



Srini Science Mind
Abdul Kalam Physical Science Group



NEW

8th class

PHYSICAL SCIENCE

MODEL LESSON PLAN



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MODEL LESSON PLAN

CLASS: 08

SUBJECT: PS

Name of the Teacher: M.SRINIVASA RAO

Name of the School: A.G.K.M.H.School, Gudivada

Name of the Lesson/Unit	Topic	No.of Periods Required	Timeline for teaching		Any specific information
			From	To	
Coal and Petroleum (Chapter-3)	Natural resources	2	xx/xx/xxxx	xx/xx/xxxx	
	Coal	2	xx/xx/xxxx	xx/xx/xxxx	
	Coke - Coal Tar - Coal gas	2	xx/xx/xxxx	xx/xx/xxxx	
	Petroleum - Refining of Petroleum	3	xx/xx/xxxx	xx/xx/xxxx	
	Natural Gas	3	xx/xx/xxxx	xx/xx/xxxx	
	Some Natural Resources are Limited	3	xx/xx/xxxx	xx/xx/xxxx	

Prior Concept/Skills:

1. What fuel do you use to cook food?
2. Are these fuels man-made?
3. Do you know where the fuels used to run the vehicles come from?

Learning Outcomes:

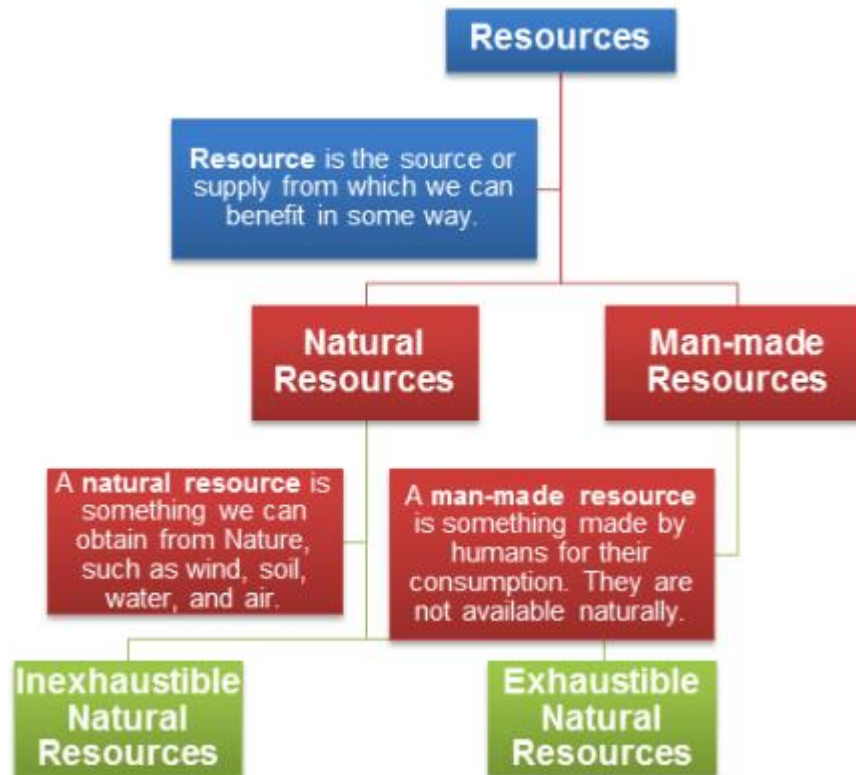
1. Classifies materials based on properties of exhaustible and inexhaustible natural resources.
2. Applies learning of scientific concepts in day-to-day life of using of natural resources.
3. Relates processes with causes of air pollutant by the utilization of exhaustible natural resources.
4. Explains processes of formation of petroleum.
5. Explains process and phenomenon of petroleum refining.
6. Draws labeled diagram of Petroleum and natural gas deposits.
7. Conducts simple investigations to seek answers to queries of petroleum refining.
8. Makes efforts to protect environment using of petroleum products judiciously.
9. Relates processes with causes of air pollutant by the utilization of exhaustible natural resources.
10. Applies learning of scientific concepts in day-to-day life of various constituents of petroleum and their uses.
11. Exhibits creativity in designing, planning, making use of various constituents of Petroleum.
12. Draws flow chart of uses of petroleum products.

No. of Periods

- 2
- 1
- 1
- 2
- 1
- 1
- 1
- 2
- 1
- 1
- 1
- 1

TEACHING LEARNING PROCESS

Induction/Introduction:



Experience and Reflection:

1. Students use resources properly for future needs.
2. Students will protect the environment by using petroleum products according to their needs.
3. Students understand how fuels are made and conserve fuels.

Explicit Teaching/Teacher Modelling (I Do)	Group Work (We Do)	Independent Work (You Do)	Notes for:
1. Discussion and Explain resources by natural and man-made.	1. Students give examples of natural resources.	1. Students identify the natural and man-made resources.	1. What are natural resources?

<p>2. Discussion and Explain Natural resources and their types.</p> <p>3. Explain coal and the story of coal.</p> <p>4. Discussion and Explain the products of coal.</p> <p>5. Explain the formation of petroleum.</p> <p>6. Discussion and Explain the refining of petroleum.</p> <p>7. Explain various constituents of petroleum and their uses.</p> <p>8. Explain Natural gas.</p> <p>9. Discussion and Explain some natural resources are limited.</p>	<p>2. Students make a survey on the energy consumption (coal, gas, electricity, petrol, kerosene etc,) and measures to conserve the energy of their neighborhood.</p> <p>3. Is coal fossil fuels? - Discuss</p> <p>4. Students prepare the uses of coal in table form</p> <p>5. Students collect some information about the coal and petroleum deposits in India and mark them in outline map of India and World map.</p> <p>6. Students explain the refining of petroleum in own way.</p> <p>7. Students collect the information on various constituents of petroleum and their uses.</p> <p>8. What would happen if fossil fuels were banned? ---- Discuss</p> <p>9. Collect the information on how to save petrol/diesel while driving.</p>	<p>2. Students give examples of inexhaustible and exhaustible resources.</p> <p>3. Students complete the homework.</p> <p>4. Students give the reason about Why is coal so black?</p> <p>5. Find out the location of major thermal power plants in India. What could be the reasons for their being located at those places?</p> <p>6. Students express the physical properties of petroleum.</p> <p>7. Students complete the homework.</p> <p>8. Students expand the terms of CNG and LPG.</p> <p>9. What are the effects on the environment of burning fuels?</p>	<p>2.Can natural resources be replaced?</p> <p>3. Give any two uses of Coal</p> <p>4. What are the different types of coals?</p> <p>5. Where is the petroleum found in India?</p> <p>6. What is the main principle of petroleum refining?</p> <p>7. Why should we use petroleum substance in limits?</p> <p>8. How is natural gas stored?</p> <p>9. How does petroleum affect the environment?</p>
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Check For Understanding Questions	TLM's (Digital + Print)
<p>1. Factual:</p> <ol style="list-style-type: none"> 1. Which coal is mostly found in India? 2. What are impurities in petroleum? 3. What are the most critical natural resources? <p>2. Open Ended/Critical Thinking:</p> <ol style="list-style-type: none"> 1. Why is Petroleum called black gold? 2. What happen if natural resources disappear? 3. What problems do people face when using natural resources? 4. How long can petrol be stored? <p>3. Student Practice Questions & Activities:</p> <ol style="list-style-type: none"> 1. What are the advantages of using CNG and LPG as fuels? 2. Explain why fossil fuels are exhaustible natural resources. 3. Describe characteristics and uses of coke. 4. Explain the process of formation of petroleum. 	<ol style="list-style-type: none"> 1. Used prepared Quiz paper. 2. Utilized digital classroom. 3. Provide video links QR codes, DIKSHA App 4. YouTube video links.
<p>Assessment:</p> <ol style="list-style-type: none"> 1. Suggest ways in which consumption of fuels can be reduced. 2. Name the different constituents of petroleum and write their uses. 3. What is refining? Why does petroleum require refining? 4. Differentiate between exhaustible and inexhaustible natural resources. 	

SIGNATURE OF THE TEACHER

SIGNATURE OF THE HEADMASTER

VISITING OFFICER WITH REMARKS