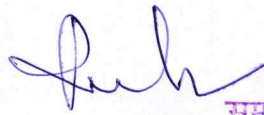


# Nature of internee engagement during internship



**Regional Institute of Education**  
(National Council of Educational Research and Training)  
**Bhubaneswar -751022, Odisha**



समन्वयक  
**Coordinator**  
आंतरिक गुणवत्ता आश्वासन प्रकोष्ठ  
**Internal Quality Assurance Cell**  
क्षेत्रीय शिक्षा संस्थान, भुवनेश्वर  
**Regional Institute of Education, Bhubaneswar**

① Lesson Plan

# LESSON PLAN

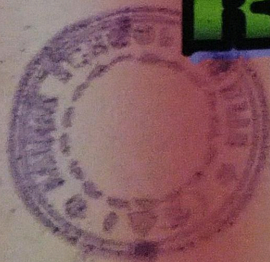


REGIONAL INSTITUTE OF EDUCATION  
(NATIONAL COUNCIL OF EDUCATIONAL  
RESEARCH AND TRAINING) BHUBANESWAR

B.SC B.ED 7<sup>TH</sup> SEMESTER  
PHYSICS HONOURS

NAME. SAGNIKA  
CHAKRABORTY

ROLL NO. — 37



*[Signature]*  
Principal (offr)

Counter Signature by the Head of the School with seal

*Sagnika Chakraborty*

Signature of the Student Teacher

DATE → 6<sup>th</sup> October, 2020

CLASS → VI

TIME → 10:35 a.m. - 11:15 a.m.

PERIOD → 4<sup>th</sup>

UNIT → LIGHT: SHADOWS AND REFLECTION

SUBJECT → SCIENCE

TOPIC → Light travels in straight line

## MAJOR CONCEPTS

- Pinhole camera (image formation)
- Straight path of light

## LEARNING OBJECTIVES

Students will be able to

- observe the straight path of light
- learn the basic of camera.

Completed  
By  
17/10/20

~~Path~~  
of light

17.3.2

M. D. Ashwini  
17.3.20

## PREVIOUS KNOWLEDGE

- Luminous Objects
- Opaque
- Translucent objects
- Transparent objects

## LEARNING RESOURCES

- Slide Presentation
- Video
- Candle
- Pipe
- Boxes
- Translucent Paper

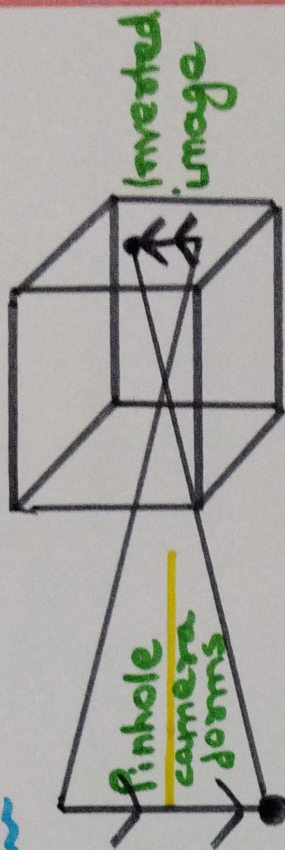
## LEARNING METHOD

- Activity based
- Observation

PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESSES/ACTIVITIES	CONTINUOUS ASSESSMENT
<p><b>ENGAGE</b></p>	<p>Teacher asks concepts of previous class :-</p> <p>(i) what are luminous objects?</p> <p>(ii) what are opaque objects?</p> <p>(iii) why is shadow formed?</p> <p>(iv) what are the basics of shadow formation?</p>	<p>Student answers following questions:-</p> <p>i) objects that emit light</p> <p>ii) objects that doesn't allow to pass light</p> <p>iii) light is blocked by opaque objects.</p> <p>iv) light, screen, opaque objects.</p>	<p>Previous knowledge is assessed by asking questions orally.</p>
<p><b>EXPLORE</b></p>	<p>Teacher shows video and ask to perform activities.</p>	<p>Student perform activities.</p>	<p>Hand skills are assessed.</p>

PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESSES/ ACTIVITIES	CONTINUOUS ASSESSMENT
<b>EXPLAIN</b>	<p>Teacher asks observation of activities and explains light travels along a straight line. So, when opaque object obstructs it, shadow is formed.</p>	<p>Students understand concept behind observations of the activities.</p>	
<b>ELABORATE</b>	<p>Teacher shows image of sun under tree and explains that this nature's pin hole and explains that eclipse can be observed using a bigger pinhole camera.</p>	<p>Student relate the nature's pinhole camera.</p>	
<b>EVALUATE</b>	<p>Teacher ask to recapitulate luminous / non-luminous, transparent / translucent / opaque.</p>	<p>Students recap the concepts.</p>	<p>Assessment by recapitulation of concepts.</p>

