

CLASS – VII
LESSON PLAN
Ch 14 Electric current and Its Effects

Unit	Physics (Chapter 14 Electric Current and Its Effects)
Class Transaction	Total: 12 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. Group Discussion 4. HW notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to apply heating and magnetic effect of electric current in real life. They would be able to understand application of electric current with 90% accuracy.
	DoL- D1, D2, D3, D4
Learning Outcomes	<u>KNOWLEDGE-</u> Students will know and understand • Students will be able to draw symbols of electric components. . • Students will be able to construct electric circuit using various components from real life. • Students will be able to compare and contrast two effects of electric current. • Students will be able to interpret working of electric fuse. • Students will be able to experiment magnetic effect of electric current. • Students will be able to apply magnetic effect of electric current in real life. <u>SKILLS AND COMPETENCIES-</u> Students would be able to • Critically analyze two effects of electric current a) Heating effect of electric current b) magnetic effect of electric current. • Appreciate importance of magnetic effect of electric current Collaboratively. • Collaborate in groups and experiment how current flows in an electric circuit.. • Design Creative methods to construct electromagnet. • Built Character amongst themselves by discussing importance of electricity.

	Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic. <u>ATTITUDES AND BELIEFS</u> – Students will be able to Develop citizenship by visualizing and observing day to day phenomena and present it in form of a skit to sensitize others.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active Learning- <i>Frayer Model</i> on Electric Current (Critical Thinking) Group Learning- The class will be divided into eight groups. <i>Jigsaw</i> Expert Group: The group will be given worksheet the two effects of electric current. Learning Group: Students will teach each other the heating effect of electric current and magnetic effect of electric current.. (Communication, Collaboration) Differentiation- The students in groups of 8 will be demonstrating the magnetic effect of electric current. (Character, Communication) Questioning- Multiple level questions- Teacher will prepare a list of question about electric current and its effects and will ask these questions after discussion. (Critical Thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared. Facilitation of content The facilitator will enable the learners to understand the fundamental concept of Heat. He/ She will compare and contrast different modes of transfer of heat. Approaches The facilitator should apply some or all the approaches while administering the teaching learning process. • Didactic Approach • Summarizing Approach • Feedback Approach Techniques to be used: • Quiz

	• MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table,compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice- NCERT questions to be discussed in the classroom.</i>
Resources	Text Book: NCERT text book Reference Books CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content(critical thinking and creativity).....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 TESTS25 Mark each=100 Marks HALF YEARLY EXAMINATION80+20 (internal)=100 Marks ANNUAL EXAMINATION 80+20(internal)=100 Marks By administering pen paper test, we assess creativity and critical thinking. INTERNAL ASSESSMENT20 Marks in each Term • Subject Enrichment Activity 10 Marks

	With the help of subject enrichment activities we assess communication, collaboration, character building and citizenship (Demonstration and implementation of on force and pressure in our daily life). The students in a group of 5 will be demonstrating the activity. Note Book Submission 10 Marks
Addressing Classroom Diversity	It's a different classroom today: As the kids are from different socio-economic background, So are their needs, demands and aspirations. Today all kinds of students including the gifted, the average and the differently able are mainstreamed into one class. So the teaching learning process must be devised in such that can cater to the needs and aspirations of students of abilities . The following techniques can be used for different groups: <i>For the gifted:</i> - Preparing a debate - Making PPT - Designing an exhibit - Writing a report - Preparing a talk - Encouragement for referring other resources <i>For the average/slow learners:</i> - Making a Chart/diagram/poster/ flashcards - Buddy system help to be provided - Provide grade-up classes <i>For differently able:</i> - Ignore grammatical inaccuracy - Call parents at regular intervals - Provide grade-up classes
Marks	The weight age would be given by CBSE.
	Q1. Name some devices which work on heating effect of electric current and magnetic effect of electric current. Q2. Why Electric fuse should not be replaced by a thick wire. Q3. Differentiate between an open and a closed circuit Q4. How can a soft iron piece be transformed into an electromagnet? Q5. Zubeda made an electric circuit using a cell holder, a switch and a bulb. When she put the switch in the 'ON' position, the bulb did not glow. Help Zubeda in identifying the possible defects in the circuit. Q6. What are the advantages of electromagnet over permanent magnet?

