

CLASS NOTES

Class: VI

Topic: Chapter11

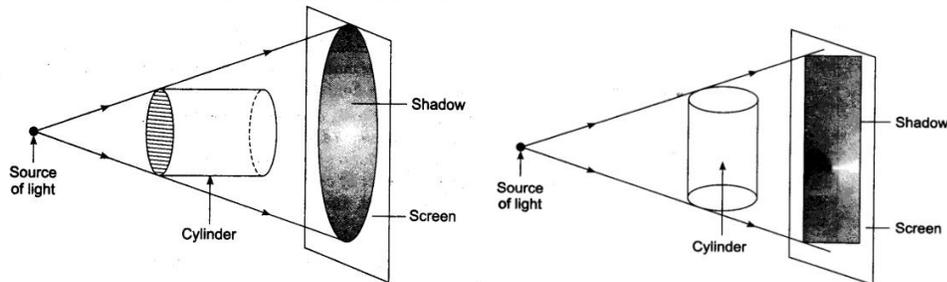
**LIGHT,
SHADOWS AND
REFLECTIONS**

Subject: Science

NCERT Exercise:(To be done in Science note book)

Q3. Can you think of creating a shape that would give a circular shadow if held in one way and a rectangular shadow if held in another way?

Answer: Yes, there are many things which give a circular shadow if held in one way and a rectangular shadow if held in another way. For example: a cylinder, a circular disc etc.



Getting circular shadow with a cylinder. Getting rectangular shadow with a cylinder.

Q4. In a completely dark room, if you hold up a mirror in front of you, will you see a reflection of yourself in the mirror?

Answer: No, in a completely dark room no image will be formed because there is no light in the room so no reflection of light takes place and no image will be formed.

Extra Questions (To be done in Science notebook)

Answer –

Q1. Using a pinhole camera, a student observes the image of two of his friends, standing in sunlight, wearing red and yellow coloured shirts, respectively. What will be the colours of the shirts in the image?

Answer - Colours of the shirts will remain same. We see them on the screen because pinhole camera forms the images of the object having same colour but upside down. So Yellow shirt will form yellow image and red shirt will form red image.

Q2. What is a pinhole camera? What are the characteristics of the image formed by the pinhole camera?

Answer-Pinhole Camera-It is a simple camera made up of cardboard and it does not have lens. It has a small pinhole through which we can see.

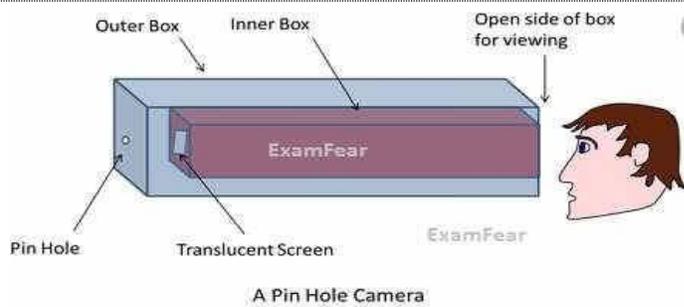
Characteristics of the image formed by the pinhole camera-

a)The image formed by pinhole camera is inverted.

b)The image is not too bright because very small amount of light enters through the pinhole.

c) The image is colorful.

d)Image formed by pinhole camera is smaller in size in comparison with actual object.



Q3. State some properties of light.

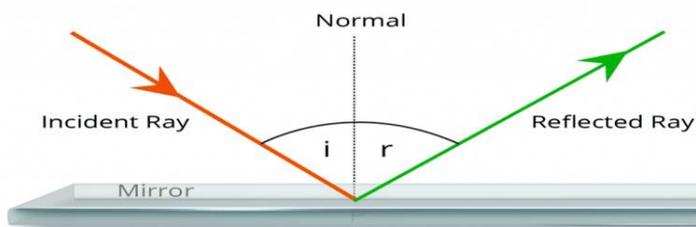
Answer –Some of the properties of light which can be stated as follows-

- a. Light is a form of energy.
- b. It travels in straight line. (Rectilinear Propagation)
- c. Light casts a shadow for an opaque object .

Q4.What do you understand by the term reflection?

Answer - Reflection of light is the phenomenon of bouncing back of light in the same medium on striking the surface of any object.

Reflection Of Light



Q5. How does the size of the shadow of an object changes as the distances between the source of light, the object and the screen are changed?

Answer –

1. The size of the shadow changes with the distance between the light source and the object. As the distance between light source and object increases, the shadow becomes smaller.
2. As the distance between object and the screen increases, the shadow on the screen become larger.

Homework (To be done in Science note book)

1. What are luminous and non-luminous objects? Give two examples of each.
2. What are the essential conditions for the formation of shadow?
3. Differentiate between a shadow and an image.