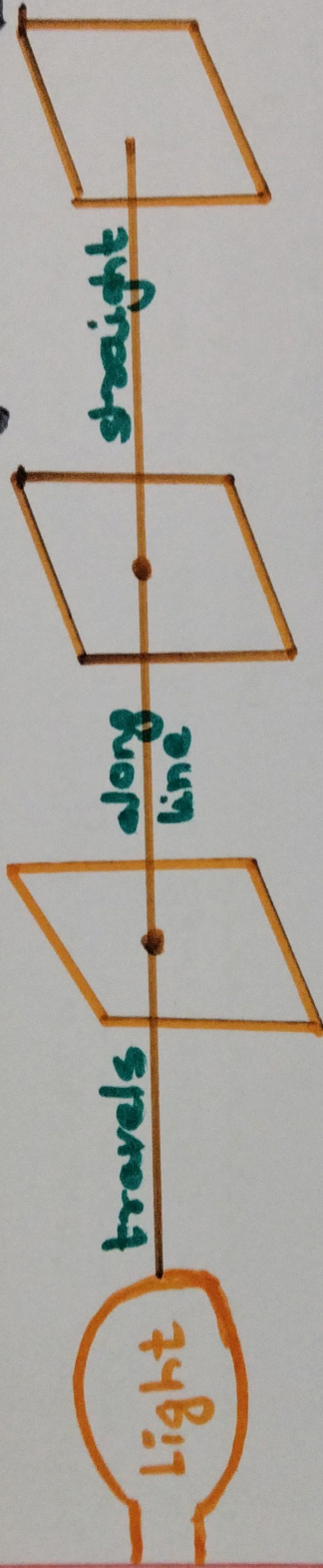
# CONCEPT MAP



pinhole camera forms

Inverted image

so

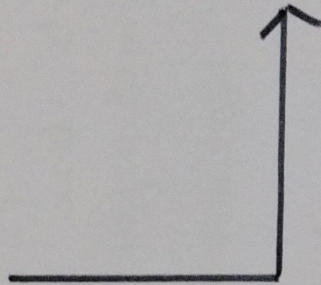


Light

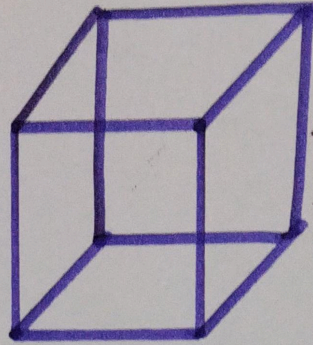
travels

along line

straight



so,



opaque objects forms shadows as it obstructs the straight path of light.

DATE → 7<sup>th</sup> October, 2020

CLASS → V

TIME → 10:35 a.m - 11:15 a.m.

PERIOD → 4<sup>th</sup>

UNIT → LIGHT : SHADOWS AND REFLECTION

SUBJECT → SCIENCE

TOPIC → MIRROR AND REFLECTION

MAJOR CONCEPTS → Reflection, Reflecting surfaces, mirror

LEARNING OBJECTIVES : Students will be able to

- Define reflection of light
- List properties of mirror
- Observe and draw dir<sup>n</sup> of light after reflection

PREVIOUS KNOWLEDGE : light, shadow

LEARNING RESOURCE : Images, slide presentation, drawing

LEARNING METHOD : Experience based, observation, discussion



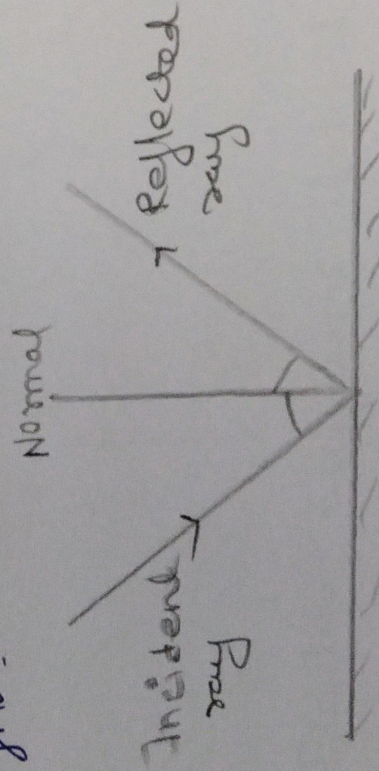
PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESS/ ACTIVITIES	CONTINUOUS ASSESSMENT
ENGAGE	<ul style="list-style-type: none"> <li>Teacher asks to identify the features of clear pond lake water.</li> <li>Teacher tells the images formed is due to the feature known as reflection.</li> </ul>	<ul style="list-style-type: none"> <li>Student tries to recollect the features.</li> <li>Student write the word reflection.</li> </ul>	General idea about reflection in lake is assessed.
EXPLORE	Teacher shows a video and asks to perform an activity with the help of mirror and torch. Then tells to write conclusions.	Student observes the activity and video and write conclusions of activity.	Observation is assessed with the help of conclusions.