Unit	Day 1 (Symbols of electric components)
Class Transaction	Approx 40 min
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI. 3.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to draw electric components with 90% accuracy .
DOL	D1, D2,D3
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand</i> Students will be able to • Recall Electric current. • Draw symbols of electric components. • Classify electric components. Students' responses will be listed on the blackboard by using the KWL chart KWL- <i>What you Know, What you will Learn, What you have learned.</i> <i>Students will be able to</i> Identify hot or cold objects through an activity (20 Minutes) • Students will be divided into two groups to identify different electric components and draw symbols . <u>SKILLS AND COMPETENCIES</u>- <i>Students would be able to</i> • Critically analyse electric components. • Appreciate the importance electrical energy in Collaboration • Built character amongst themselves by discussing communicating in <i>understanding the battery and electric cell.</i> Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic. Attitudes and beliefs- <i>Students will be able to</i> • Develop citizenship by identifying electric components in groups.
Transaction Methodology (The teacher can	Transaction would proceed in the following manner- Active learning- <i>Identifying different electric components used for making electric circuit and drawing appropriate symbols for them.</i> (Critical thinking)

use the mentioned techniques, wherever applicable, and can use any other too.)	Questioning- <i>Multiple level question</i>- Teacher will prepare a list of questions based on the activity and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book Reference Books CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W notebooks as mentioned in the monthly planner by which we can assess their critical thinking and creativity 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(creativity).....1 mark Content(critical thinking and

	creativity)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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Topic	Day 2 (Electric Circuit)
Class Transaction	40 min each
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to draw conclusion for the flow of electric current in electric circuit with 90% accuracy.
	DOL - D1, D2, D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Define electric circuit. • Construct electric circuit using various components from daily life. • Compare and contrast open circuit and closed circuit. • Identify conductors insulators with help of electric circuit. <u>Skills & Competencies-</u> Students would be able to • Critically analyse electric circuit. • In Collaboration they will identify current flow in electric circuit. • Built character amongst themselves by discussing /communicating in <i>understanding current flow</i>. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can	Transaction would proceed in the following manner- Active learning- <i>Activity 14.1</i> – Make an electric circuit shown in fig 4.7. Identify when the bulb glows. Record your observations (Critical thinking)

use the mentioned techniques, wherever applicable, and can use any other too.)	Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about two effects of electric current. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book Reference Books CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark

	Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic

Unit	Day 3 (Heating effect of electric current)
Class Transaction	40 min
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to apply heating effect of electric current in real life. They would be able to understand application of electric current with 90% accuracy
	DOL - D1, D2,D3,D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Explain heating effect of electric current • Illustrate with examples various appliances that works on heating effect of electric current. • Examine effect of electric current <u>Skills & Competencies-</u> Students would be able to • Critically analyse heating effect of electric current. • In Collaboration they will be able to examine heat generated by electric current. • Built character amongst themselves by discussing /communicating in <i>understanding use of effect of electric current.</i> Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology	Transaction would proceed in the following manner- Active learning- <i>CAF(consider all factors)</i> on resultant force. (Critical

(The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	thinking) Differentiation- The students in a group of 10 will be demonstrating the effect of electric current. (Character, Citizenship) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about heat generated in wire. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom
Resources	Text Book: NCERT text book Reference Books CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics

	On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day4 (Examples of Heating Effect of Electric Current)
Class Transaction	approx. 40 min each
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to illustrate with examples heating effect of electric current with 90% accuracy.
	DOL -D1, D2,D3,D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Illustrate with examples heating effect of electric current. • Explain heat generated in wire and appliances <u>Skills & Competencies-</u> Students would be able to • Critically analyse heat generated in electric heater , toaster. • In Collaboration they will be able to make circuit using nichrome wire to understand heating effect of electric current. • Built character amongst themselves by discussing /communicating in <i>understanding heating effect</i>. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can	Transaction would proceed in the following manner- Active learning- The class will be divided in eight groups. <i>JIGSAW</i> – Expert Group: The group will be given worksheet by the teacher for

use the mentioned techniques, wherever applicable, and can use any other too.)	identify appliances working on heating effect of electric current. Learning Group: Students will teach each other effect of electric current. (Communication, Collaboration) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question on the topic and will ask these questions during discussions. (Critical thinking, Communication) <i>Brain Storming</i>-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>Introduction of the topic</i>- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W notebooks as mentioned in the monthly planner. 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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 5 (Heating element)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to interpret heating element of various appliances with 90% accuracy.
	DOL - D1, D2,D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • List the heating element in the electrical appliances. • Explain working of heating element. • Construct heating element for electrical appliances. <u>Skills & Competencies-</u> Students would be able to • Critically analyse heating element in immersion heaters.. • In Collaboration they will be able to conclude heat is generated due to heating element in appliances. • Built character amongst themselves by discussing /communicating in <i>understanding heating element</i>. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can	Transaction would proceed in the following manner- Active learning- . The class will be divided in smaller groups of two students each.THINK PAIR SHARE –

use the mentioned techniques, wherever applicable, and can use any other too.)	: The group will be given worksheet by the teacher citing examples of electric element in appliances. Peer Learning: Students will teach each other by identifying heating element and its working. Facilitator will help in problem solving and doubt clarification. (Communication, Collaboration) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities Guided practice to be followed by Independent Practice- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark

	Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 6 (Electric Fuse)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	. This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to construct electric fuse. They would be able to cite examples of electric fuse with 90% accuracy.
	DOL - D1,D2,D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Define electric fuse. • Examine working of electric fuse. • Construct electric fuse. <u>Skills & Competencies-</u> Students would be able to • Critically analyse working of electric fuse. • In Collaboration they will be differentiate MCB(Miniature Circuit Breaker and electric Fuse) • Built character amongst themselves by discussing /communicating in understanding electric fuse. <i>Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic</i>
Transaction Methodology (The teacher can	Transaction would proceed in the following manner- Active learning- Activity 14.4 -Make the circuit. Replace the cell with a

use the mentioned techniques, wherever applicable, and can use any other too.)	battery of four cells. Also, in place of the nichrome wire, tie a thin strand of steel wool. If there are any fans in the room, switch them off. Now pass the current through the circuit for sometime. Observe the strand of steel wool carefully. Note what happens. (Critical thinking) Differentiation- The students in a group of 10 will explain working of electric fuse. (Character, Citizenship) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about electric fuse and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity

	HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 7 (MCB Miniature circuit Breker)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to construct MCB. They would be able to interpret working of MCB with 90% accuracy.
	DOI - D1, D2,D3,D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Define MCB (Miniature circuit Breaker) • Explain working of MCB • State applications of MCB • Construct MCB <u>Skills & Competencies-</u> Students would be able to • Critically analyse construction of MCB. • In Collaboration they will be able to conclude that MCB is more effective than an electric fuse.

	• Built character amongst themselves by discussing /communicating in <i>understanding application of heating effect of electric current</i>. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- <i>5 Why's for gathering information which help in deeper understanding of topic.</i> (Critical thinking) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about MCB will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity

	HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 8 (Magnetic Effect of Electric Current)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to apply magnetic effect of electric current in real life. They would be able to understand application of electric current with 90% accuracy
	DOL - D1, D2,D3,D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Compare and contrast between heating effect and magnetic effect f electric current. • Explain magnetic effect of electric current • Illustrate with examples various appliances that works on magnetic effect of electric current. • Examine effect of magnetic current <u>Skills & Competencies-</u> Students would be able to • Critically analyse characteristics about magnetic effect of electric current.

