

**CLASS – VIII**  
**LESSON PLAN**  
**CHAPTER-5: Coal and Petroleum**

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| Unit                                                                               | Chapter -5: <b>Coal and Petroleum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Class Transaction                                                                  | Total: 6 periods (approx. 40 min each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Pre-requisite for the course                                                       | This lesson requires previous knowledge of- <ul style="list-style-type: none"> <li>• Name different types of materials you use in daily life.</li> <li>• Classify them as naturally occurring and man made materials.</li> <li>• What are natural resources?</li> <li>• Can we use our natural resources forever?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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                                                                          | <ul style="list-style-type: none"> <li>o Given the content (chapter) the learners will be able</li> <li>o Differentiate between exhaustible and inexhaustible natural resources.</li> <li>o Explain the formation of coal and petroleum.</li> <li>o List the constituents of petroleum and their uses.</li> <li>o List the products of coal and their uses.</li> <li>o Explain the term-refining of petroleum and carbonisation.</li> <li>o Understand the need of conservation of fossil fuels.</li> <li>o and record them in their notebook with 90% accuracy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                               |
| Learning Outcomes                                                                  | <p><u><b>KNOWLEDGE-</b></u> <i>Students will know and understand</i></p> <ol style="list-style-type: none"> <li>1. Preparation ,properties and uses of coal and petroleum.</li> <li>2. Describe the uses of coal and petroleum.</li> <li>3. list the various products obtained from coal and petroleum..</li> </ol> <p><u><b>SKILLS AND COMPETENCIES-</b></u> <i>Students would be able to</i></p> <ol style="list-style-type: none"> <li>1. Express properties of coal and petroleum and develop <b>collaboration in the process.</b></li> <li>2. Built <b>character and citizenship</b> amongst themselves by discussing /<b>communicating</b> the ways to identify ways to conserve fossil fuels strengthening nation's economy.</li> <li>3. Develop the ability to <b>analyze</b> and differentiate between coal and petroleum.</li> <li>4. Provide examples for different types of products obtained from coal and petroleum..Apply concepts learnt in everyday problems.</li> </ol> |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever | <p>Transaction would proceed in the following manner-</p> <p><i>Brain Storming</i>-The class would start with a discussion on what the 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| applicable, and can use any other too.) | <p><i>Introduction of the topic-</i> classroom demonstration on different types of resources available to us. Students observe the behaviour of different types of fibres</p> <p>Group activities</p> <p><i>Guided practice followed by Independent Practice-</i> NCERT questions to be discussed in the classroom.</p> <p><b>Techniques to be used:</b></p> <p>Quiz</p> <p>Daily Practice Problem</p> <p>MCQ</p> <p>Peer Assessment</p> <p>Student -teacher interaction,</p> <p>Wipro- G.O.s(web chart, flow chart and differentiation table,compare-contrast matrix),</p> <p>silent/ loud reading,</p> <p>collaborative learning,</p> <p>Research work/surveys</p>                                        |
| Resources                               | <p>Text Book:</p> <p>NCERT text book for science</p> <p>Reference Book</p> <ol style="list-style-type: none"> <li>1. CBSE Exemplar</li> <li>2. Sample papers / last years papers</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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>critical thinking and creativity</b></p> <p>HW notebooks to be marked as per the given plan:</p> <p><i>Assessment Parameters:</i> The total marks for the activity is 5 marks</p> <p>On time submission.....1 mark</p> <p>Presentation/ Neatness(<b>creativity</b>).....1 mark</p> <p>Content( <b>critical thinking and creativity</b>).....</p> <p>.....3 marks</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 resources stated above.</p> |
| Assessments                             | <p><b>4 UNIT TESTS</b> (25, 25, 25, 25)..... 100 Marks</p> <p><b>HALF YEARLY EXAMINATION</b>.....80 Marks</p> <p><b>ANNUAL BOARD EXAMINATION</b>.....80 Marks</p> <p><b>PERIODIC TEST</b></p> <p><b>By administering pen paper test we assess creativity and critical thinking.</b></p> <p><b>INTERNAL ASSESSMENT</b> .....20 Marks</p> <p>Periodical Test 10 Marks</p>                                                                                                                                                                                                                                                                                                                                     |

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|                                | <p><b>By administering pen paper test we assess creativity and critical thinking.</b></p> <p>Subject Enrichment 10 Marks<br/> <b>With the help of subject enrichment activities we assess communication ,collaboration, character building and citizenship</b></p> <p>By <b>writing the answers of worksheet questions</b> we can assess critical thinking and creativity of students<br/> Note Book Submission 05 Marks</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>• Preparing a debate</li> <li>• Making PPT</li> <li>• Designing an exhibit</li> <li>• Writing a report</li> <li>• Preparing a talk</li> <li>• Encouragement for referring other resources</li> </ul> <p><i>For weak students:</i></p> <ul style="list-style-type: none"> <li>• Making a Chart/diagram/poster/ flashcards</li> <li>• Buddy system 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| Topic                                                                                                                      | <b>DAY 1-Exhaustible and Inexhaustible Resources</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Class Transaction                                                                                                          | 40 min each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of available resources which students had already learnt in class VI and VII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking questions in class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objective                                                                                                                  | Students will be able to explain the term exhaustible and non exhaustible resources and identify the various resources in daily life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Learning Outcomes                                                                                                          | <p><u>KNOWLEDGE</u>- <i>Students will know and understand the term exhaustible and non exhaustible resources</i></p> <p><u>SKILLS AND COMPETENCIES</u>- <i>Students would be able to</i></p> <ul style="list-style-type: none"> <li>• <b>Critically analyse</b> the different resources available around us</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: 10 min</b></p> <ul style="list-style-type: none"> <li>o * The students will sit in pairs and read pg 56 and 57.</li> <li>o Class discussion on exhaustible and inexhaustible resources..</li> <li>o * Students were able to identify and categorise exhaustible and inexhaustible resources..</li> </ul> <p>* Students also note down the examples in this category.</p> <p><b>DOL 1,2,3</b></p> <p><b>Discussion of topic through Collaborative Learning: 15 min</b><br/>(Critical Thinking and Problem Solving)</p> <p><b>Think, pair share</b> Students in group discuss types of resources available to us.</p> <p>Activity: Teacher will draw GO of types of resources on board .</p> <p><b>Guided practice: 10 min</b></p> <ul style="list-style-type: none"> <li>• Discussion with students and explanation of the term exhaustible and non exhaustible resources.</li> </ul> <p><b>Independent Practice: Worksheet</b></p> <p><b>Closure: 5 min</b></p> <p>Involving students in summarizing by asking them to prepare questions based on the topic./A short oral test would be taken to check proper assimilation of the topic discussed.</p> |