## PHASES OF THE LESSON

### EXPLAIN

## TEACHER'S INITIATIVES

• Teacher shows the drawing of incident, reflected ray and a mirror and explains that mirror or reflecting surface changes dir<sup>n</sup> of light.



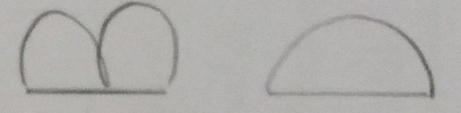
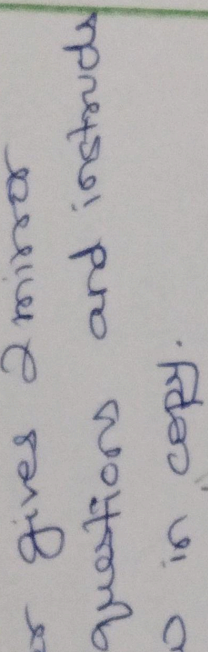
• Teacher explains the phenomenon of reflection.

## STUDENT'S LEARNING PROCESS/ ACTIVITIES

Students understands, observes and draws in the copy.

## CONTINUOUS ASSESSMENT

Observation Skills are assessed.

PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESS/ ACTIVITIES	CONTINUOUS ASSESSMENT
<p><b>ELABORATE</b></p>	<p>Teacher gives 2 mirror image questions and instructs to draw in copy.</p>  <p>Teacher explains lateral inversion by showing mirror figures and directs to note meaning of lateral inversion.</p>	<p>Students draw the mirror images.</p>  <p>Student watch and understand the concept of lateral inversion.</p>	<p>Students observation and imagination skills are assessed.</p>

## PHASES OF THE LESSON

### EVALUATE

## TEACHER'S INITIATIVES

- Teacher instructs to recapitulate previous concepts.
- Teacher asks to think of a shape that would give a circular shadow if held in one way and rectangular shadow if held in another way.

## STUDENT'S LEARNING PROCESS/ ACTIVITIES

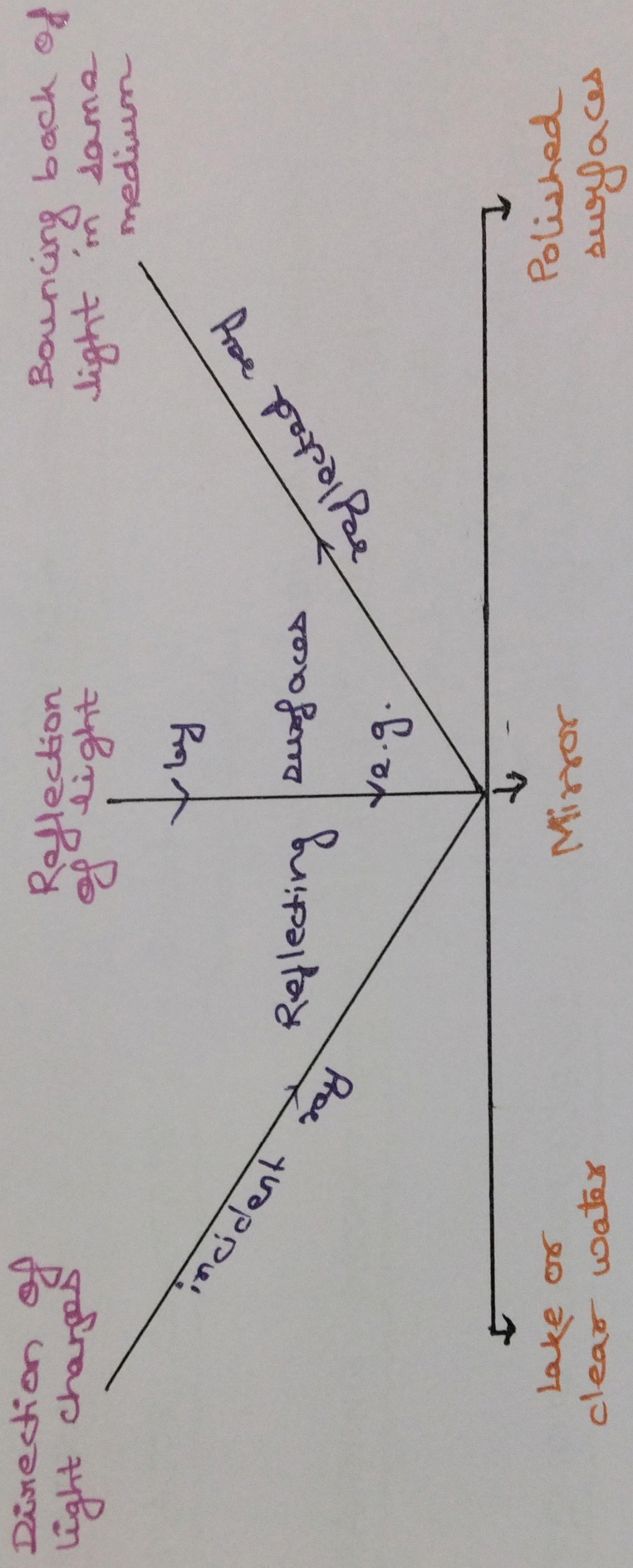
- Students recapitulates concepts.
- Students draw cylindrical shape and its shadow in two ways.

