

CLASS – VIII
LESSON PLAN
CHAPTER- LIGHT

Unit	Physics (Chapter Light)
Class Transaction	Total periods required:6 (approx. 40 min each)
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to describe the characteristics of light and its reflection also different parts of the human eye and their function and list them in their notebook with 90% accuracy
	DOL- D1, D2, D3, D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> To verify laws of reflection. To compare regular and diffused reflection. To describe formation of multiple images. Describe the structure of human eye <u>Skills & Competencies-</u> Students would be able to Critically analyse the laws of reflection. - Appreciate the importance of light. Collaboratively - Design Creative methods to bring a positive change in the life style by using multiple reflection. Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- <i>Consider all factors</i> on light. (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin-</i> A problem will be posed by the teacher to which there are multiple

Facilitation	solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 10 will be demonstrating the effect of light (Character, Citizenship) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of sound He will be able to define frequency, amplitude, etc. Approaches The facilitator should apply some or all of 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 • 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.
Assessments	4 UNIT TESTS25 Mark each=100 Marks HALF YEARLY EXAMINATION 80+20 (internal)=100 Marks ANNUAL EXAMINATION 80+20(internal)=100 Marks By administering pen paper test, we assess creativity and critical thinking. INTERNAL ASSESSMENT 20 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 weightage would be given by CBSE.
	Q 1 How does the eye lens differ from ordinary convex lens made of glass? Q 2 Explain why, we cannot see our surroundings clearly when we enter a darkened cinema hall from bright sunshine, but our vision improves after some time. Q 3 A person is able to see objects clearly only when these are lying at distances between 50 cm and 300 cm from his eye. What kind of lenses will be required to increase his range of vision from 25 cm to infinity? Q 4 How does the eye adjust itself to deal with light of varying intensity? Q 5 How do we see moving pictures?

Unit	Day 1 (Laws of reflection)
Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook

Objectives	Given the content (chapter) the learners will be able to describe the characteristics of light and its reflection in their notebook with 90% accuracy
	DOL- D1, D2, D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> To verify laws of reflection. <u>Skills & Competencies-</u> Students would be able to Critically analyse the laws of reflection. Appreciate the importance of light. Collaboratively Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- <i>Consider all factors</i> on light. (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin-</i> A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the reflection of light (Critical thinking) Questioning- Multiple <i>level question-</i> Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of sound He will be able to define frequency, amplitude, etc. Approaches The facilitator should apply some or all of 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 • 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.
Closure	Involving students in summarizing by asking them to prepare questions based on the topic.
Unit	Day 2 (Regular and diffused reflection)

Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to differentiate between regular and diffused reflection with 90% accuracy
	DOL- D1, D2, D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> To compare regular and diffused reflection. <u>Skills & Competencies-</u> Students would be able to Critically analyse the regular and diffused reflection. Appreciate the importance of light. Collaboratively Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- CAF (<i>Consider all factors</i> on light). (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin-</i> A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the reflection of light (Critical thinking) Questioning- Multiple <i>level question-</i> Teacher will prepare a list of question about the contact and non-contact force 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.

	<i>Introduction of the topic-</i> PPT and Digital Content would be shared Facilitation of content The facilitator will enable the learners to understand the fundamental concept of sound He will be able to define frequency, amplitude, etc. Approaches The facilitator should apply some or all of 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 • 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 (Multiple reflection)
Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to describe the characteristics of light and its multiple reflection. and list them in their notebook with 90% accuracy.
	DOL- D3, D4
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> To describe formation of multiple images. <u>Skills & Competencies-</u> Students would be able to Critically analyse the no. of images formed in multiple reflection. Appreciate the importance of light. Collaboratively Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- CAF (<i>Consider all factors</i> on light). (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin-</i> A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the

	reflection of light (Critical thinking) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of sound He will be able to define frequency, amplitude, etc. Approaches The facilitator should apply some or all of 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 • 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,	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

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 4 (Human eye- parts and its function.)
Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to describe the different parts of the human eye and their function in their notebook with 90% accuracy
	DOL- D1, D2, D3
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Describe the structure of human eye. <u>Skills & Competencies-</u> Students would be able to Critically analyse the structure of human eye. Appreciate the importance of light. Collaboratively Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others

Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- CAF (<i>Consider all factors</i> on light). (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin</i>- A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the reflection of light (Critical thinking) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of light Approaches The facilitator should apply some or all of 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 • Lab Activities <i>Guided practice to be followed by Independent Practice</i>- NCERT questions to be discussed in the classroom.
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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 5 (care of human eye)
Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to explain the care of the human eye with 90% accuracy
	DOL- D1, D2
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Explain the care for human eye. <u>Skills & Competencies-</u> Students would be able to Appreciate the importance of eye and its care. Collaboratively Built

	character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- CAF (<i>Consider all factors</i> on light). (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin</i>- A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the reflection of light (Critical thinking) Questioning- Multiple <i>level question</i>- Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of light. Approaches The facilitator should apply some or all of 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 • 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 6 (Braille system)
Class Transaction	approx. 40 min
Pre-requisite for the course	This lesson requires Basic knowledge of rectilinear propagation of light. Basic knowledge of luminous and non-luminous objects which students had already learnt in class VI, VII
Assessment of qualifying knowledge	Written test Group Discussion Quiz HW Notebook
Objectives	Given the content (chapter) the learners will be able to explain the care of

	the human eye and braille system with 90% accuracy
	DOL- D1, D2
Learning Outcomes	<u>Knowledge-</u> <i>Students will know and understand</i> Explain the braille system. <u>Skills & Competencies-</u> Students would be able to Appreciate the importance of eye for visually challenged persons. Collaboratively Built character amongst themselves by discussing /communicating the importance of light in their daily life. 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 visualizing and observing day to day phenomena and present it in form of a skit to sensitize others
Transaction Methodology (Approaches, Strategies, Tools and Techniques)	Transaction would proceed in the following manner- Active learning- CAF (<i>Consider all factors</i> on light). (Critical thinking) Group learning- The class will be divided in the group of 5 students. <i>Rally robin-</i> A problem will be posed by the teacher to which there are multiple solution. In pair students take turn stating response or solution about light. (Communication, Collaboration) Differentiation- The students in a group of 5 will be demonstrating the reflection of light (Critical thinking) Questioning- Multiple <i>level question-</i> Teacher will prepare a list of question about the contact and non-contact force 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 Facilitation of content The facilitator will enable the learners to understand the fundamental concept of light. Approaches The facilitator should apply some or all of 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 • 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.