



# Delhi Public School Srinagar

## LESSON PLAN

### Session 2015-2016

<b>Class</b>	: X
<b>Subject</b>	: Physics
For the Month(s) of	: August
<b>Theme</b>	: <i>Light and Reflection of light</i>
<b>Periods</b>	: <i>Theory (10) and Practical (3)</i>

#### OBJECTIVES (CONCEPTS & SKILLS:) :

- *Basic concept of light and its properties*
- *Concept of concept of reflection of light and laws of reflection of light.*
- *Concept of mirrors-plane mirror, concave mirror and convex mirror and related terms*
- *Textbook Numerical problems related to the topic.*

*The teacher will keep the following skills in view:*

- *Scientific Aptitude*
- *Thinking skills*
- *Reasoning Skills*
- *Attentiveness*
- *Listening Skills)*

#### LEARNING OUTCOMES :

- *Make it sure that the student learns the concepts given.*
- *The brief idea properties of light.*
- *Reflection of light and the two laws of reflection of light.*
- *Plane mirror and the characteristics of image formed by a plane mirror.*
- *Difference between concave mirror and convex mirror.*
- *Terms related to mirrors like pole, Principal focus, focal length,etc.*

**INSTRUCTIONAL TOOLS & REFERENCES** : *In addition to general teaching tools like white board, marker, etc, the teacher will use plane mirror, concave mirror, convex mirror, screen, optical bench.*

*The References used will be :*

- Conceptual Physics by Paul Hewit*
- Science and Technology Text Book for class X.*

#### PEDAGOGY: :

- Activating Prior Knowledge by Random Questioning*
- Introducing the topic to be taught after getting the expected response from the students.*
- Developing hypothesis by (a) Brainstorming, (b) Lecture , (c) Discussion and (d) In Text Questions*

**ACTIVITY/ASSIGNMENT/PROJECTS** : *The teacher will give Home Assignments and the areas of assessment will be:*

*Content of Knowledge, Presentation, Correctness, Time Management and Thinking skills*

**ASSESSMENT:**

- i. Divide the students in the class in four groups and ask them to tabulate at least three examples of reflection of light in our daily life.*
- ii. Remind the students about the various types of mirrors and ask them to give one use of each of them other than the uses discussed in the class.*
- iii. Group Discussion*
- iv. In Text Questions*

**FA<sub>3</sub> & SA<sub>2</sub> SYLLABUS** :

FA Syllabus:

- *Basic concept of light and its properties*
- *Reflection of light and laws of reflection of light.*
- *Concept of mirrors-plane mirror, concave mirror and convex mirror and related terms.*
- *Textbook Numerical problems related to the topic.*

**SA Syllabus:** Same as FA



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## LESSON PLAN

### Session 2015-2016

<b>Class</b>	: X
<b>Subject</b>	: Physics
For the Month(s) of	: September
<b>Theme</b>	: <i>Image Formation by Spherical Mirrors and Ray diagrams.</i>
<b>Periods</b>	: <i>Theory (12) and Practical (3)</i>

#### OBJECTIVES (CONCEPTS & SKILLS):

- *Basic concept of Rules for drawing Ray Diagrams*
- *Concept of concept of Ray Diagrams of Concave Mirror.*
- *Concept of concept of Ray Diagrams of Convex Mirror*
- *Concept of Magnification.*
- *Mirror Formula*
- *Textbook Numerical problems related to the topic.*

*The teacher will keep the following skills in view:*

- *Scientific Aptitude*
- *Thinking skills*
- *Reasoning Skills*
- *Attentiveness*
- *Listening Skills*
- *Drawing Skills*

#### LEARNING OUTCOMES :

- *Make it sure that the student learns the concepts given.*
- *To know the Rules for drawing Ray Diagrams*
- *How to draw Ray Diagrams of Concave Mirror.*
- *How to draw Ray Diagrams of Convex Mirror.*
- *To know the uses of Mirrors*
- *Magnification of spherical Mirror*
- *Mirror Formula and its application in Numericals*

INSTRUCTIONAL TOOLS & REFERENCES : *In addition to general teaching tools like white board, marker, etc, the teacher will use plane mirror, concave mirror, convex mirror, screen, optical bench, Ray diagram Charts.*

*The References used will be : Conceptual Physics by Paul Hewit & Science and Technology Text Book for class X.*

#### PEDAGOGY :

- i. *Activating Prior Knowledge by Random Questioning*
- ii. *Introducing the topic to be taught after getting the expected response from the students.*

iii. *Developing hypothesis by (a) Brainstorming, (b) Lecture , (c) Discussion and (d) In Text Questions*

**ACTIVITY/ASSIGNMENT/PROJECTS** : *The teacher will give Home Assignments and the areas of assessment will be:*

*Content of Knowledge, Presentation, Correctness, Time Management, Drawing Skills and Thinking skills*

**ASSESSMENT:**

- i. *Ask the students to give examples of optical devices that works on the reflection of light.*
- ii. *In Text Questions*
- iii. *Group Discussion*

**FA<sub>3</sub> & SA<sub>2</sub> SYLLABUS** :

FA Syllabus:

- *Ray Diagrams of Concave Mirror and Convex Mirror*
- *Magnification.*
- *Mirror Formula*
- *Numerical problems related to the topic.*

**SA Syllabus:** Same as FA