of substances containing acids and bases</p> <p>Students will discuss acids and bases present in some bases present in natural sources (table on page 50)</p> <p>Teacher students interaction / questioning to check their understanding</p> <p>Then teacher asks students to and asks the following questions from the students.</p> <p>Q1- What is the taste of substance containing acid?</p> <p>Q2 - What is the taste of substance containing base?</p> |

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|                                                                                                                            | <p>Students will share names.</p> <p><b>Guided practice: 10 min.</b> NCERT questions<br/> <b>Independent Practice</b> Students will complete. related questions of EXEMPLAR<br/> <b>Closure: 5 min</b><br/>         Involving students in summarizing by asking them to prepare questions based on the topic.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Resources                                                                                                                  | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Closure                                                                                                                    | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Self Study, Home Work, Assignments                                                                                         | EXEMPLAR questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Assessments                                                                                                                | Response during activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Topic                                                                                                                      | <b>DAY 2- Indicators (Natural Indicator)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Class Transaction                                                                                                          | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of properties of acids and bases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Assessment of qualifying knowledge                                                                                         | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Objective                                                                                                                  | Students will be able to identify acids and bases present in natural sources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Learning Outcomes                                                                                                          | <p><b><u>KNOWLEDGE-</u></b> <i>Students will able to</i></p> <ol style="list-style-type: none"> <li>1. Explain the term indicator</li> <li>2. Cite example for different natural indicators and study their applications.</li> <li>3. identify acids and bases present in natural sources using litmus</li> </ol> <p><b><u>SKILLS AND COMPETENCIES-</u></b></p> <ol style="list-style-type: none"> <li>1. <b>Solve</b> general problems based on the topics</li> <li>2. Interact with peers and develop <b>citizenship and collaboration in the process.</b></li> <li>3. Perform activities in groups, develop <b>analytical skill, critical thinking and character</b> in the process.</li> </ol> <p>Effectively interprets information and draws conclusions based on the best analysis.</p> |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b><br/>         *Teacher asks questions based on previous day learning<br/> <b>DOL 1,2,</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/>         (Critical Thinking and collaboration)<br/> <b>Strategy-</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                                    | <p>Experimentation, Group work, Student -teacher interaction, , tabulation, G.O.s(web chart, flow chart and compare- contrast matrix),</p> <ul style="list-style-type: none"> <li>The class will be divided into groups of 5 students each. They will be given lemon juice, Tap water, detergent solution, aerated drink, soap solution, shampoo, common salt solution, sugar solution, vinegar, baking soda solution, milk of magnesia, washing soda solution and lime water.</li> <li>They will carry out activity 5.1 and observe the change in colour of blue and red litmus with these solutions.</li> <li>The students will then draw out the conclusion and record it.</li> </ul> <p><b>Guided practice: 10 min.</b> students will record their observation and draw out the conclusion for the same</p> <p><b>Independent Practice:</b> Relevant NCERT Questions and Exemplar Questions</p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing and discussion on muddiest point</p> |
| Resources                          | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Closure                            | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Self Study, Home Work, Assignments | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Assessments                        | Observations and responses from activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Topic                              | <b>Day 3 –Indicators (Natural Indicator)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Class Transaction                  | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pre-requisite for the course       | This topic requires basic knowledge of .various examples acids and bases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Assessment of qualifying knowledge | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Objective                          | Students will be able to explain the term indicator and cite example for some natural indicators from day to day life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Learning Outcomes                  | <p><u>KNOWLEDGE-</u> <i>Students will be able to</i></p> <ol style="list-style-type: none"> <li>Explain the term indicator</li> <li>Cite example for different natural indicators and study their applications.</li> <li>identify acids and bases present in natural sources using turmeric and China rose extract</li> </ol> <p><u>SKILLS AND COMPETENCIES-</u><br/><i>Students will able</i></p> <ol style="list-style-type: none"> <li>Use <b>observational skills</b> while observing the activities to</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                                                                                                                                    | <p>understand the concept.</p> <ol style="list-style-type: none"> <li>2. Interact with peers and <b>compare</b> various indicators and develop <b>critical thinking</b> and <b>collaboration</b> in the process.