	• In Collaboration they will be able to compare and contrast land heating and magnetic effect of electric current. • Built character amongst themselves by discussing /communicating in understanding effect of electric current. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- 5 Why's for gathering information which help in deeper understanding of topic (Critical thinking) Questioning- Multiple level question- Teacher will prepare a list of question effects of electric current and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities Guided practice to be followed by Independent Practice- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study,	Independent Practice: Students would do the questions in their H.W note

Home Work, Assignments	books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 9 (Examples of Magnetic Effect of electric current)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able cite examples of magnetic effect of electric current with 90% accuracy.
	DOL -D1,2,3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Illustrate with examples magnetic effect of electric current. • Explain magnetism in wire and appliances due to electric current <u>Skills & Competencies-</u> Students would be able to • Critically analyse magnetic effect of electric current.. • In Collaboration they will be able to make circuit using nichrome and nails wire to understand magnetic effect of electric current.

	• Built character amongst themselves by discussing /communicating in <i>understanding magnetic effect</i>. Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- 5 <i>Why's for gathering information which help in deeper understanding of topic</i>. (Critical thinking) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about magnetic effect of electric current and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study,	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their

Home Work, Assignments	critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 10 (Electromagnet)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to construct electromagnet. They would be able to apply the concept in real life with 90% accuracy.
	DOL -D1,2,3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Explain mechanism electromagnet. • Discuss working of electromagnet • Construct electromagnet <u>Skills & Competencies-</u> Students would be able to • Critically analyse working of electromagnet. • In Collaboration they will be able to interpret electromagnet and

	its applications. • <i>Built character amongst themselves by discussing /communicating in understanding permanent magnet and temporary magnet.</i> Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- 5 Why's for gathering information which help in deeper understanding of topic. (Critical thinking) Questioning- Multiple level question- Teacher will prepare a list of question about electromagnets and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book: NCERT text book for Science. Reference Book CBSE Exemplar
Self Study,	Independent Practice: Students would do the questions in their H.W note

Home Work, Assignments	books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.

Unit	Day 11 (Electric Bell)
Class Transaction	(approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge Electric Current 2. Basic knowledge of terms Electric Current, Electric components which students had already learnt in class VI.
Assessment of qualifying knowledge	Written test Group Discussion Lab activity HW Notebook
Objective	Given the content (chapter) the learners will be able to compare and contrast two effects of electric current. Students will be able to construct electric bell with 90 %accuracy.
	DOL -D1,2,3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Students will be able to • Define electric bell • Judge conservation of electrical energy. • Construct electric bell. • Compare and contrast heating effect and magnetic effect of electric current.. <u>Skills & Competencies-</u> Students would be able to • Critically analyse working of electric bell. • In Collaboration they will be able to interpret electric bell and its

	applications. • <i>Built character amongst themselves by discussing /communicating in understanding electric bell.</i> Answer knowledge, understanding, application and diagrammatic skill based questions based on the topic.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Active learning- The class will be divided in smaller groups of two students each. THINK PAIR SHARE – : The group will be given worksheet by the teacher on electric bell and its applications Peer Learning: Students will teach each other by explaining working and construction of electric bell. Facilitator will help in problem solving and doubt clarification. (Communication, Collaboration) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about electric bell and will ask these questions during discussions. (Critical thinking, Communication) 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. Introduction of the topic- PPT and Digital Content would be shared Techniques to be used: • Quiz • MCQ • PPT • Computer aided simulation/3D pictures • Skit/Role playing • Group discussion • HOTS questions • Peer Assessment • Student -teacher interaction, Wipro- G.O.s(web chart, flow chart and differentiation table, compare- contrast matrix), silent/ loud reading, collaborative learning, • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
Resources	Text Book:

	NCERT text book for Science. Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the questions in their H.W note books as mentioned in the monthly planner by which we can assess their critical thinking and creativity HW notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 Rubrics On time submission.....1 mark Presentation/ Neatness.....1 mark Content (critical thinking and creativity).....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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.