| Resources                                                                                                                  | Text Book:<br>NCERT text book for Science.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                                                                                                                            | Reference Book<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> Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Assessments                                                                                                                | Assignment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Topic                                                                                                                      | <b>DAY 2-Formation and characteristics of coal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Class Transaction                                                                                                          | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of fossil fuels which students had already learnt in classes VII and VIII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking students various questions on formation of fossil fuels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Objective                                                                                                                  | <b>Students will be able to explain the formation and characteristics of fossil fuels.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Learning Outcomes                                                                                                          | SKILLS AND COMPETENCIES- Students would be able to <ul style="list-style-type: none"> <li>Critically analyse the importance of fossil fuels and realise the need to conserve them.</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: 5 min</b><br/>*Teacher asks questions based on previous day 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 Problem Solving and collaboration)</p> <ul style="list-style-type: none"> <li>Class will be divided into groups of 4 students each.</li> <li>Each group will discuss this topic from NCERT .</li> <li>They will be asked to find the method of preparation of coal and its properties and uses.</li> <li>The students will then draw out the conclusion and record it.</li> </ul> <p><b>Guided practice: 10 min.</b> The following questions will be asked to check their understanding:</p> <ol style="list-style-type: none"> <li>Where do we get coal from?</li> <li>Explain the properties of coal?</li> <li>What is the process involved in coal formation?</li> </ol> <p><b>Independent Practice: worksheet</b></p> <p><b>Closure: 5 min</b><br/>Involving students in summarizing by asking them to prepare questions based on the topic.</p> |
|                                                                                                                            | Text Book:<br>NCERT text book for Science.<br>Reference Book<br>CBSE Exemplar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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| Closure                                                                                                                    | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Assessments                                                                                                                | Peer assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Topic                                                                                                                      | <b>Day 3 -Petroleum and its preparation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Class Transaction                                                                                                          | 40 min each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of fossil fuels and their occurrence.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking questions based on previous day learning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Objective                                                                                                                  | Students will be able to explain the formation of petroleum and its uses in daily life                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Learning Outcomes                                                                                                          | SKILLS AND COMPETENCIES- Students would be able to develop the ability to <b>analyze</b> and differentiate between uses of polyester and acrylic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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/>(Critical Thinking and Problem Solving , collaboration and communication)<br/><b>Think, pair share</b> Students in groups of six will discuss-formation and properties of petroleum in their groups. They will be asked to find the difference in the properties and uses of coal and petroleum.</p> <p><b>Teaching strategy</b> – Demo by teacher, Discussion, think pair share, explanation by teacher</p> <p><b>Guided practice: 10 min</b><br/>Relevant NCERT Questions</p> <p><b>Closure: 5 min</b><br/>Summarization by students</p> <p><b>Independent Practice</b>-Students will complete related questions of NCERT</p> |
| Resources                                                                                                                  | <p>Text Book:<br/>NCERT text book for Science.</p> <p>Reference Book<br/>CBSE Exemplar</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Closure                                                                                                                    | Involving students in summarizing the topic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| Assessments                                                                                                                | Quiz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Topic                                                                                                                      | DAY 4 – <b>Products obtained from coal with their uses</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Class Transaction                                                                                                          | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of properties of coal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking students to write various properties of coal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Objective                                                                                                                  | Students will be able to understand the various products obtained from coal and their uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Learning Outcomes                                                                                                          | SKILLS AND COMPETENCIES- Students would be able to develop the ability to <b>analyze</b> the importance of coal in our daily lives.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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>Discussion of topic through Collaborative Learning: 20 min</b><br/><b>(Critical Thinking and Problem Solving , collaboration and communication)</b><br/><b>Rally Robin</b> Students in pairs will find the different products obtained from coal.<br/><b>Teaching strategy</b> – Demo by teacher, Discussion, think pair share, explanation by teacher<br/><b>Guided practice: 10 min</b><br/>Relevant NCERT Questions<br/><b>Closure: 5 min</b><br/>Summarization by students<br/><b>Independent Practice</b>-Students will complete related questions of NCERT</p> |