</li> <li>3. Perform activities in groups, develop <b>character and citizenship</b> in the process.</li> </ol> <p>Effectively interprets information and draws conclusions based on the best analysis.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>Transaction Methodology<br/>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)</p> | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b><br/>Recapitulation by asking questions based on previous day's learning<br/><b>DOL 1,2,</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/><b>(Critical Thinking, collaboration and communication)</b><br/><b>Strategy-</b><br/>Experimentation, Student -teacher interaction, tabulation, Wipro-G.O.s (web chart, flow chart and compare-contrast matrix)</p> <ul style="list-style-type: none"> <li>• The class will be divided into groups of 5 students each</li> <li>• They will sit in groups and use turmeric stripes and china rose extract which they prepared at home</li> <li>• They will be given lemon juice, orange juice, detergent solution, aerated drink, , common salt solution, sugar solution, vinegar, baking soda solution, milk of magnesia.</li> <li>• They will carry out activity 5.2 &amp; 5.3 and observe the change in colour of turmeric and china rose extract with these solutions.</li> <li>• The students will then draw out the conclusion and record it in tabular form</li> <li>• They will also discuss the meaning of neutral solution.</li> </ul> <ul style="list-style-type: none"> <li>• Teacher students interaction /</li> <li>• supported by PPT/ Video</li> </ul> <p><b>Guided practice: 10 min</b><br/>Relevant NCERT Questions and Exemplar Questions<br/><b>Closure: 5 min</b><br/>Summarization by students<br/><b>Independent Practice-</b>Students will complete related questions of EXEMPLAR.</p> |
| Resources                                                                                                                          | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Closure                                                                                                                            | Involving students in summarizing the topic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Self Study, Home Work, Assignments                                                                                                 | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Assessments                                                                                                                        | Observations and responses from activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Topic                                                                                                                      | <b>DAY 4 –Indicators (Synthetic Indicator)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Class Transaction                                                                                                          | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of various examples acids and bases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Assessment of qualifying knowledge                                                                                         | Group Discussion<br>Questioning<br>Quiz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Objective                                                                                                                  | Students will be able to explain the term indicator and cite example for some synthetic indicators.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Learning Outcomes                                                                                                          | <p><u>KNOWLEDGE</u>- <i>Students will be able to</i></p> <ol style="list-style-type: none"> <li>1. Explain the term indicator</li> <li>2. Cite example for different synthetic indicators and study their applications.</li> </ol> <p><u>SKILLS AND COMPETENCIES</u>-</p> <ol style="list-style-type: none"> <li>1. <b>Solve</b> complex questions based on the topics</li> <li>2. Use <b>observational skills</b> while observing the activities to understand the concept.</li> <li>3. Interact with peers and <b>compare</b> various indicators and develop <b>critical thinking</b> and <b>collaboration</b> in the process.</li> <li>4. Perform activities in groups, develop <b>character and citizenship</b> in the process.</li> </ol> <p>Effectively interprets information and draws conclusions based on the best analysis.</p>                                                                                                                                                                                                                                                               |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b><br/>Recapitulation by asking questions based on previous day's learning<br/><b>DOL 1,2,3</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/><b>(Critical Thinking, collaboration and communication)</b><br/><b>Strategy-</b><br/>Hands on experiment, tabulation, Wipro- G.O.s(web chart, flow chart and compare- contrast matrix),</p> <p>Class will be divided into groups of 6 students each.</p> <ul style="list-style-type: none"> <li>• Students in group will perform activity with synthetic indicators.</li> <li>• Group presentation on synthetic indicators.</li> <li>• Teacher students interaction / questioning to check their understanding</li> </ul> <p><b>Guided practice: 10 min</b><br/>Tabulation of the colour changes of acids and bases with synthetic indicators.</p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing and discussion on muddiest point<br/><b>Independent Practice</b>-Students will complete related questions of</p> |

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|                                    | EXEMPLAR.                                                                                 |
| Resources                          | NCERT Science<br>CBSE Exemplar                                                            |
| Closure                            | Involving students in summarizing by asking them to prepare questions based on the topic. |
| Self Study, Home Work, Assignments | Independent Practice: EXEMPLAR Questions                                                  |
| Assessments                        | Questioning                                                                               |
|                                    |                                                                                           |

