

**SCIENCE**

**CHAPTER-11 LIGHT , SHADOWS AND REFLECTION**

*Exercises*

**Question 1:**

Rearrange the boxes given below to make a sentence that helps us understand opaque objects.

O W S  
 A K E  
 O P A Q  
 U E O  
 B J E C  
 T S M  
S H A D


**Question 2:**

Classify the objects or materials given below as opaque, transparent or translucent and luminous or non-luminous:

Air, water, a piece of rock, a sheet of aluminium, a mirror, a wooden board, a sheet of polythene, a CD, smoke, a sheet of plane glass, fog, a piece of red hot iron, an umbrella, a lighted fluorescent tube, a wall, a sheet of carbon paper, the flame of a gas burner, a sheet of cardboard, a lighted torch, a sheet of cellophane, a wire mesh, kerosene stove, sun, firefly, moon.

**Answer 2:**

*Opaque* : A piece of rock, a sheet of aluminium, a mirror, a wooden board, a CD, a piece of red hot iron, an umbrella, a lighted fluorescent tube, a wall, a sheet of carbon paper, the flame of a gas burner, a sheet of cardboard, a lighted torch, kerosene stove, sun, firefly, moon.

*Transparent* : Air, water.

*Translucent* : A sheet of polythene, smoke, a sheet of plane glass, fog, a sheet of cellophane, a wire mesh.

*Luminous* : A piece of red hot iron, a lighted fluorescent tube, the flame of a gas burner, a lighted torch, sun, firefly.

*Non - luminous*: Air, water, a piece of rock, a sheet of aluminium, a mirror, a wooden board, a sheet of polythene, a CD, smoke, a sheet of plane glass, fog, an umbrella, a wall, a sheet of carbon paper, a sheet of cardboard, a sheet of cellophane, a wire mesh, kerosene stove, moon.



**Question 3:**

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 3:**

A cylinder object can cast shadows in two ways. When the top circular view faces the shining object, a circular shape shadow is formed. When its curved side faces the shining object, it casts a rectangular shadow.

**Question 4:**

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 4:**

No, to see the reflection, source of light is required. We can see only in the presence of light.