## CONTINUOUS ASSESSMENT

Previous knowledge, understanding and remembering skills are assessed.

HOME ASSIGNMENT → Solve the exercise on page-113.

# CONCEPT MAP



# LESSON PLAN



REGIONAL INSTITUTE OF EDUCATION  
(NATIONAL COUNCIL OF EDUCATIONAL  
RESEARCH AND TRAINING) BHUBANESWAR

B.SC B.ED 7<sup>TH</sup> SEMESTER  
PHYSICS HONOURS

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Principal (offg)

Counter Signature by the Head of the School with seal

*Sagnika Chakraborty*  
Signature of the Student Teacher

DATE → 6<sup>th</sup> October, 2020

CLASS → VI

TIME → 10:35 a.m. - 11:15 a.m.

PERIOD → 4<sup>th</sup>

UNIT → LIGHT : SHADOWS AND REFLECTION

SUBJECT → SCIENCE

TOPIC → Light travels in straight line

## MAJOR CONCEPTS

- Pinhole camera (image formation)
- Straight path of light

## LEARNING OBJECTIVES

Students will be able to

- observe the straight path of light
- learn the basic of camera.

Prepared  
By  
17/10/20

laxsh

17.3.20

17/10/20

17.3.20

## PREVIOUS KNOWLEDGE

- Luminous Objects
- Opaque
- Translucent objects
- Transparent objects

## LEARNING RESOURCES

- Slide Presentation
- Video
- Candle
- Pipe
- Boxes
- Translucent Paper

## LEARNING METHOD

- Activity based
- Observation



## PHASES OF THE LESSON

### TEACHER'S INITIATIVES

Teacher asks concepts of previous class :-  
(i) what are luminous objects?  
(ii) what are opaque objects?  
(iii) why is shadow formed?  
(iv) what are the basics of shadow formation?

### ENGAGE

### EXPLORE

### STUDENT'S LEARNING PROCESS/ACTIVITIES

Student answers following questions :-  
i) Objects that emit light  
ii) Objects that doesn't allow to pass  
iii) As light is blocked by opaque objects.  
iv) Light, screen, opaque objects.

Student perform activities.