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| Topic                                                                                                                      | <b>DAY 5-Indicators ( Natural &amp; Synthetic indicators)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Class Transaction                                                                                                          | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of indicators, acids and bases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Assessment of qualifying knowledge                                                                                         | Group Discussion<br>Questioning<br>Quiz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objective                                                                                                                  | Students will be able to differentiate between artificial and natural indicators.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Learning Outcomes                                                                                                          | <p><u>KNOWLEDGE</u>- <i>Students will be able to</i></p> <ol style="list-style-type: none"> <li>1. Explain the term indicator</li> <li>2. Cite example for different indicators and study their applications.</li> </ol> <p><u>SKILLS AND COMPETENCIES</u>-</p> <ol style="list-style-type: none"> <li>1. Use <b>observational skills</b> while observing the activities to understand the concept.</li> <li>2. Interact with peers and <b>compare</b> various indicators and develop <b>critical thinking</b> and <b>collaboration</b> in the process.</li> <li>3. Perform activities in groups, develop <b>character and citizenship</b> in the process.</li> </ol> <p>Effectively interprets information and draws conclusions based on the best analysis.</p> |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5min</b></p> <p><b>Recapitulation</b> by asking questions based on previous day's learning<br/><b>DOL 1,2,3</b></p> <p><b>Strategy-</b><br/>Wipro Technique Think- Pair and Share, group work - collaborative learning. Hands on experiment, tabulation, Wipro- G.O.s(web chart, flow chart and compare- contrast matrix),</p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/><b>(Critical Thinking and Problem Solving , collaboration and Character Activity:</b> Class discussion on colour produced by different indicators</p>                                                                                                                   |

|                                                                           | <p>with acid and bases.<br/>Teacher will draw the given table and answers are cited by students and noted by them on board.</p> <table><tr><th>Indicator</th><th>Colour in acid</th><th>Colour in base</th></tr><tr><td>Litmus</td><td></td><td></td></tr><tr><td>Turmeric</td><td></td><td></td></tr><tr><td>China rose</td><td></td><td></td></tr><tr><td>Methyl orange</td><td></td><td></td></tr><tr><td>Phenolphthalein</td><td></td><td></td></tr></table> <p><b>Guided practice: 10 min</b><br/>Students will observe and record their observation in tabular form.<br/><b>Closure: 5 min</b><br/>Summarization by students<br/><b>Independent Practice</b>-Students will complete practical and answer related questions.</p> | Indicator      | Colour in acid | Colour in base | Litmus |  |  | Turmeric |  |  | China rose |  |  | Methyl orange |  |  | Phenolphthalein |  |  |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|--------|--|--|----------|--|--|------------|--|--|---------------|--|--|-----------------|--|--|
| Indicator                                                                 | Colour in acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Colour in base |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Litmus                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Turmeric                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| China rose                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Methyl orange                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Phenolphthalein                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Resources                                                                 | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Closure                                                                   | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Self Study, Home Work, Assignments                                        | <b>Independent Practice:</b> EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Assessments                                                               | Observations and responses from activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Topic                                                                     | <b>DAY 6-Practical</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Class Transaction                                                         | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Pre-requisite for the course                                              | This topic requires basic knowledge of various examples acids and bases and indicators.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Assessment of qualifying knowledge                                        | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Objective                                                                 | <b>To find the chemical nature of various given solutions using Indicators.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Learning Outcomes                                                         | SKILLS AND COMPETENCIES- Students would be able to have hands on experiment and enhance their ability to make correct observations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, | Transaction would proceed in the following manner-<br><b>Anticipatory Set: 5 min</b><br><b>Recapitulation</b> by asking questions based on previous day's learning<br><b>DOL 1,2,3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                |                |        |  |  |          |  |  |            |  |  |               |  |  |                 |  |  |

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| wherever applicable, and can use any other too.) | <p><b>Strategy-</b><br/>Hands on experiment, tabulation,</p> <p><b>Discussion of topic through Collaborative Learning: 20 min (Critical Thinking and Problem Solving , collaboration and Character building)</b></p> <ul style="list-style-type: none"> <li>Teacher will explain the practical, Collaborative work; Students will work in group of three students each. learning ( 20 minutes)</li> <li><b>Teaching strategy</b> – Hands on experiment, Discussion and tabulation</li> </ul> <p><b>Guided Practice; 10 min</b><br/>Students to record their observation and draw out the conclusion for the same. learning</p> <p><b>Independent Practice-</b>Students will complete practical and answer related questions</p> <p><b>Closure: 5 min</b><br/>Involving students in summarization</p> |
