

**SALWAN PUBLIC SCHOOL, RAJENDRA NAGAR**  
**CLASS – X**  
**LESSON PLAN-1**  
**CHAPTER-14: SOURCES OF ENERGY**

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| Topic                                                                                                       | Conventional Sources of Energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Class Transaction                                                                                           | <b>3-4 periods (approx. 35 min each)</b><br>Subtopics : 1. Ideal fuel and concept of dynamo<br>2. Conventional sources of energy<br>3. Improvements in Conventional sources of energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pre-requisite for the course                                                                                | Students should previously know the <ol style="list-style-type: none"> <li>1. Basic knowledge of the uses and types of fuel in our daily life.</li> <li>2. Classification of natural and man made resources of energy.</li> <li>3. Difference between the commercial and domestic fuels used all over the world.</li> <li>4. Concept that all living and non living things are matter and store energy at molecular level.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Learning Objectives                                                                                         | Students will be able to: <ul style="list-style-type: none"> <li>- Differentiate between conventional and non conventional sources of energy</li> <li>- Explain how energy can be harnessed from natural resources.</li> <li>- Understand that improvements in conventional sources has been done to meet the demands of energy</li> <li>- Correlate the advantages and disadvantages of using both conventional sources of energy</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Methodology (The teacher can use the mentioned techniques, wherever applicable ,and can use any other too.) | <p><b><i>Transaction would proceed in the following manner-</i></b><br/> <b><i>Brain Storming-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.</i></b></p> <p><b>Methodology – Lecture-cum discussion Method</b><br/> <b>Introduction of the topic-</b><br/> <b>Teacher will introduce the topic by asking various questions:</b><br/> <b>Sample 1-</b> Name the Fuels used in the gas stove at home and in your motor vehicle.<br/> <b>Sample 2-</b> How are they different from each other in providing you energy?</p> <p style="text-align: center;">OR</p> <p>How do we harness the energy from them?<br/> <b>Sample-3</b> What is the law of transformation of energy?</p> <p><b>Explanation:</b> Teacher will explain the types of sources of energy using a ppt and digital content.</p> <ul style="list-style-type: none"> <li>- The mechanism of obtaining the energy using dynamo will be explained using digital content and images.</li> <li>- Various advantages and disadvantages of using conventional sources will be explained giving emphasis on their conservation also.</li> <li>- Each conventional source of energy will be explained along with the process of harnessing energy from them.</li> <li>- All the sources of energy will be correlated with the law of</li> </ul> |

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|                                  | transformation of energy using images and digital content.                                                                                                                                                                                                                                                                                                                                                                                                               |
| Learning Outcomes                | <p>After the completion of the topic, learners will be able to:</p> <ul style="list-style-type: none"> <li>- Explain the characteristics of an ideal fuel</li> <li>- Differentiate between conventional and non conventional sources of energy</li> <li>- Enlist all conventional sources and their uses.</li> <li>- Classify these sources as economical or not</li> <li>- Identify a conventional source which is non polluting as well as economical.</li> </ul>      |
| Self-Study, Homework Assignments | <p>On completion of the chapter, students will be able to answer the following revision questions:</p> <ol style="list-style-type: none"> <li>1. What is an ideal fuel?</li> <li>2. Differentiate between conventional and non-conventional sources of energy.</li> <li>3. Define fossil fuels. Write the advantages and disadvantages of using them.</li> <li>4. How do we obtain energy from biomass and wind?</li> <li>5. Explain the mechanism of dynamo.</li> </ol> |