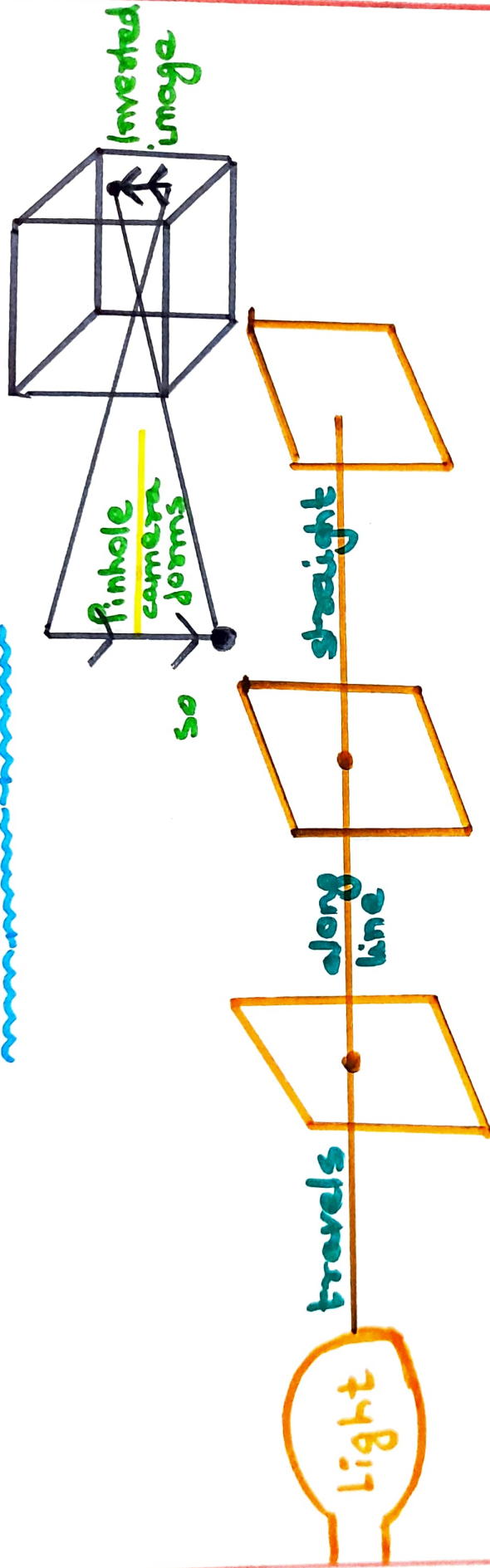
### CONTINUOUS ASSESSMENT

Previous knowledge is assessed by asking questions orally.

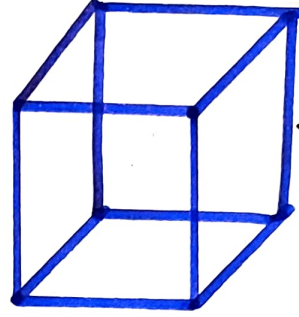
Hand skills are assessed.

PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESSES / ACTIVITIES	CONTINUOUS ASSESSMENT
<b>EXPLAIN</b>	<p>Teacher asks observation of activities and explains light travels along a straight line. So, when opaque object obstructs it, shadow is formed.</p>	<p>Students understand concept behind observations of the activities.</p>	
<b>ELABORATE</b>	<p>Teacher shows image of sun under tree and explains that this nature's pin hole and explains that eclipse can be observed using a bigger pinhole camera.</p>	<p>Student relate the nature's pinhole camera.</p>	
<b>EVALUATE</b>	<p>Teacher ask to recapitulate luminous / non-luminous; transparent / translucent / opaque;</p>	<p>Students recap the concepts.</p>	<p>Assessment by recapitulation of concepts.</p>

# CONCEPT MAP



so,



opaque objects forms shadow as it obstructs the straight path of light.

DATE → 7<sup>th</sup> October, 2020

CLASS → V

TIME → 10:35 a.m. - 11:15 a.m.

PERIOD → 4<sup>th</sup>

UNIT → LIGHT: SHADOWS AND REFLECTION

SUBJECT → SCIENCE

TOPIC → MIRROR AND REFLECTION

MAJOR CONCEPTS → Reflection, Reflecting surfaces, mirror

LEARNING OBJECTIVES: Students will be able to

- Define reflection of light
- List properties of mirror
- Observe and draw diff of light after reflection

PREVIOUS KNOWLEDGE: Light, shadow

LEARNING RESOURCE: Images, slide presentation, drawing

LEARNING METHOD: Experience based, observation, discussion

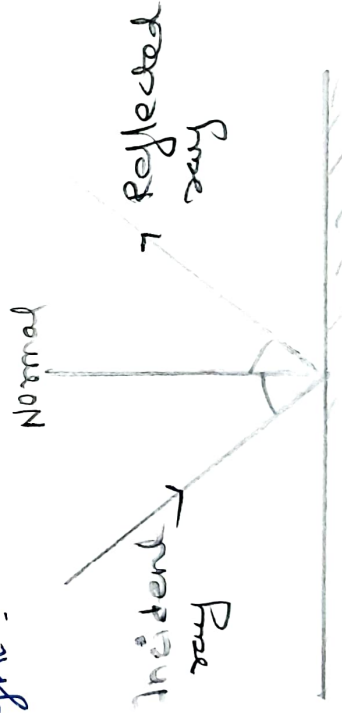
PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESS/ ACTIVITIES	CONTINUOUS ASSESSMENT
ENGAGE	<ul style="list-style-type: none"> <li>Teacher asks to identify the features of clear pond lake water.</li> <li>Teacher tells the images formed is due to the feature known as reflection.</li> </ul>	<ul style="list-style-type: none"> <li>Student tries to recollect the features.</li> <li>Student write the word reflection.</li> </ul>	General idea about reflection in lake is assessed.
EXPLORE	Teacher shows a video and asks to perform an activity with the help of mirror and torch. Then tells to write conclusions.	Student observes the activity and video and write conclusions of activity.	Observation is assessed with the help of conclusions.

## PHASES OF THE LESSON

### EXPLAIN

## TEACHER'S INITIATIVES

Teacher shows the drawing of incident, reflected ray and a mirror and explains that mirror or reflecting surface changes dirn of light.



Teacher explains the phenomenon of reflection.

## STUDENT'S LEARNING PROCESS/ ACTIVITIES

Students understands, observes and draws in the copy.