| Resources                                        | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Closure                                          | Summarization by students with the muddiest point discussed by the teacher.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Self Study, Home Work, Assignments               | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Assessments                                      | Practical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Topic                                            | <b>DAY 7- Acid rain</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Class Transaction                                | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Pre-requisite for the course                     | This topic requires basic knowledge of .various examples acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Assessment of qualifying knowledge               | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Objective                                        | Students will be able to describe the concept of acid rain and its causes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Learning Outcomes                                | <p>Students will be able to<br/>Students will be able to describe the concept of acid rain and its causes.</p> <p><u><b>SKILLS AND COMPETENCIES-</b></u></p> <ol style="list-style-type: none"> <li>1. Perform activities in groups, develop <b>citizenship, character and collaboration</b> in the process.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Transaction Methodology (The teacher can         | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b></p> <p><b>Recapitulation</b> by asking questions based on previous day's learning</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| use the mentioned techniques, wherever applicable, and can use any other too.) | <p><b>DOL 1,2,3</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min (Critical Thinking and Problem Solving, collaboration )</b></p> <p><b>Strategy- Questioning, group work</b></p> <ul style="list-style-type: none"> <li>• Students in group will discuss concept of acid rain and its causes.</li> <li>• Class discussion</li> <li>• Teacher will ask questions to check their understanding</li> <li>• Teacher's role as a facilitator</li> </ul> <p><b>Guided practice: 10 min</b><br/>Relevant NCERT Questions</p> <p><b>Independent Practice: EXEMPLAR Questions</b></p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing the topic</p> |
| Resources                                                                      | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Closure                                                                        | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Self Study, Home Work, Assignments                                             | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Assessments                                                                    | Response during activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Topic                                                                          | <b>DAY 8-Class test</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Topic                                                                          | <b>DAY 9- Neutralization (Process only)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Class Transaction                                                              | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pre-requisite for the course                                                   | This topic requires basic knowledge of different acids and bases, indicators and their properties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Assessment of qualifying knowledge                                             | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Objective                                                                      | Students will be able to describe the process involved in mixing of acids and bases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Learning Outcomes                                                              | <p><b>KNOWLEDGE-</b> Students will be able to observe different changes observed during neutralization.</p> <p><b>SKILLS AND COMPETENCIES-</b></p> <ol style="list-style-type: none"> <li>1. <b>Observe</b> and develop the concept by hands on activity.</li> <li>2. Use <b>analytical skills</b> to identify changes observed during the process.</li> <li>3. Perform activity in group to develop <b>citizenship, character and collaboration in the process.</b></li> </ol>                                                                                                                                                                                                   |
| Transaction Methodology                                                        | Transaction would proceed in the following manner-<br><b>Anticipatory Set: 5 min</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p><b>Recapitulation</b> by asking questions based on previous learning</p> <p><b>DOL 1,2,3</b></p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/>(Critical Thinking and collaboration)</p> <p><b>Teaching strategy</b> – Hands on experiment, Discussion and tabulation</p> <p><b>Activity:</b> The activity 5.5 is conducted in lab and explained to the students step by step and then the following questions will be asked to check their understanding:</p> <ol style="list-style-type: none"> <li>1. What type of change do you observe?</li> <li>2. What can be the reason for the changes?</li> </ol> <p><b>Guided Practice-</b> Students will observe and record their observation in tabular form.</p> <p><b>Independent Practice:</b> EXEMPLAR Questions</p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing by asking them to prepare questions based on the topic.</p> |
