NCERT Class 6 Science Solutions Chapter 8: Light, Shadows and Reflections

Exercise Answers:

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



Solution:

The given boxes can be rearranged to form 'Opaque Objects Make Shadows' as shown below



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, the moon.

Solution:

Opaque: A piece of rock, a sheet of aluminium, a mirror, a wooden board, a CD, an umbrella, a wall, a sheet of carbon paper, a sheet of cardboard

Transparent: Air, water, and a sheet of plane glass

Translucent: A sheet of polythene, smoke, fog, a sheet of cellophane, and 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, kerosene stove

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, moon

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?

Solution:

Yes, as shown in the image below:



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?

Solution:

In a dark room, it's unlikely that a mirror will reflect any image as there's insufficient light to illuminate the object, and subsequently, there's no light to reflect off the mirror.

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