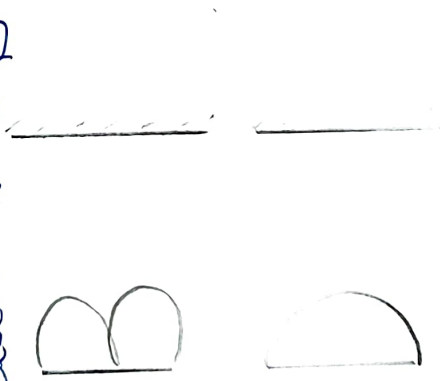
## CONTINUOUS ASSESSMENT

Observation skills are assessed.

## PHASES OF THE LESSON

### TEACHER'S INITIATIVES

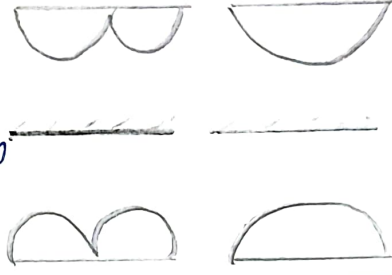
- Teacher gives a mirror image questions and instructs to draw in copy.



- Teacher explains lateral inversion by showing more figures and directs to note meaning of lateral inversion.

### STUDENT'S LEARNING PROCESS/ ACTIVITIES

Students draw the mirror images.



Student watch and understand the concept of lateral inversion.

### CONTINUOUS ASSESSMENT

Students observation and imagination skills are assessed.

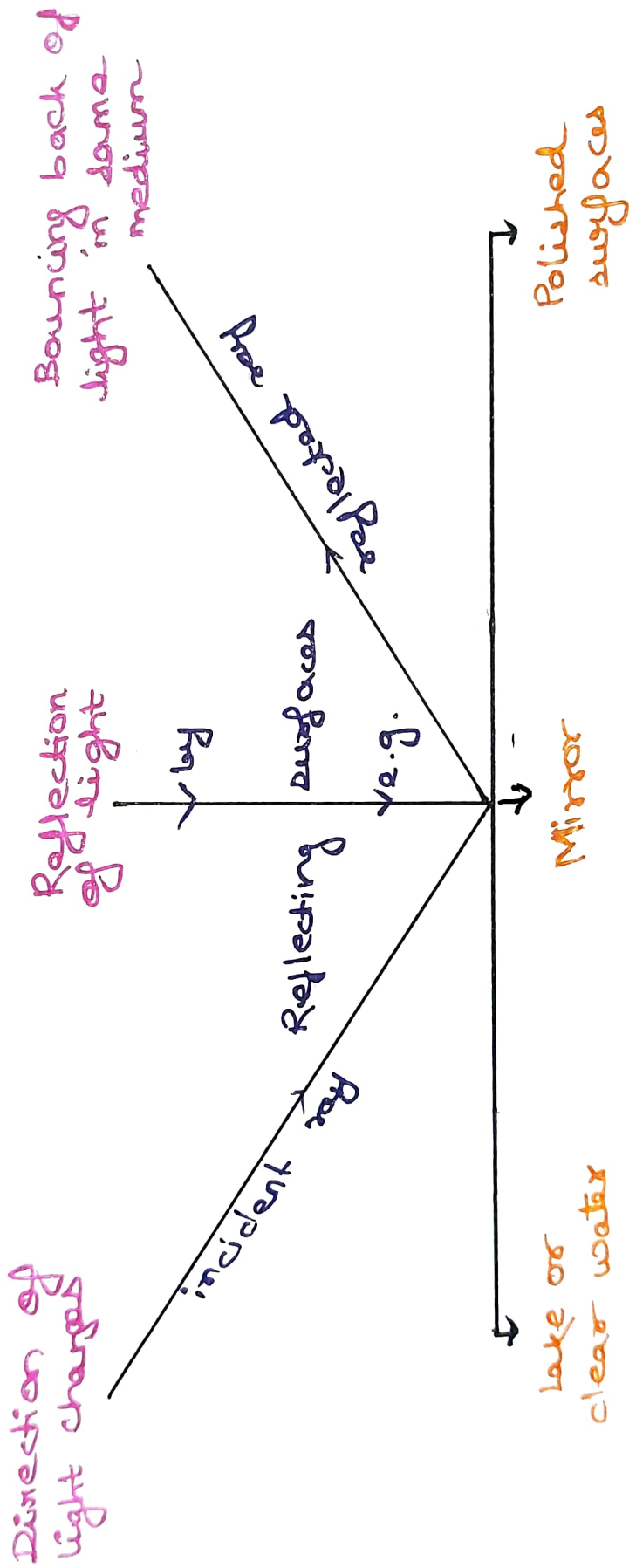
## ELABORATE

PHASES OF THE LESSON	TEACHER'S INITIATIVES	STUDENT'S LEARNING PROCESS/ ACTIVITIES	CONTINUOUS ASSESSMENT
EVALUATE	<ul style="list-style-type: none"> <li>Teacher instructs to recapitulate previous concepts.</li> <li>Teacher asks to think of a shape that would give a circular shadow if held in one way and rectangular shadow if held in another way.</li> </ul>	<ul style="list-style-type: none"> <li>Students recapitulates concepts.</li> <li>Students draw cylindrical shape and its shadow in two ways.</li> </ul>	<p>Previous knowledge, understanding and remembering skills are assessed.</p>

HOME ASSIGNMENT → Solve the exercise on page-113.



# CONCEPT MAP



DATE → 6<sup>th</sup> October, 2020 PERIOD → 3

CLASS → 7 UNIT AND TOPIC → 5 - LINES AND ANGLES

TIME → 12:35 p.m. - 01:15 p.m. SUBJECT → MATHEMATICS

## Major Concepts / Learning Points

- Properties of a straight line
- Properties of a line segment
- Properties of a ray
- Definition of angles
- Different types of angles
  - ↳ Straight angle
  - ↳ Right angle

- ↳ Acute Angle
- ↳ Obtuse Angle
- ↳ Reflex Angle
- ↳ Supplementary Angle
- ↳ Complementary Angle
- ↳ Vertically Opposite Angle

## Learning Objectives

- To explain the characteristics of straight line.
- To clarify the concept of line segment and straight line and a ray.

**DATE-20 TH OCTOBER, 2020**

**CLASS-VIII**

**TIME-09:55 A.M.-10:35 A.M.**

**PERIOD- 3<sup>RD</sup>**

**UNIT-MENSURATION**

**SUBJECT- MATHEMATICS**

**TOPIC-PERIMETER AND AREA**

**MAJOR CONCEPTS – Perimeter and area of closed plane figure**

**LEARNING OBJECTIVES - Students will**

- Recall previous concepts
- Solve numerical related to perimeter and area

**PREVIOUS KNOWLEDGE - Formula of perimeter and area**

**LEARNING RESOURCES - Slide presentation, Images**

**LEARNING METHOD - Solving, Discussion**

**DATE-3<sup>RD</sup> NOVEMBER, 2020**

**CLASS-VIII**

**TIME-08:15 A.M.-08:55 A.M.**

**PERIOD- 1<sup>ST</sup>**

**UNIT-MENSURATION**

**SUBJECT- MATHEMATICS**

**TOPIC-AREA OF SOLID SHAPES**

**MAJOR CONCEPTS - Solid Shapes, Total surface area, Lateral Surface area**

**LEARNING OBJECTIVES - Students will**

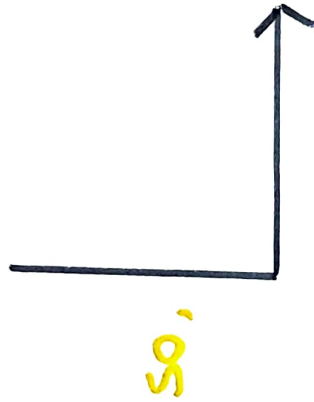
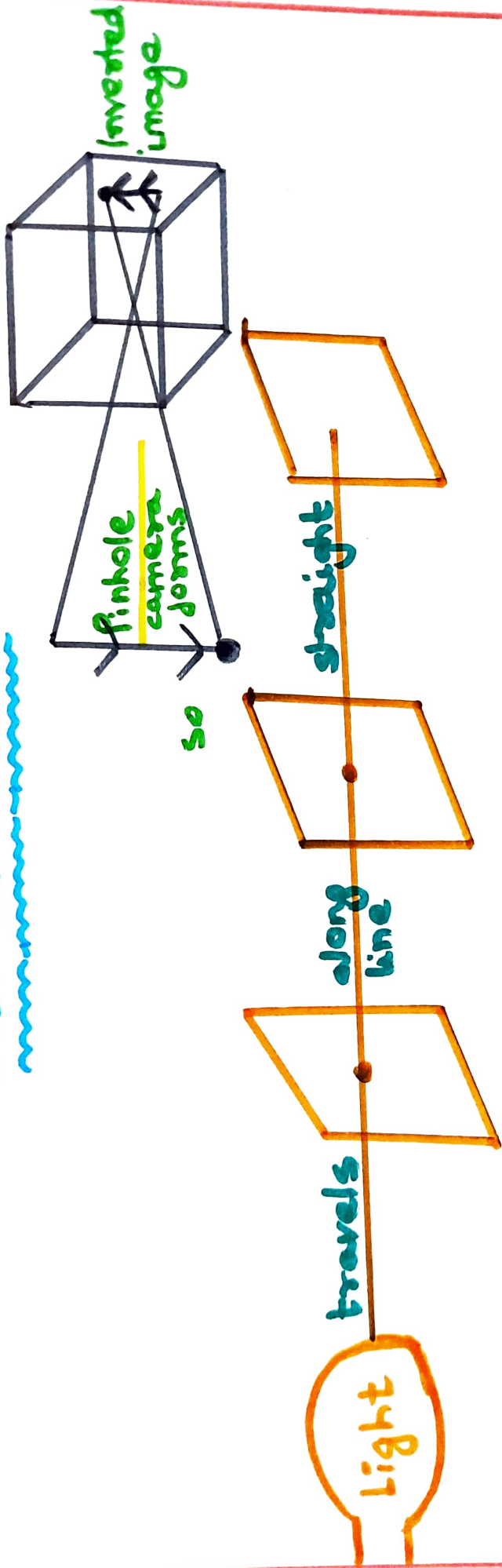
- Know different solid shapes
- Calculate total surface area of cube, cuboids and cylinder
- Calculate total surface area

