

CLASS – VI
LESSON PLAN
CHAPTER-12: ELECTRICITY AND CIRCUITS

Unit	CHAPTER-12 ELECTRICITY AND CIRCUITS
Class Transaction	Total: 5 periods (approx. 40 min each)
Pre-requisite for the course	The teacher will refer to the prior knowledge. 1. What is Electricity? 2. What are the uses of Electricity? 3. Where does Electricity come from? (The class will be divided into smaller groups. Each group having 5 members.)
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Subject enrichment Students would be able to, thereby inculcating competencies like collaboration, critical thinking and creativity
Learning Outcomes	KNOWLEDGE: Students will be able to – • List the uses of electricity • Using different arrangements of cell, wire and bulb and show how an electric current is produced • Explain the construction and working of a) Electric bell b) Electric bulb c) Electric torch • Compare conductor & insulator SKILLS and COMPETENCIES 1) Critical thinking and problem solving (working effectively with others), 2) Character building (Taking tasks fearlessly and achieves goals.) 3) Communication (evaluating the information critically and competently. 4) Collaboration (responding open mindedly to different ideas) 5) Creativity (developing ,implementing and communicating new ideas)
Transaction ,Methodology (The teacher can use the mentioned techniques, wherever applicable ,and can use any other too.)	Strategies used- Inductive -deductive reasoning, muddiest point discussion, think pair share. Dimensions Of Learning- D4 (E-I Investigation) D3 (Compare) Transaction would proceed in the following manner-

	Brain Storming-The class would start with a discussion on what the students have already learned 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. Introduction of the topic- ppt and Digital Content would be shared Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. Techniques to be used: Quiz Daily Practice Problem MCQ Peer Assessment Lab Activities Any Other												
Resources	Text Book: NCERT text book for Science												
Self Study,Home work Assignments	Independent Practice: Students would do the given questions and diagrams in their notebooks. 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	Through Pen Paper Test Students will be assessed creatively and critically <table> <tr> <td>4 UNIT TESTS</td> <td>25 Marks each</td> </tr> <tr> <td>HALF YEARLY EXAMINATION</td> <td>80 Marks</td> </tr> <tr> <td>ANNUAL EXAMINATION</td> <td>80 Marks</td> </tr> <tr> <td>INTERNAL ASSESSMENT</td> <td>10 Marks</td> </tr> <tr> <td>• Note Book Submission</td> <td>5 Marks</td> </tr> <tr> <td>• Lab Practical (Subject Enrichment)</td> <td>5 Marks</td> </tr> </table> Through lab Practical Students are assessed for Collaboration, Critical thinking.	4 UNIT TESTS	25 Marks each	HALF YEARLY EXAMINATION	80 Marks	ANNUAL EXAMINATION	80 Marks	INTERNAL ASSESSMENT	10 Marks	• Note Book Submission	5 Marks	• Lab Practical (Subject Enrichment)	5 Marks
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	Due to various social backgrounds and multiple intelligence, the classroom might be a diverse arena. The following techniques can be												

Addressing Classroom Diversity	used for various groups: <i>For gifted students:</i> • High order thinking skills questions to be done • Encouragement for referring other resources <i>For weak students:</i> • Short answers 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 • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.

	After explaining the concept , the students would be assessed by asking the following questions:
Q1	Why electric wires at home are covered with plastic?
Q2	Why are the electric wires made out of copper or aluminium though silver is a better conductor of electricity?
Q3	What is the purpose of using an electric switch? Name some electrical gadgets that have switches built into them.
Q4	Why should one not experiment with sockets and wires?
Q5	Why should you not directly join the two terminals of a cell?

TOPIC	DAY ONE :
Pre- Requisite for the course	The students will require the basic knowledge of electric cell.
Assessment of qualifying knowledge	Students will discuss about the various uses of electricity.
Objective	The students will know about electric cell and its uses.
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and understand: ● Electric cell <u>SKILLS and COMPETENCIES</u>- Students will be able to: ● Collaboratively discuss about the uses of electricity in daily life. ● Critically analyse about electric cell.

Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1, D2 Transaction would proceed in the following manner- Anticipatory Set: 10 min The facilitator initiates a conversation with the learner by asking them about the day to day uses of electricity. After the conversation different uses will be listed on the board. The facilitator will now discuss about the electric cell and its positive and negative terminals. Discussion of topic and Guided Practice 20 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) The students will attempt the questions from the textbook. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will go through the activities in 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 for Science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Oral Test (5 minutes)
TOPIC	DAY TWO
Pre- Requisite for the course	The students will require the basic knowledge of electric bulb.
Assessment of qualifying knowledge	Questions from the previous class about the related topic would be asked for the whole class group.
Objective	The students will know about electric bulb.
Learning Outcomes	<u>KNOWLEDGE</u> - Students will know and understand about: ● Electric bulb. <u>SKILLS and COMPETENCIES</u> - Students will be able to: ● Collaboratively discuss about the uses of electric bulb in daily life. ● Critically analyse electric bulb.
Transaction Methodology (The teacher can use	Strategies used- Think pair share. Dimensions Of Learning- D1, D2 Transaction would proceed in the following manner-

the mentioned techniques, wherever applicable, and can use any other too.)	Anticipatory Set: 10 min The facilitator initiates a conversation with the learner by asking them about the day to day uses of electric bulb. And also the importance of filament would be discussed. The facilitator will explain about how the bulb will light up when connected to an electric cell. Discussion of topic and Guided Practice 20 min <u>Inquiry based learning</u> (Critical Thinking and Problem Solving) The students will attempt the questions from the textbook. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will go through the activities in 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 for Science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
TOPIC	DAY THREE
Pre- Requisite for the course	This topic requires knowledge of electric switch.
Assessment of qualifying knowledge	Knowledge testing by asking students to write the factors responsible for a bulb to fuse.
Objective	The students will be able to know about electric switch and its working.
Learning Outcomes	<u>KNOWLEDGE</u>- The students will be able to know about electric switch, electric circuit, movement of current. <u>SKILLS and COMPETENCIES</u>- Critically analyse the role and significance of electric switch.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Dimensions Of Learning- D1,D2 Transaction would proceed in the following manner- Recapitulation: 5 min Brainstorming on the previously taught concept would be done by asking some Questions like: Q.1 Which is the filament?

	Q.2 What are the two terminals of the bulb and how are they found? Q3. What provides support to the filament? Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking, Collaboration) The facilitator initiates a conversation with the learner by asking them about the electric circuit. The facilitator will explain about the direction of current in the electric circuit. The facilitator will also discuss about the reason behind the bulb getting fused. The facilitator will now explain about the role and significance of electric switch. Guided practice: <u>15 min</u> The students, with the help of the facilitator, will solve the questions in their notebook in the class. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the question and answers in the notebook. Students who would have difficulty in answering the questions would solve with the help of their buddies. Closure: <u>5 min</u> A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.

TOPIC	DAY FOUR
Pre- Requisite for the course	This topic requires basic knowledge of conductors and insulators.
Assessment of qualifying knowledge	Knowledge testing by asking students to write examples of conductors and insulators.
Objective	The students will be able to know about conductors and insulators and their uses.
Learning Outcomes	<u>KNOWLEDGE</u>- The students will be able to know about conductors and insulators. <u>SKILLS and COMPETENCIES</u>- Critically analyse the role and significance of conductors and insulators.
Transaction Methodology (The teacher can use)	Strategies used- Think pair share. Dimensions Of Learning- D1,D2 The facilitator initiates a conversation asking about conductors and

the mentioned techniques, wherever applicable, and can use any other too.)	insulators. After the conversation the facilitator will classify different materials as conductors or insulators and also explain their uses. She will use digital content and explain the topic. By drawing diagrams and tables. It will be followed by explanation and reading of the chapter . Recapitulation: <u>5 min</u> Oral test on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking) Activities would be discussed and students would solve different questions per group and then the questions would be crosschecked. Digital content would be used. The facilitator would take rounds and help students with their doubts. Guided Practice: <u>15 min</u> The students will answer the questions from the textbook in their notebook in the class with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the diagrams and revise the answers done in the notebook. A short oral test would be taken to check proper assimilation of the topic discussed. DAY-5 A quick revision would take place by using an active learning strategy: NUMBERED HEADS TOGETHER- In this activity the students work in groups. Each group has a number and each participant in each group has a number. The facilitator draws a group number and a participant number to respond to the question. This ensures that everyone in the group is paying attention and that the group prepares everyone to answer the questions. She will use digital content and explain the topic. By drawing diagrams and tables. It will be followed by explanation and reading of the chapter .
Resources	Text Book: NCERT text book for science
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their notebooks.
Assessments	Written test (5 minutes)