| Resources                                                                                       | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Closure                                                                                         | Involving students in summarizing by discussion on muddiest point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Self Study, Home Work, Assignments                                                              | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Assessments                                                                                     | Observations and responses during activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Topic                                                                                           | <b>Day 10 Neutralization (Reaction and examples)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Class Transaction                                                                               | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pre-requisite for the course                                                                    | This topic requires basic knowledge of different acids and bases and neutralization.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Assessment of qualifying knowledge                                                              | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Objective                                                                                       | Students will be able to describe the process involved in mixing of acids and bases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Learning Outcomes                                                                               | <p><b>KNOWLEDGE-</b> Students will be able to analyse different changes observed and thus abstract a definition for neutralization.</p> <p><b>SKILLS AND COMPETENCIES-</b></p> <ol style="list-style-type: none"> <li>1. <b>Compare</b> different examples of neutralization.</li> <li>2. Will discuss different examples and <b>communicate</b> to understand concept</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b></p> <p><b>Recapitulation</b> by asking questions based on previous day's learning <b>DOL 1,2,3</b></p> <p><b>Strategy-</b><br/>group work - collaborative learning. Hands on experiment, tabulation,</p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/>(Critical Thinking and Problem Solving , collaboration and Character building)</p> <ul style="list-style-type: none"> <li>Teacher will explain the practical, Collaborative work; Students will work in group of three students each. learning ( 20 minutes)</li> <li><b>Teaching strategy</b> – Hands on experiment, Discussion and tabulation</li> </ul> <p><b>Guided Practice; 10 min</b><br/>Students to record their observation and draw out the conclusion for the same. Learning.</p> <p><b>Independent Practice-</b>Students will complete practical and answer related questions.</p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing by asking them to prepare questions based on the topic.</p> |
| Resources                                                                                                                  | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Closure                                                                                                                    | Involving students in summarizing the topic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Assessments                                                                                                                | Peer assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Topic                                                                                                                      | <b>DAY 11– &amp; 12 Neutralization in everyday life</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Class Transaction                                                                                                          | 40 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of .various examples acids and bases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Assessment of qualifying knowledge                                                                                         | Group Discussion<br>Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Objective                                                                                                                  | Students will be able to describe the applications of neutralization in everyday life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Learning Outcomes                                                                                                          | <p><b>KNOWLEDGE:</b>Students will be able to describe the applications of neutralization in everyday life.</p> <p><b>SKILLS AND COMPETENCIES-</b><br/>Will discuss different examples and <b>communicate</b> to understand concept</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | <p>Transaction would proceed in the following manner-</p> <p><b>Anticipatory Set: 5 min</b><br/>Recapitulation by asking questions based on previous day's learning<br/><b>DOL 1,2,3</b><br/><b>Strategy-</b><br/>Wipro Technique, Student -teacher interaction, Think- Pair and Share, group work - collaborative learning.),</p> <p><b>Discussion of topic through Collaborative Learning: 20 min</b><br/>(Critical Thinking, collaboration and communication)</p> <ul style="list-style-type: none"> <li>• Students in the group of 5 will discuss Importance of neutralization in everyday life</li> <li>• Groups will give presentation</li> <li>• Students teacher interaction</li> <li>• <b>Questioning</b>-Teacher will ask questions on Importance of neutralization in everyday life</li> <li>• children will make web cluster on Importance of neutralisation in everyday life</li> <li>• Teacher's role as a facilitator</li> <li>•</li> </ul> <p><b>Guided practice: 10 min</b><br/>Relevant NCERT Questions and Exemplar Questions<br/><b>Closure: 5 min</b><br/>Summarization by students with the muddiest point discussed by the teacher. learning<br/><b>Independent Practice</b>-Students will complete related questions of EXEMPLAR.</p> |
| Resources                                                                                                                  | NCERT Science<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Closure                                                                                                                    | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: EXEMPLAR Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Assessments                                                                                                                | Observations and responses during activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| Topic                                                                                                                      | <b>DAY 13 Closure by mind mapping and open discussion</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| Topic                                                                                                                      | <b>DAY 14-Class test</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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