**PREVIOUS KNOWLEDGE - Area of square, rectangle, circle**

**LEARNING RESOURCES - Slide presentation, Video, Images**

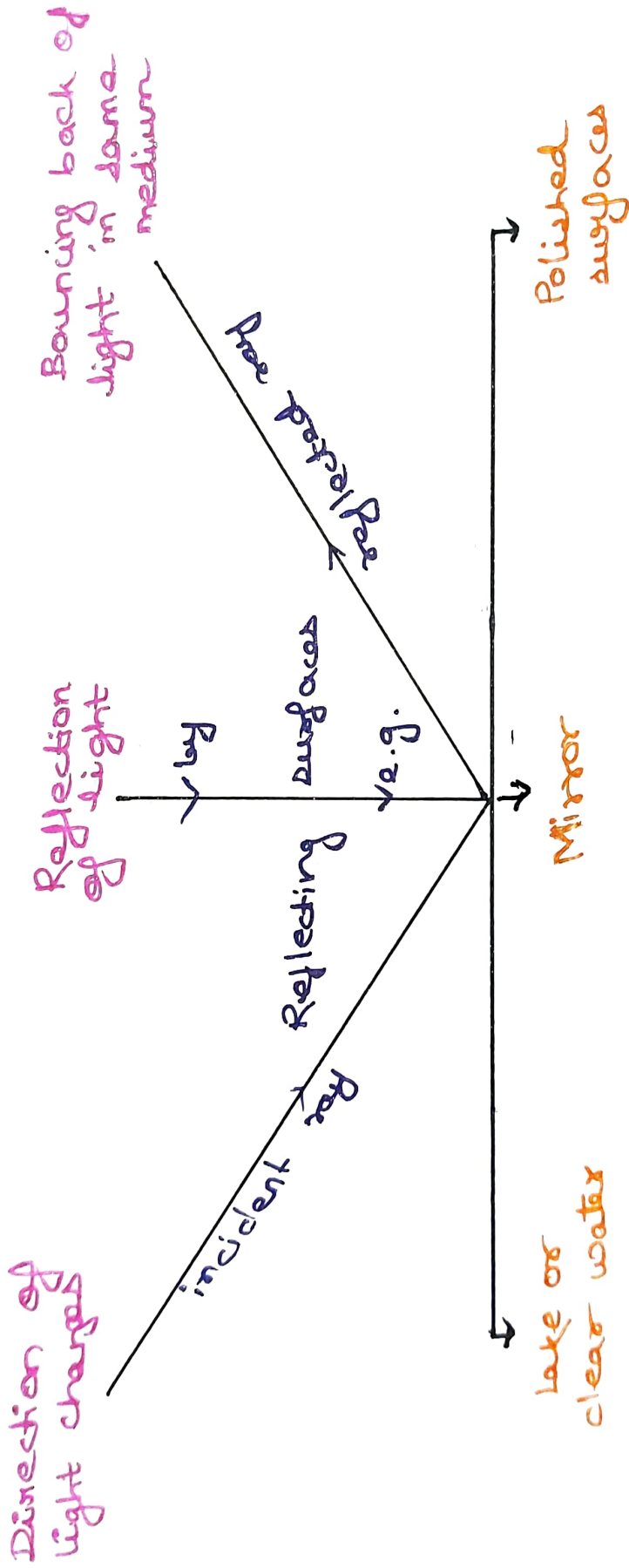
**LEARNING METHOD - Observation, Discussion, Problem solving approach**

# CONCEPT MAP



opaque objects forms shadow as it obstructs the straight's path of light.

# CONCEPT MAP



# CONCEPT MAP

Object moving along a straight line with a constant speed.

Uniform Motion

Actual Speed

Distance covered in unit time

same

different

Average Speed

$$\frac{\text{Total distance covered}}{\text{Total time taken}}$$

Non-uniform motion

Object moving along a straight line with changing speed.



# CONCEPT MAP

## DISTANCE-TIME GRAPH

Any shape other  
than straight line

changing speed

straight line

constant speed