| Resources                                                                                                                  | <p>Text Book:<br/>NCERT text book for Science.</p> <p>Reference Book<br/>CBSE Exemplar</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Closure                                                                                                                    | Involving students in summarizing by asking them to prepare questions based on the topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Assessments                                                                                                                | Questioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| Topic             | <b>DAY 5-Natural Resources are limited</b>                                |
| Class Transaction | 40 min each)                                                              |
| Pre-requisite for | This topic requires basic knowledge of natural resources available to us. |

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| the course                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking students to write the different reasons for conserving natural resources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objective                                                                                                                  | Students will be able to explain the need for conservation of natural resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Learning Outcomes                                                                                                          | <b><u>SKILLS AND COMPETENCIES-</u></b> <i>Students would be able to</i><br><br><b>effectively interpret</b> various uses of various natural resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Transaction Methodology<br>(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.) | Transaction would proceed in the following manner-<br><b>Anticipatory Set: 5min</b><br><b>Recapitulation</b> by asking questions based on previous day's learning<br><b>DOL 1,2,3</b><br><b>Discussion of topic through Collaborative Learning: 25 min</b><br>(Critical Thinking and Problem Solving, collaboration)<br><ul style="list-style-type: none"> <li>Collaborative work, Class will be divided into groups of 6 students each.<br/>Groups will be asked to prepare presentation on allotted topics.<br/>Each group will be given 5 minutes to give presentation.<br/>Presentation by group 1 followed by discussion</li> </ul> <b>Guided practice: 5 min</b><br>Students will write the chemical equations for the reactions<br><b>Independent Practice: worksheet questions</b><br><b>Closure: 5 min</b><br>Involving students in summarizing by asking them to prepare questions based on the topic |
| Resources                                                                                                                  | Text Book:<br>NCERT text book for Science.<br>Reference Book<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> worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Assessments                                                                                                                | Oral Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Topic                                                                                                                      | <b>DAY 6-Mind Mapping</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Class Transaction                                                                                                          | 40 min each                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Pre-requisite for the course                                                                                               | This topic requires basic knowledge of coal and petroleum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Assessment of qualifying knowledge                                                                                         | Knowledge testing by asking students to write the usage of coal and petroleum in our surroundings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Objective                                                                                                                  | Students will be able to explain preparation, properties and uses of coal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                                                                                                                            | and petroleum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Learning Outcomes                                                                                                          | <p>SKILLS AND COMPETENCIES- Students would be able to</p> <ul style="list-style-type: none"> <li>• Critically analyse the properties of coal and petroleum</li> <li>• Answer knowledge, understanding and application based questions on the topic.</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: 5 min</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>Discussion of topic through Collaborative Learning: 20 min</b><br/>(Critical Thinking and Problem Solving, collaboration, communication and character)</p> <p><b>Instructional Input :</b> Collaborative work, students will discuss in their groups.</p> <p><b>Teaching strategy –</b><br/>Class will be divided into groups of 8 students each.<br/>Groups will be asked summarise coal and petroleum. Each group will be given 5 minutes to give presentation.<br/>Presentation by groups followed by discussion</p> <p><b>Guided practice: 10 min</b><br/>NCERT Questions</p> <p><b>Independent Practice:</b> Students will complete related questions in NCERT</p> <p><b>Closure: 5 min</b><br/>Summarization by students with the muddiest point discussed by the teacher.</p> |
| Resources                                                                                                                  | <p>Text Book:<br/>NCERT text book for Science.</p> <p>Reference Book<br/>CBSE Exemplar</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Closure                                                                                                                    | Summarization by students with the muddiest point discussed by the teacher.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Self Study, Home Work, Assignments                                                                                         | Independent Practice: Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Assessments                                                                                                                | Oral Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |