

CLASS – VIII
LESSON PLAN GEOGRAPHY
Ch.3 MINERAL AND POWER RESOURCES

Unit	Geography
Class Transaction	Total: 8 periods (approx. 40 min each)
Pre-requisite for the course	- Is aware about the usage of various minerals in our homes – copper utensils, copper wires, aluminum utensils, toothpaste, calcium products, iron in green vegetables. - W – The Extraction process of the minerals, Non-Conventional resources - L – Developments in the Non – Conventional resources
Assessment of qualifying knowledge	- Written test - Group Discussion - HW notebook - UT Plans
Objective	- Understand Discuss various types of minerals as well as the uneven nature of distribution and explain the need for their judicious utilization - Difference between metallic and non-metallic minerals - To understand uses of minerals as indispensable part of our life. - Understand why we should conserve minerals . - Discuss various types of conventional resources and utilization with 95% accuracy. - To develop awareness towards use of non-conventional sources of energy instead of conventional sources of energy.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will learn about</i> The minerals as precious resources for the economic development of a region. Pros and cons of using minerals indiscriminately The need to switch to the use of renewable power resources. <u>SKILLS-</u> <i>Students will critically think about</i> how to utilize mineral resources judiciously for a sustainable future. <i>Students would be able to enhance values to become aware as global citizens</i>
Transaction Methodology (The teacher can use the mentioned techniques,	Transaction would proceed in the following manner- Student – teacher interaction interaction, Wipro-GOs.(web chart,flow chart and differentiation table, compare – contrast matrix), silent / loud reading, collaborative learning, Hands on experiment, Experimental work Active learning-1. <i>Frayer Model</i> on distribution of minerals . (Critical thinking) Students will study the different groups of minerals silently and then facilitator will build the concept with frayer model. This is a graphical organizer where

wherever applicable, and can use any other too.)	four square model prompt students to think about : In this model , four squares will be importance of mineral, distribution, formation and general characteristics Group learning- Questioning- <i>Pose, pause, pounce and bounce</i>- Teacher will prepare a list of question about the conservation of minerals resources and will ask these questions during discussions by posing the question to the entire class, pause for 30 seconds and then pounce the question and facilitator can bounce it as well to other students.. (Critical thinking, Communication) Demonstration- Marking of distribution of minerals on political map of world Think-pair -share-Students in group of two will read the topic again after teacher explanation, think for a minute and then discuss in pair. <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Inside outside circle: This activity will take place for recap of previous class. Students will stand in two concentric circles with students facing each other. Students are paired up with someone directly across from them in the other circle. Pairs discuss questions and when the facilitator indicates to move on , the students in the outside circle take one step to the right and make new partners with the participate across from them in the inside circle . a new question is asked , and new partners discuss until the next time to move . when everyone has had a chance to talk to each person around the circle DOL 1,2,3 Active Learning • Topic- Classification of Minerals and methods of extraction (Competencies: Critical thinking) Students will be able to differentiate between the different types of minerals and construct a flowchart to depict the same. • Topic – Distribution of minerals in the world (Competencies Citizenship) Atlas activity – identifying the mineral rich areas of the world and marking occurrence of the main minerals on a world map. Imbibing values • Topic –Power resources – Conventional and Non conventional Questioning- Multiple questions as per spiral and NCERT to cater the needs of various students. Techniques to be used: Think pair share Discussion Atlas Activity
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	Mind Map Group work
Resources	Text Book: NCERT text book Power point presentation as teaching aid
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W notebook HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness.....1 mark Content.....3 marks 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.
Assessments	4 UNIT TESTS (critical thinking) HALF YEARLY EXAMINATION (critical thinking) ANNUAL BOARD EXAMINATION (critical thinking) INTERNAL ASSESSMENT 20 Marks • Subject Enrichment Activity 10 Marks (creativity and collaboration) • Note Book Submission 05 Marks + HW Notebook 05 marks Through various test students critical thinking, creativity and collaboration skills will be enhanced.
Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • High order questions to be done • Encouragement for referring other resources <i>For weak students:</i> • Basic questions to be completed • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes and formulae, if not written • Call parents at regular intervals • Provide grade-up classes
Marks	The weightage would be given by CBSE.

Assessment questions	1.Differentiate between conventional and non conventional sources of energy.
	2.If the colour of the rock is blue it indicates the presence of which mineral.
	3.Write two uses of minerals.
	4.Explain why most of the industries are situated near the coal mines.
	5.Identify the fossil fuel which is the most abundantly found in the world. Write its two uses. And two leading producers countries in the world.

CLASS – VIII
DAY WISE CONSOLIDATED LESSON PLAN
CHAPTER- 3: MINERAL AND POWER RESOURCES
SUBJECT: GEOGRAPHY
SESSION: 2019-20

DAY	ONE
Objective	• Classify the minerals on the basis of Metallic and Non- Metallic. • Express the extraction of Minerals through a flow chart. • List the various uses of minerals. • Design a web chart to conserve minerals.
Assessment of qualifying	The following questions will be asked to assess the previous knowledge of the students –

knowledge	What are minerals and where do they occur? What are the different types of rocks? How are the different minerals useful to man?
Learning Outcomes	• <u>KNOWLEDGE</u>- <i>Students will know</i> • <u>SKILLS and COMPETENCIES</u><i>Students would be able to differentiate various types of resources available in nature, in collaboration with each other.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- DOL 1,2,3 Anticipatory Set • What are the things which we use in our daily life made of metals • From where we get these metals • Do we require different minerals in our daily life. Activity : Introduction of minerals with the help of interactions with student through Brain storming' and by asking questions based on their previous knowledge and formation of groups and assigning their topics. With the help of flow chart students will explain about the different process of extraction students will sit together and in Collaboration they will discuss the topic given to them • Closure- Summarisation by students with the help of mind map on their own. • Independent Practice-flow chart • Students will go through the topic in the NCERT text book. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed. The teacher will collate all the graphic organizers and convert into a flowchart depicting classification of minerals.
Resources	Text Book: NCERT text book PPT
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook
Assessments	Oral Test (5 minutes)

DAY	TWO
Objective	To understand distribution of minerals all over the world .with 90% accuracy.
Assessment of qualifying knowledge	Questions from previous class about classification of resources for whole class group.
Learning Outcomes	<u>KNOWLEDGE</u> - <i>Students will know</i> • <i>The mode of occurrence of various minerals in different types of rocks.</i>

	<i>The major minerals found in each continent and the names of important mineral rich regions of the world.</i> SKILLS and COMPETENCIES Students would be able to <i>Develop the skill of collaborative learning and communication skills through the group activity</i> <i>Enhancing the values of global citizenship and realize the importance of national resources in the global scenario.</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Anticipatory Set- DOL 1,2,3 Recapitulation of the previous day TOPIC: Distribution of Mineral resources in the world Teaching strategy (WIPRO)–Discussion, think pair share, group presentation and map work. Competency : Critical Thinking and problem solving, Citizenship , Collaboration Activity- Class will be divided into four groups . Group 1 – Asia, Europe Group 2 North and South America Group 3 Africa and Australia Group 4 Antarctica and distribution of minerals in India. Students will sit together into groups and discuss with their group members and identify the names of the minerals found in different continents. Closure- Summarization by students with the help of muddiest point Independent Practice- discussion within the group and prepare for presentation All the students will write different mode of occurrence of minerals in their notebooks on their own.
Resources	Text Book: NCERT text book for Geography PPT
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral Test (5 minutes)

DAY	THREE
Objective	- Understand the distribution of major minerals in Eurasia and the American continents. - Work in collaboration to concise the exhaustive information into focused points.
Assessment of qualifying knowledge	Recapitulation of previous day
Learning Outcomes	KNOWLEDGE- Students will know The distribution of various minerals in Asia, Europe, North America and South America. SKILLS and COMPETENCIES Students would be able to Collaborative learning – Students would be working in groups to bring out focused

	points from each continents' information about minerals. Creativity–Students will collate the information into tabular charts.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- DOL 1,2,3 Anticipatory Set- Recapitulation of the previous day. Teaching strategy (WIPRO)–Discussion, think pair share. - Competency : Citizenship ,Collaboration Activity Group presentation Group 1 and 2 Distribution of minerals : Asia, Europe, North America and South America and compilation will be done teacher Guided Practice After discussion - All the students will make table where they will write name of the minerals, countries and name of the continent in their note books - Map activity : children will mark countries where minerals are found in : Asia, Europe,North America and South America on political map of world.. Closure- Summarization by students with the help of mind map Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed. The following questions will be asked to check their understanding: - Europe is the leading producer of which mineral. - What are the three zones of mineral deposits of North America - Name the country which has no known mineral deposit.
Resources	Text Book: - NCERT text book - PPT
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral Test (5 minutes)

DAY	Four
Objective	- Understand the distribution of major minerals in the continents of Africa, Australia, Antarctica, India. - Work in collaboration to concise the exhaustive information into focused points.
Assessment of qualifying knowledge	Recapitulation of the previous day.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know</i> The distribution of various minerals in Africa, Australia, Antarctica and India. <u>SKILLS and COMPETENCIES</u><i>Students would be able to</i> Collaborative learning – Students would be working in groups to bring out focused points from each continents' information about minerals. Creativity – Students will collate the information into tabular charts.

Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- DOL 1,2,3 Anticipatory Set: 10 min The following questions will be asked to check their understanding: Teaching strategy (WIPRO)–Discussion, think pair share. - Competency : Citizenship ,Collaboration Activity Group presentation Group 3 and 4 Distribution of minerals : Africa, Australia, Antarctica, India. and compilation will be done teacher Guided Practice Subtopic- Distribution of minerals: Africa, Australia, Antarctica, India. After discussion - All the students will make table where they will write name of the minerals, countries and name of the continent in their note books - Map activity : children will mark countries where minerals are found in : Africa, Australia, Antarctica, India.on political map of world.. Closure- Summarization by students with the help of mind map The following questions will be asked to check their understanding: - Which country is the largest producer of bauxite? - Name the mine in india which has gold deposit - What are the three zones of mineral deposits of North America - Name the country which has no known mineral deposit. Independent Practice: Students will go through NCERT text book. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral Test (5 minutes)

DAY	Five and six
Objective	- Understand the difference between conventional and non conventional sources of energy. - Understand why we should conserve minerals - To develop awareness towards use of non conventional sources of energy instead of conventional sources of energy.
Assessment of qualifying knowledge	Recapitulation of the previous day.

Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know</i> The pro and cons of conventional and non conventional resources They will be able to appreciate the use of non conventional resources for sustainable development. <u>SKILLS and COMPETENCIES</u><i>Students would be able to</i> Critical thinking – the students will be able to critically analyse the indiscriminate use of conventional power resources that deplete the existence of minerals like fossil fuels Citizenship – <i>Develop the values of citizenship to conserve resources for the future generations</i> Character education – <i>Imbibing values to attain the principles of sustainable development like respect for the environment</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- DOL 1,2,3 Anticipatory Set- Recapitulation of the previous day. Teaching strategy (WIPRO)–Discussion, think pair share, group presentation - Competency : Critical Thinking and problem solving Citizenship ,Collaboration Activity- students will read themselves for five to six mins and they will sit in pair and will discuss with each other . Any four students will come explain the main points And the compilation of all points will be done by the teacher in the form of web chart. The following questions will be asked to check their understanding: - Mention the problems faced by miners and environment during mining activity. - Why mining industry is becoming killer industry? - Why do we need to conserve minerals? - Is there any need to shift from conventional to non- conventional sources of energy. Closure- Summarization by students with the help of mind map Independent Practice- map activity: students will mark different coal mines on the political map of India.
Resources	Text Book: NCERT text book
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral Test (5 minutes)

DAY	Seven and eight
Objective	Understand Discuss various types of conventional and non conventional sources of energy..
Assessment of qualifying knowledge	Recapitulation of the previous day.

Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know</i> The pro and cons of conventional and non conventional resources They will be able to appreciate the use of non conventional resources for sustainable development. <u>SKILLS and COMPETENCIES</u><i>Students would be able to</i> Critical thinking – the students will be able to critically analyse the indiscriminate use of conventional power resources that deplete the existence of minerals like fossil fuels Citizenship – <i>Develop the values of citizenship to conserve resources for the future generations</i> Character education – <i>Imbibing values to attain the principles of sustainable development like respect for the environment</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- DOL 1,2,3 Anticipatory Set- Recapitulation of the previous day. Teaching strategy (WIPRO)–group presentation , think pair share, , explanation by teacher - Competency : Critical Thinking and problem solving Citizenship ,Collaboration Activity- Group presentation by Group 7 Conventional energy resources: Petroleum, natural gas, electricity. Group 8Non Conventional energy resources :solar, wind , nuclear, geo thermal , tidal ,bio gas. and compilation will be done teacher.. The following questions will be asked to check their understanding: Name the oldest oil-producing state in India. Describe the major oil-producing state in India. Define tidal and geo thermal energy . Map activit : Students will locate mineral deposits, nuclear and thermal power plants on political map of India. Closure- Summarization by students with the help of flow chart
Resources	Text Book: NCERT text book
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral Test (5 minutes)