

SALWAN PUBLIC SCHOOL, RAJENDRA NAGAR

CLASS X

LESSON PLAN

CHAPTER	GEOGRAPHY: MINERAL AND ENERGY RESOURCES
CLASS TRANSACTION About 3 periods a week- total 3 and a half weeks	Total 10 periods (approx 40 min. each) Sub-Topics: ➤ Significance of minerals ➤ Mode of occurrence of various minerals ➤ Types of minerals ➤ Ferrous Minerals ➤ Non-ferrous minerals ➤ Their uses and distribution in India ➤ Need and ways of conserving minerals ➤ various types of conventional sources of energy and their utilization ➤ various types of non- conventional energy sources and their utilization. ➤ Need and ways of conserving energy resources
LEARNING OBJECTIVE	The students will be able: • To analyze the significance of minerals • To differentiate between the various types of minerals • To understand the uneven nature of distribution of minerals in India • To Differentiate various types of conventional and non- conventional energy resources • To appreciate their proper utilization. • To visualize the need for the development of new sources of energy (non-conventional energy resources)
PRE-REQUISITE FOR THE COURSE (KNOWLEDGE)	This lesson requires • A basic understanding of minerals and mining • A basic understanding of role of energy in our day to day life
METHODOLOGY-TEACHER'S ACTIVITY	• Through an activity "Role of Minerals in our life" would be discussed. • Building upon the responses during discussion "types of minerals would be discussed. • Using the facts related to charts/ maps in the chapter analysis would be drawn regarding the uneven distribution of minerals and energy resources in India. • News clippings with regard to minerals and mining hazards would be shared and inferences would be drawn about mining hazards and remedy. • Learners would be asked to collect information about the initiatives taken

	by the government and community to tap the potential on non-conventional sources of energy in India • It would enable the teacher to thoroughly discuss the need for conserving minerals and energy resources. • It would enable teacher to generate sensitization among learners to play a significant role in promoting environment friendly life style.
STUDENTS' LEARNING OUTCOMES	The learners would- • Acknowledge and develop critical thinking for the need of the judicious utilization of minerals and energy resources • Understand the uneven distribution of minerals in India • Responsibly participate in map-work and map interpretation for mineral belts, mines and power plants • Sensitize towards conservation of non-renewable resources • Be motivated to adopt environment friendly ways in life • Understand the phrase "Energy saved is energy produced".
TEACHING AIDS	• CAL module using explanation content • Visual illustrations in the book • News clippings with regard to minerals and mining hazards
RECAPITULATION	• Comparison between metallic and non- metallic minerals • Uses of minerals • Major mineral belts • Mining as killer industry • Comparison between conventional and non- conventional sources of energy • Ideal conditions for developing tidal power, solar power, biogas
SELF-STUDY AND HOME-WORK ASSIGNMENT	1. How do geologists define minerals? 2. Why are most of the heavy industries and thermal power stations located on or near the coalfields? 3. Suggest the three ways to conserve minerals? 4. Koderma, in Jharkhand is the leading producer of which kind of Minerals. 5. Describe the various modes of occurrences of minerals and explain them. 6. "India has enormous potential of tapping solar power." Explain. 7. Locate and label the following in the outline political map of India- a) A thermal power plant in Tamil Nadu b) A coal mine in M.P. c) An iron ore mine each in Chhattisgarh, Karnataka and Odisha d) A nuclear plant each in Maharashtra and U.P. 8. Three features are shown as A, B and C in the map of India. Identify them with the help of given key and write their correct names on the space provided: A) An iron ore mine in Odisha B) A coal mine in West Bengal

C) An oil field in Arabian Sea



9. Compare hydro power with thermal power.